FINANCIAL ACCOUNTING

REPORTING, ANALYSIS AND DECISION MAKING

5TH EDITION

CARLON | MLADENOVIC | PALM | MITRIONE | KIRK | WONG

WILEY

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preface

In recent years accounting education has seen numerous changes to the way financial accounting is taught. These changes reflect the demands of an ever-changing business world, opportunities created by new technology and instructional technologies, and an increased understanding of how students learn. The foundation of this textbook is based on a number of unique principles and innovations in accounting education.

'Less is more.'

The objective of this textbook is to provide students with an understanding of those concepts that are fundamental to the preparation and use of accounting information. Most students will forget procedural details within a short period of time. On the other hand, concepts, if well taught, should be remembered for a lifetime. Concepts are especially important in a world where the details are constantly changing.

'Don't just sit there — do something.'

Students learn best when they are actively engaged. The overriding pedagogical objective of this book is to provide students with continual opportunities for active learning. One of the best tools for active learning is strategically placed questions. Our discussions are framed by questions, often beginning with rhetorical questions and ending with review questions, and our analytical devices, called decision-making toolkits, use key questions to demonstrate the purpose of each.

'I'll believe it when I see it.'

Students will be more willing to commit time and energy to a topic when they believe that it is relevant to their future career. There is no better way to demonstrate relevance than to ground discussion in the real world. Consistent with this, we adopted a macro-approach — starting in chapter 1, students are shown how to use financial statements of real companies. By using high-profile companies such as Domino's Pizza Enterprises, Coca-Cola Amatil, Qantas and Vodafone to frame our discussion of accounting issues, we demonstrate the relevance of accounting while teaching students about companies with which they are familiar and may have daily contact. As they become acquainted with the financial successes and fluctuations of these companies, many students will begin to follow business news more closely, making their learning a dynamic, ongoing process. We also discuss small to medium-sized companies to highlight the challenges they face as they try to grow.

'You'll need to make a decision.'

In a business environment there are many and varied decisions to be made. Illustrative examples of the types of decisions internal management and external financial statement users make are discussed throughout the text. Decision making involves identifying and sourcing the relevant information, analysing data and critically evaluating alternatives, and this takes practice. To assist you in locating the many insights contained within the text in relation to the role of accounting in decision making, we have placed decision-making icons in the minor column adjacent to this content.

In addition, to develop your analysis and decision-making skills, we have integrated important analytical tools throughout the book. After each new decision-making tool is presented, we summarise the key features of that tool in a decision-making toolkit. At the end of each chapter we provide a comprehensive demonstration of an analysis of a real or hypothetical company using the decision tools presented in the chapter. The presentation of these tools throughout the book is logically sequenced to take full advantage of the tools presented in earlier chapters.

'It's a small world.'

Business operates in a global environment. Rapid and ever-changing improvements in information technology, logistics and transport continue to strive towards a single global economy. The internet has made it possible for even small businesses to sell their products virtually anywhere in the world. Few business decisions can be made without consideration of international factors. To heighten student awareness of the issues that concern business most we have included a range of case studies that explore international, environmental, financial analysis and ethical issues in the Building Business Skills section.

'Apply what you learn.'

In developing this text we have been mindful of the Accounting Threshold Learning Outcomes and accordingly for the first time we have integrated a case book. The case book features a series of capstone cases aligned to the first 12 chapters of the text, and has been designed to challenge students to apply their analytical skills, exercise judgement and communicate a financial decision. The text is also accompanied by a WileyPLUS course featuring algorithmic versions of most of the end-of-chapter questions, interactive revision modules and online versions of the case studies.

KEY FEATURES AT A GLANCE

This textbook is designed for students studying accounting for the first time. Real and hypothetical company financial information to support student understanding of accounting as an information system is presented in a clear, easy-to-follow way.

- The focus company is Domino's Pizza Enterprises Ltd. This company was selected because it has high brand name recognition with students, operates mainly in the retail sector and has clear, easy-to-read financial statements.
- Financial data from various real companies are used to highlight comparative financial results and measure financial performance. Nick Scali Furniture, Fantastic Furniture Holdings, Qantas and Fonterra Co-operative Group Ltd are a sample of the companies profiled.
- There is a clear, well-developed balance between the perspectives of the users and the preparers of financial statements.
- In several chapters, 'Review it' questions concerning Domino's Pizza Enterprises Ltd relate chapter topics to real-world scenarios.
- In the 'Building Business Skills' section at the end of each chapter, financial reporting problems use Domino's Pizza Enterprises Ltd's financial statements to align the chapter material to the real world.
- Analysis and decision making incorporated throughout the chapters reinforce applications to decision making and use of accounting information by management.

PEDAGOGICAL FRAMEWORK

We have used many constructive pedagogical tools to help students learn accounting concepts and apply them to decision making in the business world. Chapter 1 contains notes (printed in red) that explain each pedagogical element the first time it appears.

Understanding the context

- **Learning objectives**, listed at the beginning of each chapter, form a framework throughout the text, with each objective repeated in the margin at the appropriate place in the main body of the chapter and again in the **summary of learning objectives**. Also, end-of-chapter assignment materials are linked to the learning objectives.
- A **chapter-opening story** presents a scenario that relates an actual business situation to the topic of the chapter. The story also serves as a recurrent example throughout the chapter. All of the stories include the web site of the entity cited in the story to encourage students to go online to get more information about the entity.
- A chapter **preview** links the chapter-opening story to the major topics of the chapter. First, an introductory paragraph explains how the story relates to the topics to be discussed, and then a graphic outline of the chapter provides a 'road map', useful for seeing the big picture as well as the connections between subtopics.

Learning the material

- This book emphasises the accounting experiences of real entities throughout, from chapter-opening story to the chapter's last item of homework material. Details on these many features follow. In addition, every financial accounting chapter uses **financial statements** from real companies.
- Continuing the real-world flavour of the book, **application in business** boxes in each chapter give students glimpses into how real companies and users of financial statements make decisions using accounting information. The boxes focus on various accounting perspectives — those of investors, managers, e-business, ethical and governance, and international business.
- Colour **illustrations** support and reinforce the concepts of the text. Infographics help students visualise and apply accounting concepts to the real world. The infographics often portray important concepts in entertaining and memorable ways.
- **Learning reflection and consolidation** sections occur at the end of each key topic and consist of two parts. ***Review it*** serves as a learning check within the chapter by asking students to stop and answer knowledge and comprehension questions about the material just covered. Questions marked with the Domino's Pizza Enterprises logo send students to find information in that company's 2013 financial statements, which are printed in Appendix A at the back of the book. These exercises help cement students' understanding of how topics covered in the chapter are reported in real-world financial statements. Answers to questions using Domino's financial statements appear at the end of the chapter. ***Do it*** is a brief demonstration problem that gives immediate practice using the material just covered. Solutions are provided in the text to help students understand the reasoning involved in reaching an answer.
- **Accounting equation analyses** have been inserted in the margin next to key journal entries. This feature reinforces students' understanding of the impact of an accounting transaction on the financial statements.
- **Helpful hints** in the margins expand on or help clarify concepts under discussion in the nearby text. This feature actually makes the book an annotated student edition.
- **Alternative terminology** notes in the margins present synonymous terms that students may come across in subsequent accounting courses and in business.
- Marginal **international notes** provide a helpful and convenient way for instructors to expose students to international issues in accounting, reporting and decision making.
- Each chapter presents **decision tools** that are useful for analysing the financial statement components discussed in that chapter. At the end of the text discussion relating to the decision tool, a **decision-making toolkit** summarises the key features of that decision tool and reinforces its purpose. For example, chapter 7 presents the receivables turnover and average collection period as tools for use in analysing receivables. At the end of that discussion the toolkit shown opposite appears.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Are collections being made in a timely fashion?	Net credit sales and average receivables balance	$\text{Receivables turnover} = \dfrac{\text{Net credit sales}}{\text{Average net receivables}}$ $\text{Average collection period} = \dfrac{\text{365 days}}{\text{Receivable turnover}}$	Receivables turnover and average collection period should be consistent with the entity's credit policy. Any significant deviation which results in a slower receivables turnover or a longer collection period may suggest a decline in the financial integrity of credit customers.

- A **using the decision-making toolkit** exercise, which follows the final **learning reflection and consolidation** section in the chapter, asks students to use the decision tools presented in that chapter. Students evaluate the financial situation of a company, often using ratio analysis to do so. In most cases, data of a real company are used in this analysis.

Putting it together

- At the end of each chapter, between the body of the text and the homework materials, are several useful features for review and reference: a **summary of learning objectives** lists the main points of the chapter; the **decision-making toolkit — a summary** presents in one place the decision tools used throughout the chapter; and a **glossary** of important terms gives definitions with page references to the text.
- Next, a **demonstration problem** gives students another opportunity to refer to a detailed solution to a representative problem before they do homework assignments. **Problem-solving strategies** help establish logic for approaching similar problems and assist students in understanding the solution.

Developing skills through practice

Throughout the homework material, certain questions, exercises and problems make use of the decision tools presented in the chapter. These are marked with the icon .

- **Self-study questions** comprise a practice test to enable students to check their understanding of important concepts. These questions are keyed to the learning objectives, so students can go back and review sections of the chapter in which they find they need further work.
- **Questions** provide a full review of chapter content and help students prepare for class discussions and testing situations.
- **Brief exercises** build students' confidence and test their basic skills. Each brief exercise focuses on one of the learning objectives.
- Each of the **exercises** focuses on one or more of the learning objectives. These tend to take a little longer to complete, and they present more of a challenge to students than the brief exercises. The exercises help instructors and students make a manageable transition to more challenging problems.
- **Problems** stress the applications of the concepts presented in the chapter. Problems are keyed to the learning objectives. Certain problems, marked with the icon , help build business writing skills.
- Each brief exercise, exercise and problem has a **description of the concept** covered and is keyed to the learning objectives.

Building business skills

This is a unique section at the end of each chapter that offers a wealth of resources to help instructors and students pull together the learning for the chapter. This section offers problems and projects for those instructors who want to broaden the learning experience by bringing in more real-world decision making and critical thinking activities.

- **Financial reporting and analysis** problems use financial statements of real-world companies or other sources such as journals for further practice in understanding and interpreting financial reporting. A selection of some of the following types of problems is used in each chapter. A ***financial reporting problem*** directs students to study various aspects of the financial statements of Domino's, which are printed in chapter 1 (in simplified form) and in appendix A (in full), or of another company. A ***comparative analysis problem*** offers the opportunity to compare and contrast the financial reporting of Domino's Pizza Enterprises Ltd with a competitor. Since the ability to read and understand business publications is an asset in one's career, ***research cases*** direct students to articles published in popular business periodicals for further study and analysis of key topics. The ***interpreting financial statements*** problems ask students to read parts of financial statements of actual companies and use the decision tools presented in the chapter to interpret this information. A ***global focus*** or ***real-world*** problem asks students to apply concepts presented in the chapter to specific situations faced by actual international companies. ***Financial analysis on the web*** exercises guide students to web sites from which they can obtain and analyse financial information related to the chapter topic.

- **Critical thinking** problems offer additional opportunities and activities. A selection of the following types of problems is used in each chapter. The ***group decision cases*** help promote group collaboration and build decision-making skills by analysing accounting information in a less structured situation. These cases require teams of students to analyse a manager's decision or to make a decision from among alternative courses of action. They also give practice in building business communication skills. ***Communication activities*** provide practice in written communication — a skill much in demand among employers. ***Ethics cases*** describe typical ethical dilemmas and ask students to analyse the situation, identify the ethical issues involved, and decide on an appropriate course of action.

acknowledgements

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Images

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CHAPTER 1

AN INTRODUCTION TO ACCOUNTING

LEARNING OBJECTIVES

After studying this chapter, you should be able to:

1. Explain the business context and the need for decision making.
2. Define accounting, describe the accounting process and define the diverse roles of accountants.
3. Explain the characteristics of the main forms of business organisation.
4. Understand the *Conceptual Framework* and the purpose of financial reporting.
5. Identify the users of financial reports and describe users' information needs.
6. Identify the elements of each of the four main financial statements.
7. Describe the financial reporting environment.
8. Explain the accounting concepts, principles, qualitative characteristics and constraints underlying financial statements.
9. Calculate and interpret ratios for analysing an entity's profitability, liquidity and solvency.

'IT'S ALL GOOD'

Here are some slogans for fast food outlets. Can you pick Domino's? 'Eat fresh.' 'I'm lovin' it.' 'Today tastes so good.' 'Just gotta go' 'It's all good!' If you haven't guessed by now the title should give it away — 'It's all good!' When you think of Domino's pizza what comes to mind? For me, it's spicy pepperoni, stretchy cheese, tangy tomato sauce, crispy crusts and a cardboard box with dots . . . all of which make for a delicious pizza. It also conjures up images of sharing a meal with family and friends.

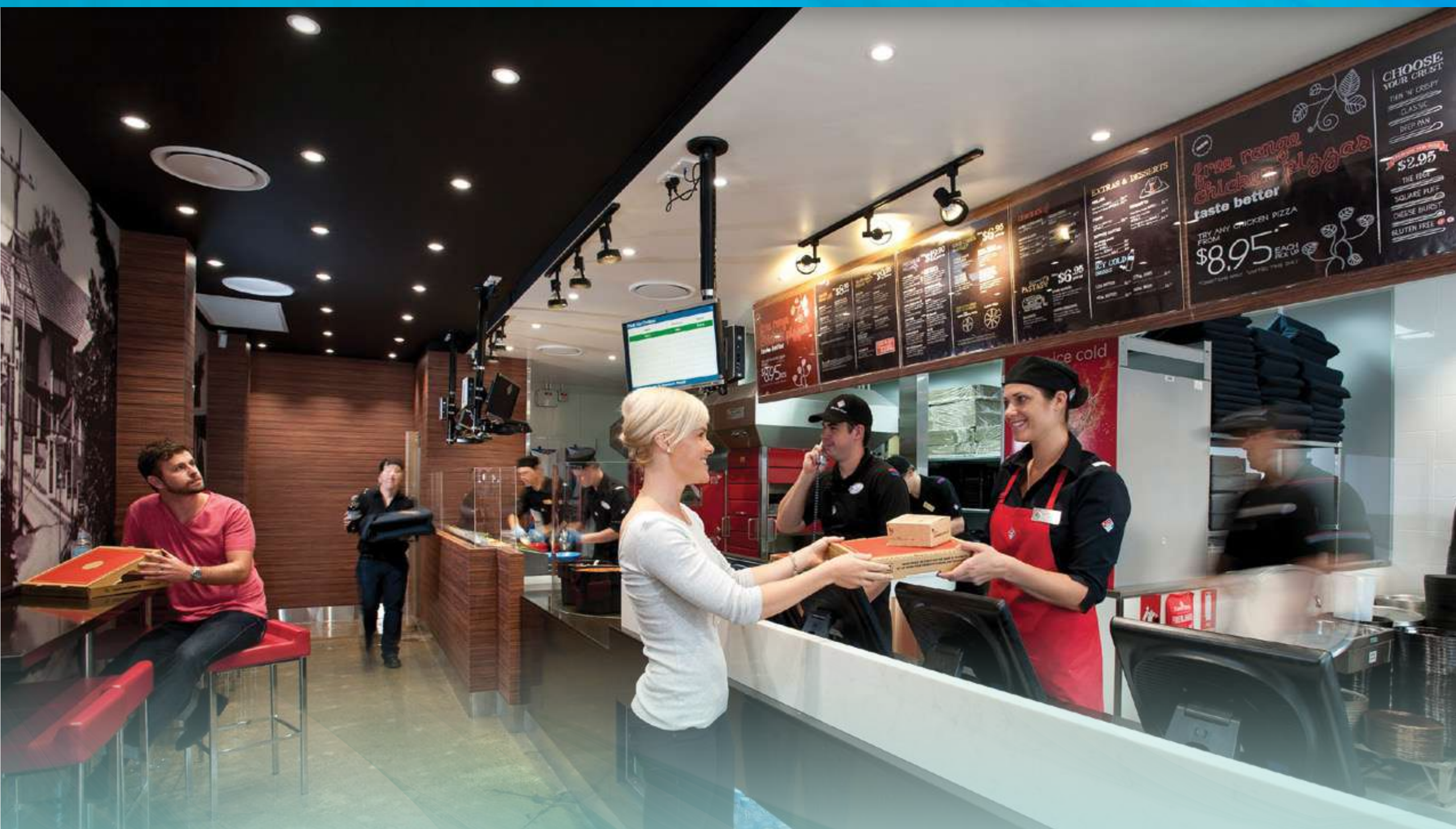
Do you know anything about the history of pizza? Most people think it originated in Italy, but it can be traced back to ancient Middle Eastern cultures. The earliest forms of pizza evolved from flat, unleavened bread cooked in mud ovens and topped with olive oil and native spices. Today's pizzas don't resemble these humble beginnings, as Domino's is continually reinventing its pizzas and launching new ranges of non-pizza products. Did you know that Domino's even changed their 50-year-old pizza sauce recipe in 2010? Did you taste the difference? I can't say that I noticed!

If you've been a fan of Domino's for a while, you'd know that there is a lot more than just pizza on the menu. Over the years Domino's has added a whole range of items such as chicken, chips and even a very large dessert range, including Belgian chocolate lava cake and mini Dutch pancakes. YUM!

Domino's Pizza Enterprises Limited's 2013 annual report states: 'This year marks 30 years since the first store opened in Australia . . . The company has evolved and matured considerably over the years, but one thing that has remained the same is our passion and drive to own the "social eating occasion". Our product brings people together, and it's evident by the growth the business has seen over the past 35 years that we have a recipe that works'. Whether you believe Domino's pizzas bring people together, one thing you can't argue about is that Domino's has achieved great success.

Domino's Pizza Enterprises Limited (Domino's) is the largest pizza chain in Australia both in terms of sales and store numbers. Since the first Silvio's store (Domino's original name) opened 35 years ago, Domino's has expanded throughout Australia and New Zealand and internationally. In fact, the chain also operates in Europe with stores in Belgium, France and the Netherlands. In 2013, Domino's store count was 970 with the majority, over 520, in Australia and New Zealand! And guess what? Domino's opened 40 new organic stores in Europe.

Domino's holds the exclusive master franchise rights for the Domino's brand in Australia, New Zealand, Belgium, France and the Netherlands. Franchising is a way of doing business where the franchisor allows



On the World Wide Web
Domino's Pizza Enterprises Ltd:
www.dominos.com.au

Note: Every **chapter-opening vignette** ends with the internet addresses of the companies cited in the story to help you connect with these real businesses and explore them further.

a franchisee to use the business name and business operations for a regular remuneration. To find out more on franchising see www.franchise.org.au. The Domino's franchise has brought the company huge success. In 2013, the company reported an after-tax profit of \$28.7 million, which is an increase of 6.4% on the previous period. Domino's are looking forward to even greater profits with its latest acquisition of a 75% interest in Domino's Pizza Japan — the company's biggest acquisition to date.

Domino's hasn't only introduced new products, but also new technology. Its smartphone App was designed and built in Australia and allows you to customise your pizza with 1.8 billion pizza combinations in your pocket.

For the latest news on the company you can visit its web site. First select corporate and look at the news section.

Source: **Based on information from the Domino's Pizza Enterprises Limited annual report 2013, www.referenceforbusiness.com and www.franchise.org.au.**

PREVIEW OF CHAPTER 1

The **preview** describes the purpose of the chapter and outlines the major topics and subtopics you will find in it.

Welcome to the accounting journey, it is not just about recording numbers. Throughout this book you will explore the concepts and regulations that underlie the preparation of the accounting reports and the various decisions that need to be made in preparing the financial information and reports. As well, we will examine the decisions made using the accounting information as inputs into the decision-making process both inside and outside the business organisation. Accounting information can help you understand a business entity's past performance and its current financial position and provide some insight into its future prospects.

It is an exciting ever-changing business environment which keeps pace with the changes in technology and knowledge management. Domino's commenced as a single franchise in Australia and now is the largest franchisee of the US's largest pizza chain, with operations in Europe, Japan, Australia and New Zealand. How did this occur? Why have they embraced technologies such as online ordering, including a mobile phone app and Facebook? Domino's effectively obtains information from customers using this technology, which feeds into the sale growth predictions and the strategic future directions of the business.

In this chapter we introduce the business environment, including the role of accounting, the forms of business organisation, the regulatory environment, the financial statements, and some tools that can help you analyse financial statements for decision making. The content and organisation of this chapter are as follows.

AN INTRODUCTION TO ACCOUNTING

Introduction to accounting
- The business world
- Accounting — the language of business
- The accounting process
- The diverse roles of accountants

Forms of business organisation
- Sole proprietorship
- Partnership
- Company
- Other forms of business organisation
- Not-for-profit organisations

Introduction to the *Conceptual Framework*
- The objective of general purpose financial reporting
- The reporting entity

Users and uses of financial information
- Internal users
- External users
- Financing activities
- Investing activities
- Operating activities
- Sustainability reporting

Financial statements
- Statement of profit or loss
- Statement of changes in equity
- Statement of financial position
- Statement of cash flows
- Inter-relationships between the statements

The financial reporting environment
- Australian Securities and Investments Commission
- Financial Reporting Council
- Australian Accounting Standards Board
- Australian Securities Exchange
- Regulation in New Zealand
- Professional accounting bodies

Concepts, principles and qualitative characteristics
- Concepts and principles
- Qualitative characteristics

Analysing financial statements
- Analysis and decision making
- Profitability
- Liquidity
- Solvency

LEARNING OBJECTIVE 1

Explain the business context and the need for decision making.

INTRODUCTION TO ACCOUNTING

THE BUSINESS WORLD

What's your favourite business? Apple, Google, Nike? Would you like to start your own business? How do you start a business? How do you make it grow and become widely recognised like Domino's? How do you determine whether your business is making or losing money? How do you manage your resources? When you need to expand your operations, where do you get money to finance the expansion — should you borrow, should you issue shares, should you use your own funds? How do you convince lenders to lend you money or investors to buy your shares? Success in business requires countless decisions, and decisions require financial and other information. A **decision** is a choice among alternative courses of action.

Essential terms and concepts presented in the chapter are printed in **blue** where they are first explained. They are then listed and defined again in the **glossary** at the end of the chapter.

Architects use technical and structural knowledge of the building codes together with their creative ability to design a model or plan of a building. Just like architects, in order to start and run a business you need not only your creative ideas and marketing plan, but you need information on the business environment in order to understand the context of your business. Accounting provides an economic model of the business world. It plays a key role in the provision of financial information for decisions made by people inside and outside a business. The continued growth of Domino's in both the European and the Australian and New Zealand markets required a variety of information including the past and current performance of the Domino's operations. Projections on future store sales growth and potential market share growth from opening new stores was also required in order to plan ahead and to help towards the achievement of targets. The provision of accounting information within the business entity is referred to as **management accounting**. **Financial accounting** is the term used to describe the preparation and presentation of financial reports for external users. However, both financial accounting and management accounting draw on the same information system used to record and summarise the financial implications of transactions and events. Businesses also need to provide information on the environment and the community within which the business operates. The concept of sustainability is explained later in this chapter.

DECISION MAKING

Throughout each chapter, **decision-making icons** identify content explaining how accounting information can inform management decisions.

The business environment is ever changing. Driven by technology, life cycles of businesses are shortening. New technologies, new processes, new products, faster information flows are driving changes. How often do you update your mobile phone? Everyone in society is affected by technology change. Computers provide the technology to process the information so more time is devoted to the analysis of the information to make the best-informed decision. Accountants work in businesses as part of management teams who analyse the information gathered to make decisions. So how do we go about the decision making?

The first step in the process of decision making is to identify the issue or the decision to be made. The next step is to gather the relevant information required for the analysis. Once gathered, you then identify the tool or technique that can provide the analysis of the issue so a decision may be made. The final step is to evaluate the results of the analysis and make the decision. Figure 1.1 summarises this process.

Each chapter presents useful information about how decision makers use financial statements. **Decision-making toolkits** summarise discussions of key decision-making contexts and techniques.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Which film your friends wish to see	Cinema times and films showing Who are the lead actors Personal preferences	Eliminate unsuitable times and films Discuss which preferences are left and rank in popularity	Film most wish to see is the one chosen If none suitable re-evaluate or select another social activity and start the decision process again.

Figure 1.1 The decision-making toolkit

For example, if you were wanting to choose which film a group of friends wish to watch, you would need information concerning each of your preferences for the genre and how flexible you are in your preferences, maybe who is in the leading roles and the times the movie is being shown. The tool would be to rank the films in order of preference starting with what is showing at the times your group is available, then reducing the alternatives to which films are showing, and then eliminating any alternative which one of your group didn't want to see. You may end up with no suitable film or you may go back and change the parameters, which may include looking for another social activity. Even with this analysis your group may not enjoy the film as it was a dud, but that is the risk you take. Decisions are future oriented and you need to make informed judgements.

Similar to the social activity decision, in the business world with all the information available the final outcome of the decision may not be what was expected. Next we are going to consider what accounting is and how it is used in the decision-making process in the business environment.

LEARNING OBJECTIVE 2

Define accounting, describe the accounting process and define the diverse roles of accountants.

ACCOUNTING: THE LANGUAGE OF BUSINESS

The primary function of accounting is to provide reliable and relevant financial information for decision making. Accounting has been around for centuries and has developed significantly since its humble beginnings in ancient times when scribes recorded simple agreements between parties, and other information, on clay tablets. Today, almost every person engages in business transactions in relation to the financial aspects of life such as purchasing products and paying bills. This means that accounting plays a significant role in society.

Accounting can be referred to as the 'language of business' as it is a means of common communication where information flows from one party to others. In order for information to be effective it must be understood. Accounting, like many other professions, has its own terminology or jargon which is unique to the profession and can have alternative meanings in different contexts. Accounting terms, concepts and symbols are used to provide financial information to a variety of users including managers, shareholders and employees. You will need to learn these specialised terms and symbols in order to be able to prepare and use accounting information effectively. The glossary at the end of each chapter provides definitions of key terms and this will support your learning. Providing reliable and relevant accounting information is a complex process.

THE ACCOUNTING PROCESS

Accounting is the process of identifying, measuring, recording and communicating the economic transactions and events of a business operation. Figure 1.2 summarises these main steps.

Identifying	Measuring	Recording	Communicating
Taking into consideration all transactions which affect the business entity	Quantifying in monetary terms	Analysing, recording, classifying and summarising the transactions	Preparing the accounting reports; analysing and interpreting

Figure 1.2 The accounting process

Identifying involves determining which economic events represent transactions. **Transactions** are economic activities relevant to a particular business and include, for example, the sale of a good to a customer or the purchase of office stationery from a supplier. Transactions are the basic inputs into the accounting process. **Measurement** is the process of quantifying transactions in monetary terms and must be completed in order to record transactions. The recording process results in a systematic record of all of the transactions of an entity and provides a history of business activities. To enhance the usefulness of the recorded information, it must be classified and summarised.

Classification allows for the reduction of thousands of transactions into meaningful groups and categories. For example, all transactions involving the sales of goods can be grouped as one total sales figure and all cash transactions can be grouped to keep track of the amount of money remaining in the business's bank account. The process of summarisation allows the classified economic data to be presented in financial reports for decision making by a variety of users. These reports summarise business information for a specific period of time such as a year, 6 months, one quarter or even a month. Domino's provides 6-monthly reports that are available to the general public via the securities exchange web site.

Communicating is the final stage in the accounting cycle. Communicating involves preparing accounting reports for potential users of the information. There are many reasons for maintaining accurate financial accounting records, including legal and other reporting requirements. The Australian Taxation Office (ATO) and the New Zealand Inland Revenue (NZIR) require businesses to provide a variety of financial information to comply with legal requirements. Users of financial information, both internal and external to the entity, will require financial information to make decisions in relation to the business. Once the users have acquired the information they can use a variety of techniques to analyse and interpret the data. In most of the chapters in this book, there are sections which demonstrate a variety of techniques that are useful for analysing and interpreting financial statements. These sections are intended to support the development of your skills in analysis and interpretation of financial information, and to enhance your understanding of accounting. Throughout the book you will be given the opportunity to apply your understanding by analysing and interpreting real company data from companies such as Domino's, Nick Scali, Michael Hill and Coca-Cola Amatil.

To recap this section, accounting provides an economic model of the business world and plays a key role in the provision of financial information for decision making. Accounting is the process of identifying, measuring, recording and communicating the economic transactions and events of a business operation to users of financial information. The first three activities of identifying, measuring and recording the business information are commonly referred to as **bookkeeping**. Bookkeeping forms the foundation of the activities underlying accounting and these processes are explained in detail in the early chapters of this book, using a manual accounting system. In the early part of the twentieth century, the role of the accountant did not extend much beyond this bookkeeping function. Today, however, the roles and responsibilities extend far beyond preparing accounting records.

THE DIVERSE ROLES OF ACCOUNTANTS

Accountants practise accounting in four main areas: commercial accounting, public accounting, government accounting and not-for-profit accounting.

Commercial accounting

Commercial accountants work in industry and commerce. Companies like Domino's and Qantas employ a number of accountants in different roles, such as management accounting and financial accounting. The accounting information system provides these accountants with the information they need for planning, decision making, and compiling reports for a range of users. The **chief financial officer (CFO)** is a senior manager in an organisation and directs the accounting operations. Financial accountants oversee the recording of all of the transactions and prepare reports for users external to the business entity, such as shareholders and creditors. Management accountants focus on providing information for internal decision making as they prepare specifically tailored reports for use by management. Commercial accountants are employed within organisations, and their work is directed by their employers. Public accountants, on the other hand, run their own businesses and are therefore more autonomous.

Public accounting

Public accountants, as the name suggests, provide their professional services to the public. They can practise in business organisations that range from small, single-person-run offices to very large organisations with branches all over the world and thousands of employees. Public accountants tend to specialise in one or more areas of accounting when providing services to the public. Auditing is one of the primary services provided by large public accounting firms such as Deloitte and KPMG. An **audit** is an independent examination of the accounting data presented by an entity in order provide an opinion as to whether the financial statements fairly present the results of the operations and the entity's financial position. Public accounting firms also provide a wide range of taxation services including advice for minimising an entity's tax liability, of course within the law, and preparation of tax returns, among other things. In more recent years, management advisory services have been a growing area for public accountants. Services include providing advice on improving their clients' business efficiency and effectiveness, the design and installation of accounting information systems, and assistance with strategic planning. Public accounting firms can also provide advisory services to government organisations or be employed by the government.

Government accounting

Government accountants, employed within government entities, engage in a variety of roles and activities, such as financial accounting and auditing. Local councils, state governments and federal government receive and pay out large amounts of funds each year and these activities need to be accounted for. Nowadays, many of the issues and decisions faced by government entities are the same as those in the commercial sector. As a result, these entities often follow accounting policies and practices similar to those in the private sector. Although most government entities are not-for-profit, some government departments, such as the Brisbane City Council, run profit-making businesses.

Not-for-profit accounting

Not-for-profit accountants, working in the not-for-profit sector, engage in many activities including planning, decision making, and preparing financial and management reports for both internal and external users. Management processes, accounting systems and operational methods are often similar between profit-making and not-for-profit entities. However, there is one major difference and that is the *profit motive*.

A **not-for-profit entity** focuses on successfully fulfilling its mission and administrative goals, rather than focusing on making a profit. Not-for-profit entities include public hospitals, clubs, some schools and charities. For example, the World Vision charity works with poor, marginalised people and communities to improve their lives and take control of their futures. Not-for-profit entities are exempt from income taxes on activities related to their exempt purpose, have fiduciary responsibilities to members, contributors and other constituents, and their activities may require reporting to supervising government entities.

In summary, accountants have many diverse roles and can work in different forms of organisation from small, one-person businesses to large corporations with a worldwide presence. Once trained as an accountant you can also work in organisations in non-traditional accounting roles or be better equipped to run your own business.

APPLICATION IN BUSINESS

Career perspective

Who said accountants are boring? CPA Australia profiles several young CPAs' careers, which combine both their background in accounting and finance with their personal interests and social responsibility. Steve Hui, a CPA, had experience in a travel agency, but it was while working for Macquarie Bank and helping set up an outsourcing operation in New Delhi that his iFLYflat business idea was born. The work involved overseas business class travel, receiving frequent flyer points. Realising many people failed to maximise the benefits from their reward points, in 2012 he set up his business targeting people in the small-to-medium (SME) business sector. For an upfront monthly fee, iFLYflat provides strategies that maximise a client's frequent flyer and credit card reward points, then books the flights using those points to gain a discount fare. CPA Paul Luzak, whose first love is music and who played in bands, realised the need for musicians to have good financial advice, which led him to set up his own business, White Sky.

Rachael Chong wanted to volunteer, but couldn't find the right organisation. So to give back, she set up an unusual model for her organisation Catchafire, which matches professionals with non-profit organisations based on their skills, interests and time availability. Catchafire uses the professional networking site LinkedIn to advertise projects. Or you could simply work for a not-for-profit organisation like Chelsea Collins the finance manager for Oxfam GB (Great Britain).

Source: Based on information from CPA Australia 2014, 'Young business leaders 2014', *InTheBlack*, May, pp. 40–50.

Would you like to run your own business? How do you decide how to structure your business and what resources will be required? In the next section we explore the different forms of business organisation in more depth.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What information would you require to set up and run your own business?
2. What is the primary objective of accounting?
3. Accountants practise accounting in four main areas. Describe these areas, with examples.

Review it questions at the end of major text sections prompt you to stop and review the key points you have just studied. Sometimes these questions stand alone; other times they are accompanied by practice exercises called *Do it*.

FORMS OF BUSINESS ORGANISATION

LEARNING OBJECTIVE 3

Explain the characteristics of the main forms of business organisation.

Business organisations can be classified into profit-oriented businesses such as sole proprietorship, partnership or a company, and not-for-profit entities such as charities and government departments. Throughout this textbook, we concentrate on preparing financial reports for the profit sector. However, many of the concepts and regulations apply equally to the not-for-profit sector.

Suppose you graduate with a marketing degree and open your own marketing agency. One of the first important business decisions you will need to make is the organisational structure under which the business will operate. You have three choices: sole proprietorship, partnership or company. Figure 1.3 (p. 11) outlines the three main forms of business organisation. In selecting a suitable business structure, some of the factors to consider are:

- establishment fees and maintenance costs
- asset protection (business and personal assets)
- the type of business and how it impacts on your record keeping
- legitimate tax minimisation.

SOLE PROPRIETORSHIP

A **sole proprietorship** is a business owned by one person. It is the simplest form of business structure, and has very few legal formalities. It is quick and inexpensive to establish, and inexpensive to wind down. Under this structure, the owner of the business has *no separate legal existence* from the business. You might choose the sole proprietorship form if you have a marketing agency. You would be referred to as a *sole trader*. As a sole trader, the business is fully owned by you and you have total autonomy over the business's strategic direction and all business decisions. The assets and profits completely belong to you. The business's income is treated as the business owner's individual income (hence, no separate legal existence). Sole traders pay the same tax as individual taxpayers, according to the marginal tax rates. Depending on the level of profits from the business, this could be a disadvantage. In the 2014 year, at an income level of around \$132 000, the effective average tax rate of an individual is equal to the 30% company tax rate, so for any profits above this level the sole trader is paying more income tax than if the business was organised as a company. Other disadvantages are that the business is limited by the owner's skills, the funds available to invest, and the time available for running the business, as well as bearing full personal liability for the business's debts. Small owner-operated businesses such as restaurants, dentists and panel beaters are often sole proprietorships, as are farms and small retail shops.

PARTNERSHIP

Another possibility for your new marketing agency is for you to join forces with other individuals to form a partnership, in which all partners share control. A **partnership** is a relationship or association between two or more entities, carrying on a business in common with a view to making a profit. Entities forming the partnership may be individuals or companies.

There is little formality involved in creating a partnership. Partnerships are often formed because one individual does not have enough economic resources to initiate or expand the business, or because partners bring unique skills or resources to the partnership. You and your partner(s) should formalise your duties and contributions in a written partnership agreement. All partnerships should be formed on the basis of an agreement (which may be made in writing, verbally or by implication). In Australia, partnerships are governed on a state-by-state basis by the Partnership Act in each Australian state. In New Zealand, the *Partnership Act 1908* is the national legislation. Partners must also decide how profit (or losses) should be allocated among the partners. Accounting information is often used to determine each partner's share, as specified in the partnership agreement.

Traditionally, partnerships have *not* been incorporated. This means that, like a sole proprietorship structure, the business structure has **unlimited liability**, so each partner is personally liable for all the debts of the partnership even if they are caused by decisions made by other partners. More recently, changes to state and territory legislation have allowed for limited liability partnerships (LLPs). Similarly, New Zealand introduced limited partnerships in 2008. These are an emerging trend and are often used for raising venture capital for new businesses, such as a new mining venture. However, because *limited partnerships* are taxed as companies and the general partner still bears unlimited liability, this form of business structure is not very popular. Another disadvantage of a partnership structure is that a partnership has a limited life. If a partner wishes to sell or leave the partnership, or a partner dies, a new partnership agreement must be formed. The partnership agreement often has conditions on who can be admitted as a new partner in the event of a partner wishing to sell their share of the business. Finally, if there are disputes between the partners, it can be costly and damaging to the business, as well as to friendships.

Partnerships are often used to organise retail and service-type businesses, including professional services such as accounting, medical and legal practices.

COMPANY

As a third alternative, a marketing agency could be organised as a company. A **company** or corporation is a separate legal entity formed under the *Corporations Act 2001* (Cwlth) in Australia or the New Zealand *Companies Act 1993* (Public Act). The process of setting up a company is called *incorporation*. The owners of a company are called **shareholders** and their ownership interests are represented by the number of shares they own in the company.

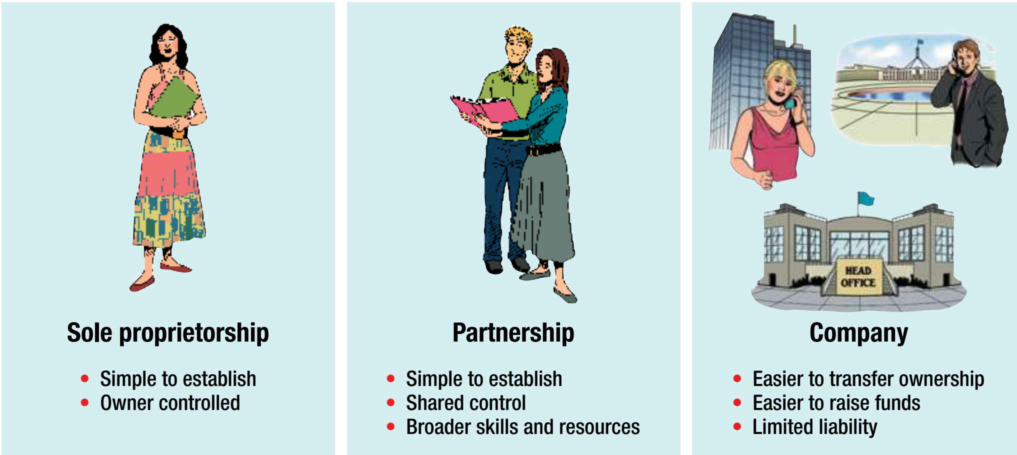
Alternative terminology

Shareholders are usually called *stockholders* in the United States.

Alternative terminology notes present synonymous terms that you may come across in practice.

Under a company structure, the company can sue and be sued and enter into contracts in its own name. As a result, the shareholders of most companies have *limited liability*. **Limited liability** means the shareholders are liable for the debts of the business only to the extent of amounts unpaid on their shares. If a company breaches an agreement it is generally solely liable — unless there is some misconduct by the directors or officers, such as misrepresentation or misleading or deceptive conduct. If misconduct or misrepresentation is proven, it is possible for the company directors to be held personally liable for debts. Another advantage of the corporate form is that a company has an indefinite life. The owners can more easily transfer their ownership interest by selling their shares in the company to other investors.

Companies vary in size from small, privately owned and often family-run companies (proprietary limited companies — Pty Ltd) to large, public companies listed on a securities exchange (limited companies — Ltd) managed by directors, with thousands of shareholders. If you use a company structure, there are establishment costs and ongoing fees and regulations to comply with. These make it more expensive to run than unincorporated business structures. We will discuss these issues in more depth in chapter 10.



Illustrations like figure 1.3 convey information in pictorial form to help you visualise and apply the ideas as you study.

Figure 1.3 Characteristics of the main forms of business organisation

APPLICATION IN BUSINESS

Management perspective

Choosing the best form of business organisation when starting out or growing a business is an important decision as it has implications for access to funds as well as for personal or business liability. Therefore, business owners and managers need to make these decisions carefully. Let's look at one example. You may have heard of the following brand names: Colorado, Mathers, Williams the Shoemen, Jag and Diana Ferrari. These brands were part of the Colorado Group Ltd — formerly a leading Australian footwear and apparel retailer and wholesaler. Colorado's history dated back to 1864 and it was one of Australia's oldest footwear businesses. It became a publicly listed company on the Australian Securities Exchange in 1999, which provided it with access to investment funds for expansion as well as limited liability for its shareholders. Colorado was wholly acquired in 2007 and subsequently delisted due to solvency problems. In 2011, the company, now owned by a private equity group and trading under the name of Fusion Retail Brands Pty Ltd, sells shoes in 244 retail stores, mostly only Mathers and Williams the Shoemen stores, and has an increasing presence for online sales.

Source: Based on information from Fusion Retail Brands Pty Ltd web site, www.fusionretailbrands.com.au.

When considering the business structure of your marketing agency, you need to decide on two factors: the decision-making structure you want for your business (sole trader, partnership or company) and the financial and legal ramifications of the structure you choose. Will the business be an incorporated or unincorporated business? A sole trader, for example, has all the decision-making power but also has full responsibility (is liable) for the actions of the business. A company, on the other hand, has limited liability but, if there is more than one director, the decision making is usually a shared responsibility. Thus, the decision to incorporate or to remain unincorporated has distinct legal and financial ramifications. Many businesses start as sole proprietorships or partnerships and eventually incorporate. For example, R.M. Williams was established as a small proprietary family company, was subsequently floated as a public company and, more recently, the family members repurchased the shares and delisted the company — so now it operates once again as a family business.

OTHER FORMS OF BUSINESS ORGANISATION

Although the sole proprietorship, partnership and company are the most common forms of business structure, others such as trusts, cooperatives and not-for-profit forms are discussed overleaf.

Trusts

A **trust** is a relationship or association between two or more parties, whereby one party holds property in trust for the other; i.e. they are vested with the property. A trust, in its simple form, has:

- a settlor (who sets up the trust)
- a trustee (who manages the trust property — investments, assets etc. — and pays out any net income for the benefit of the beneficiaries); and
- beneficiaries (the person or people for whom the investments or assets are held and to whom income is paid).

The trustee has full control over the assets held by the trust, so it is important that the trustee be entirely trustworthy and able to manage all aspects of trust administration. Trusts may be made expressly in writing or implied from the circumstances. Trusts can range from relatively simplified structures to more complex structures. It is possible, for example, for a family member to act as a trustee for a family trust. It is also possible for a company to trade as the trustee of a trust. For example, DEXUS Property Group is a property trust listed on the Australian Securities Exchange, with total funds under management as at 30 June 2014 of approximately $17.3 billion. The listed property portfolio comprises approximately $9.1 billion of direct property assets in Australia, New Zealand, the United States and Europe.

Cooperatives

A **cooperative** is a form of business organisation that is member-owned, controlled and used. It must consist of five or more people. Cooperatives are legislated at state level in Australia. They are distinctive for fostering a highly participative and democratic style of work, pooling resources to be more competitive, and sharing skills. Cooperatives play an important role in the community. They supply goods and services to their members and to the general public in areas as diverse as retailing, recycling, manufacturing, labour hiring, printing and agriculture. Examples include Australian Forest Growers, South Gippsland Herd Improvement Association Inc., Ballina Fishermen's Co-operative Ltd and Bermagui Pre School Co-operative Society Limited.

NOT-FOR-PROFIT ORGANISATIONS

Not-for-profit is one of the more interesting forms of business organisation. This sector includes associations such as clubs, charities and the government sector.

Associations

Small, non-profit, community-based groups often form **associations**. Associations can be, but are not always, incorporated. There are currently more than 142 000 incorporated associations on the public register. An incorporated association provides an easier and relatively inexpensive means of establishing a legal entity than forming a company does. In other words, an association is an alternative to a company. An incorporated association has similar advantages to a company but is not as expensive to set up or maintain. An association can trade as a profit organisation, but this cannot be its main objective. Any profit from the trading must be put back into the association and not given to its members. Although associations tend to be small community groups, they can include specialist interest groups such as sports associations, industry associations, animal breeder associations and hobby associations. The Australian Medical Association and the Epilepsy Association of Australia are two examples of groups that are focused on a particular area.

Government

The government sector is also called the **public sector**. The distinguishing feature is that the organisations are owned by the government, whether it be federal, state or local. Within this sector there may be departments or segments which are operated as business enterprises and have a profit-making objective or aim to generate a return on the resources they control. Examples include public hospitals, public schools and the ATO.

Because the majority of business is transacted by companies, the emphasis in this textbook is on the corporate form of business structure. Generally, the techniques for recording transactions, the basic accounting equation, the principles underlying accounting and financial reporting, and the major financial statements are common to all business forms. Recall that the primary role of accounting is to provide financial information for decision making. How do accountants know what information to provide? The *Conceptual Framework* provides guidance to preparers of financial information by defining who is required to report and who the users are likely to be.

INTRODUCTION TO THE *CONCEPTUAL FRAMEWORK*

LEARNING OBJECTIVE 4

Understand the *Conceptual Framework* and the purpose of financial reporting.

In this section we introduce the **Conceptual Framework**. We will piece it together frame by frame throughout the chapter. A conceptual framework consists of a set of concepts to be followed by preparers of financial statements and standard setters. We will use the image of a window to present the *Conceptual Framework*, because a window is a lens through which we can view the world, in the same way as preparing external financial statements using a conceptual framework allows us to view the economic world in a particular way.

The historical development of the *Conceptual Framework* is outlined in chapter 13. The conceptual framework we build in this chapter is currently under review. At the time of writing the updated objective of general purpose financial reporting and the qualitative characteristics of financial statements have been incorporated into the *Conceptual Framework*. A number of possible further new developments are explored in chapter 13.

The *Conceptual Framework* that has been developed to date consists of four sections. Section 1 is the objective of general purpose financial reporting, as represented in figure 1.4 (p. 14).

THE OBJECTIVE OF GENERAL PURPOSE FINANCIAL REPORTING

The objective of general purpose financial reporting forms the foundation of the *Conceptual Framework*. All the other elements flow from the objective. If we know why we need to report, then it follows we can determine who needs to report and what and how information is to be reported. The objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential equity investors, lenders and other creditors in making their decisions about providing resources to the entity. This definition highlights the primary users of **general purpose financial reports** to be existing and potential shareholders, lenders and other creditors. It also acknowledges that other groups may also be interested in the financial information. The management of the reporting entity is one such group but it was decided that management does not need to rely on general purpose financial reports because it can obtain the financial information it needs internally. Other parties such as regulators and members of the public may also find general purpose financial reports useful.

It is acknowledged that general purpose financial reports do not provide an evaluation of an entity but provide information that, together with other sources of information such as general economic conditions, political climate and industry conditions, allows primary users to estimate the value of the reporting entity.

Now that the objective of general purpose financial reporting has been discussed the next step is to decide who needs to prepare general purpose financial reports.

Figure 1.4 Building the *Conceptual Framework* — section 1

THE REPORTING ENTITY

Another piece in the *Conceptual Framework* is represented in figure 1.5.

At the time of writing the IASB's project to develop the new *Conceptual Framework* had not completed the section on the reporting entity and therefore Australian business entities and standard setters use that section from the previous Australian conceptual framework developed by the Australian Accounting Standards Board.

In the previous section we described a number of different forms of business organisation. While each of these forms of business prepares some kind of information for a variety of users, not all businesses are classified as reporting entities. The Australian conceptual framework defines the **reporting entity** in Statement of Accounting Concept 1 (SAC 1) as an entity in which it is reasonable to expect the existence of users who depend on general purpose financial reports for information to enable them to make economic decisions.

Three main indicators determine which of the forms of business organisation discussed so far in this chapter fall into the category of a reporting entity. That is, an entity is more likely to be classified as a reporting entity if it is (1) managed by individuals who are not owners of the entity, (2) politically or economically important, and (3) sizable in any of the following ways — sales, assets, borrowings, customers or employees. It appears then, in applying the indicators, subjective judgements must be made. For example, what value of sales or how many employees are considered sizable enough for the business to be a reporting entity? In the main, reporting entities include public companies, some large private companies and government authorities.

It is important to determine whether an organisation is a reporting entity as reporting entities must prepare *external* general purpose financial reports that comply with accounting standards. All other entities will prepare information for internal use.

Reporting entities tend to be larger organisations and the financial information provided in external general purpose financial reports tends to be quite condensed. Both reporting and non-reporting entities also prepare internal reports that contain more detailed information. Examples of both internal and external reports are provided in the latter part of this chapter. Possible new developments and differential reporting are explored in chapter 13.

The information arising from businesses, regardless of their structure, is useful to a variety of users. In the next section we explore the users of financial statements and users' information needs.

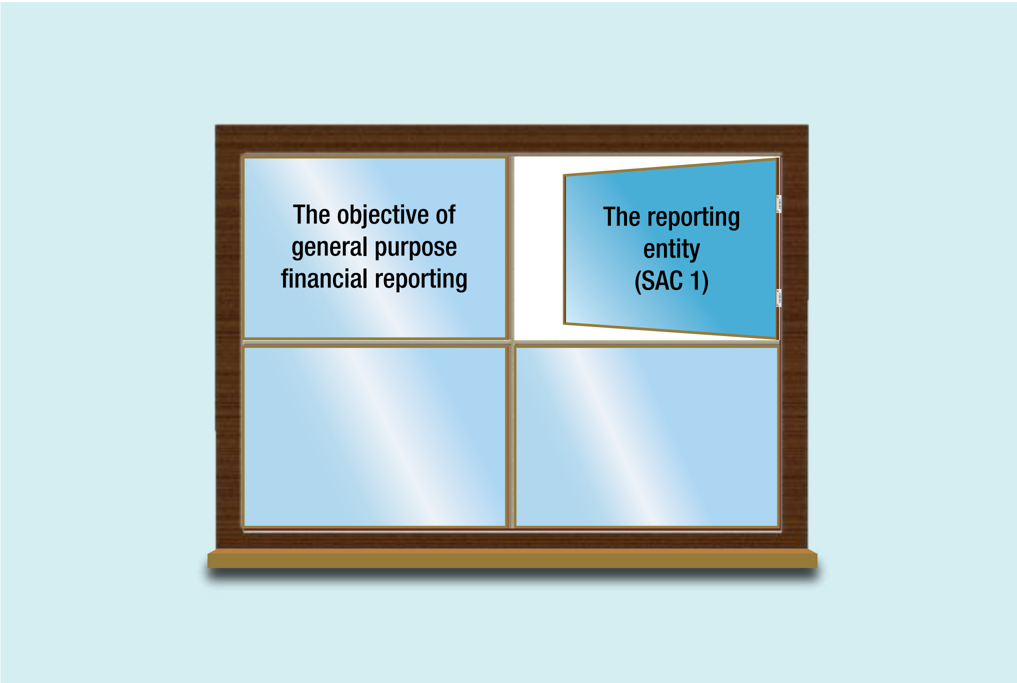


Figure 1.5 Building the *Conceptual Framework* — section 2

USERS AND USES OF FINANCIAL INFORMATION

LEARNING OBJECTIVE 5
Identify the users of financial reports and describe users' information needs.

Now that we know which entities are required to prepare general purpose financial reports and the objective for financial reporting, let's take a closer look at the users of financial reports and their information needs. We begin with an exploration of the users and their information needs as outlined in the *Conceptual Framework* for financial reporting and then discuss other users of financial reporting.

Figure 1.6 sets out the primary users of the general purpose financial reports being those users who provide resources to the entity and therefore require information to make decisions concerning the provision of those resources.

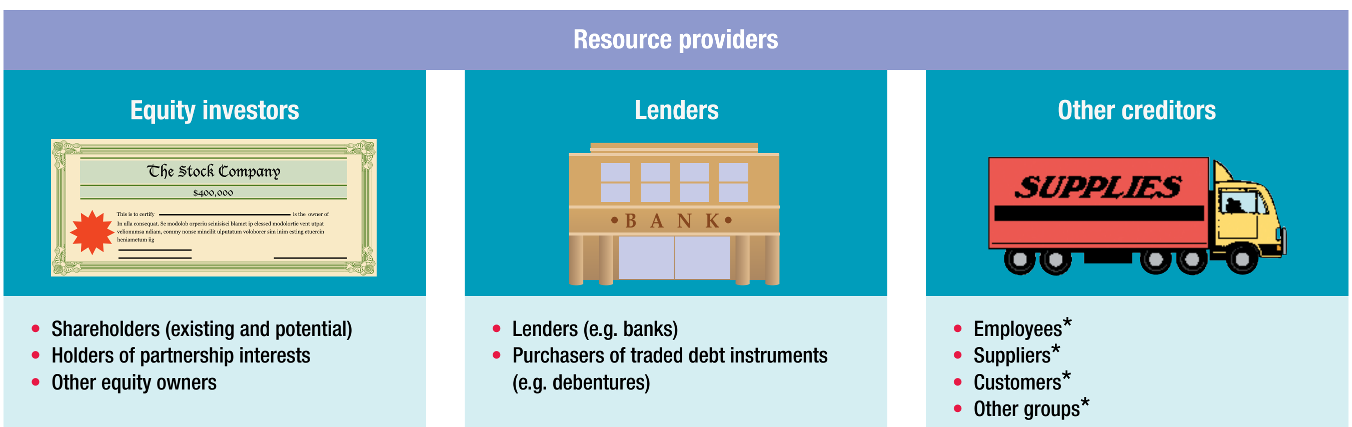


Figure 1.6 Categories of primary users of general purpose financial reports

*Only in their capacity as resource providers, otherwise they are not considered primary users.

DECISION MAKING

Equity investors contribute to the equity of an entity by investing resources (usually cash) for the purpose of receiving a return and include shareholders, holders of partnership interests and other equity owners. **Lenders** contribute to an entity by lending resources (usually cash) for the purpose of receiving a return in the form of interest. Some questions that may be asked by investors and creditors about a company include the following.

- Is the company earning satisfactory profit?
- How does the company compare in size and profitability with its competitors?
- Will the company be able to pay its debts as they fall due?
- Is the company paying regular dividends to its shareholders?

Other creditors may provide resources to an entity as a result of their relationship with the entity, even though they are not primarily resource providers. For example, suppliers extend credit to facilitate a sale, employees provide their services (human capital) in exchange for remuneration and customers may prepay for goods or services which are to be provided in the future. These parties are only considered resource providers to the extent that they provide the entity with resources in the form of credit, and they make decisions based on providing such resources. When they are not in this capacity they are referred to as other users.

Other users include government agencies, members of the public, suppliers, customers and employees (when not resource providers). While these other users have specialised information needs, they may find the financial information that meets the needs of resource providers useful. However, it is made clear that financial reporting is not primarily directed to other users but rather to resource providers. The information needs and questions of other external users vary considerably. For example, taxation authorities such as the ATO want to know whether the entity complies with the tax laws. Regulatory agencies such as the Australian Securities and Investments Commission (ASIC) or the Australian Competition and Consumer Commission (ACCC) want to know whether the entity is operating within prescribed rules. Figure 1.7 provides a list of external users and examples of their information needs.

Users	Information needs
Investors	Information to determine whether to invest based on future profitability, return or capital growth
Creditors	Information to determine whether to grant credit based on risks and ability of the entity to repay debts
Customers	Information on whether an entity will continue to honour product warranties and support its product lines
Employees and trade unions	Information on whether the entity has the ability to pay increased wages and benefits, and offer job security
Government authorities	Information to calculate the amount of tax owing and whether the entity complies with tax laws
Regulatory agencies	Information to determine whether the entity is operating within prescribed rules

Figure 1.7 External users of accounting information and their information needs

The common information needs of other users include an assessment of the entity's future cash flows (amount, timing and uncertainty) and evidence that management has discharged its responsibilities to use the entity's resources efficiently and effectively. Has management put in place systems to protect the entity's resources against the unfavourable effects of economic factors such as price and technology change? Has management complied with applicable laws, regulations and contractual commitments? This information concerning management's responsibilities is partly provided in an entity's financial report in the corporate governance statement. See Domino's corporate governance statement in its 2013 annual report in the appendix to this book.

INTERNAL USERS

Internal users of accounting information are managers who plan, organise and run a business. They do not need to rely on general purpose financial reports as they can obtain the financial information they need internally. Internal users include marketing managers, production supervisors, directors and other managers. In running a business, managers of large companies like Domino's must answer many important questions, including the following.

- Is there sufficient cash to pay debts?
- What is the cost of manufacturing each unit of product?
- Can we afford to give employees pay rises this year?
- How should we finance our expansion into Europe?

To answer these and other questions, users need detailed information on a timely basis. For internal users, accounting provides internal reports, such as financial comparisons of alternative plans, projections of revenue from new sales campaigns, and forecasts of cash needs for the next year. In addition, internal users rely on summarised financial information presented in the form of financial statements.

EXTERNAL USERS

Although the needs of the various users differ, there are some common information needs that are intended to be met by external general purpose financial reports, i.e. the published financial statements of an entity prepared in accordance with applicable accounting standards.

External users have an interest in financial information about the three main types of activities — financing, investing and operating. These activities are common to all businesses. For example, recall this chapter's opening story and consider that the founders of Domino's needed finance to start and grow the business. The very first Australian Domino's store opened in Queensland in 1983 and, since then, the company has expanded throughout Australia and New Zealand and internationally. Where did the funds come from? Businesses can be financed by the personal savings of the owners, selling shares, or borrowing money from lending institutions such as banks. The accounting information system keeps track of the results of each of the various business activities — financing, investing and operating. Let's look in more detail at each type of business activity.

APPLICATION IN BUSINESS

Management perspective

Government regulation and reporting requirements for businesses can be very onerous, particularly when the information required is not defined in the same terms as the business normally reports its financial information. In response to the awareness of the rising compliance costs businesses face in reporting to government, the Australian Government began the Standard Business Reporting (SBR) initiative. The aim of the SBR initiative is to develop a standard business reporting language in order to reduce the amount of data and reports governments require from businesses, and to standardise the names and terms used to describe reporting items. For example, most government agencies require the business's Australian business number (ABN) to be used in their reporting but it was discovered that nine different names were used to describe the ABN between various government agencies.

The initiative has resulted in a 70% reduction in the pieces of information businesses need to track, analyse and report on to government. As a part of the initiative, the government (in particular the ATO and the various state government revenue offices) has been working with software developers to enable accounting software packages to securely send reports from business to government and to pre-fill the main government reports with required information in the correct format. Another issue found was each agency has different login protocols and passwords for completing and lodging reports and forms electronically. The SBR-enabled software provides a single secure login — AUSkey — which is a common authentication system for government online services. The AUSkey is the accepted online login for the Australian Business Register, the ATO, ASIC and various state revenue offices.

Source: Based on information from www.sbr.gov.au and www.auskey.abr.gov.au.

FINANCING ACTIVITIES

It takes money to make money. The two main sources of outside funds for companies are borrowing money from lenders and selling shares to investors. For example, Domino's may borrow money in a variety of ways. It can take out a loan at a bank or borrow from many lenders by issuing debt securities. Two types of debt securities are unsecured notes and debentures. The main difference is that debentures are secured by a charge over the issuer's assets. This means that specified assets can be sold to pay the debenture holders if the issuer defaults.

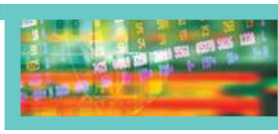
Helpful hint

Companies may issue several types of shares, but the shares that represent the main ownership interest are called **ordinary shares**.

Helpful hints in the margins help clarify concepts being discussed.

A company may also obtain funds by selling shares to investors. When a business initially becomes a company, shares are often issued to a small group of individuals who have an interest in starting the company. However, as the business grows, it becomes necessary to sell shares more broadly to obtain additional financing. **Share capital** is the term used to describe the total amount paid in by shareholders for the shares. The shareholders are the owners of the company.

The claims of creditors differ from those of shareholders. If you lend money to a company, you are one of its creditors. In lending money, you specify a payment schedule (for example, payment at the end of 3 months). As a creditor, you have a legal right to be paid at the agreed time. In the event of non-payment, you may legally force the company to take action, such as selling its property to pay its debts. The law requires that creditors' claims be paid before ownership claims, i.e. owners have no claim on corporate resources until the claims of creditors are satisfied. If you buy a company's shares instead of lending it money, you have no right to expect any payments until all of its creditors are paid. However, many companies make payments to shareholders on a regular basis as long as they are solvent — that is, after the dividend is paid there are sufficient resources to cover expected payments to creditors. These payments to shareholders are called **dividends**. Dividends are a distribution of profit; they are not repayment of capital.



APPLICATION IN BUSINESS

Investor perspective

During the second half of 2008, there was a global financial crisis (GFC) with the failure of many banks and with governments stepping in to save others. As a direct result, credit from financial institutions became scarce and there was a major business downturn. This particularly affected the worldwide airline industry. This industry is very capital intensive and has high operating fuel costs so earnings are very volatile. In response to the challenges of the GFC, Qantas did not pay a final dividend for 2009 and no dividends were paid in the 2009–10 financial year. The chairman of Qantas said the Qantas group needed to service its very high capital requirements and retain a high credit rating and therefore future dividend payments would continue to be assessed against earnings performance and capital requirements. Qantas still has paid no dividend up to 2014 and is in the process of restructuring. Similarly, Freedom Nutritional Products was expanding its operations in 2009 and did not pay a final dividend in 2009 or 2010. The 2010 interim dividend was only 1 cent per share. Since 2011, dividends have increased as cash flows improved and in 2013 the annual dividend was 2 cents per share, a payout of 39% of profits.

Source: Based on information from Qantas Airways Limited 2010 to 2013 annual reports and Freedom Nutritional Products Limited 2010 to 2013 annual reports.

INVESTING ACTIVITIES

Alternative terminology

Property, plant and equipment are sometimes called *fixed assets* or *non-current assets*.

Investing activities involve purchasing the resources an entity needs in order to operate. During the early stages of an entity's life it must acquire many assets. For example, computers, delivery trucks, furniture and buildings are assets obtained from investing activities. Different types of assets are given different names. Domino's plant and equipment are referred to as *property, plant and equipment*.

Many of the entity's assets are purchased through investing activities. Others, however, result from operating activities. For example, if Domino's sells goods to a customer and does not receive cash immediately, it has a right to expect payment from that customer in the future. This right to receive money in the future is an asset called **accounts receivable**.

OPERATING ACTIVITIES

Once a business has the assets it needs to get started, it can begin its operations. Domino's is in the business of selling fast food. We call the results from the sale of these products *revenues*. **Revenues** are sales and other increases in equity that arise from the ordinary activities of an entity. For example, Domino's records revenue when it sells a pizza.

Revenues arise from different sources and are identified by various names depending on the nature of the business. For instance, Domino's main source of revenue is the sale of goods. However, it also generates store asset rental revenue and revenue from royalties. Sources of revenue common to many businesses are sales revenue, service revenue and interest revenue.

Before the business can sell a single pizza, it must purchase the ingredients to make the product. It also incurs costs such as salaries, rent and electricity. All these costs are necessary to sell the product. In accounting language, **expenses** are the cost of assets consumed or services used in the process of generating revenues.

Expenses take many forms and are identified by various names depending on the type of asset consumed or service used. For example, the business keeps track of these types of expenses: cost of sales, selling expenses (such as the costs associated with delivering pizzas), marketing expenses (such as the cost of advertising), administrative expenses (such as the salaries of administrative staff, and telephone and heating costs incurred in the office), and interest expense (amounts of interest paid on various debts).

Dominos compares the revenues of a period with the expenses of that period to determine whether it has earned a profit. When revenues exceed expenses, a **profit** results. When expenses exceed revenues, a **loss** results.

Accountants today need not only to be able to record the transactions and events which are then recognised and reported in the financial statements but need also to be aware of sustainability issues for business and how to report them.

SUSTAINABILITY REPORTING

It's constantly in the news; there have been many documentaries about it, numerous television programs, scientific research. What is IT? The environment and humanity's impact on it. While each of us makes an imprint on our environment with daily use of electricity, driving of cars and adding huge amounts of household waste to public waste facilities, businesses have the capacity to have an even larger effect on the environment.

Mining, deforestation, toxic wastes in rivers and oceans, and natural resource consumption are only some of the negative impacts that businesses all around the world have on our natural environment. It is not sufficient just to talk about it; it is more important to look at what are we doing to try to reduce the effects? Have you ever thought about your impact on the environment? Are you doing anything to reduce your environmental footprint?

Sustainability is about making sure the social, economic and environmental needs of our community are met and kept healthy for future generations. Sustainable development must not be only about economic growth, but also environmental quality and social equity. Measuring environmental impact is a difficult task. Accounting has traditionally measured business activities in dollar terms. How can accountants measure the impact that businesses have on the environment? How do we measure the impact of an open-cut mine on the landscape? How do we measure the effects of an oil spill that kills marine life? With the use of eXtensible Business Reporting Language (XBRL) we are attempting to standardise our measurements of financial information. Is it possible to standardise our measurement of environmental impacts?

Many companies disclose information on the impact of their business on the environment. Mostly this has been on a voluntary basis. Just access some large company web sites and you will find information on how they are trying to reduce their impact on the environment. However, we need to do more.

Currently, social and environmental disclosures are voluntary. However, there are increasing pressures on companies from shareholders and other stakeholders to measure, report on and reduce their environmental impact. There are also increasing pressures on governments to take appropriate actions. In order to improve the situation, we need reliable measurement systems. Can the accountants meet the challenge?

APPLICATION IN BUSINESS

Management perspective

How do businesses track their environmental impacts? They seek the help of outside professionals. This has created a business opportunity for David Solksy who started CarbonSystems, an information and technology business which tracks businesses energy and carbon footprints. The impetus for growth came via government regulation which requires national greenhouse and energy reporting systems. In 2009, about 700 high energy-use companies were required to report on their usage. In 2010, about 1800 companies were required to report. CarbonSystems writes software that collates information concerning energy usage and extracts the data which companies can use to report their usage and make decisions about how to improve their carbon footprint, while at the same time saving money. For example, an office in Sydney showed an unusual energy consumption usage after normal work hours. Through this information it was discovered that the air-conditioners had been running at night for the previous 2 years and no one had noticed. Based on this information the company reduced its energy usage and at the same time saved hundreds of thousands of dollars in energy bills. CarbonSystems, renamed Envizi, has now expanded its business to the United Kingdom, the United States and Asia and by 2013 had 120 client enterprises located in 112 countries and over 60 000 locations.

Source: Based on information from Damon Froth 2010, 'Sustainable success', *BRW*, 2 September and Envizi web site, www.envizi.com.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What are the three main forms of business organisation and the advantages of each?
2. What is the purpose of the *Conceptual Framework*?
3. Distinguish between internal and external users of financial information? Give examples of each.
4. Identify three categories of users identified by the *Conceptual Framework*. Give examples of each.
5. What are the three types of business activity?
6. What is meant by sustainability?

Do it exercises, like the one here, ask you to put newly acquired knowledge to work. Sometimes, they outline the reasoning necessary to complete the exercise and show a solution.

>> DO IT

Classify the following activities as financing, investing or operating: (1) issuing shares, (2) purchasing a building, (3) selling pizza, and (4) repaying a loan.

SOLUTION: (1) financing, (2) investing, (3) operating, and (4) financing.

LEARNING OBJECTIVE 6

Identify the elements of each of the four main financial statements.

FINANCIAL STATEMENTS

Financial position, financial performance and cash flows are of interest to users of accounting information. How does an entity decide on the content of the financial statements? The definition of the elements of financial statements is another piece in the *Conceptual Framework* as represented in figure 1.8.

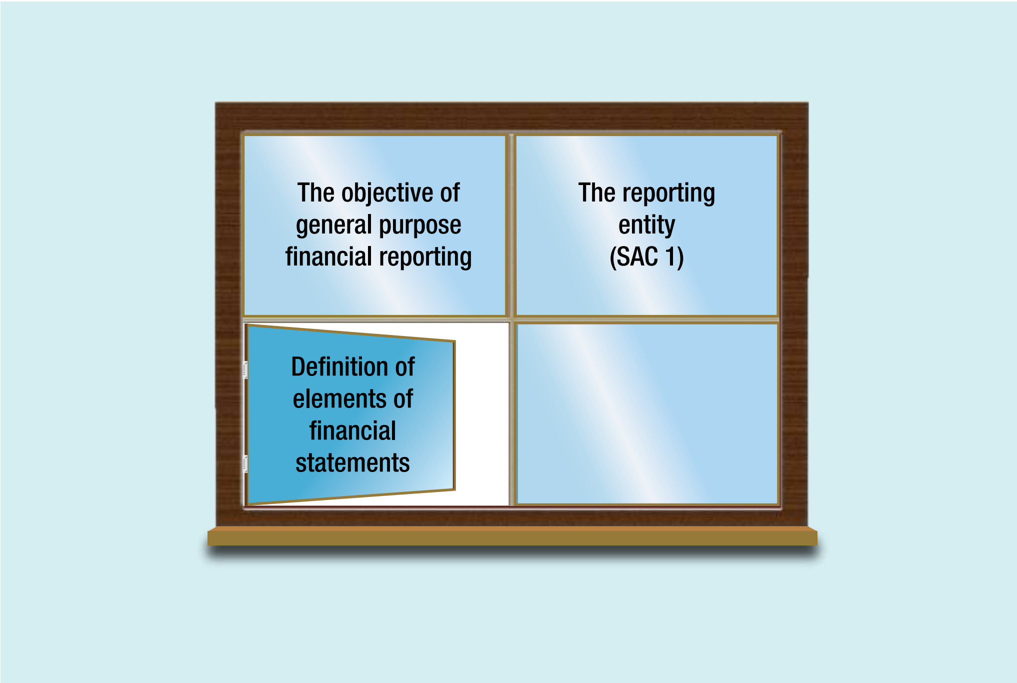


Figure 1.8 Building the *Conceptual Framework* — section 3

The *Conceptual Framework for Financial Reporting 2010* defines the elements of financial statements. In this section we explore the **financial statements** that provide vital information to users when making a variety of decisions. This information is presented in four main financial statements that form the backbone of financial accounting.

To present a picture at a point in time of what your business controls (its assets), what it owes (its liabilities) and the owner's investment in the business (equity), you would prepare a **statement of financial position**. **Assets** are formally defined in the *Conceptual Framework* as a resource controlled by the entity as a result of past events from which future economic benefits are expected by the entity. **Liabilities** are formally defined in the *Conceptual Framework* as future sacrifices of economic benefits that the entity is currently obliged to make as a result of a past transaction or other past events. We will look at assets and liabilities in more detail in later chapters.

To show how successfully your business performed during a period of time, you would report its revenues and expenses in the *statement of profit or loss*. The **statement of changes in equity** explains all changes in equity during a period of time. Finally, of particular interest to bankers and other creditors is the **statement of cash flows**, which shows where the business obtained cash during a period of time and how that cash was used. The statement of cash flows is considered in more detail in chapter 11.

The next section of this chapter outlines and explains the regulation of external financial reporting in detail. To introduce you to the main financial statements, we have prepared the financial statements for a marketing agency, Wong Pty Ltd (figure 1.9, overleaf). Take some time now to look at their general form and categories in preparation for the more detailed discussion that follows.

Figure 1.9 Wong Pty Ltd's financial statements

Helpful hint

This is a simplified statement of profit or loss. A fully classified statement of profit or loss is provided in figure 4.6.

Helpful hint

1. Note that final sums in the statements are double-underlined.
2. The arrows in this illustration show the interrelationships of the four financial statements.

Helpful hint

This is a simplified statement of financial position. A fully classified statement of financial position is provided in figure 1.19.

Helpful hint

The calculation of retained earnings is part of the statement of changes in equity, but is usually shown as a note in the financial statements (see page 31).

Helpful hint

Note that Wong's financial statements are internal reports generated for internal use. External financial statements are presented in a different format as illustrated in the Domino's Pizza Enterprises Ltd statements in the pages to come.

WONG PTY LTD
Statement of profit or loss
for the month ended 31 October 2016

Service revenues		$10 600
Expenses:		
Salaries expense	$3 200	
Supplies expense	1 500	
Rent expense	900	
Insurance expense	50	
Interest expense	50	
Depreciation expense	40	5 740
Profit before tax		4 860
Tax expense		2 000
Profit		$2 860

WONG PTY LTD
Statement of financial position
as at 31 October 2016

Assets		
Cash		$15 200
Accounts receivable		200
Advertising supplies		1 000
Prepaid insurance		550
Office equipment		4 960
Total assets		$ 21 910
Liabilities		
Accounts payable	$2 500	
Interest payable	50	
Revenue received in advance	800	
Salaries payable	1 200	
Bank loan	5 000	
Total liabilities		9 550
Net assets		$ 12 360
Equity		
Share capital		10 000
Retained earnings 31/10/16		2 360
Total equity		$ 12 360

WONG PTY LTD
Calculation of retained earnings
for the month ended 31 October 2016

Retained earnings 1/10/16	0
Profit	2 860
Dividends	(500)
Retained earnings 31/10/16	$ 2 360

WONG PTY LTD
Statement of cash flows
for the month ended 31 October 2016

Cash flows from operating activities		
Cash receipts from operating activities	$11 200	
Cash payments for operating activities	(5 500)	
Net cash provided by operating activities		$ 5 700
Cash flows from investing activities		
Purchased office equipment	(5 000)	
Net cash used by investing activities		(5 000)
Cash flows from financing activities		
Issue of shares	10 000	
Proceeds from bank loan	5 000	
Payment of dividend	(500)	
Net cash provided by financing activities		14 500
Net increase in cash		15 200
Cash at beginning of period		—
Cash at end of period		$15 200

STATEMENT OF PROFIT OR LOSS

The purpose of the statement of profit or loss is to report the success or failure of the entity's operations for a period of time. To indicate that Wong's statement reports the results of operations for a period of time, the statement is dated 'for the month ended 31 October 2016'. The **statement of profit or loss** lists the entity's income (i.e. revenues and gains), followed by its expenses. Finally, the profit (or loss) is determined by deducting expenses from income. This result is the famed *bottom line* often referred to in business.

Why are financial statement users interested in the bottom line? We explain this using the 'decision-making toolkit' below. Resource providers (investors and lenders) use the statement of profit or loss to determine if the entity is profitable. If the revenues exceed the expenses, then a profit is reported; but if expenses exceed the revenues, then it is a loss. If investors believe that Wong Pty Ltd will be even more successful in the future, they may be willing to invest more funds. Investors are interested in an entity's past profit because it provides some information about future profit. Similarly, creditors also use the statement of profit or loss to predict future performance. When a bank lends money to an entity, it does so in the belief that it will be repaid in the future. If it didn't think it was going to be repaid, it wouldn't lend the money. Therefore, before making the loan the bank loan officer will use the statement of profit or loss as a source of information to predict whether the entity will be profitable enough to repay its loan. Note also that managers allocate resources based on their beliefs about an entity's future performance.

The issue of shares and dividend distributions are not used in determining profit. For example, $10 000 of cash received from issuing new shares were not treated as revenue by Wong Pty Ltd, and dividends paid of $500 were not regarded as a business expense.

For external financial reports, the statement of profit or loss must also include all changes in equity other than owner/shareholder changes. This statement is called a 'statement of profit or loss and other comprehensive income'. The new standard permits an option of presenting one statement of profit or loss and other comprehensive income in two sections or two statements (a separate profit or loss section and an other comprehensive income section). If a company does not have any additional items (such as asset revaluations), the statement of profit or loss and the statement of profit or loss and other comprehensive income are identical. The statement of profit or loss and other comprehensive income is illustrated in chapter 10.

Helpful hint

The heading of every statement of profit or loss includes the name of the entity, the name of statement and the time period covered by the statement. Usually, another line is added to indicate the unit of measure; when it is used, this fourth line usually indicates that the data are presented 'in thousands' or 'in millions'.

DECISION MAKING

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Are the entity's operations profitable?	Statement of profit or loss	The statement of profit or loss reports on the success or failure of the entity's operations by reporting its revenues and expenses.	If the entity's revenues exceed its expenses, it will report profit; if expenses exceed revenues, it will report a loss.

STATEMENT OF CHANGES IN EQUITY

The *statement of changes in equity* reports the total comprehensive income for the period and other changes in equity, such as adjustments to retained earnings (accumulated prior-year profits) for changes in accounting standards, changes in accounting policies and corrections of errors. The statement of changes in equity must also report details of transactions with the owners of the company (share capital movements and dividend payments) and, finally, a reconciliation of the movement in each component of equity. However, for simplicity we will illustrate only that part of the statement that reports on retained earnings and a full statement of changes in equity is illustrated later in this chapter using Domino's. **Retained earnings** refers to the accumulated profit that has not been distributed as dividends to owners. This is an important part of the statement of changes in equity because it reports on dividends and explains the link between the statement of profit or loss and the statement of financial position.

As shown in figure 1.9, the statement of changes in equity shows the profit for the current period, which is the same as the amount reported in the statement of profit or loss. In this simple example, there are no other income or expense items or adjustments to retained earnings. The current period profit is the only item increasing retained earnings during the reporting period. The amount of retained earnings at the start of the period, which is nil for Wong Pty Ltd as it only commenced business at the beginning of the month, is added to profit.

Dividends reduce equity because they are a distribution to owners. In the Wong Pty Ltd example, dividends of $500 are deducted to calculate the closing amount of retained earnings. Note that this is equal to the amount of retained earnings reported in the statement of financial position.

Shareholders can see how much profit has been distributed as dividends by reading the statement of changes in equity. An entity could pay all of its profits for a period as dividends to shareholders. But few entities choose to do this. Why? Because they want to retain part of the profits to allow for further expansion. High-growth entities often choose to pay low or no dividends.

Helpful hint

The heading of a statement of financial position includes the name of the entity, the name of the statement and the date.

STATEMENT OF FINANCIAL POSITION

The *statement of financial position* reports assets and claims to those assets at a specific point in time. Claims are subdivided into two categories: claims of creditors and claims of owners. Claims of creditors are called *liabilities*. Claims of owners are called **equity** (or *shareholders' equity*). This relationship is shown in equation form in figure 1.10. This equation is referred to as the **basic accounting equation**.

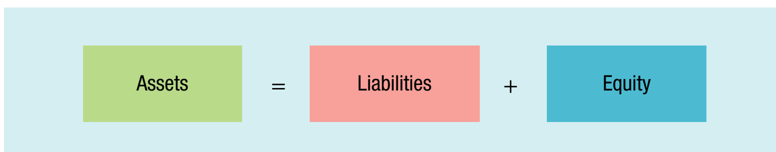


Figure 1.10 Basic accounting equation

Assets must be in balance with the claims to the assets. As you can see from looking at Wong Pty Ltd's statement of financial position in figure 1.9 (p. 22), assets are listed first, followed by liabilities and equity. Equity comprises two parts: (1) share capital and (2) retained earnings and reserves. As noted earlier, share capital results when the entity issues shares. Wong Pty Ltd has share capital of $10 000.

Alternative terminology

Other names for share capital are *paid-up capital, issued capital* and *contributed equity.*

Without any complex adjustments, which are considered in later chapters, the amount of retained earnings reported in the statement of financial position at the end of the period is the amount of retained earnings at the beginning of the period, plus profit after tax for the period, less any amount distributed as a dividend during the period.

Reserves also form part of equity. Some reserves are accumulated profit and result from transferring amounts from retained earnings to reserves. Other reserves result from the application of accounting standards involving, for example, asset revaluations.

Wong Pty Ltd has no reserves. The equity of Wong Pty Ltd is $12 360, consisting of share capital of $10 000 and retained earnings of $2360.

In figure 1.9 (p. 22) the statement of financial position is shown in a vertical format, which is the method used in the published financial statements of listed companies. An alternative format is the horizontal (or account) format shown in figure 1.11, where the layout of the statement of financial position is closely aligned to the basic accounting equation shown in figure 1.10.

DECISION MAKING

Using the decision-making toolkit opposite, creditors can use the statement of financial position as another source of information to determine the likelihood that they will be repaid. They carefully evaluate the nature of an entity's assets and liabilities. For example, does the entity have assets that could easily be sold to repay its debts? Managers use the statement of financial position with the statement of profit or loss to determine, for example, whether inventory is adequate to support future sales. The statement of financial position is also useful in assessing whether cash on hand is sufficient for immediate cash needs. The decision demonstrated in the toolkit looks at the relationship between debt (liabilities) and equity to determine whether the entity relies more on creditors or owners for its financing. Managers use this analysis to determine whether they have the best proportion of debt and equity financing.

WONG PTY LTD
Statement of financial position
as at 31 October 2016

Assets		**Liabilities**		
Cash	$15 200	Accounts payable	$2 500	
Accounts receivable	200	Interest payable	50	
Advertising supplies	1 000	Revenue received in advance	800	
Prepaid insurance	550	Salaries payable	1 200	
Office equipment	4 960	Bank loan	5 000	
		Total liabilities		$ 9 550
		Equity		
		Share capital	10 000	
		Retained earnings 31/10/16	2 360	12 360
Total assets	$21 910	Total equity & liabilities		$21 910

Figure 1.11 Horizontal format of the statement of financial position

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Does the entity rely mainly on debt or equity to finance its assets?	Statement of financial position	The statement of financial position reports the entity's resources and claims to those resources. There are two types of claims: liabilities and equity.	Compare the amount of liabilities (debt) with the amount of equity to determine whether the entity relies more on creditors or owners for its financing.

STATEMENT OF CASH FLOWS

Helpful hint

The heading of a statement of cash flows must identify the entity, the type of statement and the time period covered by the statement.

The main purpose of a *statement of cash flows* is to provide financial information about the cash receipts and cash payments of a business for a specific period of time. To help investors, creditors and others in their analysis of an entity's cash position, the statement of cash flows reports the cash effects of an entity's: (1) operating activities, (2) investing activities and (3) financing activities. In addition, the statement of cash flows shows the net increase or decrease in cash during the period, and the cash amount at the end of the period.

Users are interested in the statement of cash flows because they want to know what is happening to an entity's most important resource. The statement of cash flows provides answers to the following simple but important questions.

- Where did cash come from during the period?
- How was cash used during the period?
- What was the change in the cash balance during the period?

The statement of cash flows for Wong Pty Ltd, in figure 1.9 (p. 22), shows that cash increased by $15 200 during the year. This resulted because operating activities (services to clients) increased cash by $5700; financing activities increased cash by $14 500; and investing activities used $5000 cash for the purchase of equipment. The decision demonstrated in the decision-making toolkit overleaf is to determine if the entity is generating enough cash from its operations to fund its investing activities. Comparing the cash provided from operating activities with the amount of cash used in investing activities provides the answer. If there is any deficiency, i.e. cash used by investing activities is greater than that generated from operating, then the funds must be provided from financing activities.

DECISION MAKING

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Does the entity generate sufficient cash from operations to fund its investing activities?	Statement of cash flows	The statement of cash flows shows the amount of cash provided or used by operating activities, investing activities and financing activities.	Compare the amount of cash provided by operating activities with the amount of cash used by investing activities. Any deficiency in cash from operating and investing activities must be made up with cash from financing activities.

INTERRELATIONSHIPS BETWEEN THE STATEMENTS

Because the results on some statements are used as inputs to other statements, the statements are interrelated. These interrelationships are evident in Wong Pty Ltd's statements in figure 1.9 (p. 22).

1. The statement of financial position depends on the results of the statement of profit or loss and statement of changes in equity. Wong Pty Ltd reported profit of $2860 for the period. This amount is added to the beginning amount of retained earnings as part of the process of determining ending retained earnings.
2. The statement of cash flows and the statement of financial position are also interrelated. The statement of cash flows shows how the cash account changed during the period by showing the amount of cash at the beginning of the period, the sources and uses of cash during the period, and the $15 200 of cash at the end of the period. The ending amount of cash shown on the statement of cash flows is reflected in amounts reported on the statement of financial position.

Study these interrelationships carefully. To prepare financial statements you must understand the sequence in which these amounts are determined and how each statement affects the next.

Alternative terminology

Prior to periods commencing 1 January 2009, the *statement of financial position* was called a balance sheet.

The classified statement of financial position

As explained above, the statement of financial position shows a snapshot of an entity's financial position at a point in time. To improve users' understanding of an entity's financial position, entities group similar assets and similar liabilities together. This is useful because it tells you that items within a group have similar economic characteristics. International accounting standard IAS 1/Australian accounting standard AASB 101 *Presentation of Financial Statements* prescribes minimum disclosures on the face of a classified statement of financial position. A **classified statement of financial position** is one in which assets and liabilities are classified as current and non-current (figure 1.19, pp. 31–2). The most commonly reported items are listed in figure 1.12.

Before we dive in, we need to explain three points.

1. To demonstrate a classified statement of financial position we use Domino's Pizza Enterprises Ltd 2013 financial statements (partially reproduced in the appendix at the back of this book).
2. Domino's, like most entities, presents its financial statements for more than one year. It allows users to compare the business's financial position and performance for an accounting period with that of the previous period. You will also note that the accounts in the back of the book present 2 columns of figures: the consolidated figures for the current and prior year, representing the Domino's group of companies. The accounts of the legal parent entity, Domino's Pizza Enterprises Ltd, are not shown, but brief details are displayed in note 43 of the notes to the financial statements.
3. Note that numbers are reported in thousands on Domino's financial statements — i.e. numbers are rounded to the nearest thousand. Thus, the entity's total inventories for 2013 were $6 685 000 not $6685 (see figure 1.13).

Assets	Liabilities
Cash assets	Trade and other payables
Trade and other receivables	Financial liabilities
Other financial assets	Tax liabilities
Inventories	Provisions
Investment in property	**Equity**
Property, plant and equipment	Capital and reserves
Tax assets	Retained earnings or accumulated losses
Intangible assets	

Figure 1.12 Minimum disclosures on the statement of financial position

IAS 1/AASB 101 also requires that the assets and liabilities be classified as current and non-current, unless categorisation by liquidity provides more relevant information. Almost all entities, other than financial institutions and insurance companies, choose the current/non-current categories for presentation of the statement of financial position. Although not as informative as liquidity categories, the current/non-current categories provide a crude measure of: (1) whether the entity has enough assets to pay its debts as they come due, and (2) the claims of short-term and long-term creditors on the entity's total assets. This is discussed in more detail in the section on analysing financial statements, pages 48–59. Current and non-current categories are used extensively for internal and external reporting. These categories can be seen in the statement of financial position included in Domino's 2013 annual report in the appendix at the back of this book. Each of the categories is explained below.

Helpful hint

Liquidity: The sooner an asset converts to cash, the more liquid it is said to be.

Current assets

Current assets include assets that are cash, held for the purpose of being traded, or expected to be converted to cash or used in the business within 1 year or within the operating cycle, whichever is longer. The **operating cycle** is the average time taken to acquire goods and services and convert them to cash in producing revenues. Domino's reported current assets of $60 383 000 in 2013. For most businesses the cut-off for classification as current assets is 1 year from the end of the reporting period. For example, accounts receivable are included in current assets because they will be converted to cash through collection within 1 year. Inventories are current assets because we expect that they will be used in the business within 1 year (hopefully, the raw materials sooner!).

Common types of current assets are: (1) cash, (2) marketable securities, such as shares held as a short-term investment, (3) receivables (notes receivable, accounts receivable and interest receivable), (4) inventories, and (5) prepaid expenses (insurance and supplies). Figure 1.13 shows the current assets that are reported in Domino's 2013 consolidated financial statements.

An entity's current assets are important in assessing its short-term debt-paying ability, as explained later in the chapter.

DOMINO'S PIZZA ENTERPRISES LTD
Statement of financial position (partial)
as at 30 June 2013

	Note	2013 $'000	2012 $'000
Current assets			
Cash and cash equivalents	37	18 691	40 340
Trade and other receivables	13	26 412	21 018
Other financial assets	14	1 286	2 449
Inventories	15	6 685	5 706
Current tax assets	10	191	—
Other	21	6 315	3 781
		59 580	73 294
Assets classified as held for sale	16	803	704
Total current assets		**60 383**	**73 998**

Figure 1.13 Current assets section of Domino's statement of financial position

Non-current assets

Non-current assets are assets that are not expected to be consumed or sold within 1 year or the operating cycle. They encompass a diverse range of assets. The most common types of non-current assets include receivables that are due more than 1 year from the date of the statement of financial position; property, plant and equipment; and intangible assets. Figure 1.14 shows the non-current assets reported in Domino's 2013 financial statements.

DOMINO'S PIZZA ENTERPRISES LTD
Statement of financial position (partial)
as at 30 June 2013

	Note	2013 $'000	2012 $'000
Non-current assets			
Other financial assets	14	4 415	5 698
Property, plant & equipment	18	49 693	35 031
Deferred tax assets	10	40	829
Goodwill	19	57 113	46 927
Other intangible assets	20	17 427	12 809
Other	21	680	27
Total non-current assets		**129 368**	**101 321**

Figure 1.14 Non-current assets section of Domino's statement of financial position

Alternative terminology

Property, plant and equipment are sometimes called *fixed assets*.

Property, plant and equipment

Property, plant and equipment are assets with relatively long useful lives that are used in operating the business. This category includes land, buildings, machinery and equipment, delivery vehicles, and furniture. Domino's reported property, plant and equipment of $49 693 000 in its statement of financial position as shown in figure 1.14.

Depreciation is the practice of allocating the cost of assets to a number of periods, rather than simply expensing the full purchase price of the asset in the year of purchase. Assets that the entity depreciates should be reported on the statement of financial position at cost less accumulated depreciation. For example, Domino's reported accumulated depreciation of $22 759 000 for plant and equipment in the notes to the financial statements. The accumulated depreciation is the total amount of depreciation to date over the *life of the asset*.

Intangible assets

Many entities have assets, other than financial assets, that have no physical substance yet often are very valuable. These assets are referred to as **intangible assets**. They include patents, copyrights and trademarks or trade names that give the entity exclusive right of use for a specified period of time. Goodwill is included in intangible assets. Domino's reported goodwill of $57 113 000, as shown in figure 1.14. Non-current assets will be discussed further in chapter 8.

Current liabilities

In the liabilities section of the statement of financial position, the first grouping is current liabilities. **Current liabilities** are obligations that are to be paid within the coming year or the entity's operating cycle. Common examples are accounts payable, wages payable, bank loans payable, interest payable, taxes payable, and current maturities of long-term obligations (payments to be made within the next year on long-term obligations).

Within the current liabilities section of the statement of financial position, payables are usually listed first, followed by short-term borrowings, tax liabilities and provisions. Figure 1.15 shows the current liabilities reported in Domino's 2013 consolidated financial statements.

Non-current liabilities

Obligations that are not classified as current liabilities must be classified as **non-current liabilities**. Liabilities in this category include debentures payable, mortgages payable, unsecured notes payable and lease liabilities. Many entities report long-term borrowings maturing after 1 year as a single amount in the statement of financial position and show the details of the debt in notes to the financial statements. Others list the various types of long-term liabilities. In its statement of financial position, Domino's reported non-current liabilities as shown in figure 1.16. Liabilities will be discussed further in chapter 9.

DOMINO'S PIZZA ENTERPRISES LTD
Statement of financial position (partial)
as at 30 June 2013

	Note	2013 $'000	2012 $'000
Current liabilities			
Trade and other payables	22	38 055	34 172
Borrowings	23	7 082	11 534
Other financial liabilities	24	508	—
Current tax liabilities	10	2 550	3 544
Provisions	25	3 109	2 360
Total current liabilities		**51 304**	**51 610**

Figure 1.15 Current liabilities section of Domino's statement of financial position

DOMINO'S PIZZA ENTERPRISES LTD
Statement of financial position (partial)
as at 30 June 2013

	Note	2013 $'000	2012 $'000
Non-current liabilities			
Borrowings	23	32 589	2 509
Other financial liabilities	24	303	252
Provisions	25	441	574
Deferred tax liabilities		2 395	3 098
Other	26	137	235
Total non-current liabilities		**35 865**	**6 668**

Figure 1.16 Non-current liabilities section of Domino's statement of financial position

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

Review it, Do it questions marked with this Domino's icon require you to use the company's 2013 annual report at the back of the book.

1. What are the major sections in a classified statement of financial position?
2. Explain the difference between current assets and non-current assets?
3. What was Domino's largest type of current asset at 30 June 2013? (The answer to this question is on p. 91.)

>> DO IT

The following information relates to Hoffman Ltd's statement of financial position at 30 June 2015. All receivables are due within 30 days.

Short-term investments	$ 2 300
Cash	800
Property, plant and equipment	10 700
Inventory	3 400
Accumulated depreciation	2 700
Accounts receivable	1 100

Prepare the assets section of a classified statement of financial position for Hoffman Ltd.

REASONING: Assets are classified as current and non-current in a classified statement of financial position. Current assets are cash and other resources that are reasonably expected to be consumed in 1 year. Accumulated depreciation should be subtracted from property, plant and equipment to determine net property, plant and equipment.

SOLUTION:

HOFFMAN LTD Statement of financial position (partial) as at 30 June 2015		
Assets		
Current assets		
Cash	$ 800	
Accounts receivable	1 100	
Inventory	3 400	
Short-term investments	2 300	
Total current assets		$ 7 600
Non-current assets		
Property, plant and equipment	10 700	
Less: Accumulated depreciation	2 700	8 000
Total non-current assets		8 000
Total assets		$15 600

A quick look at Domino's financial reports

So far we have examined Domino's classified statement of financial position. Now let's put all the financial statements together. The same relationships that you observed among the internal financial statements of Wong Pty Ltd are evident in Domino's 2013 financial statements, which are presented in figures 1.17 to 1.23. We have simplified the financial statements to assist your learning — but they may look complicated anyway. Do not be alarmed by their apparent complexity. (If you could already read and understand them, there would be little reason to take this course!) By the end of this textbook, you'll have a great deal of experience in reading and understanding financial statements such as these. Domino's actual financial statements are presented in the appendix at the back of the book.

Helpful hint

The percentage change in any amount from one year to the next is calculated as follows:

$$\frac{\text{Change during period}}{\text{Previous value}} \times \frac{100}{1}$$

Thus, the percentage change in profit is:

$$\frac{\text{Change in profit}}{\text{Previous year's profit}} \times \frac{100}{1}$$

Statement of profit or loss

Domino's statement of profit or loss is presented in figure 1.17. It reports total revenues and other gains in 2013 of $298 454 000 ($188 631 000 + $106 259 000 + $3 564 000). It then subtracts eleven types or categories of expenses to arrive at a profit of $28 657 000. This is a 11% decrease from the profit of $32 262 000 for the previous year.

Statement of changes in equity

To refresh your memory about this statement you might like to review page 23. Domino's presents information about its retained earnings in the notes to the financial statements in 2013 (figure 1.18). The amount of $63 712 000 reported as retained earnings at 30 June 2013 reflects the retained profits of $55 817 000 at the beginning of the reporting period, plus $28 657 000 profit for the year, less dividends of $20 762 000.

Statement of financial position

Domino's statement of financial position is shown in figure 1.19. In the previous section, we examined the components of the statement of financial position separately. Now let's look at the full picture. The entity's total assets increased from $175 319 000 on 1 July 2012 to $189 751 000 on 30 June 2013. Its liabilities include trade and other payables as well as interest-bearing liabilities, such as borrowings.

You can see that Domino's has slightly more equity financing than debt — 54% of its assets are financed by equity. As you learn more about financial statements, we will discuss how to interpret the relationships and changes in financial statement items.

DOMINO'S PIZZA ENTERPRISES LTD
Statement of profit or loss (partial)
for the year ended 30 June 2013

	Note	2013 $'000	2012 $'000
Revenue	5	188 631	168 466
Other revenue	7	106 259	96 421
Other gains and losses	8	3 564	3 161
Food and paper expenses	11	(85 150)	(78 679)
Employee benefits expense		(76 260)	(59.938)
Plant and equipment costs		(9 331)	(8 588)
Depreciation and amortisation expense	11	(12 792)	(10 029)
Occupancy expenses		(9 103)	(7 837)
Finance costs		(405)	(451)
Marketing expenses		(11 430)	(11 477)
Store related expenses		(7 182)	(5887)
Communication expenses		(6 351)	(6 669)
Other expenses		(39 685)	(35 523)
Profit before tax		**40 765**	**42 970**
Income tax expense	10	(12 108)	(10 708)
Profit for the year from continuing operations	11	**28 657**	**32 262**

Figure 1.17 Domino's statement of profit or loss (partial)

Alternative terminology

Prior to 1 July 2012, the statement of profit or loss and other comprehensive income was called the statement of comprehensive income and if the separate statement of profit or loss was presented it was called an income statement. Some companies still use the old terminology when labelling their external reports. See chapter 10 for further discussion.

DOMINO'S PIZZA ENTERPRISES LTD
Notes to the financial statements
for the year ended 30 June 2013

	2013 $'000	2012 $'000
30. Retained earnings		
Balance at beginning of year	55 817	45 835
Net profit attributable to members of the company	28 657	32 262
Payment of dividends (note 31)	(20 762)	(16 954)
Balance at end of year	**63 712**	**61 143**

Figure 1.18 Note 30, Movement in retained earnings, from Domino's financial statements

DOMINO'S PIZZA ENTERPRISES LTD
Statement of financial position
as at 30 June 2013

	Note	2013 $'000	2012 $'000
ASSETS			
Current assets			
Cash and cash equivalents	37	18 691	40 340
Trade and other receivables	13	26 412	21 018
Other financial assets	14	1 286	2 449
Inventories	15	6 685	5 706
Current tax assets	10	191	—
Other	21	6 315	3 781
		59 580	73 294
Assets classified as held for sale	16	803	704
Total current assets		**60 383**	**73 998**

(continued)

Figure 1.19 Domino's statement of financial position (partial)

Figure 1.19 *(continued)*

	Note	2013 $'000	2012 $'000
Non-current assets			
Other financial assets	14	4 415	5 698
Property, plant & equipment	18	49 693	35 031
Deferred tax assets	10	40	829
Goodwill	19	57 113	46 927
Other intangible assets	20	17 427	12 809
Other	21	680	27
Total non-current assets		**129 368**	**101 321**
Total assets		**189 751**	**175 319**
LIABILITIES			
Current liabilities			
Trade and other payables	22	38 055	34 172
Borrowings	23	7 082	11 534
Other financial liabilities	24	508	—
Current tax liabilities	10	2 550	3 544
Provisions	25	3 109	2 360
Total current liabilities		**51 304**	**51 610**
Non-current liabilities			
Borrowings	23	32 589	2 509
Other financial liabilities	24	303	252
Provisions	25	441	574
Deferred tax liabilities	10	2 395	3 098
Other	26	137	235
Total non-current liabilities		**35 865**	**6 668**
Total liabilities		**87 169**	**58 278**
Net assets		**102 582**	**117 041**
EQUITY			
Capital and reserves			
Issued capital	28	40 855	69 872
Reserves	29	(1 985)	(13 974)
Retained earnings	30	63 712	61 143
Total equity		**102 582**	**117 041**

Helpful hint

A statement of financial position which reports current and non-current categories for assets and liabilities is known as a fully classified statement of financial position.

Statement of cash flows

Domino's statement of cash flows is shown in figure 1.20. We can see that Domino's cash decreased by $23 779 000 during the year ended 30 June 2013. The reasons for this can be determined by examining the statement of cash flows in figure 1.20. The company generated $33 180 000 from its operating activities during the year. Its investing activities included capital expenditures (purchases of property, plant and equipment) as well as proceeds from the sale of non-current assets. The net effect of its investing activities was a decrease of cash of $30 395 000. Its financing activities involved the payment of cash dividends, repayment of borrowings, the return of share capital and proceeds from borrowings and share issues using net cash of $26 564 000. In all, the net effect of the cash generated from its operating activities, less the cash used in its investing and financing, plus the translation gain from cash held in foreign currencies was a decrease in cash of $21 649 000.

Other elements of an annual report

Companies that are publicly traded must provide their shareholders with an *annual report* each year. The **annual report** always includes the financial statements introduced in this chapter as well as other important sources of information such as notes to the financial statements, corporate governance statement the directors' report and an independent auditor's report. If the concise form of financial reporting is used to report to shareholders, a general discussion and analysis section must be included. This is instead of some of the notes to the financial statements, which are included in the full financial report. No analysis of an entity's financial situation and prospects is complete without a review of each of these items.

DOMINO'S PIZZA ENTERPRISES LTD
Statement of cash flows
for the year ended 30 June 2013

	NOTE	2013 $'000	2012 $'000
Cash flows from operating activities			
Receipts from customers		327 142	295 099
Payments to suppliers and employees		(282 864)	(250 792)
Interest received		1 103	1 785
Interest and other costs of finance paid		(405)	(451)
Income taxes paid		(11 796)	(7 963)
Net cash generated by operating activities	37	**33 180**	**37 678**
Cash flows from investing activities			
Payment for investment and business operations, net of cash acquired	36	(19 077)	(11 876)
Loans repaid from third parties and franchisees		2 516	2 106
Payment for property, plant & equipment		(25 037)	(17 658)
Proceeds from sale of businesses and other non-current assets		21 069	22 924
Payments for intangible assets		(9 866)	(7 474)
Net cash used in investing activities		**(30 395)**	**(11 978)**
Cash flows from financing activities			
Proceeds from borrowings		43 721	—
Repayment of borrowings		(20 506)	(24)
Return of share capital		(30 042)	—
Dividends paid		(20 762)	(16 954)
Proceeds from issue of equity securities		1 025	5 349
Net cash used in financing activities		**(26 564)**	**(11 629)**
Net (decrease)/increase in cash and cash equivalents		**(23 779)**	**14 071**
Cash and cash equivalents at the beginning of the year		**40 340**	**28 085**
Effects of exchange rate changes on the balance of cash held in foreign currencies		2 130	(1 816)
Cash and cash equivalents at the end of the year	37	**18 691**	**40 340**

Helpful hint

The movement in cash is $23 779 000 less exchange rate differences of cash held in foreign currencies $2 130 000, a total net reduction of $21 649 000.

Figure 1.20 Domino's statement of cash flows

Notes to the financial statements

An entity's published financial statements are accompanied by explanatory notes and supporting schedules that form part of the statements. The **notes to the financial statements** clarify information presented in the financial statements, as well as expand on it where additional detail is needed. Information in the notes does not always have to be quantifiable (numeric). Examples of notes are descriptions of the accounting policies and methods used in preparing the statements, explanations of uncertainties and contingencies, and statistics and details too voluminous to be included in the statements. The notes are essential to understanding an entity's operating performance and financial position.

Figure 1.21 (overleaf) is an extract from the notes to Domino's financial statements for 2013. It describes the methods the company uses to account for revenues.

DOMINO'S PIZZA ENTERPRISES LTD
Notes to the financial statements (extract from Note 3.8)
for the year ended 30 June 2013

3.8 REVENUE RECOGNITION
Revenue is measured at the fair value of the consideration received or receivable.

3.8.1 Sale of goods
Revenue from the sale of goods is recognised when the consolidated entity has transferred to the buyer the significant risks and rewards of ownership of the goods.

3.8.2 Franchise income
Franchise income is recognised on an accrual basis in accordance with the substance of the relevant agreement.

3.8.3 Rendering of services
Service revenue relates primarily to store building services and is recognised by reference to the stage of completion of the contract.

3.8.4 Royalties
Royalty revenue is recognised on an accrual basis in accordance with the substance of the relevant agreement (provided that it is probable that the economic benefits will flow to the consolidated entity and the amount of revenue can be measured reliably). Royalties determined on a time basis are recognised on a straight-line basis over the period of the agreement. Royalty arrangements that are based on sales and other measures are recognised by reference to the underlying arrangement.

3.8.5 Dividend and interest revenue
Dividend revenue from investments is recognised when the shareholder's right to receive payment has been established (provided that it is probable that the economic benefits will flow to the consolidated entity and the amount of revenue can be reliably measured).

Interest revenue is recognised when it is probable that the economic benefits will flow to the consolidated entity and the amount of revenue can be measured reliably. Interest revenue is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount on initial recognition.

Figure 1.21 Extract from the notes to Domino's financial statements

Corporate governance statement

In 2002, the Australian Securities Exchange (ASX) established the ASX Corporate Governance Council, which produced a document entitled Principles of good corporate governance and best practice recommendations (released in March 2003). The guidelines were updated in 2007 (Corporate governance principles and recommendations, 2nd edition) and 2010 (Corporate governance principles and recommendations with 2010 amendments). In 2012, there was a comprehensive review and a third edition of the principles and recommendation was released. All Australian listed entities as part of the ASX listing requirements (LR4.10.3) are required to disclose the extent to which they have followed the ASX corporate governance recommendations, and, if they have not followed the recommendations, the reasons for adopting alternative governance practices. For some smaller listed entities, the **corporate governance statement** is part of the directors' report.

Domino's corporate governance statement is included in the appendix to this book.

Directors' report

The **directors' report** section covers a number of issues which might affect users' interpretation of the financial statements. The contents of the report in Australia are governed by the Corporations Act, ss. 298–300. Information required to be disclosed in the report helps shareholders assess the performances of the entity and the directors. Among the things that must be included are a description of the business(es) undertaken by the entity; details of dividends; a description of anything important that has happened after the date of the financial statements (but before they were released); and various information about directors, including how many directors' meetings each one attended. In their report, directors will try to avoid disclosing things that might give competitors an advantage. Figure 1.22 presents a part of Domino's directors' report.

DOMINO'S PIZZA ENTERPRISES LTD
Directors' report (extract)

PRINCIPAL ACTIVITIES
The consolidated entity's principal activities in the course of the financial year were the operation of retail food outlets and the operation of franchise services. During the financial year there were no significant changes in the nature of those activities.

REVIEW OF OPERATIONS
The result for the financial year ended 30 June 2013 was as follows:

	2013 $'000	2012 $'000
Profit before related income tax expense	40 765	42 970
Income tax expense	(12 108)	(10 708)
PROFIT AFTER RELATED INCOME TAX EXPENSE	**28 657**	**32 262**

Changes in state of affairs
There were no significant changes in the state of affairs of the consolidated entity that occurred during the financial year.

Subsequent events
On 13 August 2013, the Group announced that Aurora Australia Co., Ltd, a newly-formed and wholly-owned subsidiary of Domino's Pizza Enterprises Limited, had entered into a share purchase agreement with Bain Capital Domino Hong Kong Limited (Bain) to purchase 100% of the ordinary shares in K.K. DPJ Holdings 1 (Holdings). Holdings is the parent company of Domino's Pizza Japan, Inc. (DPJ) which holds the master franchisee rights for Domino's Pizza in Japan. Immediately following completion of the acquisition Bain will reinvest approximately ¥4 billion (A$45 million) to subscribe for 25% of the issued shares in Aurora Australia Co., Ltd. The net effect is that the Group will acquire a 75% equity interest in DPJ for ¥12.0 billion (A$135 million) . . . The acquisition is expected to complete in September 2013.

Future developments
In Australia and New Zealand, the focus is on the sell down of corporate stores, opening new franchise stores, continuing our strong online business including aggressive online, print, point of sale and television marketing, reviewing margin pressures and putting additional resources into our training department to drive operational standards. In Europe, the focus is on having The Netherlands stores running on Pulse POS, rolling out new digital platforms from ANZ, store growth, and reviewing arrangements with suppliers to maximise efficiencies and economies in commissaries.

Environmental regulations
The consolidated entity, while not subject to any significant environmental regulation or mandatory emissions reporting, voluntarily measures its carbon emissions using the *National Greenhouse and Energy Reporting Act 2007*.

Dividends
In respect of the financial year ended 1 July 2012, as detailed in the Directors' Report for the financial year, a final dividend of 14.1 cents per share franked to 100% at 30% corporate income tax rate was paid to the holders of fully paid ordinary shares on 14 September 2012.

In respect of the financial year ended 30 June 2013, an interim dividend of 15.5 cents per share franked to 100% at 30% corporate income tax rate was paid to the holders of fully paid ordinary shares on 12 March 2013.

In respect of the financial year ended 30 June 2013, the Company will be paying a final dividend of 15.4 cents per share franked to 100% at 30% corporate income tax rate to the holders of fully paid ordinary shares on 13 September 2013.

Figure 1.22 Extract from Domino's directors' report, 2013

Auditor's report

Another important source of information is the auditor's report (figure 1.23). An **auditor** is an accountant who conducts an independent examination of the accounting data presented by an entity. Only accountants who are registered auditors may perform audits. If the auditor is satisfied that the financial statements present fairly the financial position, results of operations and cash flows in accordance with generally accepted accounting principles, then an unqualified opinion is expressed. If the auditor expresses anything other than an unqualified opinion, the financial statements should be used only with caution. That is, without an unqualified opinion, we cannot have complete confidence that the financial statements give an accurate picture of the entity's financial health.

Figure 1.23 is the auditor's report and auditor's independence declaration from Domino's 2013 annual report. The entity received an unqualified opinion from its auditor, Deloitte Touche Tohmatsu.

Figure 1.23 **Auditor's independence declaration and report on Domino's financial statements, 2013**

AUDITOR'S INDEPENDENCE DECLARATION

Domino's Pizza Enterprises Limited

Deloitte Touche Tohmatsu
ABN 74 490 121 060

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Level 25
123 Eagle Street
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GPO Box 1463
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www.deloitte.com.au

13 August 2013

The Directors
Domino's Pizza Enterprises Limited
Level 5, KSD1
485 Kingsford Smith Drive
HAMILTON QLD 4007

Dear Directors,

Domino's Pizza Enterprises Limited

In accordance with section 307C of the Corporations Act 2001, I am pleased to provide the following declaration of independence to the directors of Domino's Pizza Enterprises Limited.

As lead audit partner for the audit of the financial statements of Domino's Pizza Enterprises Limited for the financial year ended 30 June 2013, I declare that to the best of my knowledge and belief, there have been no contraventions of:

(i) the auditor independence requirements of the Corporations Act 2001 in relation to the audit; and

(ii) any applicable code of professional conduct in relation to the audit.

Yours sincerely

Deloitte Touche Tohmatsu

DELOITTE TOUCHE TOHMATSU

P G Forrester
Partner
Chartered Accountants

Figure 1.23 *(continued)*

INDEPENDENT AUDITOR'S REPORT

TO THE MEMBERS OF DOMINO'S PIZZA ENTERPRISES LIMITED

Deloitte Touche Tohmatsu
ABN 74 490 121 060

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REPORT ON THE FINANCIAL REPORT

We have audited the accompanying financial report of Domino's Pizza Enterprises Limited, which comprises the statement of financial position as at 30 June 2013, the statement of comprehensive income, the statement of cash flows and the statement of changes in equity for the year ended on that date, notes comprising a summary of significant accounting policies and other explanatory information, and the directors' declaration of the consolidated entity, comprising the company and the entities it controlled at the year's end or from time to time during the financial year as set out on pages 27 to 87.

Directors' Responsibility for the Financial Report

The directors of the company are responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards and the Corporations Act 2001 and for such internal control as the directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error. In Note 3, the directors also state, in accordance with Accounting Standard AASB 101 Presentation of Financial Statements, that the consolidated financial statements comply with International Financial Reporting Standards.

Auditor's Responsibility

Our responsibility is to express an opinion on the financial report based on our audit. We conducted our audit in accordance with Australian Auditing Standards. Those standards require that we comply with relevant ethical requirements relating to audit engagements and plan and perform the audit to obtain reasonable assurance whether the financial report is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial report. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial report, whether due to fraud or error. In making those risk assessments, the auditor considers internal control, relevant to the company's preparation of the financial report that gives a true and fair view, in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the directors, as well as evaluating the overall presentation of the financial report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

(continued)

Figure 1.23 *(continued)*

INDEPENDENT AUDITOR'S REPORT CONTINUED

TO THE MEMBERS OF DOMINO'S PIZZA ENTERPRISES LIMITED

AUDITOR'S INDEPENDENCE DECLARATION

In conducting our audit, we have complied with the independence requirements of the Corporations Act 2001. We confirm that the independence declaration required by the Corporations Act 2001, which has been given to the directors of Domino's Pizza Enterprises Limited, would be in the same terms if given to the directors as at the time of this auditor's report.

Opinion

In our opinion:

(a) the financial report of Domino's Pizza Enterprises Limited is in accordance with the Corporations Act 2001, including:

- (i) giving a true and fair view of the Consolidated entity's financial position as at 30 June 2013 and of its performance for the year ended on that date; and
- (ii) complying with Australian Accounting Standards and the Corporations Regulations 2001; and

(b) the consolidated financial statements also comply with International Financial Reporting Standards as disclosed in Note 3.

REPORT ON THE REMUNERATION REPORT

We have audited the Remuneration Report included in pages 16 to 23 of the directors' report for the year ended 30 June 2013. The directors of the company are responsible for the preparation and presentation of the Remuneration Report in accordance with section 300A of the Corporations Act 2001. Our responsibility is to express an opinion on the Remuneration Report, based on our audit conducted in accordance with Australian Auditing Standards.

Opinion

In our opinion the Remuneration Report of Domino's Pizza Enterprises Limited for the year ended 30 June 2013, complies with section 300A of the Corporations Act 2001.

Deloitte Touche Tohmatsu

DELOITTE TOUCHE TOHMATSU

P G Forrester
Partner
Chartered Accountants
Parramatta, 13 August 2013

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What are the content and purpose of each statement: statement of profit or loss, statement of changes in equity, statement of financial position and statement of cash flows?
2. The accounting equation is: Assets = Liabilities + Equity. Replacing words in the equation with dollar amounts, what is Domino's accounting equation at 30 June 2013? (*Hint:* Use comparative 2013 data in figure 1.19 (pp. 31–2) or the company's annual report in appendix A at the back of this book.) (The answer to this question is on p. 91.)
3. Why are notes to the financial statements necessary? What kinds of items are included in these notes?

4. What is the purpose of the directors' report in the annual report?
5. What is the purpose of the auditor's report?

>> DO IT

Pink Music Store Pty Ltd began operations on 1 July 2016. The following information is available for Pink Music Store on 30 June 2017: service revenue $17 000; accounts receivable $4000; accounts payable $2000; building rental expense $9000; bank loan $5000; share capital $10 000; retained earnings; equipment $16 000; insurance expense $1000; supplies (asset) $1800; supplies expense $200; cash $1500; dividends $500. Prepare a statement of profit or loss, a statement of financial position and a calculation of retained earnings for Pink Music Store Pty Ltd using this information.

REASONING: A statement of profit or loss reports the success or failure of an entity's operations for a period of time. A statement of financial position presents the assets, liabilities and equity of an entity at a specific point in time. The statement of changes in equity shows the items affecting each component of equity (in this case, retained earnings) during the period.

SOLUTION:

PINK MUSIC STORE PTY LTD
Statement of profit or loss
for the year ended 30 June 2017

Revenues		
Service revenue		$17 000
Expenses:		
Rent expense	$9 000	
Insurance expense	1 000	
Supplies expense	200	
Total expenses		10 200
Profit		$ 6 800

PINK MUSIC STORE PTY LTD
Statement of financial position
as at 30 June 2017

Assets		
Cash		
Accounts receivable		$ 1 500
Supplies		4 000
Equipment		1 800
		16 000
Total assets		23 300
Liabilities		
Accounts payable	$2 000	
Bank loan	5 000	
Total liabilities		7 000
Net assets		$16 300
Equity		
Share capital		$10 000
Retained earnings 31/10/16		6 300
Total equity		$16 300

PINK MUSIC STORE PTY LTD Calculation of retained earnings for the year ended 30 June 2017	
Retained earnings 1 July 2016	0
Profit	6 800
Less dividends	(500)
Retained earnings 30 June 2017	$6 300

LEARNING OBJECTIVE 7

Describe the financial reporting environment.

THE FINANCIAL REPORTING ENVIRONMENT

Accounting has developed over time and the accounting rules have been developed to suit the needs of the ever-changing business environment. For example, as a result of the failure of many joint venture entities in the eighteenth century and loss of investors' funds, there arose a need for regulation to protect the investors and to encourage economic development. In most cases, until the mid-nineteenth century, an Act of Parliament was required to permit the raising of funds. The early *Companies Act 1856* set out rules for company formation, the roles of the directors, and rules protecting the distribution of the capital invested, but the accounting rules were left to the accountants. These rules and accounting practices were known as *generally accepted accounting principles (GAAP)* and the authority was derived from use by the business community and the accounting profession. However, as the business environment became more complex and the capital markets were globalised, there emerged many deviations in practice and the accounting profession recognised the need for standardised guidelines for accounting practices and procedures. The current GAAP in Australia is a combination of statutory rules (accounting standards) and interpretations as well as the concepts and principles which have been developed over time.

Companies registered in Australia must comply with the Corporations Act. This Act prescribes the preparation of external general purpose financial reports by certain categories of companies and this preparation is subject to regulations from several sources. The various users of financial information were discussed earlier in this chapter, where it was established that the provision of information is essential for decision making. However, there is a need for regulations and monitoring to ensure that the information provided to such users is reliable and unbiased. Let's take a closer look at each of these key players in the financial reporting environment, as well as a few others with whom they interact.

AUSTRALIAN SECURITIES AND INVESTMENTS COMMISSION

The **Australian Securities and Investments Commission (ASIC)** administers the Corporations Act. The Act requires certain companies, such as listed public companies, to prepare financial statements in accordance with Australian accounting standards. Among other functions, ASIC monitors compliance with accounting standards and the Corporations Act. This involves investigating companies that are suspected of not complying with the Act or of publishing financial reports that do not comply with accounting standards. The surveillance program of ASIC is assisted by auditors who access the internal records of companies and report on compliance. More details about ASIC can be found on its web site, www.asic.gov.au.

The structure of accounting standard setting is illustrated in figure 1.24, which refers to the two key bodies: the Financial Reporting Council and the Australian Accounting Standards Board. The roles of these bodies in regulating financial reporting are discussed on the next page.

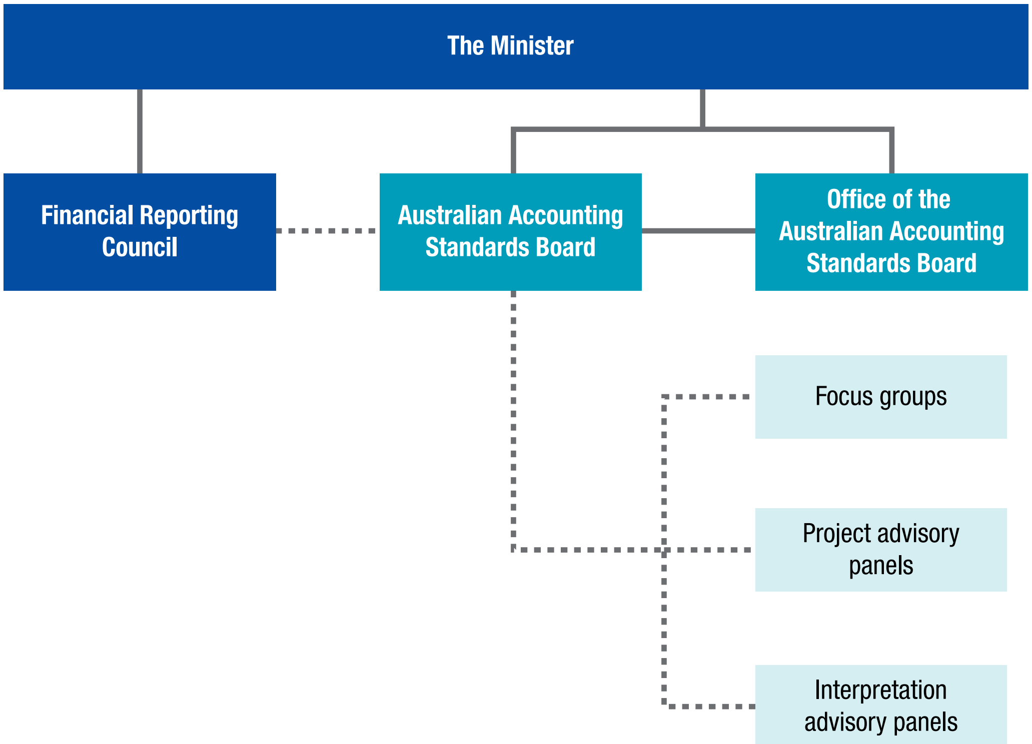


Figure 1.24 Structure of accounting standard setting

Source: Australian Accounting Standards Board web site, www.aasb.gov.au.

FINANCIAL REPORTING COUNCIL

The **Financial Reporting Council (FRC)** is responsible for the broad oversight of the accounting standard setting process for the private and public sectors. It comprises key stakeholders from the business community, the professional accounting bodies, governments and regulatory agencies. Members of the FRC are appointed by the treasurer. The FRC oversees the **Australian Accounting Standards Board (AASB)**, which is the organisation with authority to issue accounting standards in Australia, and the **Auditing and Assurance Standards Board (AUASB)**, which is the organisation with authority to issue auditing and assurance standards for use by auditors and providers of other assurance services. It advises the Commonwealth Government on the accounting standard-setting and auditing standard-setting processes. The FRC also monitors developments in international accounting standards and determines the AASB's broad strategic direction. The FRC may give the AASB directions, advice and feedback on matters of general policy and is responsible for approving its priorities, business plan, budget and staffing arrangements. However, the FRC cannot influence the AASB's technical deliberations and, hence, the content of particular accounting standards. More information about the FRC can be found on its web site, www.frc.gov.au.

AUSTRALIAN ACCOUNTING STANDARDS BOARD

The AASB issues accounting standards for all types of reporting entities, business, not-for-profit and government (public) sectors. The members of the AASB are appointed by the FRC. In 2002, the FRC exercised its authority in determining the AASB's direction by endorsing Australia's convergence with international accounting standards from 1 January 2005. The standards issued by the AASB are consistent and include all options that currently exist under those issued by the International Accounting Standards Board. The **International Accounting Standards Board (IASB)** is the organisation with the authority to issue international financial reporting standards, commonly referred to as IFRSs. The standards issued by the IASB are intended for the preparation of general purpose financial reports of profit-seeking entities, but in Australia and New Zealand (until recently, see overleaf) the same standards are applied to public sector entities and not-for-profit entities that prepare external general purpose financial reports. Where necessary, the AASB adds its own paragraphs to the international accounting standards only if they are considered particularly relevant in the Australian reporting environment, e.g. exclusions and alternatives to make the standards applicable to public sector entities. Not all entities need to comply with full accounting standards. AASB 1053 *Application of Tiers of Australian Accounting Standards* sets out the reduced disclosure requirements for some entities. More on this differential reporting regime will be covered in chapter 13.

Until 2004, in addition to setting standards, the AASB was developing a conceptual framework. The conceptual framework consisted of a set of concepts to be followed by preparers of financial statements and standard setters. It comprises statements of accounting concepts (SACs), which provided guidance but did not have mandatory status. The AASB had issued four statements of accounting concepts prior to the decision to converge with international accounting standards. The four statements addressed the scope and objective of general purpose financial reporting, qualitative characteristics, and the elements of financial statements. Some of the Australian conceptual framework differed from the IASB framework for presentation of financial statements. As part of the international convergence program, the AASB issued the *Conceptual Framework*, which is equivalent to the *Conceptual Framework* issued by the IASB.

Since 2005 the conceptual framework that was developed in Australia has no longer been used in its entirety. The statements concerned with the objective (SAC 2) of general purpose financial reporting, qualitative characteristics (SAC 3) and the elements of financial statements (SAC 4) were encompassed in the framework. The statements that cover the scope (SAC 1) of general purpose financial reporting has been temporarily retained, but it is expected that the requirements of these statements will be incorporated into a later version of the *Conceptual Framework*. At the time of writing, the conceptual framework is under review. The new developments are explored in chapter 13. More information about the AASB can be found on its web site, www.aasb.gov.au.

AUSTRALIAN SECURITIES EXCHANGE

Another source of regulation for listed public companies is the Australian Securities Exchange (ASX). Listed entities must comply with the listing rules of the exchange or exchanges on which they are listed. The listing rules relating to financial reporting typically focus on disclosure of information. The ASX, through its Corporate Governance Council, publishes corporate governance guidelines for Australian listed entities. They also include industry-specific disclosure requirements. For example, the ASX requires listed companies operating in the mining industry to disclose details of mineral reserves. Details about the ASX can be found on its web site, www.asx.com.au.

REGULATION IN NEW ZEALAND

Accounting and auditing standards in New Zealand are set by the External Reporting Board. The **External Reporting Board (XRB)** is an independent Crown Entity, established under section 22 of the *Financial Reporting Act 1993*, and subject to the *Crown Entities Act 2004*. For more information about the XRB, refer to its web site, www.xrb.govt.nz.

In 2011, the New Zealand government announced changes to the financial reporting requirements for New Zealand entities. These changes are enacted in the *Financial Reporting Act 2013*. The main change is that many small and medium sized New Zealand companies will no longer need to prepare accounting reports using New Zealand generally accepted accounting practice (GAAP). Complementary to this, the XRB announced that, for financial reporting, New Zealand would change from a single set of sector neutral accounting standards to a multi-sector and standards approach. The full effect of these changes will take place in 2016. Prior to these changes the reporting requirements between Australia and New Zealand were similar, particularly having sector-neutral accounting standards. Now, New Zealand is similar to the international standards where the for-profit publicly accountable entities will use New Zealand equivalents to the International Financial Reporting Standards (NZ IFRS) and public benefit entities (not-for-profit and government sector) will report using PBE standards, which are based primarily on International Public Sector Accounting Standards (IPSAS), modified as necessary for the New Zealand environment by the XRB. Also within the two-sector reporting regime there are four tiers. Tier one in both sectors will use the full standards with fewer requirements as the tiers go down. More on this differential reporting regime will be covered in chapter 13.

Public companies listed on the New Zealand Stock Exchange (NZX) must also comply with NZX listing rules. The listing rules relating to financial reporting typically focus on disclosure of information. They also include industry-specific disclosure requirements. For example, the NZX requires listed companies operating in the mining industry to provide quarterly reports with full details of production, development and exploration activities. For more information about the NZX refer to its web site, www.nzx.com.

PROFESSIONAL ACCOUNTING BODIES

The three largest professional accounting bodies are CPA Australia, Chartered Accountants Australia and New Zealand, and the Institute of Public Accountants.

CPA Australia is the largest of the three professional bodies, with more than 150 000 members. The national office is in Melbourne with divisions throughout Australia and other countries, including Fiji, China (Hong Kong and Beijing), Indonesia, Malaysia, New Zealand, Papua New Guinea and Singapore. CPA Australia's web site, www.cpaaustralia.com.au, provides useful information for students of accounting. The web site provides information to its members and the public about accounting-related issues, such as financial planning including superannuation, financial reporting, changes in accounting standards, tax laws, auditing, finance and treasury, corporate governance, environmental and social reporting, business management and e-business. The web site also caters for students by providing information about study options in Australia and Asia, how to become a Certified Practising Accountant (CPA), business news and careers.

In 2013, the Australian and New Zealand chartered accounting associations voted to merge their associations. The new institute brand, Chartered Accountants Australia and New Zealand, was launched on 1 July 2014 and is expected to have more than 100 000 members in total with 17 000-plus candidates. The Australian national office is in Sydney. There are regional offices throughout Australia and New Zealand with overseas members' groups in Hong Kong, Malaysia, Singapore, Switzerland and the United Kingdom. Further information on the new combined professional accounting body can be found at www.charteredaccountantsanz.com.

Membership to the new professional accounting body will have common admission programs phased in over 2 years. The most common way is for a person to complete academic study (an undergraduate business degree), have practical experience and complete the professional competence program for Chartered Accountants (CA program). Up until 2015, some eligible New Zealand candidates can replace the CA program with the old PAS/PCE program. Further information about becoming a Chartered Accountant in New Zealand or Australia can be found on their respective web sites, http://nzica.com and www.charteredaccountants.com.au.

CPAs and CAs are employed in all levels of government and the private sector, including not-for-profit entities, commerce and industry, and in public practice. CPAs and CAs working in commerce and industry may be chief financial officers (CFOs), specialists in financial reporting or management accounting, or do other specialised work in areas such as information technology, corporate treasury and internal auditing. Accountants in public practice engage in a variety of work, including taxation, financial planning, financial reporting, management consulting, auditing and reviewing. In medium and large accounting firms, accountants usually specialise in one area.

The Institute of Public Accountants (IPA) caters for accounting practitioners who do not have a university degree in accounting. It also has a higher category of membership that requires completion of a degree as part of the professional qualification requirements. Like the two professional bodies discussed above, the IPA is a member of the International Federation of Accountants (IFAC). The IPA offers student membership and provides information about its membership categories and requirements, as well as developments in accounting, such as taxation and superannuation, on its web site, www.publicaccountants.org.au.

LEARNING OBJECTIVE 8

Explain the accounting concepts, principles, qualitative characteristics and constraints underlying financial statements.

CONCEPTS, PRINCIPLES AND QUALITATIVE CHARACTERISTICS

In the previous section the statutory regulation of accounting was outlined. Now let's examine the practices which underlie accounting.

CONCEPTS AND PRINCIPLES

Monetary principle

In looking at Domino's financial statements at the end of this book you will notice that everything is stated in terms of dollars. The **monetary principle** requires that only those things that can be expressed in money be included in the accounting records. This might seem so obvious that it doesn't bear mentioning, but in fact it has important implications for financial reporting. Because the exchange of money is fundamental to business transactions, it makes sense that we measure a business in terms of money. However, it also means that certain important information needed by investors, creditors and managers is not reported in the financial statements. For example, customer satisfaction is important to every business, but it is not easily quantified in dollar terms; thus it is not reported in the financial statements.

Accounting entity concept

The **accounting entity concept** states that every entity can be separately identified and accounted for. For example, suppose you are a shareholder in Domino's, the amount of cash you have in your personal bank account and the balance owed on your personal car loan are not reported in the company's financial statements. The reason is that, for accounting purposes, you and the company are separate accounting entities. In order to accurately assess Domino's performance and financial position, it is important that you not confuse it with your personal transactions, or the transactions of any other entity. This is particularly important for sole proprietorships and partnerships as they are not separate legal entities. In addition, the business owners are often the managers of the business enterprises so it is easier to confuse the business and private transactions.

The accounting period concept

INTERNATIONAL NOTE

In New Zealand, the financial year-end is 31 March, and a common end of reporting period date for New Zealand entities.

If you look at Domino's 2013 financial statements reproduced in the appendix at the back of this book, you will notice that the company reports on cash flows and performance for periods of 1 year, and on the financial position at the end of each period. The **end of the reporting period** for many Australian entities is 30 June. The **accounting period concept** states that the life of a business can be divided into artificial periods and that useful reports covering those periods can be prepared for the business. All entities report at least annually. Listed companies report at least every 6 months to shareholders and many prepare monthly statements for internal purposes.

APPLICATION IN BUSINESS

Management perspective

Why do entities choose the particular year-ends that they do? For example, why doesn't every entity use 30 June as the accounting year-end? Many entities choose to end their accounting year when inventory or operations are at a low point. This is advantageous because compiling accounting information requires much time and effort by managers, so they would rather do it when they aren't as busy operating the business. Also, inventory is easier and less costly to count when it is low. Some entities whose year-ends differ from 30 June are CSR Ltd, Coles and Fisher & Paykel.

Going concern principle

The **going concern principle** states that the business will remain in operation for the foreseeable future. Of course many businesses do fail but, in general, it is reasonable to assume that the business will continue operating. Management must make an assessment of the validity of the going concern principle when preparing financial statements in accordance with accounting standards. The going concern principle underlies much of what we do in accounting. To give you just one example, if going concern is not assumed, then plant and equipment should be stated at their liquidation value (selling price less cost of disposal), not at their cost. The going concern principle is inappropriate only when liquidation of the business appears likely.

Cost principle

The **cost principle** states that all assets are initially recorded in the accounts at their purchase price or cost. This is applied not only at the time the asset is purchased, but also over the time the asset is held. For example, if Domino's was to purchase land for $500 000, it would initially be recorded at $500 000. But what would the company do if, by the end of the next year, the land had increased in value to $600 000? The answer is that under cost principle the land would continue to be reported at $500 000.

The use of cost for measurement of assets is often criticised as being irrelevant. Critics contend that market value would be more useful to financial decision makers. Proponents of cost measurement say that cost is the best measure because it can be verified easily from transactions between two parties, whereas market value is often subjective.

Helpful hint

Recently, some accounting rules have been changed, requiring that certain assets be measured at market value at the end of the reporting period.

Numerous departures from the cost principle are permitted by accounting standards. For example, asset revaluations are permitted for most tangible non-current assets. Asset revaluations are discussed in chapter 8.

Full disclosure principle

Some important financial information is not easily reported on the face of the statements. For example, an entity might be sued by one of its customers. Investors and creditors might not know about this lawsuit. The **full disclosure principle** requires that all circumstances and events that could make a difference to the decisions financial statement users might make, be disclosed. If an important item cannot reasonably be reported directly in the financial statements, then it should be discussed in notes that accompany the statements.

The accounting concepts and principles are shown graphically in figure 1.25.

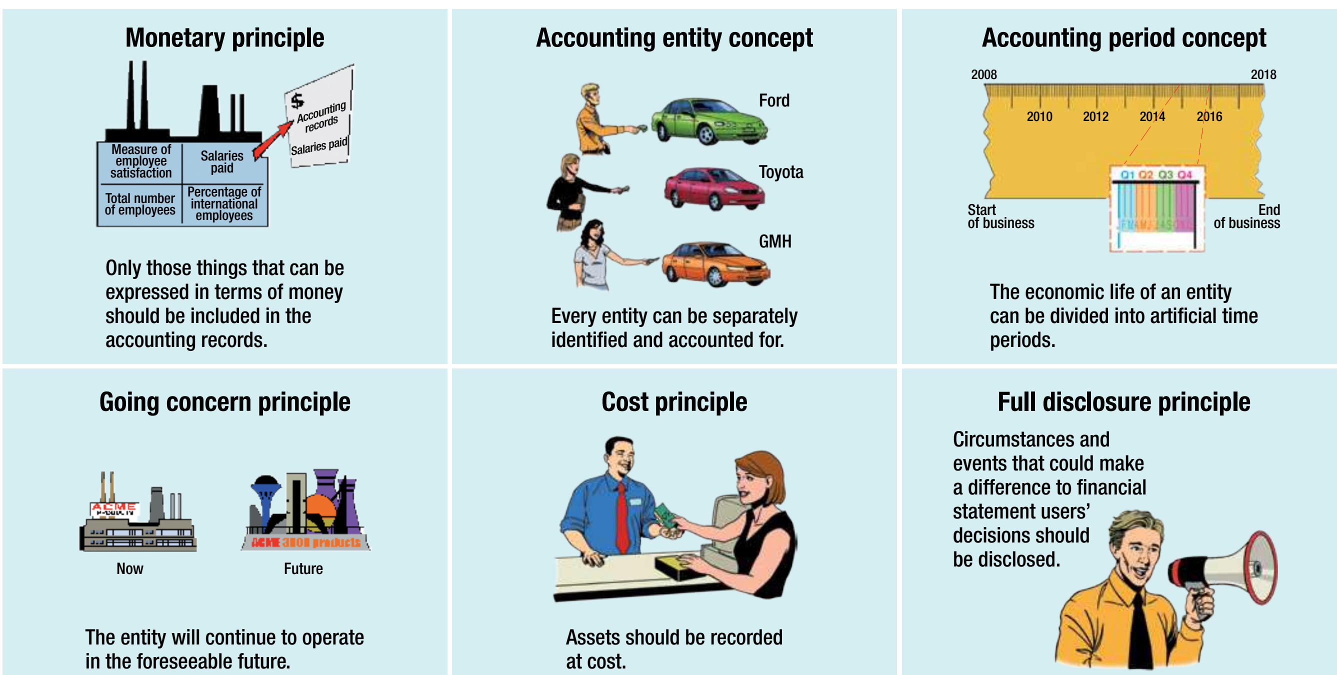


Figure 1.25 Accounting concepts and principles

QUALITATIVE CHARACTERISTICS

Now let's turn our attention to the needs of external users of accounting information. The *Conceptual Framework* identifies the *objective of general purpose financial reporting* as the provision of information to a wide range of users for making and evaluating decisions about the allocation of scarce resources. But how is that objective best served? In what format should financial information be presented? These questions are addressed by another piece of the *Conceptual Framework*. The *Conceptual Framework* provides guidance on the qualitative characteristics that information contained in general purpose financial reports should have to achieve the objective of providing useful information for decision making. Figure 1.26 below represents the final piece of the *Conceptual Framework* we introduce in this chapter.

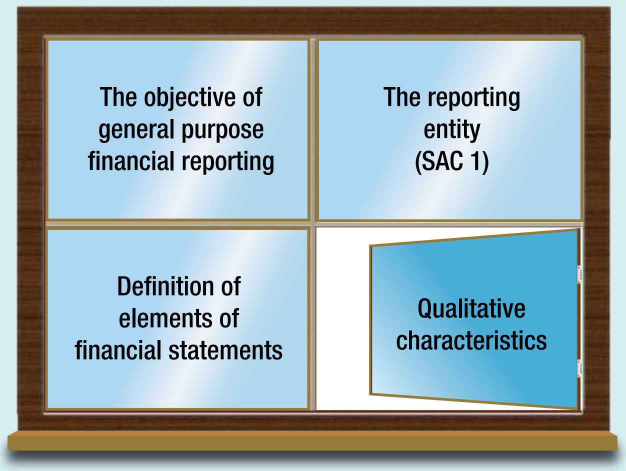


Figure 1.26 Building the *Conceptual Framework* — section 4

While the objective of general purpose financial reporting is to provide useful information for decision making, the qualitative characteristics outline what it is about the financial information contained in the financial statements that primary users will find most useful. That is, the qualitative characteristics are the attributes that make the information in financial statements useful.

According to the *Conceptual Framework*, the qualitative characteristics are classified as either fundamental or enhancing depending on how they affect the usefulness of financial information. Enhancing qualitative characteristics and fundamental qualitative characteristics are complementary.

Fundamental qualitative characteristics

For the information in general purpose financial reports to be useful, it must be relevant and provide a faithful representation of the economic phenomena it represents. Relevance and faithful representation are therefore classified as fundamental qualitative characteristics.

Relevance

DECISION MAKING

Information is considered **relevant** if it is capable of making a difference in the decisions made by users. Information that has predictive value and/or confirmatory value is considered to be relevant. Information is considered to have predictive value if it can be used to develop expectations for the future. Information is considered to have confirmatory value if it confirms or corrects users' past or present expectations. Information can often be both predictive and confirmatory.

For example, when Domino's issues financial statements, the information in the statements is considered relevant because it provides a basis for forecasting future profits. Accounting information is also relevant to business decisions because it confirms or corrects previous expectations. Thus, Domino's financial statements help predict future events and provide feedback about previous expectations of the financial health of the company. The relevance of the information is affected by its **materiality**. Information is material if its omission or misstatement could affect users' decisions. Information that is immaterial need not be separately identified. For example, if Domino's purchased a stapler for $5 this would be considered immaterial; the purchase would be recorded in the accounting records as a business expense, although it would not be separately identified in the financial statements.

Faithful representation

Information is a **faithful representation** of the economic phenomena it purports to represent if it is complete, neutral and free from material error. It is important that the information depicts the economic substance of the transactions, events or circumstances. At times, economic substance may not be the same as the legal form. To be complete, all of the information needed to represent the economic phenomena faithfully is included and there is no omission which could make the information misleading. Hence, faithful representation is linked to the full disclosure principle.

Information that is considered to be neutral is free from bias. Information is biased if it is intended to attain or induce a particular behaviour or result. Some of the information in general purpose financial reports is measured using estimates in conditions of uncertainty. Hence, it is not reasonable to expect that reports will be completely error free. However, despite this limitation, faithful representation is achieved when the inputs used to make the judgements and estimates reflect the best available information at the time.

Relevance and faithful representation work together in enhancing the decision usefulness of information. Relevance is applied to determine which economic phenomena to represent and then faithful representation is applied to determine which depictions best represent the underlying economic phenomena.

Enhancing qualitative characteristics

Enhancing qualitative characteristics include **comparability**, **verifiability**, **timeliness** and **understandability** and are used to distinguish more useful information from less useful information. These characteristics are called enhancing characteristics as they enhance the decision usefulness of relevant information faithfully represented in financial statements.

Information that is comparable facilitates users identifying similarities and differences between different economic phenomena. Consistency refers to the use of the same accounting policies between entities, at the same point in time, or the same entity over time. Consistency supports the achievement of comparability.

Information is verifiable if it represents the economic phenomena without bias or material error and has been prepared with appropriate recognition and measurement methods.

Timeliness is measured by whether the information is available to users before it ceases to be relevant; that is, the information is received while it is still capable of influencing the decisions users make based on the information.

Understandability is the last of the enhancing qualitative characteristics and relates to the quality of information that assists users to understand the meaning of the information provided. It is important to recognise that understandability is highly dependent upon the capabilities of the users of the financial statements, and that users are assumed to have a reasonable knowledge of business activities and economic phenomena. However, classifying, characterising and presenting comparable information clearly and concisely will enhance understandability.

While enhancing qualitative characteristics improve the usefulness of financial information and should be maximised where possible, they cannot make information decision useful if the information is irrelevant or not faithfully represented.

Constraint on financial reporting

Cost constraints limit the information provided by financial reporting. Providing decision-useful information imposes costs, and the benefits of providing the information should outweigh the costs. Costs can include those associated with collecting, processing, verifying and disseminating information. Assessing whether benefits outweigh costs is usually more qualitative than quantitative and is often incomplete. In an attempt to ensure benefits outweigh costs, it is important to consider whether one or more enhancing qualitative characteristics may be sacrificed to reduce costs.

Figure 1.27 (overleaf) summarises the fundamental and enhancing qualitative characteristics of financial information and the constraint of providing financial information in the *Conceptual Framework*.

Fundamental qualitative characteristics	Enhancing qualitative characteristics	Constraint of providing financial information
Relevance Faithful representation*	Comparability Verifiability Timeliness Understandability	Cost

*Complete, neutral, free from material error

Figure 1.27 Fundamental and enhancing qualitative characteristics and constraint of financial information

The accounting concepts and principles and the qualitative characteristics, together with accounting standards, are collectively referred to as Australian **generally accepted accounting principles (GAAP)**. Australian GAAP is different from GAAP in other countries, such as the United States. The differences arise mainly in the detailed prescriptions of accounting standards. Any differences are specified in the statement of conformity. Australian GAAP is almost identical to New Zealand's generally accepted accounting practices (GAAP). They include financial reporting standards, statements of accounting practice, exposure drafts, IASB exposure drafts, technical practice aids and research bulletins. Both Australia and New Zealand have introduced reduced reporting requirements depending on the type and size of the organisation. There will be more discussion of differential reporting in chapter 13.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What are generally accepted accounting principles (GAAP)?
2. Describe the concepts, principles and constraints underlying financial statements.
3. Explain the two main qualitative characteristics of information in general purpose financial reports.

LEARNING OBJECTIVE 9

Calculate and interpret ratios for analysing an entity's profitability, liquidity and solvency.

ANALYSING FINANCIAL STATEMENTS

So far, we have introduced the four main financial statements and discussed how these statements provide information about an entity's financial performance and position. As outlined in the *Conceptual Framework*, the objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential equity investors, lenders and other creditors in making their decisions about providing resources to the entity. Now it is time to extend our discussion by showing you specific tools that can be used to analyse financial statements to make a more meaningful evaluation of an entity as key inputs into the lending or investing decisions made by the primary users of financial statements. The analysis of financial statements is covered in more detail in chapter 12. For this section, we use the 2013 accounts of Fantastic Holdings Ltd and Nick Scali Ltd.

ANALYSIS AND DECISION MAKING

Ratios are a valuable source of information when making resource allocation decisions. A **ratio** expresses the mathematical relationship between one quantity and another. **Ratio analysis**, therefore, expresses the relationship among selected items of financial statement data found in general purpose financial statements. The relationship between financial data points is expressed in terms of a percentage, a rate or a simple proportion. To illustrate, in 2013 Fantastic Holdings Limited had current assets of $100 325 000 and current liabilities of $49 647 000. The relationship between these accounts is determined by dividing current assets by current liabilities to get 2.02. The alternative means of expression are:

Percentage: Current assets are 202% of current liabilities.
Rate: Current assets are 2.02 times as great as current liabilities.
Proportion: The relationship of current assets to current liabilities is 2.02:1.

For analysis of the main financial statements, ratios can be classified as shown in figure 1.28.

Profitability ratios

Measures of the operating success of a company for a given period of time

Liquidity ratios

Measures of short-term ability of the company to pay its maturing obligations and to meet unexpected needs for cash

Solvency ratios

Measures of the ability of the company to survive over a long period of time

Figure 1.28 Financial ratio classifications

DECISION MAKING

When making a decision to lend money or to invest in an entity, users of general purpose financial statements find it helpful to use ratios. Ratios can provide clues as to underlying conditions that may not be apparent from simply inspecting the individual components of a particular ratio as provided in the financial statements. The ratios can be classified into profitability ratios, liquidity ratios and solvency ratios, which we discuss in detail below with reference to Nick Scali Limited and Fantastic Holdings Limited, two Australian furniture retailers. Perhaps you've been in one of their many stores located throughout Australia. While ratios are useful inputs into resource allocation decisions, a single ratio by itself is not very meaningful. Accordingly, in this and the following chapters we will augment ratios with data and information from a wide variety of sources including:

1. *intracompany comparisons* covering two years for the same entity
2. *intercompany comparisons* based on comparisons with a competitor in the same industry
3. *other relevant information* such as general economic conditions, industry trends or averages, information from directors' reports and media releases.

PROFITABILITY

Fantastic Holdings aims to generate a profit for its shareholders by manufacturing and selling furniture. Nick Scali aims to generate profits for its shareholders as a furniture retailer. The statement of profit or loss for Nick Scali reports how successful it is at generating a profit from its sales and other revenue. The statement reports the revenue for the period and the expenses incurred during the period. Figures relating to profitability are taken from Nick Scali's statement of profit or loss for the year ended 30 June 2013 and summarised in figure 1.29.

NICK SCALI LIMITED
Statement of profit or loss (extract)
for the year ended 30 June 2013

	2013 $'000	2012 $'000
Revenues	127 431	109 391
Expenses	109 939	96 746
Profit before income tax	**17 492**	**12 645**
Income tax expense	**5 251**	**3 621**
Profit	**$12 241**	**$ 9 024**

Figure 1.29 Extract from Nick Scali Limited's statement of profit or loss

Before we begin the analysis, it is important to note that when identifying the numbers to be used in ratio calculations, a close examination of the notes to the financial statements is required. For example, Nick Scali report net profit after tax for the year ended 30 June 2013 as $16 002 000. However, this figure includes a one-off item in other income that needs to be excluded from the ratio calculations. Nick Scali received a one-off compensation benefit of

$3 761 000 (net of tax) from the NSW Government after the government resumed a parcel of land, forcing the early surrender of Nick Scali's lease and the closure of their stores at Bella Vista NSW. Clearly, this income does not represent income generated by the day-to-day operations of the business and is unlikely to be received in the future, hence it should be excluded in calculating profitability for the company. Users of financial information make decisions about current and future profitability based on past data using trends over time. Removing items that distort trends and hinder users' assessments of the true earning capacity of the company assists in the analysis of the company and improves the decision-making process. This is discussed further in chapter 10 under the section headed Earning Power and Irregular Items and in chapter 12 under the section headed Atypical data.

DECISION MAKING

In figure 1.29 (p. 49) we can see that Nick Scali's revenues increased during the year from $109 391 000 in 2012 to $127 431 000 in 2013. This has resulted in an increase in the adjusted profit figure (net of other income) from $9 024 000 in 2012 to $12 241 000 in 2013 because the increase in the company's expenses was relatively smaller than the increase in its revenues. That is, sales have increased 16.5% on the 2012 sales and operating expenses as a percentage of sales decreased by 2%, resulting in an increase in profit. How was this great result achieved by the company? Insights are offered in the financial statements, which explain that the increase in sales revenue was driven by the opening of new stores as well as growth in sales in the existing stores as a result of the 'increase in marketing activity and careful selection of product range and price points'. (Nick Scali 2013, p. 10). The managing director also noted that operating expenses had decreased as a percentage of sales due to management's success in managing costs.

Given retailers are affected by the changing general economic conditions, employment levels, inflation and interest rates, investing and lending decisions are enhanced when company information is explored in its wider context. To achieve this we need further information about the furniture industry specifically, as well as the economy and business environment generally. One helpful source is the company's annual report; other sources include media releases in the press, data on competitors and the company's web site.

In Fantastic Holding Limited's chairman and managing director address at the annual general meeting it was noted that during the 2013 financial year both Fantastic Holdings and Nick Scali operated under difficult retail trading conditions with subdued consumer spending on discretionary items. The Australian Bureau of Statistics reported that the furniture market was down 4.4% (ABS Series A3349863W). Having a better understanding of the difficult business environment Nick Scali operates in, helps decision makers evaluate the 16.5% increase in sales as even more impressive. While Fantastic Holdings did not do as well given they did not report an increase in sales during the 2013 period, they were able to maintain almost the same level of sales (only down marginally by 1%), despite the depressed furniture market being down 4%. You can see how important it is to have information from a wide variety of sources about the economy and the business context when making decisions about the allocation of resources.

To evaluate the profitability of Nick Scali further, we will use ratio analysis. **Profitability ratios** measure the operating success of an entity for a given period of time. We will look at two examples of profitability ratios: return on assets and profit margin.

Return on assets

An overall measure of profitability is the **return on assets**. This ratio is calculated by dividing profit by average assets. (Average assets are commonly calculated by adding the beginning and ending values of assets and dividing by 2.) Profit refers to profit after income tax unless stated otherwise. The return on assets indicates the amount of profit generated by each dollar invested in assets. Thus, the higher the return on assets, the more profitable the entity. Selected figures from the 2013 statement of profit or loss for Nick Scali are presented in figure 1.29. The 2013 and 2012 return on assets of Fantastic Holdings and Nick Scali Limited (an entity operating in the same industry) are presented in figure 1.30.

We can evaluate Fantastic Holdings' 2013 and 2012 return on assets in a number of ways. First we can compare the ratio across time. That is, did its performance improve? The decrease from 12.1% in 2012 to 7.4% in 2013 suggests a decline in profitability. The ratio tells us that in 2012 Fantastic Holdings generated 12 cents on every dollar invested in assets and in 2013 it generated 7 cents on every dollar invested in assets. Then we can compare the ratios with those of another operator in the industry, Nick Scali. In both 2012 and 2013, Fantastic Holdings' return on assets is below that of Nick Scali's. Thus, based on the return on assets, Fantastic Holdings' profitability appears weaker than Nick Scali's. In 2012, Nick Scali has a larger return on assets because it generates just less than half the amount of profits in dollar terms compared with Fantastic Holdings' profits, using about one-third of the assets used by Fantastic Holdings. In 2013, Nick Scali has a larger return on assets because it generates a similar amount of profits in dollar terms compared with Fantastic Holdings' profits, but Fantastic Holdings has around two and a half times the assets used by Nick Scali. In other words, put simply, Nick Scali is able to generate more profits using fewer assets.

$$\text{Return on assets} = \frac{\text{Profit}}{\text{Average total assets}}$$

($ in thousands)	2013	2012
Fantastic Holdings	$\frac{\$13\,508}{(\$184\,461 + \$178\,733)/2} = 0.074 : 1$ or 7.4%	$\frac{\$20\,988}{(\$178\,733 + \$168\,098)/2} = 0.121 : 1$ or 12.1%
Nick Scali	$\frac{\$12\,241}{(\$74\,164 + \$53\,812)/2^{*}} = 0.191 : 1$ or 19.1%	$\frac{\$9\,024}{(\$53\,812 + \$48\,355)/2^{*}} = 0.177 : 1$ or 17.7%

*Amounts used to calculate average assets are taken from the statement of financial position (figure 1.32, p. 53). Total assets in 2011 were $48 355 000. Also note that amounts in the ratio calculations have been rounded to the nearest thousand.

Figure 1.30 Return on assets

Profit margin

The **profit margin** measures the percentage of each dollar of sales that results in profit. It is calculated by dividing profit by net sales (revenue) for the period. Businesses with high turnover, such as supermarkets and grocers (Coles or Woolworths) and discount stores (The Reject Shop or Crazy Prices) generally experience low profit margins. Low-turnover businesses, such as jewellery stores (Tiffany's) or shipbuilders (Australian Defence Industries), usually have high profit margins. Profit margins for Fantastic Holdings and Nick Scali are shown in figure 1.31. The figure for sales revenue used in calculating the profit margin is the same as total revenue reported in the statement of profit or loss. For simplicity it is assumed that all revenue is sales revenue.

$$\text{Profit margin} = \frac{\text{Profit}}{\text{Net sales}}$$

($ in thousands)	2013	2012
Fantastic Holdings	$\frac{\$13\,508}{\$445\,190} = 0.03$ or 3%	$\frac{\$20\,988}{\$445\,760} = 0.047$ or 4.7%
Nick Scali	$\frac{\$12\,241}{\$127\,431} = 0.096$ or 9.6%	$\frac{\$9\,024}{\$109\,391} = 0.082$ or 8.2%

Figure 1.31 Profit margin

Fantastic Holding's profit margin decreased from 4.7% in 2012 to 3% in 2013. This means that in 2013 the company generated 3 cents on each dollar of sales and in 2012 it generated 4.7 cents on each dollar of sales. As we said earlier, single numbers have more meaning when they are combined with other data. Let's start by evaluating Fantastic Holdings' results by comparing them to its competitor, Nick Scali. Fantastic Holdings' profit margin was significantly lower than Nick Scali's in both years. What could explain the difference in mark-up between businesses in the same industry? To answer this, we need to know a little more about the two companies. In 2013, Fantastic Holdings held a variety of stores namely: 75 Fantastic Furniture stores, 33 Plush sores, 11 Dare Gallery stores, 15 Original Mattress Factory stores and 2 Le Cornu stores. As the majority of Fantastic Holding's stores are Fantastic Furniture stores, a plausible explanation is that Fantastic Holdings has established itself in the marketplace as 'best value' and therefore sets a lower mark-up. Nick Scali, on the other hand, has 33 Nick Scali stores and 5 Sofas-ToGo stores. As Nick Scali has only 5 stores in the 'best value' market, Nick Scali branded stores may be perceived by the marketplace as 'better quality' and the company is therefore able to command a higher mark-up on its furniture sales.

In addition to the structure of the store holdings, further information provided in the financial statements and results presentations for each of these companies (available on the company web sites) sheds further light on the difference in mark-up. Nick Scali purchases its stock from overseas and boasted that it was able to maintain its profit margin as supplier increases were offset by a stronger Australian dollar resulting in larger buying power. On the other hand, Fantastic Holdings explained that its profit margin was down due to its strategy of discounting its stock to clear excessive inventory. Furthermore, Nick Scali notes that it has decreased its operating expenses as a percentage of sales illustrating management's focus on managing its operating costs. Fantastic Holdings reports quite a different story, claiming that its cost of business actually increased with higher property costs, employment costs, increased depreciation as well as the development of an e-commerce platform.

As you can see, there is a lot of information users can draw upon to analyse, evaluate and make decisions about an entity. The decision-making and analysis process are summarised in the decision-making toolkit below. In subsequent chapters you will learn more about evaluating an entity and the various forms of analysis for evaluating an entity's profitability as introduced in this section.

DECISION MAKING

Potential investors, shareholders, lenders and other users are interested in evaluating a company's profitability when making decisions about providing resources to a company. As you can imagine, potential investors and lenders feel more confident investing resources in a company that is profitable rather than one that is unprofitable. Calculating the return on assets ratio using profit and average total assets data from financial reports and then interpreting the results using multiple sources of information assists users in answering questions like: is the entity using its assets effectively? Recall that a higher value for the ratio indicates a better or more efficient use of assets, as was seen for Nick Scali when compared with Fantastic Holdings.

Another question decision makers might like to answer when making resource allocation decisions includes: is the entity maintaining an adequate margin between sales and expenses? By calculating the profit margin ratio using the profit and net sales figures from the statement of profit or loss, resource providers can evaluate whether the entity has a sufficient mark-up on its inventory and whether it is managing its operating costs effectively. All other things being equal, the higher value of the ratio, the more favourable the return on each dollar of sales, the more attractive the company is to investors and the safer it is to lenders.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Is the entity using its assets effectively?	Profit and average assets	$\text{Return on assets} = \dfrac{\text{Profit}}{\text{Average total assets}}$	Higher value suggests efficient use of assets.
Is the entity maintaining an adequate margin between sales and expenses?	Profit and net sales	$\text{Profit margin} = \dfrac{\text{Profit}}{\text{Net sales}}$	Higher value suggests favourable return on each dollar of sales.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What are the three ways that ratios can be expressed?
2. What is the purpose of profitability ratios? Explain the return on assets and the profit margin ratios and how they inform the decisions that users make about resource allocations.

LIQUIDITY

Profitability ratios are helpful in evaluating and making decisions about an entity. However these ratios do not provide users of financial information with a complete picture of the entity to support their resource allocation decisions, so including liquidity and solvency ratios is helpful. **Liquidity ratios** measure the short-term ability of the entity to pay its maturing obligations and to meet unexpected needs for cash.

You can learn a lot about an entity's financial health by evaluating the relationship between its various assets and liabilities. However, any analysis of liquidity is incomplete without looking at cash flows. In this section we will look at some ratios that use numbers from the statement of financial position of Nick Scali (figure 1.32). This will be followed by cash flow analysis.

NICK SCALI LTD
Statement of financial position
as at 30 June 2013

	Notes	2013 $'000	2012 $'000
Current assets			
Cash assets	(22)	26 441	20 691
Receivables	(8)	6 397	808
Inventories	(9)	14 569	13 649
Other financial assets	(10)	852	(93)
Other assets	(11)	286	602
Total current assets		**48 545**	**35 657**
Non-current assets			
Deferred tax assets	(4)	1 194	1 204
Property, plant and equipment	(12)	22 047	14 573
Intangible assets	(13)	2 378	2 378
Total non-current assets		**25 619**	**18 155**
TOTAL ASSETS		**74 164**	**53 812**
Current liabilities			
Payables	(14)	23 465	17 911
Current tax liabilities	(4)	3 804	1 636
Provisions	(15)	1 209	979
Total current liabilities		**28 478**	**20 526**
Non-current liabilities			
Provisions	(15)	2 335	2 433
Deferred tax liability	(4)	255	0
Borrowings	(22c)	6 762	3 500
Total non-current liabilities		**9 352**	**5933**
TOTAL LIABILITIES		**37 830**	**26 459**
NET ASSETS		**36 334**	**27 353**
Equity			
Contributed equity	(16)	3 364	3 364
Reserves	(17)	685	11
Retained profits		32 285	23 978
TOTAL EQUITY		**36 334**	**27 353**

Figure 1.32 Nick Scali statement of financial position

DECISION MAKING

Suppose you are a banker considering lending money to Nick Scali, or you are a computer manufacturer interested in selling computers to the company. You would be concerned about Nick Scali's **liquidity** — its ability to pay obligations that are expected to become due within the next year or operating cycle. You would look closely at the relationship of its current assets to current liabilities before lending the entity money or supplying the entity with goods or services on credit.

Working capital

One measure of liquidity is **working capital**, which is the difference between the amounts of current assets and current liabilities:

$$\text{Working capital} = \text{Current assets} - \text{Current liabilities}$$

When working capital is positive, there is greater likelihood that the entity will be able to pay its liabilities. When working capital is negative, the entity is unable to pay short-term creditors from existing current assets. Short-term creditors may not be paid unless the entity can draw on other sources of cash, and the entity may ultimately be forced into liquidation. Nick Scali had a positive working capital in 2013 of $20 067 000 ($48 545 000 – $28 478 000) and is therefore in a good position to pay its short-term debts as they fall due.

Current ratio

One liquidity ratio is the **current ratio**, which is calculated by dividing current assets by current liabilities.

The current ratio is a more dependable indicator of liquidity than working capital. Two entities with the same amount of working capital may have significantly different current ratios. The 2013 and 2012 current ratios for Fantastic Holdings and Nick Scali are shown in figure 1.33.

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

($ in thousands)	2013	2012
Fantastic Holdings	$\frac{\$100\,325}{\$49\,647}$ = 2.02 : 1 or $2.02	$\frac{\$101\,086}{\$57\,825}$ = 1.75 : 1 or $1.75
Nick Scali	$\frac{\$48\,545}{\$28\,478}$ = 1.7 : 1 or $1.70	$\frac{\$35\,657}{\$20\,526}$ = 1.74 : 1 or $1.74

Figure 1.33 Current ratios of Fantastic Holdings and Nick Scali

DECISION MAKING

Calculating the ratio is only the first step in the analysis process when making a decision. It is important to take the time to *interpret* the data. Decision makers need to answer the question 'what does this ratio actually mean?' Fantastic Holdings' 2013 current ratio of 2.02:1 means that, for every dollar of current liabilities, it has $2.02 of current assets. This indicates that the company will have funds available to pay debts as they fall due. Fantastic Holdings' current ratio has increased from 1.75 in 2012 to 2.02, increasing its liquidity. Compared with Nick Scali's 2013 current ratio of 1.70:1, Fantastic Holdings appears to have better liquidity.

What is considered to be an *acceptable* ratio varies from industry to industry. However, 1:1 is generally considered to be an acceptable current ratio for most industries. In this case both Fantastic Holdings' and Nick Scali's liquidity ratios are well above the *acceptable* ratio. These results would become *part* of the information resource providers use to make resource allocation decisions. For example, these ratios increase a lenders confidence that the companies will be able to repay any funds lent to them.

The current ratio is only one measure of liquidity. It does not take into account the *composition* of the current assets. For example, a satisfactory current ratio does not disclose whether a portion of the current assets is tied up in slow-moving inventory, i.e. inventory that is held in stock for a long period of time and is difficult to sell. The composition of the assets matters because a dollar of *cash* is more readily available to pay the bills than is a dollar of inventory. Inventory generally will be converted into cash in time, which will then be available to pay debts, however, only *after* the item is sold *and* the cash has been collected from the customer. This can take days, weeks, months or years depending on how quickly inventories sell.

Explaining why examining the composition of current assets is so important is best demonstrated using an example. Suppose an entity's cash balance declined while its inventory increased substantially. If inventory increased because the entity is having difficulty selling its products, then even though the current ratio might increase, the current ratio might not fully reflect the reduction in the entity's liquidity. In a later chapter you will learn other measures of liquidity and how to analyse the liquidity of certain assets using turnover ratios.

Using the statement of cash flows

The statement of cash flows provides financial information about the sources and uses of an entity's cash. Investors, creditors, and others want to know what is happening to an entity's most liquid resource — its cash. In fact, it is often said that 'cash is king' because if an entity can't generate cash, it won't survive and for this reason cash is often referred to as the *life blood* of the business. To aid in the analysis of cash, the statement of cash flows reports the cash effects of: (1) an entity's *operating activities*, (2) its *investing activities* and (3) its *financing activities*.

The sources of cash matter. For example, you would feel much better about an entity's health if you knew that its cash was generated from the operations of the business rather than borrowed from the bank. The statement of cash flows for Nick Scali for the year ended 30 June 2013 is provided in figure 1.34.

NICK SCALI LIMITED
Statement of cash flows
for the year ended 30 June 2013

	Notes	2013 $'000	2012 $'000
Cash flows from operating activities			
Receipts from customers		135 762	123 726
Payments to suppliers and employees		(112 338)	(108 402)
Interest received		992	977
Income tax paid		(4 713)	(3 448)
Net cash flows from operating activities	(22a)	**19 703**	**12 853**
Cash flows from investing activities			
Purchase of property, plant and equipment		(9 268)	(2 203)
Net cash flows (used) in investing activities		**(9 268)**	**(2 203)**
Cash flows from financing activities			
Payment of dividends on ordinary shares	(5)	(7 695)	(7 290)
Proceeds from borrowings		3262	0
Interest paid		(252)	(221)
Net cash flows (used) in financing activities		**(4 685)**	**(7 511)**
Net increase in cash held		**5 750**	**3 139**
Add opening cash brought forward		**20 691**	**17 552**
Closing cash carried forward	(22b)	**26 441**	**20 691**

Figure 1.34 Nick Scali Limited cash flows

In the long term, it is generally desirable that an entity be able to generate enough cash from its operating activities to pay dividends and finance its investing needs. This information is important when potential investors and creditors are deciding whether to provide resources to the entity. Cash flows from operations needs to be assessed over a number of years because the timing of major capital investment expenditures and, to a lesser extent, cash paid for operating activities can cause considerable variation in the relationship between operating and investing cash flows from year to year.

To illustrate, let's consider Nick Scali's operating cash flows. Cash generated by operating activities for 2013 was $19 703 000 compared with $12 853 000 for 2012. There was an increase in cash receipts, and payments to suppliers and employees increased at a lesser rate. This resulted in an increase in net cash from operations of $6 850 000. Net cash spent on investing activities, which consisted solely of purchases of property, plant and equipment, in 2013 was $9 268 000 compared with $2 203 000 in 2012. The funds for investing activities were provided partly from operating activities and partly by the proceeds from borrowings you can see this in the investing and financing sections of the statement of cash flows. The outflow of cash for property, plant and equipment was largely due to a $6 500 000 purchase of property in Fyshwick, ACT. No additional funds were obtained from new share issues during 2012 or 2013. Dividends accounted for the main outflow of funds for 2013 and 2012 financing activities in the amounts of $7 695 000 and $7 290 000 respectively.

Earlier we introduced you to the current ratio. The statement of cash flows can also be used to calculate additional measures of liquidity. The **current cash debt coverage** is a measure of liquidity that is calculated as *net cash provided by operating activities* divided by *average current liabilities*. It indicates the entity's ability to generate sufficient cash to meet its short-term needs. Cash debt coverage is the best measure of liquidity given it shows whether the cash generated by operating activities is sufficient to cover the current liabilities as they fall due. Statement of financial position measures of liquidity, such as the current ratio, include items in the calculation that are not yet cash, such as receivables or inventories. Inventories and receivables cannot be used to pay liabilities until the cash is collected, which can take time. While the acceptable level for the current cash debt coverage will vary between industries, in general, a value below 0.40 times is considered cause for additional investigation of an entity's liquidity. Figure 1.35 shows the current cash debt coverage for Fantastic Holdings and Nick Scali for 2013 and 2012.

Figure 1.35 Current cash debt coverage

$$\text{Current cash debt coverage} = \frac{\text{Net cash provided by operating activities}}{\text{Average current liabilities}}$$

($ in thousands)	2013	2012
Fantastic Holdings	$\frac{\$25\,080}{(\$49\,647 + \$57\,825)/2^{*}} = 0.47 : 1$ or 0.47	$\frac{\$30\,598}{(\$57\,825 + \$50\,144)/2^{*}} = 0.57 : 1$ or 0.57
Nick Scali	$\frac{\$19\,703}{(\$28\,478 + \$20\,526)/2^{*}} = 0.80 : 1$ or 0.80	$\frac{\$12\,853}{(\$20\,526 + \$18\,987)/2^{*}} = 0.65 : 1$ or 0.65

*Amounts used to calculate average current liabilities are taken from the statement of financial position (figure 1.32, p. 53). Current liabilities at year-end 2011 were $18 987. Also note that amounts in the ratio calculations have been rounded to the nearest thousand.

We can use these cash measures of liquidity to supplement the analysis of liquidity using the statement of financial position figures. Fantastic Holdings' current cash debt coverage of 0.47 in 2013 is lower than in 2012.

DECISION MAKING

The recommended minimum level for current cash debt coverage is 0.40. This is a general guide that decision makers can use when making resource allocation decisions. A current debt coverage of greater than 0.40 gives potential investors and creditors more confidence in the company than a ratio below 0.40. Can the entity meet its short-term obligations? is the primary question decision makers ask about liquidity as outlined in the decision-making toolkit opposite. By drawing on information from the statement of financial position (current assets and current liabilities) as well as information from the statement of cash flows (cash flows from operating activities) decision makers can calculate the current ratio and cash debt coverage ratio to assess liquidity. In both cases a higher ratio indicates more favourable liquidity. Recall liquidity is the entity's ability to repay current obligations as they fall due. If the entity can't pay its obligations then it could be forced into liquidation, which might result in the resource providers (e.g. lenders, suppliers or investors) losing money. Let's explore cash measures of liquidity using the data from Fantastic Holdings' and Nick Scali's financial statements.

As at December 2013, Nick Scali's current liabilities were covered 0.80 by cash flows from operations. This result is twice the general guide used to evaluate an entity's liquidity for the current cash debt coverage ratio, indicating more favourable liquidity for the company. Both companies' current cash debt coverage ratios are above 0.40, which indicates the companies have a favourable liquidity position and should be able to generate sufficient cash flows from operations to meet current liabilities as they fall due. The steps in the decision-making process are summarised in the decision-making toolkit below.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Can the entity meet its short-term obligations?	Current assets and current liabilities	$\text{Current ratio} = \dfrac{\text{Current assets}}{\text{Current liabilities}}$	Higher ratio indicates more favourable liquidity.
Can the entity meet its short-term obligations?	Current liabilities and cash provided by operating activities	$\text{Current cash debt coverage} = \dfrac{\text{Cash provided by operations}}{\text{Average current liabilities}}$	A higher value indicates more favourable liquidity.

SOLVENCY

When deciding how to allocate resources, decision makers need to consider how the entity will fare in the short term as well as the long term. Now suppose that instead of being a short-term creditor, you are interested in either buying Nick Scali's shares or extending the company a long-term loan. Long-term creditors and shareholders are interested in an entity's long-term **solvency** — its ability to pay interest as it comes due and to repay the debt at maturity. **Solvency ratios** measure the ability of the business to survive over a long period of time. The debt to total assets ratio is one source of information about long-term, debt-paying ability. Cash flow ratios, such as the cash debt coverage, are also useful tools of analysis. By looking at an entity's profitability, liquidity and solvency with other data like general economic and business information, decision makers can construct a more complete picture of the entity's performance and position when analysing and making decisions about lending or investing their funds.

Helpful hint

Some users evaluate solvency using a ratio of liabilities divided by equity. The higher this ratio, the lower an entity's solvency.

DECISION MAKING

Debt to total assets ratio

Recall that Assets = Liabilities + Equity. This equation shows that the assets can either be funded through equity or debt. The **debt to total assets ratio** measures the *percentage* of assets financed by creditors rather than shareholders. Debt financing is more risky than equity financing because debt must be repaid at specific points in time, whether the entity is performing well or not. Thus, the higher the percentage of debt financing, the riskier the entity. What risk means in this instance is that all other things being equal, the higher the debt is, the more interest that needs to be repaid each period and the greater the principal to be repaid at the end of the loan period. In practical terms, the company has to generate sufficient profits to repay the interest and debt and if it cannot and the company goes into liquidation, existing resource providers (lenders or investors) may not be able to claim their investment or loan from the company if it has insufficient funds. Thus, the higher the debt is, the riskier it is for resource providers.

The debt to total assets ratio is calculated by dividing total debt (both current and non-current liabilities) by total assets. The information for this ratio is taken from the statement of financial position. Calculating this ratio is a tool that helps users of financial information assess whether the entity can meet its long-term obligations, as summarised in the decision-making toolkit on page 59. The higher the percentage of total liabilities (debt) to total assets, the greater the risk that the entity may be unable to pay its debts as they become due. The ratios of debt to total assets for Fantastic Holdings and Nick Scali for 2013 and 2012 are presented in figure 1.36 (overleaf).

$$\text{Debt to total assets ratio} = \frac{\text{Total liabilities}}{\text{Total assets}}$$

($ in thousands)	2013	2012
Fantastic Holdings	$\frac{\$76\,316}{\$184\,461}$ = 0.41 : 1 or 0.41	$\frac{\$69\,747}{\$178\,733}$ = 0.39 : 1 or 0.39
Nick Scali	$\frac{\$37\,830}{\$74\,164}$ = 0.51 : 1 or 0.51	$\frac{\$26\,459}{\$53\,812}$ = 0.49 : 1 or 0.49

Figure 1.36 Debt to total assets ratio

APPLICATION IN BUSINESS

Management perspective

Debt financing differs greatly across industries and entities. Managers need to consider carefully the level of debt which will be most supportive for the business. Here are some 2013 debt to total assets ratios for selected companies:

	Total debt to total assets as a percentage
BHP Billiton	48.0%
CSL Ltd	50.0%
Qantas	70.5%
Telstra	66.6%
Woolworths	58.2%

The 2013 ratio of 41% means that 41 cents of every dollar invested in assets by Fantastic Holdings has been provided by its creditors. The 2013 ratio of 51% means that 51 cents of every dollar invested in assets by Nick Scali has been provided by its creditors. The higher the ratio, the lower the equity 'buffer' available to creditors if the company becomes insolvent, i.e. the less chance the creditors might have their debts repaid out of shareholders' funds if the company goes into liquidation. Thus, from a lender's or creditor's point of view, a high ratio of debt to total assets is undesirable. Based on the 2013 data, Fantastic Holdings is more solvent than Nick Scali. Examination of the statement of financial position, indicates that Nick Scali has less long-term debt than Fantastic Holdings.

Based on these ratios Fantastic Holdings appears to be solvent in that its assets exceed its liabilities. Nick Scali on the other hand is only near solvent given its debt to total assets ratio of 0.51:1. However, the adequacy of this ratio is often judged in the light of the entity's profits, cash flows and ability to pay interest when it falls due. Generally, entities with relatively stable profit can support higher debt to total assets ratios than can cyclical entities with widely fluctuating profits, such as many high-tech companies. The profitability, liquidity and solvency ratios calculated thus far, as well as the other information on the company's management, suggest that Nick Scali is a safe investment for potential shareholders and lenders.

The **cash debt coverage** is another measure of solvency that is calculated as cash provided by operating activities divided by average total liabilities. It indicates the entity's ability to generate sufficient cash to meet its long-term needs. Figure 1.37 presents the cash debt coverage for Fantastic Holdings and Nick Scali for 2013 and 2012. Although what is considered an acceptable ratio varies between industries, a general rule of thumb is that a ratio below 0.20 is considered cause for additional investigation.

Fantastic Holdings' cash debt coverage of 0.34 in 2013 is well above the recommended minimum level of 0.20, suggesting it is solvent consistent with the results of the debt to total assets ratio. Note the differences between the current debt coverage and the cash debt coverage for both Fantastic Holdings and Nick Scali. This difference reflects the levels of non-current liabilities. Nick Scali experienced a substantial increase in cash debt coverage in 2013 whereas Fantastic Holdings experienced a substantial decrease. However, while Nick Scali maintained higher cash debt coverage in both years, both companies are above the minimum level of 0.20 indicating they are both solvent. We will investigate other measures of liquidity and solvency in later chapters.

$$\text{Cash debt coverage} = \frac{\text{Net cash provided by operating activities}}{\text{Average total liabilities}}$$

($ in thousands)	2013	2012
Fantastic Holdings	$\frac{\$25\,080}{(\$76\,316 + \$69\,747)/2} = 0.34 : 1 \text{ or } 0.34$	$\frac{\$30\,598}{(\$69\,747 + \$67\,258)/2} = 0.45 : 1 \text{ or } 0.45$
Nick Scali	$\frac{\$19\,703}{(\$37\,830 + \$26\,459)/2^*} = 0.61 : 1 \text{ or } 0.61$	$\frac{\$12\,853}{(\$26\,459 + \$22\,720)/2^*} = 0.52 : 1 \text{ or } 0.52$

*Amounts used to calculate average total liabilities are taken from Nick Scali's statement of financial position (figure 1.32, p. 53). Total liabilities at year-end 2011 were $22 720 (in thousands). Also note that amounts in the ratio calculations have been rounded to the nearest thousand.

Figure 1.37 Cash debt coverage

The decision-making toolkit below summarises the decision-making processes for determining whether an entity can meet its long-term obligations. Calculating the cash debt coverage ratio is a useful tool for users of financial statements when making decisions about lending money to an entity or purchasing shares. A higher ratio indicates better solvency because the entity is generating cash to meet its long-term needs. The solvency ratios for both Fantastic Holdings and Nick Scali indicate that the entities are solvent and therefore low risk for investors and creditors.

In this section we have explored some of the decision-making processes users of general purpose financial statements undertake when making choices about whether to lend money or to invest in an entity. We saw that ratios could provide clues as to underlying conditions that may not be apparent from simply inspecting the individual figures provided in financial statements. The ratios were classified into profitability ratios, liquidity ratios and solvency ratios, which were employed to conduct an in-depth analysis of two companies, Nick Scali Limited and Fantastic Holdings Limited. By now you can clearly see that while ratios are useful inputs into resource allocation decisions, a single ratio by itself is not very meaningful. Augmenting ratios with data and information from a wide variety of sources makes the data more meaningful and gives the analysis some context. Recall that *intracompany comparisons* (covering two years for the same entity), *intercompany comparisons* (based on comparisons with a competitor in the same industry) and *other relevant information* such as general economic conditions, industry trends or averages, information from directors' reports and media releases provided great insights for interpreting the data.

You may find it helpful to consolidate your knowledge by taking some time now to work through the decision-making toolkit activity. Then, review the steps in the decision-making toolkit summary to ensure you understand how to calculate and evaluate profitability, liquidity and solvency ratios.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Can the entity meet its long-term obligations?	Total liabilities and total assets	$\text{Debt to total assets ratio} = \frac{\text{Total liabilities}}{\text{Total assets}}$	A higher ratio indicates solvency risk because the entity has fewer assets available for creditors.
Can the entity meet its long-term obligations?	Total liabilities and cash provided by operating activities	$\text{Cash debt coverage} = \frac{\text{Cash provided by operations}}{\text{Average current liabilities}}$	A higher ratio indicates better solvency as the entity is generating cash to meet its long-term needs.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What is liquidity? How can it be measured using a classified statement of financial position?
2. What is solvency? How can it be measured using (a) a statement of financial position? (b) a statement of cash flows?

3. What information does the statement of cash flows provide that is not available in an income statement or statement of financial position?
4. What does the current cash debt coverage measure? What does the cash debt coverage measure?

>> DO IT

Selected financial data for Drummond Ltd at 30 June 2016 are as follows: cash $60 000; receivables (net) $80 000; inventory $70 000; total assets $540 000; current liabilities $140 000; and total liabilities $270 000. Calculate the current ratio and debt to total assets ratio.

REASONING: The formula for the current ratio is: Current assets ÷ Current liabilities. The formula for the debt to total assets ratio is: Total liabilities ÷ Total assets.

SOLUTION: The current ratio is 1.5:1 ($210 000 ÷ $140 000). The debt to total assets ratio is 0.5:1 ($270 000 ÷ $540 000).

USING THE DECISION-MAKING TOOLKIT

Using the decision-making toolkit exercises, which follow the final set of Review it questions in the chapter, ask you to use information from financial statements to make financial decisions. We encourage you to think through the questions related to the decision before you study the solution.

Roaming Limited operates in the travel and leisure industry. Assume that you are considering the purchase of shares in Roaming.

REQUIRED

Answer these questions related to your decision whether to invest.

(a) What financial statements should you be interested in?
(b) What should these financial statements tell you?
(c) Should you request audited financial statements? Explain.
(d) Will the financial statements show the market value of Roaming's assets? Explain.
(e) Compare Roaming's profit for 2016 with its profit for 2015. The statement of profit or loss with comparative 2015 figures is provided in figure 1.38.

ROAMING LIMITED
Statement of profit or loss (extract)
for the year ended 30 June 2016

	Consolidated	
	2016 $'000	2015 $'000
Revenue from continuing operations		
Revenue from the sale of travel services	**778 950**	695 491
Other revenue from ordinary activities	**20 000**	15 200
Total for revenue from continuing operations	**798 950**	710 691
Other income	**3 230**	1 470
Expenses		
Selling expenses	**(611 670)**	(554 240)
Administration/support expenses	**(85 457)**	(58 278)
Finance costs	**(13 282)**	(13 585)
Share of loss of joint venture accounted for using the equity method	**(463)**	(415)
Profit before income tax expense	**91 308**	85 643
Income tax expense	**(27 392)**	(25 693)
Profit attributable to members of Roaming Limited	**63 916**	59 950

Figure 1.38 Roaming's statement of profit or loss

(f) How much of Roaming's assets were financed by creditors at 30 June 2016? Roaming's statement of financial position is shown in figure 1.39.

ROAMING LIMITED
Statement of financial position (extract)
as at 30 June 2016

	Consolidated	
	2016 **$'000**	2015 $'000
ASSETS		
Current assets		
Cash and cash equivalents	**261 843**	240 357
Available for sale financial assets	**204 831**	—
Receivables	**244 987**	211 200
Other financial assets	**—**	192 738
Current tax receivables	**5 596**	—
Assets of disposal group classified as held for sale	**12 179**	—
Total current assets	**729 436**	644 295
Non-current assets		
Property, plant and equipment	**78 486**	91 239
Intangible assets	**207 431**	165 671
Deferred tax assets	**13 206**	15 998
Other financial assets	**—**	—
Investments accounted for using the equity method	**2 248**	2 750
Total non-current assets	**301 371**	275 658
Total assets	**1 030 807**	919 953
LIABILITIES		
Current liabilities		
Payables	**465 000**	424 942
Borrowings	**43 662**	37 793
Provisions	**3 400**	3 116
Current tax liabilities	**2 533**	3 144
Total current liabilities	**514 595**	468 995
Non-current liabilities		
Payables	**34 682**	17 844
Borrowings	**27 000**	15 000
Deferred tax liabilities	**378**	1 025
Provisions	**8 442**	8 729
Total non-current liabilities	**70 502**	42 598
Total liabilities	**585 097**	511 593
Net assets	**445 710**	408 360
EQUITY		
Share capital	**260 000**	260 000
Reserves	**7 770**	4 940
Retained earnings	**177 940**	143 420
Total equity	**445 710**	408 360

Figure 1.39 Roaming's statement of financial position

(g) Did Roaming generate sufficient cash flows from its operating activities to finance its investing activities in 2016? A simplified statement of cash flows is provided in figure 1.40 (overleaf).

ROAMING LIMITED
Statement of cash flows
for the year ended 30 June 2016

	2016 $'000	2015 $'000
Net cash inflow from operating activities	$122 974	$117 596
Net cash (outflow) from investing activities	(62 497)	(22 970)
Net cash (outflow) from financing activities	(38 991)	(97 433)
Net increase (decrease) in cash held	$ 21 486	$ (2 807)

Figure 1.40 Roaming's statement of cash flows

(h) Calculate Roaming's return on assets for 2016 and profit margin for 2016 and 2015. Has profitability improved in the 2-year period?
(i) Calculate Roaming's current ratio for 2016 and 2015 and the current cash debt coverage for 2016. Does Roaming have liquidity problems?
(j) Calculate Roaming's debt ratio for 2016 and 2015 and the cash debt coverage for 2016. Has solvency improved since 2015?
(k) What other information would be useful to review when looking Roaming's operations?

SOLUTION

(a) Before you invest, you should investigate the statement of profit or loss, statement of financial position and statement of cash flows.
(b) You would probably be most interested in the statement of profit or loss because it tells about past performance and thus gives an indication of future performance. The statement of cash flows reveals where the entity is getting and spending its cash. This is especially important for an entity that wants to grow. Finally, the statement of financial position reveals the types of assets and liabilities and the relationship between assets and liabilities.
(c) You would want audited financial statements — statements that an independent accountant has examined and expressed an opinion that the statements present fairly the entity's financial position and results of operations. Investors and creditors should not make decisions without studying audited financial statements of entities required to appoint auditors.
(d) The financial statements will not show the market value of all of the entity's assets. One important principle of accounting is the cost principle, which states that assets should be recorded at cost. Cost has an important advantage over other valuations: It is objective and reliable.
(e) Roaming's profit for 2016 is $63 916 000, an increase of $3 966 000 on the 2015 profit of $59 950 000. This is a 6.6% increase. Revenue from the sale of travel services increased 12%, but during the year there was an expansion in the corporate travel service network to internationalise the business and added costs came with this expansion. The future aims are to reduce global costs and improve the profit margin.
(f) Roaming's debt ratio at 30 June 2016 was 0.57:1 or 57%, indicating that 57 cents of every dollar of assets was financed by creditors. The debt ratio is calculated as total liabilities divided by total assets ($585 097 000/$1 030 807 000).
(g) Roaming generated net cash flows of $122 974 000 from its operations in 2016 and spent $62 497 000 (net) on investing activities that year. So there were sufficient cash flows from operations to finance the investing activities.
(h) The return on assets for 2016 is 0.066 or 6.6% [$63 916 000/($1 030 807 000 + $919 953 000)/2]. The profit margin for 2016 was 0.08 or 8% ($63 916 000/$798 950 000) and for 2015 was 0.084 or 8.49% ($59 950 000/$710 691 000). Thus profitability decreased marginally in 2016.

(i) Roaming's current ratio was 1.42:1 ($729 436 000/$514 595 000) in 2016 and 1.37:1 ($644 295 000/$468 995 000) in 2015. The current cash debt coverage for 2016 was 0.25 or 25% [$122 974 000/($514 595 000 + $468 995 000)/2]. Roaming's generated positive net cash flows from operating activities in 2016 and 2015. The current ratio improved only slightly during the year. The improvement was because of a growth in cash and trade receivables. However, the current cash coverage is only 0.25 which is below the general rule of thumb of 0.40, so the actual liquidity should be investigated.

(j) Roaming's debt ratio for 2016 was 57%, as calculated in part (f), and 0.556 or 55.6% for 2015 ($511 593 000/$919 953 000). This indicates that solvency hasn't changed from 2015 to 2016. The cash debt coverage for 2016 was 0.224 or 22.4% [$122 974 000/($585 097 000 + $511 593 000)/2]. A ratio of 0.20 times is the bare minimum, so the cash debt coverage indicates barely adequate solvency and should be monitored, as most of the liabilities are current (short term).

(k) Other useful information would be information from the company such as directors' reports and media releases; intercompany comparisons with a competitor in the same industry; information on general economic conditions; and industry trends or averages.

SUMMARY OF LEARNING OBJECTIVES

1 Explain the business context and the need for decision making.
Accounting provides an economic model of the business world. It plays a key role in the provision of financial information for decisions made by people inside and outside the business. The process of decision making is first to identify the issue or the decision to be made. The next step is to gather the relevant information required for the analysis. Once gathered you then identify the tool or technique that can provide the analysis of the issue so a decision may be made. The final step is to evaluate the results of the analysis and make the decision.

2 Define accounting, describe the accounting process and define the diverse roles of accountants.
Accounting is the process of identifying, measuring, recording and communicating the economic transactions and events of a business operation to provide reliable and relevant financial information for decision making. Accountants practise accounting in four main areas: commercial accounting, public accounting, government and not-for-profit accounting.

3 Explain the characteristics of the main forms of business organisation.
A sole proprietorship is a business owned by one person. A partnership is a business owned by two or more people. A company is a separate legal entity for which evidence of ownership is provided by shares. Other forms include trusts, cooperatives, and not-for-profit forms. A trust is a relationship or association between two or more parties whereby one party holds property in trust for the other. A cooperative is a form of business organisation which is member-owned, controlled and used. It must consist of five or more people. The not-for-profit sector includes clubs, charities and the government sector.

4 Understand the *Conceptual Framework* and the purpose of financial reporting.
The *Conceptual Framework* consists of a set of concepts to be followed by preparers of financial statements and standard setters. A reporting entity is defined as an entity for which it is reasonable to expect the existence of users who depend on general purpose financial reports for information to enable them to make economic decisions. It important to determine whether an organisation is a reporting entity as reporting entities must prepare external general purpose financial reports which comply with accounting standards. Reporting entities tend to be larger organisations and the financial information provided in external general purpose financial reports tends to be quite condensed. Both reporting and non-reporting entities also prepare internal reports which have more detailed information. The objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential equity investors, lenders and other creditors in making their decisions about providing resources to the entity.

5 Identify the users of financial reports and describe users' information needs.
Internal users are managers who need accounting information for planning, controlling and evaluating business operations. The main external users are investors and creditors. Investors (shareholders) use accounting information to help them decide whether to buy, hold or sell shares. Creditors (suppliers and bankers) use accounting information to assess the risk of granting credit or lending money to a business. Other groups who have an indirect interest in a business are customers and regulatory agencies. Users of financial reports are

interested in information about financing activities, which involve collecting the necessary funds to support the business; investing activities, which involve acquiring the resources necessary to run the business; and operating activities, which involve putting the resources of the business into action to generate a profit.

6 Identify the elements of each of the four main financial statements.
A statement of profit or loss presents the income (revenues and gains) and expenses of an entity for a specific period of time. A statement of changes in equity reports the amount of comprehensive income for the period and other changes in equity. A statement of financial position reports the assets, liabilities and equity of a business at a specific date. A statement of cash flows summarises information concerning the cash inflows (receipts) and outflows (payments) for a specific period of time.

7 Describe the financial reporting environment.
The Corporations Act regulates the activities of companies. ASIC administers the Corporations Act. The financial reporting regulations are contained in the Australian accounting standards. The FRC oversees the AASB and advises the Commonwealth Government on the standard-setting process and developments in international standard setting. The AASB issues accounting standards which certain entities, such as listed companies, must apply when preparing published financial statements. Listed companies must also comply with additional financial reporting requirements of the Australian Securities Exchange. Key professional bodies include CPA Australia, Chartered Accountants Australia and New Zealand and IPA. The accounting standards issued by both the Australian and New Zealand standard-setting bodies are consistent with those issued by IASB and are commonly referred to as IFRSs.

8 Explain the accounting concepts, principles, qualitative characteristics and constraints underlying financial statements.
The basic accounting concepts and principles are the monetary principle, the accounting entity concept, the accounting period concept, the going concern principle, the cost principle and the full disclosure principle. The *Conceptual Framework* states that for information included in general purpose financial reports to be useful it must be relevant and provide a faithful representation of the economic phenomena it represents. Relevance and faithful representation are therefore classified as fundamental qualitative characteristics. Enhancing qualitative characteristics include comparability, verifiability, timeliness and understandability and are used to distinguish more useful information from less useful information. Cost is the constraint that limits the information provided by financial reporting.

9 Calculate and interpret ratios for analysing an entity's profitability, liquidity and solvency.
Profitability ratios, such as profit margin and return on assets, measure different aspects of the operating success of an entity for a given period of time. Liquidity ratios, such as the current ratio, measure an entity's short-term ability to pay its maturing obligations and to meet unexpected needs for cash. The current cash debt coverage is another measure of an entity's liquidity. Solvency ratios, such as the debt to total assets ratio and the cash debt coverage, measure an entity's ability to survive in the long term.

DECISION-MAKING TOOLKIT — A SUMMARY

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Are the entity's operations profitable?	Statement of profit or loss	The statement of profit or loss reports on the success or failure of the entity's operations by reporting its revenues and expenses.	If the entity's revenues exceed its expenses, it will report profit; if expenses exceed revenues, it will report a loss.
Does the entity rely mainly on debt or equity to finance its assets?	Statement of financial position	The statement of financial position reports the entity's resources and claims to those resources. There are two types of claims: liabilities and equity.	Compare the amount of liabilities (debt) with the amount of equity to determine whether the entity relies more on creditors or owners for its financing.
Does the entity generate sufficient cash from operations to fund its investing activities?	Statement of cash flows	The statement of cash flows shows the amount of cash provided or used by operating activities, investing activities and financing activities.	Compare the amount of cash provided by operating activities with the amount of cash used by investing activities. Any deficiency in cash from operating and investing activities must be made up with cash from financing activities.
Is the entity using its assets effectively?	Profit and average assets	$\text{Return on assets} = \dfrac{\text{Profit}}{\text{Average total assets}}$	Higher value suggests efficient use of assets.

Is the entity maintaining an adequate margin between sales and expenses?	Profit and net sales	$\text{Profit margin} = \dfrac{\text{Profit}}{\text{Net sales}}$	Higher value suggests favourable return on each dollar of sales.
Can the entity meet its short-term obligations?	Current assets and current liabilities	$\text{Current ratio} = \dfrac{\text{Current assets}}{\text{Current liabilities}}$	Higher ratio indicates more favourable liquidity.
Can the entity meet its short-term obligations?	Current liabilities and cash provided by operating activities	$\text{Current cash debt coverage} = \dfrac{\text{Cash provided by operations}}{\text{Average current liabilities}}$	A higher value indicates more favourable liquidity.
Can the entity meet its long-term obligations?	Total liabilities and total assets	$\text{Debt to total assets ratio} = \dfrac{\text{Total liabilities}}{\text{Total assets}}$	A higher ratio indicates solvency risk because the entity has fewer assets available for creditors.
Can the entity meet its long-term obligations?	Total liabilities and cash provided by operating activities	$\text{Cash debt coverage} = \dfrac{\text{Cash provided by operations}}{\text{Average current liabilities}}$	A higher ratio indicates better solvency as the entity is generating cash to meet its long-term needs.

GLOSSARY

Accounting The process of identifying, measuring, recording and communicating the economic transactions and events of a business operation (p. 6).

Accounting entity concept A concept that every entity can be separately identified and accounted for. Economic events can be identified with a particular unit of accountability, so that financial statements are prepared from the perspective of the entity, not its owners or other parties (p. 44).

Accounting period concept An accounting concept that the economic life of an entity can be divided into discrete periods of time and that useful reports covering these periods can be prepared by the entity (p. 44).

Accounts receivable The right to receive cash upon the sale of goods or provision of services to a customer (p. 19).

Annual report A report prepared by corporate management that presents financial information including financial statements, notes and the directors' report (p. 32).

Assets Resources controlled by the entity as a result of past events, from which future economic benefits are expected (p. 21).

Associations Small, non-profit, community-based groups. Associations can be, but are not always, incorporated as an alternative to a company. An incorporated association has similar advantages to a company but is not as expensive to set up or maintain. An association can trade as a profit organisation, but this cannot be its main objective (p. 12).

Audit An audit is an independent examination of the accounting data presented by an entity in order to provide an opinion as to whether the financial statements present fairly the results of the operations and the entity's financial position (p. 7).

Auditing and Assurance Standards Board (AUASB) The organisation with authority to issue auditing and assurance standards for use by auditors and providers of other assurance services (p. 41).

Auditor An accountant who conducts an independent examination of the accounting data presented by the entity and expresses an opinion as to the fairness of the presentation of an entity's financial position and results of operations, and the entity's conformance with accounting standards (p. 36).

Australian Accounting Standards Board (AASB) The organisation with authority to issue accounting standards in Australia (p. 41).

Australian Securities and Investments Commission (ASIC) The body that administers the Corporations Act (p. 40).

Basic accounting equation Assets = Liabilities + Equity (p. 24).

Bookkeeping The activities of identifying, measuring and recording the business information, are commonly referred to as bookkeeping. Bookkeeping forms the foundation of the activities underlying accounting (p. 7).

Cash debt coverage A measure of solvency that is calculated as cash provided by operating activities divided by average total liabilities (p. 58).

Chief financial officer (CFO) A senior manager in an organisation; directs the accounting operations (p. 7).

Classified statement of financial position A statement of financial position in which assets and liabilities are classified as current and non-current (p. 26).

Commercial accountant Commercial accountants work in industry and commerce in different roles such as management accounting and financial accounting (p. 7).

Company A company or corporation is a separate legal entity formed under the Corporations Act. The process of setting up a company is called incorporation. The owners of a company are called shareholders (p. 10).

Comparability Ability to compare the accounting information of different entities or the same entity over time because the same accounting measurement and principles are used (p. 47).

Conceptual framework A conceptual framework consists of a set of concepts to be followed by the preparers of financial statements and standard setters (p. 13).

Cooperative A form of business organisation which is member-owned, controlled and used. It must consist of five or more people. Cooperatives are legislated at state level. They are distinctive for fostering a highly participative and democratic style of work, pooling resources to be more competitive, and sharing skills (p. 12).

Corporate governance statement A separate section of a company's annual report containing disclosures relating to the extent to which the company has followed the ASX's corporate governance principles and recommendations (p. 34).

Cost principle All assets are initially recorded in the accounts at their purchase price or cost (p. 45).

Cost constraints A constraint on the pursuit of qualitative characteristics of financial reporting that the costs of preparing and reporting financial information should not exceed the benefits to users (p. 47).

Current assets Cash and other assets that are reasonably expected to be converted to cash or used in the business within 1 year or the operating cycle, whichever is longer (p. 27).

Current cash debt coverage A measure of liquidity that is calculated as cash provided by operating activities divided by average current liabilities (p. 56).

Current liabilities Obligations reasonably expected to be paid within the next year or operating cycle, whichever is longer, e.g. wages payable or loan payable (p. 28).

Current ratio A measure used to evaluate an entity's liquidity and short-term debt-paying ability, calculated by dividing current assets by current liabilities (p. 54).

Debt to total assets ratio Measures the percentage of total financing provided by creditors; calculated by dividing total debt by total assets (p. 57).

Decision A choice among alternative courses of action (p. 5).

Directors' report A section of the annual report that provides information about the directors and their views on the company's performance (p. 34).

Dividends Distributions of cash or other assets from the profits of a company to its shareholders (p. 18).

End of the reporting period The last date of each reporting period (p. 44).

Equity The owners' claims on the entity's total assets; also known as shareholders' or owners' equity (p. 24).

Equity investors People who make decisions to buy, hold or sell shares (p. 16).

Expenses Assets consumed or services used in the process of generating revenues, and losses incurred (p. 19).

External Reporting Board (XRB) An independent New Zealand Crown Entity that sets accounting and auditing standards in New Zealand (p. 42).

Faithful representation Depicts the economic substance of the transaction if it is complete neutral and free from material error (p. 47).

Financial accounting The preparation and presentation of financial reports for external users (p. 5).

Financial Reporting Council (FRC) Body that oversees the AASB (p. 41).

Financial statements Section in the annual report that contains the summarised financial information of an entity prepared in accordance with applicable accounting standards (p. 21).

Full disclosure principle Accounting principle that dictates that circumstances and events that make a difference to financial statement users should be disclosed (p. 45).

Generally accepted accounting principles (GAAP) A set of rules and practices, having substantial authoritative support, that are recognised as a general guide for financial reporting purposes. In New Zealand GAAP stands for generally accepted accounting *practices* (p. 48).

General purpose financial reports Financial reports intended to meet the information needs of users who are unable to command reports to suit their specific needs (p. 13).

Going concern principle The assumption that the business will continue to operate in the foreseeable future (p. 44).

Government accountants Are employed within government enterprises engage in a variety of roles and activities, such as financial accounting and auditing (p. 8).

Intangible assets Non-current, non-monetary assets that do not have physical substance, e.g. patents and copyrights (p. 28).

International Accounting Standards Board (IASB) The organisation with the authority to issue international financial reporting standards (IFRSs) (p. 41).

Lenders Suppliers, bankers and others who grant credit or lend money (p. 16).

Liabilities The future sacrifices of economic benefits that the entity is currently obliged to make as a result of past events (p. 21).

Limited liability In a company, shareholders are liable for the debts of the business only to the extent of amounts unpaid on their shares (p. 10).

Liquidity The ability of an entity to pay obligations that are expected to become due within the next year or operating cycle (p. 53).

Liquidity ratios Measures of the entity's short-term ability to pay its maturing obligations and to meet unexpected needs for cash (p. 53).

Loss The amount by which expenses exceed revenues and gains (p. 19).

Management accounting The provision of accounting information within the business entity (p. 5).

Materiality The condition on reporting information if its omission or misstatement could influence the decisions of users of financial statements (p. 46).

Measurement The process of quantifying transactions in monetary terms that must be completed in order to record transactions (p. 6).

Monetary principle A principle stating that only transaction data that can be expressed in terms of money be included in an entity's accounting records (p. 44).

Non-current assets Assets that are not expected to be consumed or sold within 1 year or the operating cycle and have not been purchased for trading purposes (p. 28).

Non-current liabilities Liabilities that are not expected to be paid within 1 year or the operating cycle, e.g. mortgage payable (p. 28).

Not-for-profit accountant Accountants working in the not-for-profit sector engage in many activities including planning, decision making, and preparing financial and management reports for both internal and external users (p. 8).

Not-for-profit entity A not-for-profit entity focuses on successfully fulfilling its mission and administrative goals, rather than focusing on making a profit. Not-for-profit entities include public hospitals, clubs, some schools and charities (p. 8).

Notes to the financial statements Notes that clarify information presented in the financial statements, as well as expand on information where additional detail is needed (p. 33).

Operating cycle The average time taken to acquire goods and services and convert them to cash in producing revenues (p. 27).

Ordinary shares Shares representing the main ownership interests in a company (p. 18).

Partnership A business relationship or association between two or more people or entities carrying on a business in common with a view to making a profit (p. 9).

Profit The amount by which revenues and gains exceed expenses (p. 19).

Profit margin Measures the percentage of each dollar of sales that results in profit, calculated by dividing profit by net sales (p. 51).

Profitability ratios Measures of the profitability or operating success of a business for a given period of time (p. 50).

Property, plant and equipment Assets with relatively long, useful lives that are used in operating the business. This category includes land, buildings, machinery and equipment, delivery equipment, and furniture (p. 28).

Public accountant Public accountants provide their professional services to the public. They can practise in business organisations that range from small, single-person run offices to very large organisations, with branches all over the world and thousands of employees (p. 7).

Public sector The public sector is also called the government sector. The distinguishing feature is that the organisations are owned by the government, whether it be federal, state or local (p. 12).

Ratio An expression of the mathematical relationship between one quantity and another; may be expressed as a percentage, a rate or a proportion (p. 48).

Ratio analysis A technique for evaluating financial statements that expresses the relationship among selected financial statement data (p. 48).

Relevant Accounting information is considered to be relevant if the information makes a difference in a decision (p. 46).

Reporting entity An entity in which it is reasonable to expect the existence of users who depend on general purpose financial reports for information to enable them to make economic decisions (p. 14).

Retained earnings The accumulated profit from the current and previous accounting periods that has not been distributed to owners (p. 23).

Return on assets An overall measure of profitability; calculated by dividing profit by average assets (p. 50).

Revenues Sales and other increases in equity that arise from the ordinary activities of an entity (p. 19).

Share capital The total amount paid in by shareholders for shares in the company. Alternative terminology includes: paid up capital, issued capital and contributed equity (p. 18).

Shareholders The owners of a company are called shareholders and their ownership interests are represented by the number of shares they own in the company (p. 10).

Sole proprietorship A business owned by one person (p. 9).

Solvency An entity's ability to pay interest as it comes due and to repay the face value of debt at maturity (p. 57).

Solvency ratios Measures of the ability of the business to survive over a long period of time (p. 57).

Statement of cash flows A financial statement that reports cash receipts and cash payments for a specified period (p. 21).

Statement of changes in equity A statement that reports the amount of total comprehensive income for the period and all other changes in equity (p. 21).

Statement of financial position A statement that reports on the assets, liabilities and equity of an entity at a specific date (p. 21).

Statement of profit or loss A statement that reports revenues, gains and expenses, and the resulting profit or loss, previously known as the statement of financial performance or the profit and loss statement (p. 23).

Sustainability Making sure social, economic and environmental factors are considered and kept healthy for future generations (p. 19).

Timeliness Whether the communication of financial information is in the time frame within which decisions are made (p. 47).

Transactions Economic activities relevant to a particular business, such as the sale of a good to a customer or the purchase of office stationery from a supplier. Transactions are the basic inputs into the accounting process (p. 6).

Trust A relationship or association between two or more parties whereby one party holds property in trust for the other, i.e. they are vested with the property (p. 12).

Understandability The extent to which information can be understood by proficient users (p. 47).

Unlimited liability Like a sole proprietorship structure, a partnership has unlimited liability, so each partner is personally liable for all the debts of the partnership even if they are caused by decisions made by other partners (p. 10).

Verifiable Information which is free from bias or material error and has been prepared with appropriate recognition and measurement methods (p. 47).

Working capital The difference between the amounts of current assets and current liabilities (p. 54).

Demonstration problems are a final review before you begin homework. **Problem-solving strategies** that appear in the margins give you tips about how to approach the problem, and the solution provided illustrates both the form and content of complete answers.

DEMONSTRATION PROBLEM

Jeff Andringa, a former Aussie Rules player, quit his job and started Footy Camp, a football camp for children aged 8 to 17. Eventually he would like to open football camps nationwide. Jeff has asked you to help him prepare financial statements at the end of his first year of operations. He relates the following facts about his business activities.

In order to get the business off the ground, he decided to incorporate. He issued shares in Footy Camp Pty Ltd to a few close friends, as well as buying some of the shares himself. He initially raised $75 000 through the issue of these shares. In addition, the company took out a $100 000 loan at a local bank. A bus for transporting children was purchased for $40 000 cash. Balls and other miscellaneous equipment were purchased with $3000 cash. The company earned camp fees during the year of $200 000, but had collected only $140 000 of this amount. Thus, at the end of the year it was still owed $60 000. The company rents time at a local school oval for $150 per day. Total oval rental costs during the year were $8000, insurance was $20 000, salary expense was $45 000, and administrative expenses totalled $15 700, all of which were paid in cash. The company incurred $2000 in interest expense on the bank loan; the interest was still owed at the end of the year.

The company paid dividends during the year of $16 000 cash. The balance in the company's bank account at the end of the year, 30 June 2016, was $167 300.

REQUIRED

Using the format of Wong Pty Ltd's statements, prepare a statement of profit or loss, a statement of changes in equity (retained earnings section only), a statement of financial position and a statement of cash flows. (*Hint:* Prepare statements in this order to take advantage of the flow of information from one statement to the next see figure 1.9, p. 22.) Ignore depreciation and tax for this problem.

SOLUTION TO DEMONSTRATION PROBLEM

FOOTY CAMP PTY LTD
Statement of profit or loss
for the year ended 30 June 2016

Revenues		
Camp fees revenue		$200 000
Expenses		
Salaries expense	$45 000	
Insurance expense	20 000	
Administrative expenses	15 700	
Oval rental expense	8 000	
Interest expense	2 000	
Total expenses		90 700
Profit		$109 300

FOOTY CAMP PTY LTD
Calculation of retained earnings
for the year ended 30 June 2016

Retained earnings, 1 July 2015	—
Profit	$109 300
Less: Dividends	(16 000)
Retained earnings, 30 June 2016	$ 93 300

FOOTY CAMP PTY LTD
Statement of financial position
as at 30 June 2016

Assets		
Cash		$167 300
Accounts receivable		60 000
Bus		40 000
Equipment		3 000
Total assets		270 300
Liabilities		
Bank loan payable	$100 000	
Interest payable	2 000	
Total liabilities		102 000
Net assets		$168 300
Equity		
Share capital		$ 75 000
Retained profits		93 300
Total equity		$168 300

(continued)

Problem-solving strategies

From the information given you need to identify which reports the items are entered in to.

1. The statement of profit or loss shows revenues and expenses for a period of time. Revenues are reported when billed or the invoice is prepared.
2. The statement of changes in equity reports the amount of profit for a period of time and other changes in equity. The calculation of the movement in retained earnings was required here and the ending balance is entered into the equity section of the statement of financial position together with the shares issued at the beginning of the period.
3. The statement of financial position reports assets, liabilities and equity at a specific date.
4. The statement of cash flows reports sources and uses of cash from operating, investing and financing activities for a period of time. This statement reports only the actual cash flows and the ending balance of the cash is also reported in the statement of financial position.

FOOTY CAMP PTY LTD Statement of cash flows for the year ended 30 June 2016	
Cash flows from operating activities	
Cash receipts from operating activities	$ 140 000
Cash payments for operating activities	(88 700)
Net cash provided by operating activities	51 300
Cash flows from investing activities	
Purchase of bus	(40 000)
Purchase of equipment	(3 000)
Net cash used by investing activities	(43 000)
Cash flows from financing activities	
Proceeds from bank loan	100 000
Issue of shares	75 000
Dividends paid	(16 000)
Net cash provided by financing activities	159 000
Net increase in cash	167 300
Cash at beginning of period	—
Cash at end of period	$ 167 300

SELF-STUDY QUESTIONS *Answers are at the end of the chapter.*

(LO1) 1. The steps, in order, in the decision-making process are:
(a) identify issue, analyse information, gather information, identify decision-making tool, evaluate results; make a decision.
(b) gather information; identify decision-making tool; identify issue, evaluate results; analyse information; make a decision.
(c) identify issue; gather information; identify decision-making tool; analyse information; evaluate results; make a decision.
(d) gather information; identify issue; identify decision-making tool, evaluate results; analyse; make a decision.

(LO2) 2. Accounting is the process of:
(a) recognising, measuring, recording and communicating.
(b) identifying, measuring, recording and communicating.
(c) identifying, recording, classifying and communicating.
(d) analysing, identifying, recording and interpreting.

(LO2) 3. Which of the following is not a typical accountant's role?
(a) A financial controller.
(b) A marketing manager.
(c) An auditor.
(d) All of the above are roles of an accountant.

(LO3) 4. Which is *not* one of the three main forms of business organisation?
(a) Sole proprietorship.
(b) Unincorporated trust.
(c) Partnership.
(d) Company.

(LO3) 5. Which is an advantage of companies relative to partnerships and sole proprietorships from the perspective of owners?
(a) Separation of ownership and control.
(b) Harder to transfer ownership.
(c) Reduced legal liability.
(d) Most common form of organisation.

(LO4) 6. Which is *not* an indicator that the entity is a reporting entity?
(a) Separation of ownership from management.
(b) It has substantial borrowings.
(c) It trades overseas.
(d) It is economically important.

(LO5) 7. Which of the following statements concerning general purpose financial reports is correct?
(a) General purpose financial reports are more detailed than the internal reports.
(b) General purpose financial reports are prepared in accordance with accounting standards.

(c) General purpose financial reports are the only accounting reports entities prepare.
(d) Government enterprises do not need to prepare general purpose financial reports.

(LO5) 8. Which is *not* one of the three main business activities?
(a) Financing.
(b) Operating.
(c) Advertising.
(d) Investing.

(LO6) 9. Which statement about users of accounting information is *incorrect*?
(a) Management is considered an internal user.
(b) Taxing authorities are considered external users.
(c) Present creditors are considered external users.
(d) Regulatory authorities are considered internal users.

(LO6) 10. Profit will result when:
(a) assets exceed liabilities.
(b) assets exceed revenues.
(c) expenses exceed revenues.
(d) revenues exceed expenses.

(LO6) 11. What section of a statement of cash flows indicates the cash spent on new equipment during the past accounting period?
(a) The investing section.
(b) The operating section.
(c) The financing section.
(d) The statement of cash flows does not give this information.

(LO6) 12. Which financial statement reports assets, liabilities and equity?
(a) Statement of changes in equity.
(b) Statement of profit or loss.
(c) Statement of financial position.
(d) Statement of cash flows.

(LO6) 13. The amount of retained earnings is not affected by:
(a) profit.
(b) loss.
(c) the issue of shares.
(d) dividends.

(LO6) 14. In a classified statement of financial position, assets are usually classified as:
(a) current assets and cash.
(b) current assets, non-current assets and equity.
(c) current assets and non-current assets.
(d) current assets and intangible assets.

(LO5) 15. As of 31 December 2015, Smithers Pty Ltd has assets of $7500 and equity of $3000. What are the liabilities for Smithers Pty Ltd as of 31 December 2015?
(a) $10 500.
(b) $4500.
(c) $7500.
(d) $3000.

(LO7) 16. The AASB is overseen by:
(a) ASIC.
(b) the IASB.
(c) the FRC.
(d) the ASX.

(LO7) 17. Generally accepted accounting principles are:
(a) a set of standards and rules that are recognised as a general guide for financial reporting.
(b) usually established by the Australian Taxation Office.
(c) the guidelines used to resolve ethical dilemmas.
(d) fundamental truths that can be derived from the laws of nature.

(LO7) 18. What organisation issues Australian accounting standards?
(a) Australian Accounting Standards Board.
(b) External Reporting Board.
(c) Australian Securities and Investments Commission.
(d) None of the above.

(LO7) 19. What organisation issues New Zealand accounting standards?
(a) New Zealand Institute of Chartered Accountants.
(b) New Zealand Inland Revenue.
(c) External Reporting Board.
(d) None of the above.

(LO8) 20. Which of the following is a main qualitative characteristic of information reported in financial statements in accordance with the *Conceptual Framework*?
(a) Comparability.
(b) Understandability.
(c) Relevance.
(d) Confidentiality.

(LO8) 21. Cost measurement means that:
(a) assets should be recorded at cost and adjusted when the market value changes.
(b) activities of an entity should be kept separate and distinct from its owner.
(c) assets should be recorded at their cost.
(d) only transaction data capable of being expressed in terms of money should be included in the accounting records.

(LO8) 22. Valuing assets at their market value rather than at their cost is inconsistent with the:
(a) accounting period concept.
(b) accounting entity concept.
(c) cost principle.
(d) All of the above.

(LO9) 23. Which is *not* an indicator of profitability?
(a) Current ratio.
(b) Profit margin.
(c) Profit.
(d) Return on assets.

(LO9) 24. For 2016 Carman Ltd reported profit \$48 000; net sales \$400 000; and average assets \$800 000. What was the 2016 profit margin?
(a) 6%.
(b) 12%.
(c) 40%.
(d) 200%.

(LO9) 25. Which of these measures is an evaluation of an entity's ability to pay current liabilities?
(a) Profit margin.
(b) Current ratio.
(c) Both (a) and (b).
(d) None of the above.

QUESTIONS

1. Describe the decision-making process.
2. What are some of the financial decisions owners need to make when running a new business?
3. What are the advantages to a business of being formed as a company? What are the disadvantages?
4. Who are the external users of accounting data? Give examples.
5. Listed here are some items found in the financial statements of Ruth Weber Ltd. Indicate in which financial statement(s) each item would appear.
   (a) Sales revenue.
   (b) Office equipment.
   (c) Accounts receivable.
   (d) Interest expense.
   (e) Share capital.
   (f) Loan payable.
6. What is a conceptual framework and what purpose does it serve?
7. Why it is important to determine if a business entity is a reporting entity? Outline the three main indicators that determine if an entity is a reporting entity.
8. What are the three main categories of the statement of cash flows? Why do you think these categories were chosen?
9. What is retained earnings? What items increase the balance in retained earnings? What items decrease the balance in retained earnings?
10. What purpose does the going concern principle serve?
11. Shirl Lee, the managing director of Whitegoods Pty Ltd is pleased. Whitegoods substantially increased its profit in 2015 while keeping its unit inventory relatively the same. Rose Ena, chief accountant, cautions Shirl Lee, explaining that since Whitegoods changed its method of inventory valuation, there is a comparability problem and it is difficult to determine whether Whitegoods is better off. Is Rose correct? Why or why not?
12. What is meant by the term *operating cycle*?
13. (a) Tia Kim believes that the analysis of financial statements is directed at two characteristics of an entity: liquidity and profitability. Is Tia correct? Explain.
    (b) Are short-term creditors, long-term creditors, and shareholders mainly interested in the same characteristics of an entity? Explain.
14. Holding all other factors constant, indicate whether each of the following signals generally good or bad news about an entity.
    (a) Increase in the profit margin.
    (b) Increase in the current ratio.
    (c) Decrease in the debt to total assets ratio.
    (d) Increase in the current cash debt coverage.

BRIEF EXERCISES

Explain the characteristics of the main forms of business organisation.
(LO3)

BE1.1 Match each of the following forms of business organisation with a set of characteristics: sole proprietorship (SP), partnership (P), company (C).
(a) __________ Shared control, increased skills and resources.
(b) __________ Simple to set up and maintains control with founder.
(c) __________ Easier to transfer ownership and raise funds, no personal liability.

Describe the financial reporting environment.
(LO7)

BE1.2 Indicate whether each statement is *true* or *false*.
(a) Accounting standards are set by the Financial Reporting Council.
(b) The ASX Listing Rules are only applicable to entities listed on the ASX.
(c) The Corporations Act is administered by the ATO.

BE1.3 Match each of the following types of evaluation with one of the listed users of accounting information.

Identify users of accounting financial reports and describe their information needs. (LO5)

1. Trying to determine whether the company complied with the Corporations Act.
2. Trying to determine whether the entity can pay its obligations.
3. Trying to determine whether a major investment proposal will be cost-effective.
4. Trying to determine whether the company's profit will result in a share price increase.
5. Trying to determine whether the entity should use debt or equity financing.

(a) _________ Executive directors.
(b) _________ Bank managers.
(c) _________ Shareholders.
(d) _________ Chief financial officer.
(e) _________ Australian Securities and Investments Commission.

BE1.4 In alphabetical order below are items for ABC Pty Ltd at 31 December 2015. Prepare a statement of financial position following the format of figure 1.9 (p. 22).

Prepare a statement of financial position. (LO6)

Accounts payable	$32 500
Accounts receivable	10 000
Cash	30 000
Inventory	7 500
Share capital	15 000

BE1.5 Indicate which statement you would examine to find each of the following items: statement of financial position (SFP), statement of profit or loss (P/L) or statement of cash flows (SCF).

Determine the proper financial statement. (LO6)

(a) Revenues during the period.
(b) Accounts receivable at the end of the year.
(c) Cash received from borrowing during the period.
(d) Cash payments for the purchase of property, plant and equipment.

BE1.6 A list of financial statement items for Swift Ltd includes the following: accounts receivable $15 000; prepaid rent $1000; cash $4500; supplies $2000; short-term investments $12 000; property, plant and equipment, $40 000. Prepare the asset section of the statement of financial position, showing appropriate classifications.

Prepare the assets section of a classified statement of financial position. (LO6)

BE1.7 The following information is available for Ware Ltd for 2015: sales revenue $7 840 000; cost of sales $3 528 000; profit $1 176 000; total equity $2 233 300; average total assets $5 113 000. Calculate the return on assets and profit margin for Ware Ltd for 2015.

Calculate return on assets and profit margin. (LO9)

EXERCISES

E1.1 Here is a list of words or phrases discussed in this chapter:

Match items with descriptions. (LO1,3,5,6)

1. Auditor's opinion	4. Sole trader	7. Company
2. Accounts payable	5. Partnership	8. Equity investors
3. Accounts receivable	6. Decision	9. Share capital

Required

Match each word or phrase with the best description of it.

_________ (a) An expression about whether financial statements are presented in a reasonable fashion.
_________ (b) Obligations to suppliers of goods.
_________ (c) The portion of equity that results from contributions from investors.
_________ (d) An entity that raises money by issuing shares.
_________ (e) Amounts due from customers.
_________ (f) People who make decisions to buy, hold, or sell shares.
_________ (g) A person operating and owning a business with no other owners.
_________ (h) A business that is owned jointly by two or more individuals but that does not issue shares.
_________ (i) A choice among alternative courses of action.

Prepare a statement of profit or loss and a calculation of retained earnings. (LO6)

E1.2 This information relates to Rosie's Rentals Pty Ltd for the year 2015:

Retained earnings, 1 January 2015	$ 90 000
Advertising expense	3 000
Dividends paid during 2015	14 000
Rent expense	20 200
Hire revenue	140 000
Electricity expense	4 800
Wages expense	56 000
Share capital	40 000

Required

After analysing the data, prepare a statement of profit or loss and a calculation of retained earnings for the year ending 31 December 2015.

Correct an incorrectly prepared statement of financial position. (LO6)

E1.3 Deanna Veale is the bookkeeper for Quality Products Ltd. Deanna has been trying to make the statement of financial position of Quality Products Ltd balance. It is finally balanced, but now she's not sure it is correct.

QUALITY PRODUCTS LTD
Statement of financial position
as at 30 June 2015

Assets		Liabilities and equity	
Cash	$15 000	Accounts payable	$15 000
Supplies	5 600	Accounts receivable	(6 000)
Inventory	28 400	Share capital	25 000
Dividends	3 000	Retained earnings	18 000
Total assets	$52 000	Total liabilities and equity	$52 000

Required

Prepare a correct statement of financial position.

Identify financial statement components and calculate profit. (LO6)

E1.4 The following items were taken from Black Ltd's financial statements for 2015. (All dollars are in thousands.)

________	Retained earnings	$ 2 000	________	Non-current borrowings	$22 000
________	Cost of sales	24 600	________	Inventories	4 500
________	Wages expense	18 300	________	Sales revenue	66 000
________	Cash	11 200	________	Accounts receivable	12 000
________	Current payables	14 500	________	Reserves	8 000
________	Interest expense	6 200	________	Income tax expense	4 200
________	Other expense	1 100	________	Contributed equity	30 000
________	Depreciation	1 800	________	Property and equipment	20 000

Required

Perform each of the following:

(a) In each case identify whether the item is an asset (A), liability (L), equity (Eq), revenue (R) or expense (Ex).

(b) Calculate profit for Black Ltd for the year ended 30 June 2015.

Calculate missing amounts. (LO6)

E1.5 Here are incomplete financial statements for Road Ltd:

ROAD LTD
Statement of financial position

Assets		Liabilities and equity	
Cash	$ 10 500	Liabilities	
Inventory	15 500	Accounts payable	$ 26 000
Property	80 000	Equity	
		Contributed equity	(a)
		Retained earnings	(b)
Total assets	$106 000	Total liabilities and equity	$106 000

Statement of profit or loss	
Revenues	$200 000
Cost of sales	(c)
Administrative expenses, including tax	14 000
Profit	$ (d)

Statement of changes in equity	
Beginning retained earnings	$12 000
Profit	(e)
Dividends	(8 000)
Ending retained earnings	$45 000

Required
Calculate the missing amounts.

Identify the concept or principle that has been violated. (LO8)

E1.6 Cheong Pty Ltd had three major business transactions during 2015.
(a) Merchandise inventory with a cost of $68 000 is reported at its market value of $100 000.
(b) The owner of Cheong Pty Ltd, Cheong Kong, purchased a computer for personal use and charged it to his expense account.
(c) Cheong Pty Ltd wanted to make its 2015 profit look better, so it added in sales that occurred on the first two days of 2016.

Required
In each situation, identify the assumption or principle that has been violated, if any, and discuss what should have been done.

Classify items as current or non-current, and prepare assets section of statement of financial position. (LO6)

E1.7 The following items were taken from the 30 June 2013 consolidated statement of financial position of AGL Energy Limited. (All dollars are in millions.)

Inventories — current	$133.0	Intangibles	$3149.4
Receivables — due after 30 June 2014	47.3	Other current assets	391.1
Oil and gas assets (non-current)	495.1	Property, plant and equipment	5331.6
Investments (long term)	33.1	Cash and cash equivalents	281.0
Other long-term financial assets	338.5	Current receivables	1844.0
Other financial assets (short term)	186.9	Other non-current assets	27.4
Deferred tax assets (non-current)	729.2	Exploration and evaluation assets (non-current)	349.0
		Inventories (non-current)	29.2

Required
Prepare the assets section of a classified statement of financial position.

Classify items as current or non-current, and prepare the assets section of the statement of financial position. (LO6)

E1.8 The following items were taken from the 30 June 2013 consolidated statement of financial position of Goodman Fielder Limited. (All dollars are in millions.)

Inventories	$128.9	Other current assets	14.6
Trade and other receivables	162.9	Deferred tax assets (non-current)	47.1
Property, plant and equipment	511.5	Cash and cash equivalents	403.1
Other non-current assets	1.0	Current tax receivable	9.1
Intangible assets	1490.5	Derivative financial instruments (current)	0.1
Investments in jointly controlled entities (non-current)	5.5	Receivable (non-current)	0.8
Assets held for sale (current)	1.7		

Required
Prepare the assets section of a classified statement of financial position.

Prepare financial statements. (LO6)

E1.9 These financial statement items are for Christchurch Flooring Pty Ltd at year-end, 31 July 2015:

Cost of sales	$30 000
Salaries expense	25 000
Other expenses	18 000
Building	70 000
Accounts payable	8 000
Sales revenue	62 000
Rent revenue	30 000
Rent revenue received in advance	2 000
Share capital	90 000
Cash	33 000
Bank loan	80 000
Accumulated depreciation	12 000
Land	80 000
Depreciation expense	4 000
Retained earnings (beginning of the year)	2 000
Inventory	26 000

Required

(a) Prepare a statement of profit or loss for the year.
(b) Prepare a classified statement of financial position at 31 July 2015.

Prepare financial statements. (LO6)

E1.10 These financial statement items are for Teddy Pty Ltd at year-end, 30 June 2017:

Cost of sales	$ 42 000
Salaries expense	27 000
Other expenses	26 600
Building	196 000
Accounts payable	39 400
Sales revenue	100 000
Rent revenue	36 000
Rent revenue received in advance	5 800
Share capital	221 000
Cash	42 500
Bank loan	208 000
Accumulated depreciation	19 600
Land	265 000
Depreciation expense	5 400
Retained earnings (beginning of the year)	10 900
Inventory	36 200

Required

(a) Prepare a statement of profit or loss for the year.
(b) Prepare a calculation of retained earnings for the year.
(c) Prepare a classified statement of financial position at 30 June 2017.

Calculate liquidity ratios and compare results. (LO9)

E1.11 Retail Ltd operates stores in numerous states. Selected financial statement data (in thousands of dollars) for the year ended 30 June 2016 are as follows:

	End of year	Beginning of year
Cash	$ 8 995	$ 17 807
Receivables (net)	10 711	15 992
Merchandise inventory	184 872	187 890
Other current assets	3 848	1 624
Total current assets	$208 426	$223 313
Total current liabilities	$129 941	$169 549

For the year, net sales revenue was $1 109 934 and cost of sales was $628 197 (in thousands).

Required

(a) Calculate the working capital and current ratio at the beginning of the year and at the end of the current year.

(b) Did Retail Ltd's liquidity improve or worsen during the year?

E1.12 The following data were taken from the 2013 financial statements of AGL Energy Limited. (All dollars in millions.)

Calculate and interpret solvency ratios. (LO9)

	2013	**2012**
Current assets	$ 2 836.0	$ 4 131.9
Total assets	13 365.8	14 738.4
Current liabilities	2 191.8	2 609.8
Total liabilities	6 026.8	7 605.5
Total equity	7 339.0	7 132.9
Cash provided by operating activities	601.8	466.5
Cash generated by (used in) investing activities	(549.6)	(531.3)

Required

Perform each of the following:

(a) Calculate the debt to assets ratio for each year.

(b) Calculate the cash debt coverage for each year. (Total liabilities at year-end 2011 were $4473 million).

(c) Discuss AGL's solvency in 2013 versus 2012.

(d) Discuss AGL's ability to finance its investment activities with cash provided by operating activities, and how any deficiency would be met.

E1.13 The following data were taken from the 2013 financial statements of Goodman Fielder Limited. (All dollars in millions.)

Calculate and interpret solvency ratios. (LO9)

	2013	**2012**
Current assets	$ 720.4	$ 718.8
Total assets	2 776.8	2 693.8
Current liabilities	382.8	434.1
Total liabilities	1 224.5	1 318.7
Total equity	1 552.3	1 375.1
Cash provided by operating activities	178.7	129.0
Cash generated by (used in) investing activities	148.9	(84.6)

Required

Perform each of the following:

(a) Calculate the debt to assets ratio for each year.

(b) Calculate the cash debt coverage for each year. (Total liabilities at year-end 2011 were $1 482.8M.)

(c) Discuss Goodman Fielder's solvency in 2013 versus 2012.

(d) Discuss Goodman Fielder's ability to finance its investment activities with cash provided by operating activities, and how any deficiency would be met.

PROBLEM SET A

PSA1.1 Presented below and overleaf are five independent situations.

Determine forms of business organisation. (LO3)

(a) Three information systems lecturers have formed a business to improve the speed of information transfer over the internet for securities exchange transactions. Each has contributed an equal amount of cash and knowledge to the venture. Although their approach looks promising, they are concerned about the legal liabilities that their business might confront.

(b) Sarah and Andrew wish to purchase a taxi licence. One has a suitable motor vehicle and the other has enough cash to buy the licence.

(c) Robert Steven and Tom Cheng each owned separate shoe manufacturing businesses. They have decided to combine their businesses. They expect that within the coming year they will need significant funds to expand their operations.
(d) Darcy Becker, Ellen Sweet and Meg Dwyer recently graduated with marketing degrees. They have been friends since childhood. They have decided to start a consulting business focused on marketing sporting goods over the internet.
(e) Anthony Troy wants to rent CD players and CDs in airports across the country. His idea is that customers will be able to rent equipment and CDs at one airport, listen to the CDs on their flights, and return the equipment and CDs at their destination airport. Of course, this will require a substantial investment in equipment and CDs, as well as employees and locations in each airport. Anthony has no savings or personal assets. He wants to maintain control over the business.

Required
In each case explain what form of organisation the business is likely to take — sole proprietorship, partnership or company. Give reasons for your choice.

Identify users and uses of financial statements.
(LO5)

PSA1.2 Financial decisions often place heavier emphasis on one type of financial statement over the others. Consider each of the following hypothetical situations independently.
(a) North Sales Ltd is considering extending credit to a new customer. The terms of the credit would require the customer to pay within 30 days of receipt of goods.
(b) An investor is considering purchasing shares in Domino's. The investor plans to hold the investment for at least 5 years.
(c) Otago Bank is considering extending a loan to a small company. The company would be required to make interest payments at the end of each year for 5 years, and to repay the loan at the end of the fifth year.
(d) The finance director of Pacific Pipes Ltd is trying to determine whether the company is generating enough cash to increase the amount of dividends paid to investors in this and future years, and still have enough cash to buy plant and machinery as needed.

Required
Although the decision makers should refer to all financial statements, for each situation, state whether the decision maker would be most likely to place the main emphasis on information provided by the statement of profit or loss, statement of financial position or statement of cash flows. In each case provide a brief justification for your choice. Choose only one financial statement in each case.

Comment on proper accounting treatment and prepare a corrected statement of financial position.
(LO6,8)

PSA1.3 Smart Travel Goods Pty Ltd was formed on 1 July 2014. At 30 June 2015, Mark Austin, the managing director and major shareholder, decided to prepare a statement of financial position, which appeared as follows:

SMART TRAVEL GOODS PTY LTD
Statement of financial position
as at 30 June 2015

Assets		Liabilities and equity	
Cash	$ 30 000	Accounts payable	$ 30 000
Accounts receivable	23 000	Notes payable	12 000
Inventory	40 000	Bank loan	350 000
Villa	450 000	Equity	151 000

Mark willingly admits that he is not an accountant by training. He is concerned that his statement of financial position might not be correct. He has provided you with the following additional information:
1. The villa is on the Sunshine Coast and actually belongs to Mark, not to Smart Travel Goods Pty Ltd. However, because he thinks he might allow executives to use it sometimes, he decided to list it as an asset of the company. To be consistent he also listed as a liability of the company his personal loan that he took out at the bank to buy the villa.

2. The inventory was originally purchased for $15 000, but due to a surge in demand Mark now thinks he could sell it for $40 000. He thought it would be best to record it at $40 000.
3. Included in the accounts payable balance is $6000 that Mark owes for his personal telephone account. Mark included this in the accounts payable of Smart Travel Goods Pty Ltd because he will probably use a company cheque to pay for it.

Required

(a) Comment on the proper accounting treatment of the three items above.
(b) Provide a corrected statement of financial position for Smart Travel Goods Pty Ltd. (*Hint:* To get the statement of financial position to balance, adjust equity.)

Prepare financial statements. (LO6)

PSA1.4 PQR Pty Ltd was started on 1 October with an investment of $65 000 cash. Following are the assets and liabilities of the company on 31 October 2015, and the revenues and expenses for the month of October, its first month of operations.

Cash	$ 9 200	Bank loan	$40 000
Accounts receivable	28 500	Rent expense	4 000
Equipment	80 000	Repair expense	800
Service revenue	25 000	Fuel expense	8 700
Advertising expense	1 200	Insurance expense	1 000
Accounts payable	5 400		

No further shares were issued in October, but a dividend of $2000 in cash was paid.

Required

Prepare a statement of profit or loss and a calculation of retained earnings for the month of October and prepare a statement of financial position as at 31 October 2015.

Determine items included in a statement of cash flows and prepare the statement. (LO6)

PSA1.5 Presented below are selected financial statement items for Daisy Ltd for 31 December 2015:

Inventory	$ 32 000
Cash paid to suppliers	195 000
Building	400 000
Share capital	20 000
Share issued for cash this current year	10 000
Cash dividends paid	15 000
Cash paid to purchase equipment	35 000
Equipment	40 000
Revenues	300 000
Cash received from customers	264 000

Required

Determine which items should be included in a statement of cash flows, and then prepare the statement for Daisy Ltd.

Prepare financial statements. (LO6)

PSA1.6 Ultra Pty Ltd was started on 1 May with an investment of $75 000 cash. Following are the assets and liabilities of the company on 31 May 2016, and the revenues and expenses for the month of May, its first month of operations.

Cash	$30 500	Bank loan	$40 000
Accounts receivable	25 400	Rent expense	12 500
Equipment	87 000	Repair expense	1 800
Service revenue	42 800	Fuel expense	3 600
Advertising expense	800	Insurance expense	2 600
Accounts payable	8 400		

No further shares were issued in May, but a dividend of $2000 in cash was paid.

Required

Prepare a statement of profit or loss and statement of changes in equity for the month of May, and prepare a statement of financial position as at 31 May 2016.

Determine items included in a statement of cash flows and prepare the statement.
(LO6)

PSA1.7 Presented below are selected financial statement items for Liddy Ltd for 30 June 2016.

Inventory	$ 40 000
Cash	101 000
Cash paid to suppliers	85 000
Building	320 000
Share capital	25 000
Cash dividends paid	9 000
Cash paid to purchase equipment	25 000
Equipment	35 000
Revenues	160 000
Cash received from customers	148 000

Required
Determine which items should be included in a statement of cash flows, and then prepare the statement for Liddy Ltd.

Prepare a classified statement of financial position.
(LO6)

PSA1.8 The following items are taken from the 30 June 2013 statement of financial position of Boral Ltd (in millions):

Cash on deposit (short term)	$ 70.6
Issued capital	2 433.8
Property, plant and equipment	3 347.1
Payables (short term)	760.1
Intangible assets	849.9
Non-controlling interests (part of equity)	89.3
Current tax liabilities	19.1
Other non-current assets	48.5
Other current assets	42.8
Investments accounted for using the equity method (non-current assets)	34.6
Deferred tax assets (non-current)	133.7
Other financial assets (current)	11.6
Other financial liabilities (non-current)	25.5
Other long-term financial assets	23.5
Receivables (short term)	887.8
Other financial liabilities (current)	56.1
Receivables due after 30 June 2014	16.8
Retained earnings	796.0
Cash and cash equivalents	149.9
Loans and borrowings	1 539.6
Provisions (short term)	212.1
Inventories (current)	680.0
Payables (long term)	9.4
Reserves	74.4
Loans and borrowings (due before June 2014)	126.9
Deferred tax liabilities (non-current)	57.6
Provisions (long term)	116.5
Inventories (non-current)	19.6

Required
Prepare a statement of financial position, appropriately classified, for Boral Ltd as at 30 June 2013.

PSA1.9 Here are the comparative statements of City Sales Pty Ltd:

Calculate liquidity, solvency and profitability ratios. (LO9)

CITY SALES PTY LTD
Statement of profit or loss
for the year ended 30 June 2015

	2015	2014
Net sales	$2 200 000	$2 000 000
Cost of sales	1 120 000	996 000
Selling and administrative expense	830 000	824 000
Interest expense	31 000	30 000
Income tax expense	104 000	50 000
Profit	$ 115 000	$ 100 000

CITY SALES PTY LTD
Statement of financial position
as at 30 June 2015

	2015	2014
Assets		
Current assets		
Cash	$ 100 500	$ 60 000
Short-term investments	90 000	50 000
Accounts receivable (net)	139 000	125 000
Inventory	145 000	115 500
Total current assets	474 500	350 500
Property, plant and equipment (net)	540 300	440 300
Total assets	$1 014 800	$790 800
Liabilities		
Current liabilities		
Accounts payable	$ 146 000	$ 65 400
Income taxes payable	104 000	34 600
Total current liabilities	250 000	100 000
Debentures payable	210 000	200 000
Total liabilities	460 000	300 000
Net assets	$ 554 800	$490 800
Equity		
Contributed equity	$ 350 000	$300 000
Retained earnings	204 800	190 800
Total equity	$ 554 800	$490 800

The cash provided by operating activities for 2015 was $260 000.

Required

Calculate these values and ratios for 2015:

(a) Working capital.
(b) Current ratio.
(c) Current cash debt coverage.
(d) Debt to total assets ratio.
(e) Cash debt coverage.
(f) Profit margin.
(g) Return on assets.

Calculate ratios and compare liquidity, solvency and profitability for two entities. (LO9)

PSA1.10 Selected financial data (in thousands) of two competitors, AKA Ltd and UFO Ltd, for 2015 are presented here:

	AKA Ltd	UFO Ltd
	Selected statement of profit or loss data for year	
Net sales	$120 000	$100 000
Cost of sales	65 000	51 000
Borrowing costs (interest expense)	10 500	30 000
Income tax expense	14 000	4 000
Profit	16 000	5 000
	Condensed statement of financial position (end of year)	
Current assets	$ 33 000	$ 20 000
Non-current assets	127 000	175 000
Total assets	$160 000	$195 000
Current liabilities	$ 15 000	$ 10 000
Non-current liabilities	70 000	160 000
Total equity	75 000	25 000
Total liabilities and equity	$160 000	$195 000
	Beginning-of-year balances	
Total assets	$140 000	$155 000

Required

For each entity, calculate these values and ratios:

(a) Working capital.
(b) Current ratio.
(c) Debt to total assets ratio.
(d) Return on assets.
(e) Profit margin.
(f) Compare the liquidity, solvency and profitability of the two entities.

PROBLEM SET B

Determine forms of business organisation. (LO3)

PSB1.1 Presented below are five independent situations.

(a) Fiona has just graduated with a media and communications degree and wants to start an events management business. She has some savings and her family is willing to support her in her endeavours. Although she has had offers to work for several established businesses, Fiona wants to try it on her own and she wants to maintain control over the business.
(b) Mark has been operating as a sole trader for a number of years. Profits are slowly increasing and he expects his gross profit before income tax this year to be around $200 000. Mark also has an opportunity to expand operations and will need to borrow larger sums from a bank or similar financial institution.
(c) Maurice, Jacob and Emily have all just graduated with commerce degrees, one in accounting, another in IT and the third in marketing. They want to combine their skills and start a business selling goods over the internet.
(d) Amanda and Jessica have been friends since school and want to make a go of their hobby of jewellery making. They already have fashion stores interested in stocking their product, plus they have a web site and sell goods over the internet.
(e) Michael Murphy and Steve Elks each own separate printing businesses. They have decided to combine their businesses. They expect that within the coming year they will need significant funds to expand their operations.

Required

In each case explain what form of organisation the business is likely to take — sole proprietorship, partnership or company. Give reasons for your choice.

PSB1.2 Financial decisions often place heavier emphasis on one type of financial statement over the others. Consider each of the following hypothetical situations independently.

Identify users and uses of financial statements. (LO5)

(a) The finance director of Organic Products Ltd is trying to determine whether the company is generating enough cash to buy new equipment for the business without borrowing and still have enough left to pay dividends to investors.
(b) An investor is considering purchasing shares in Woolworths Limited. The investor plans to hold the investment for at least 4 years.
(c) Datt Ltd is considering extending credit to a new customer. The terms of the credit would require the customer to pay within 30 days of receipt of the goods.
(d) Intrigue Finance is considering extending a loan to a company. The company would be required to make interest payments at the end of each year for 8 years, and to repay the loan at the end of the eighth year.

Required

Although the decision makers should refer to all financial statements, for each situation, state whether the decision maker would be most likely to place the main emphasis on information provided by the statement of profit or loss, statement of financial position or statement of cash flows. In each case provide a brief justification for your choice. Choose only one financial statement in each case.

PSB1.3 Jupiter Pty Ltd was formed on 1 July 2015. At 30 June 2016, Mary Eagle, the managing director and major shareholder, decided to prepare a statement of financial position, which appeared as follows:

Comment on proper accounting treatment and prepare a corrected statement of financial position. (LO6,8)

JUPITER PTY LTD
Statement of financial position
as at 30 June 2016

Assets		Liabilities and equity	
Cash	$ 56 000	Accounts payable	$ 65 000
Accounts receivable	84 000	Notes payable	30 000
Inventory	75 000	Bank loan	320 000
Villa	500 000	Equity	72 000

Mary willingly admits that she is not an accountant by training. She is concerned that her statement of financial position might not be correct. She has provided you with the following additional information:

1. The villa is in Port Macquarie and actually belongs to Mary, not to Jupiter Pty Ltd. However, because she thinks she might allow executives to use it sometimes, she decided to list it as an asset of the company. To be consistent, she also listed, as a liability of the company, her personal loan that she took out at the bank to buy the villa.
2. The inventory was originally purchased for $25 000, but due to a surge in demand Mary now thinks she could sell it for $75 000. She thought it would be best to record it at $75 000.
3. Included in the accounts payable balance is $2000 that Mary owes for her personal electricity account. Mary included this in the accounts payable of Jupiter Pty Ltd because she will probably use a company cheque to pay for it.

Required

(a) Comment on the proper accounting treatment of the three items above.
(b) Provide a corrected statement of financial position for Jupiter Pty Ltd.

PSB1.4 Evans Ltd was started on 1 July 2015 with an investment of $150 000 cash. Following are the assets and liabilities of the company on 30 June 2016, and the revenues and expenses for the year of operations.

Prepare financial statements. (LO6)

Cash	$155 100	Bank loan	$90 000
Accounts receivable	43 000	Rent expense	37 500
Equipment (net)	120 000	Repair expense	700
Service revenue	250 000	Office expense	68 000
Advertising expense	16 500	Depreciation expense	30 000
Accounts payable	24 800	Insurance expense	24 000

No further shares were issued during the year, but a dividend of $20 000 in cash was paid.

Required
Prepare a statement of profit or loss, a calculation of retained earnings for the year, and a statement of financial position as at 30 June 2016.

Determine items included in a statement of cash flows and prepare the statement. (LO6)

PSB1.5 Presented below are selected financial statement items for Buzzy Bee Ltd for 31 December 2015:

Inventory	$ 80 000
Cash paid to suppliers	301 500
Building	1 800 000
Share capital	200 000
Cash received issue of shares	50 000
Cash dividends paid	15 000
Cash paid to purchase equipment	210 000
Equipment	240 000
Revenues	560 000
Cash received from customers	509 200

Required
Determine which items should be included in a statement of cash flows, and then prepare the statement for Buzzy Bee Ltd.

Prepare financial statements. (LO6)

PSB1.6 Goodwin Ltd was started on 1 May 2016 with an investment of $60 000 cash. Following are the assets and liabilities of the company on 31 May 2016, and the revenues and expenses for the month of May, its first month of operations.

Cash	$38 350	Bank loan	$40 000
Accounts receivable	14 800	Rent expense	3 800
Equipment	63 000	Repair expense	600
Service revenue	30 000	Office expense	8 200
Advertising expense	2 000	Insurance expense	1 200
Accounts payable	2 700		

No further shares were issued in May, but a dividend of $750 in cash was paid.

Required
Prepare a statement of profit or loss and calculate retained earnings for the month of May and prepare a statement of financial position as at 31 May 2016.

Determine items included in a statement of cash flows and prepare the statement. (LO6)

PSB1.7 Presented below are selected financial statement items for Spoon Ltd as at 30 June 2016.

Inventory	$ 65 000
Cash	270 000
Cash paid to suppliers	205 000
Building	640 000
Share capital	50 000
Cash dividends paid	77 000
Cash paid to purchase equipment	105 000
Equipment	140 000
Revenues	605 000
Cash received from customers	515 000

Required
Determine which items should be included in a statement of cash flows, and then prepare the statement for Spoon Ltd.

PSB1.8 An extract from the general ledger of Retail Limited for the year ended 30 June 2015 appears as follows:

Prepare financial statements. (LO6)

Item	$	Item	$
Accounts Payable	3 300	Inventory	21 500
Accounts Receivable	8 320	Other Expenses	6 250
Advertising Expense	5 000	Rent Expense	2 500
Bank Loan	15 000	Repairs Expense	15 000
Cash	24 250	Opening Retained Earnings	12 500
Cost of Sales	82 000	Salaries expense	35 000
Equipment	83 000	Sales	167 420
Insurance Expense	1 300	Share Capital	100 000
Intangibles	6 300	Dividends Paid	7 800

Additional information:
Cash paid to suppliers $84 500
All other expenses were paid in cash
Cash received from customers $172 350
Cash paid to purchase equipment $36 000
The bank loan was taken out in the current year and is repayable in May 2017.

Required
(a) Prepare a statement of profit or loss for the year ended 30 June 2015.
(b) Prepare a calculation of retained earnings for the year ended 30 June 2015.
(c) Prepare a statement of financial position as at 30 June 2015.
(d) Prepare a statement of cash flows for the year ended 30 June 2015.
(e) Calculate the Cash account balance at 1 July 2014 (i.e. the opening balance).

PSB1.9 Here are the comparative statements of Nixon Pty Ltd:

Calculate liquidity, solvency and profitability ratios. (LO9)

NIXON PTY LTD
Statement of profit or loss
for the year ended 30 June 2015

	2015	2014
Net sales	$3 300 000	$3 000 000
Cost of sales	1 680 000	1 494 000
Selling and administrative expense	1 245 000	1 236 000
Interest expense	46 500	45 000
Income tax expense	156 000	75 000
Profit after tax	$ 172 500	$ 150 000

NIXON PTY LTD
Statement of financial position
as at 30 June 2015

	2015	2014
Assets		
Current assets		
Cash	$ 150 750	$ 90 000
Short-term investments	135 000	75 000
Accounts receivable (net)	208 500	187 500
Inventory	217 500	173 250
Total current assets	711 750	525 750
Property, plant and equipment (net)	810 450	660 450
Total assets	$1 522 200	$1 186 200

(continued)

	2015	2014
Liabilities		
Current liabilities		
Accounts payable	$ 219 000	$ 98 100
Income taxes payable	156 000	51 900
Total current liabilities	375 000	150 000
Debentures payable	315 000	300 000
Total liabilities	690 000	450 000
Net assets	$ 832 200	$ 736 200
Equity		
Contributed equity	525 000	450 000
Retained earnings	307 200	286 200
Total equity	$ 832 200	$ 736 200

The cash provided by operating activities for 2015 was $375 000.

Required

Calculate these values and ratios for 2015:

(a) Working capital.
(b) Current ratio.
(c) Current cash debt coverage.
(d) Debt to total assets ratio.
(e) Cash debt coverage.
(f) Profit margin.
(g) Return on assets.

Calculate ratios and compare liquidity, solvency and profitability for two entities. (LO9)

PSB1.10 Selected financial data (in thousands) of two competitors, New Ltd and Old Ltd, for 2015 are presented here:

	NEW Ltd	OLD Ltd
	Selected statement of profit or loss data for year	
Net sales	$420 000	$350 000
Cost of sales	227 500	178 500
Borrowing costs (interest expense)	36 750	105 000
Income tax expense	49 000	14 000
Profit	56 000	17 500
	Condensed statement of financial position (end of year)	
Current assets	$115 500	$ 70 000
Non-current assets	444 500	612 500
Total assets	$560 000	$682 500
Current liabilities	$ 52 500	$ 35 000
Non-current liabilities	245 000	560 000
Total equity	262 500	87 500
Total liabilities and equity	$560 000	$682 500
	Beginning-of-year balances	
Total assets	$490 000	$542 500

Required

For each entity, calculate these values and ratios:

(a) Working capital.
(b) Current ratio.
(c) Debt to total assets ratio.
(d) Return on assets.
(e) Profit margin.
(f) Compare the liquidity, solvency and profitability of the two entities.

FINANCIAL REPORTING AND ANALYSIS

FINANCIAL REPORTING PROBLEM: *Domino's Pizza Enterprises Ltd*

BBS1.1 Domino's 2013 financial statements are provided in the appendix at the back of this book. You will need to refer to the notes to the financial statements.

Required

Use Domino's consolidated data to answer these questions:

(a) What were Domino's total assets at 30 June 2013? 1 July 2012?
(b) How much inventory did Domino's have on 30 June 2013?
(c) What amount of accounts payable (payables) did Domino's report on 30 June 2013? on 1 July 2012?
(d) What were Domino's sales in 2013? in 2012?
(e) What is the amount of the change in profit before tax from 2012 to 2013?
(f) The accounting equation is: Assets = Liabilities + Equity. Replacing the words in that equation with dollar amounts, give Domino's accounting equation at 30 June 2013.
(g) What were the current liabilities on 1 July 2012?

COMPARATIVE ANALYSIS PROBLEM: *Domino's Pizza Enterprises Ltd vs. Classic Food Ltd*

BBS1.2 Extracts from the 2013 financial statements of Classic Food Ltd (a hypothetical company) are presented below, and Domino's 2013 financial statements are in the appendix.

CLASSIC FOOD LTD
Statement of profit or loss (extract)
for the year ended 30 June 2013
(in thousands)

	2013	2012
Revenue	$650 738	$237 735
Borrowing costs expense	(4 463)	(574)
Profit from ordinary activities before income tax expense	37 265	19 330
Income tax expense	(13 713)	(7 078)
Profit from ordinary activities after income tax expense	$ 23 552	$ 12 252

Statement of financial position
30 June 2013
(in thousands)

	2013	2012
Current assets		
Cash	$ 25 000	$ 5 220
Receivables	7 842	4 112
Inventories	139 412	70 055
Other	2 446	1 951
Total current assets	174 700	81 338

(continued)

Statement of financial position *(continued)*		
	2013	**2012**
Non-current assets		
Property, plant and equipment	86 158	40 729
Deferred tax assets	6 900	3 205
Intangible assets	96 085	44 530
Other	384	494
Total non-current assets	189 527	88 958
Total assets	364 227	170 296
Current liabilities		
Payables	$139 500	$ 60 797
Interest-bearing liabilities	35 016	17 895
Current tax liabilities	6 743	5 623
Provisions	13 741	8 522
Total current liabilities	195 000	92 837
Non-current liabilities		
Interest-bearing liabilities	60 891	31 634
Deferred tax liabilities	1 712	1 421
Provisions	6 917	5 105
Total non-current liabilities	69 520	38 160
Total liabilities	264 520	130 997
Net assets	$ 99 707	$ 39 299
Equity		
Contributed equity	$ 77 663	$ 31 442
Retained earnings	22 044	7 857
Total equity	$ 99 707	$ 39 299

Required

(a) For each entity calculate the return on assets and profit margin.
(b) Which entity appears to have stronger profitability?
(c) For each entity calculate working capital and the current ratio.
(d) Which entity appears to have stronger liquidity?
(e) What additional information would you require to make a better decision about the future profitability and liquidity of the two companies?

INTERPRETING FINANCIAL STATEMENTS

BBS1.3 NuSmart Technology Ltd launched its latest wireless communications product in 2016. The company spent much of 2015 developing and testing software so that its equipment could operate seamlessly in the public switched telephone network. Information from the company's statement of cash flows for the year ended 31 December 2016 follows.

	2016	**2015**
Cash received from customers	—	—
Cash generated (used) by operating activities	$(8 700 703)	$(11 265 540)
Cash generated (used) by investing activities	183 160	(42 968)
Cash provided (used) by financing activities	8 489 104	11 226 587
Net change in cash	$ (28 439)	$ (81 921)

The most significant source of cash generation was borrowing in 2015 and share issues in 2016. Despite delays, management has expressed confidence that the company is now positioned with a considerable competitive advantage.

Required

Use the information provided to answer each of the following:

(a) If you were a creditor of NuSmart Technology, what reaction might you have to the 2015 and 2016 statement of cash flows?

(b) If you were a shareholder of NuSmart Technology, what reaction might you have to the cash flows in 2016?

(c) If you were evaluating the company as either a creditor or a shareholder, what other information would you be interested in reviewing?

FINANCIAL ANALYSIS ON THE WEB

BBS1.4 *Purpose:* This exercise is an introduction to some large accounting firms.

Addresses:	Deloitte Touche Tohmatsu	www.deloitte.com.au *or* www.deloitte.co.nz
	Ernst & Young	www.ey.com/AU/en/Home
	KPMG	www.kpmg.com.au *or* www.kpmg.co.nz
	PricewaterhouseCoopers	www.pwc.com.au *or* www.pwc.co.nz
Steps:	Go to the homepage of a firm that is of interest to you.	

Required

Answer the following questions:

(a) Name two services provided by the firm.

(b) What countries or regions does it operate in?

(c) Does it provide information for students? If so, briefly describe the type of information.

(d) Summarise one recent news item discussed on the firm's web site.

CRITICAL THINKING

GROUP DECISION CASE

BBS1.5 Permanent Press provides laundry services to hotels and hospitals. In a recent annual report, Permanent Press chronicled its contributions to community services over the past 10 years. The following excerpts illustrate the variety of services provided:

1. At a local festival, Permanent Press sponsored the event by providing T-shirts, stationery, and office decorations featuring the company's name and logo.
2. In support of the 'Clean Up Australia' campaign in 2014, the company donated, and its employees planted, grevillea gardens in cities across Australia.
3. The company held a competition in which customers throughout Australia and New Zealand nominated their favourite children's charities. Winning charities in the draw received a monetary donation from Permanent Press in the name of the customer.
4. Permanent Press executives often volunteer their time and resources to serve as role models and mentors to young people in Auckland.

Required

With the class divided into groups, answer the following:

(a) The entity assumption requires that a company keep the personal expenses of its employees separate from business expenses. Which of the activities listed above were expenses of the business, and which were personal expenses of the employees? Be specific. If part of the donation is business and part is personal, note which part is each.

(b) For those items that were business expenses, state whether the expense was probably categorised as an advertising expense, employee wages expense, grounds maintenance expense, or charitable contribution expense. You may use any or all of the categories. Explain your answer.

COMMUNICATION ACTIVITY

BBS1.6 Amy Joan is the bookkeeper for J.B. Hamilton Ltd. Amy has finally got the company's statement of financial position to balance, but she still isn't sure that it is correct. Before sending the statement to the board of directors, she asks you to check it.

J.B. HAMILTON LTD
Statement of financial position
for the month ended 30 June 2016

Assets		Liabilities and equity	
Equipment	$30 750	Contributed equity	$ 40 000
Cash	12 000	Accounts receivable	(25 000)
Supplies	1 400	Inventory	(6 000)
Dividends	3 500	Accounts payable	21 650
		Retained earnings	17 000
Total assets	$47 650	Total liabilities and equity	$ 47 650

Required
Explain to Amy in a memo (a) the purpose of a statement of financial position and (b) why this statement is incorrect and what she should do to correct it.

SUSTAINABILITY

BBS1.7 The following is an extract from the AGL Energy Limited web site.

> At AGL, sustainability means thinking about responsibilities we have to all our stakeholders — our employees, our customers, our investors, the community and the environment. In addition to our economic performance, AGL recognises that our future success and reputational standing is also shaped and measured by the social and environmental consequences our decisions and actions have for all our stakeholders.
>
> AGL has implemented a sustainability strategy to identify, manage, monitor and report on the material risks that affect our ability to protect and enhance AGL's long-term value. AGL has established a framework for ongoing public reporting to provide an accurate, transparent, responsive and timely account of our performance and commitments in relation to sustainability risks and opportunities.
>
> *Source:* AGL Energy Limited, www.agl.com.au/about-agl/what-we-stand-for/sustainability.

Required
What is meant by the term sustainability?
Access AGL Energy Limited's latest sustainability responsibility report and:
1. outline the company's approach to sustainability
2. summarise AGL's achievements in health and safety and the environment for the current period. Include a discussion of how these achievements are measured.

ETHICS CASE

BBS1.8 As the chief financial officer of Mobile Phones Pty Ltd, you discover a significant misstatement that overstated assets in this year's financial statements. The misleading financial statements are contained in the company's annual report, which is about to be issued to banks and other creditors. After much thought about the consequences of telling the managing director, Jack Frost, about this misstatement, you gather your courage to tell him. Jack says, 'What they don't know won't hurt them. But just so we set the record straight, we'll adjust next year's financial statements for this year's misstatement. We can fix it next year when we make more profit. Just don't make that kind of mistake again.'

Required

(a) Who are the stakeholders in this situation?
(b) What are the ethical issues?
(c) What would you do as the chief financial officer?

Answers to self-study questions

1. c 2. b 3. b 4. b 5. c 6. c 7. b 8. c 9. d 10. d
11. a 12. c 13. c 14. c 15. b 16. c 17. a 18. a 19. c
20. c 21. c 22. c 23. a 24. b 25. b

Answer to Review It questions

Question 3, p. 29: Trade and other receivables
Question 2, p. 38: \$189 751 000 = \$87 169 000 + \$102 582 000

CHAPTER 2

THE RECORDING PROCESS

LEARNING OBJECTIVES

After studying this chapter, you should be able to:

1. Analyse the effect of accounting transactions and events on the basic accounting equation.
2. Explain what an account is and how it helps in the recording process.
3. Define debits and credits and explain how they are used to record accounting transactions.
4. Identify the basic steps in the recording process.
5. Explain what a journal is and how it helps in the recording process.
6. Explain what a general ledger is and how it helps in the recording process.
7. Explain what posting is and how it helps in the recording process.
8. Explain the purposes of a trial balance.

EAT WELL TODAY...FEEL BETTER TOMORROW

Been to the gym lately or do you play sport regularly to stay healthy? Maybe you suffer from allergies and need to watch what you eat. In order to be healthy you need to eat nutritious foods. Freedom Foods Group is the leading 'free from' brand marketer in the health and wellness market segment in Australia and New Zealand. What are 'free from' products, you ask? They are foods and beverages without key allergens, such as gluten, nuts or dairy, and are free from genetically modified ingredients. For example, the company markets almond milk, and gluten-free, wheat-free, low sugar or salt cereals and snack foods.

The principal activities of the company are the manufacture, distribution and marketing of allergen-free cereals, nutritional snacks and long life beverages (freedom food division); the marketing of low-GI energy waters under the Thorpedo brand; the distribution and marketing of canned seafood (specialty seafood division); and investment in the manufacture of a2™ branded dairy milk.

The company listed in 1985 and was trading modestly in the health food market sector until the last few years. This can be attributed to the growth in demand for 'free from foods' and two joint venture investments, one in Pactum, a UHT packaging business, and a second in the New Zealand a2™ branded milk. Freedom now owns 100% of Pactum and is expanding its production capabilities. Pactum provides the UHT packaging not only for the Freedom Foods Group, but also for private label and proprietary customers.

Freedom Foods Group sold part of its interest in the a2 Milk Company (a2C), but still remains the largest single shareholder with an 18% shareholding. The sale in December 2012 of the shares realised an after-tax profit of $11.8 million for the Freedom Foods Group. Freedom Foods Group and the two other largest shareholders in a2C sold down their equity interests as part of an equity raising in New Zealand by a2C and its listing on the main board of the New Zealand Stock Exchange. The a2™ branded milk is the fastest growing milk brand in the Australian market, with over 8% of the grocery channel market. The a2 Milk Company is also launching the a2™ Platinum™ infant formula into China, Australia and New Zealand and expanding into the UK and the US milk markets. Freedom Foods Group not only has a direct investment in a2C but also helps package, distribute and market its products in the overseas markets.

The specialty seafood division sell the Paramount salmon and Brunswick sardines brands and are performing in line with previous years. The Brunswick brand is the number one brand for sardines in Australia and New Zealand. The freedom foods division provides cereal and snacks for consumers with special dietary or medical needs. The range includes healthy alternatives that are low GI, low fat, high fibre, low in added sugars, low in salt, gluten free, organic, peanut free, dairy free, vegetarian and vegan. The company has seen solid growth in the cereal brands of 48% in 2013 and snack food demand particularly for ‘nut free’ is increasing. Many schools in Australia and New Zealand require nut free kids snacks due to the increase in children with nut allergies. This business unit is also expanding overseas into the US market. The US gluten-free market is estimated at US$3.4 billion and growing at 15% per annum.

Financially, in the year ending 30 June 2013 sales were $88 922 000, resulting in a profit after tax of $1 879 000, excluding the $11 843 000 after tax gain from the sale of the A2C shares. During 2013, the company raised $47 400 000 in capital by private placement. Both placement offers were oversubscribed, offering confidence from the market in the future growth of the company. As you can well imagine, the company must process and record an enormous number of transactions in order to come up with these sales and profit figures. It is the company’s accounting information system, and the underlying logic embedded within it, that allows all the economic events that affect the firm to be identified, processed and communicated to users of financial information. Freedom Foods Group has sophisticated computerised accounting information systems to handle all the steps involved in recording transactions and producing financial reports.

Source: **Adapted from information in Freedom Foods Group Limited company overview on its web site and the 30 June 2013 annual report and ASX announcement of the half year to 31 December 2013 financial results.**

On the World Wide Web
Freedom Foods Group Limited:
www.freedomfoods.com.au

PREVIEW OF CHAPTER 2

As indicated in the opening story, an effective accounting information system is a necessity for any entity. The purpose of this chapter is to explain and illustrate the features of a recording information system. The organisation and content of the chapter are as follows.

THE RECORDING PROCESS

Accounting transactions and events
- Analysing transactions
- Summary of accounting transactions

The account
- Debits and credits
- Debit and credit procedures
- Equity relationships
- Expansion of the basic accounting equation

Steps in the recording process
- The journal
- Chart of accounts
- The general ledger
- Posting

The recording process illustrated
- Summary illustration of journalising and posting

The trial balance
- Limitations of a trial balance

The system of collecting and processing transaction data and communicating financial information to interested parties is known as the **accounting information system**. Accounting information systems vary widely from one business to another. Factors that shape these systems include: the nature of the business, the types of transactions in which the business engages, the size of the business, the volume of data to be handled, and the information demands that management and others place on the system.

In reading this chapter, it is important to note that most businesses of any size today use computerised accounting systems. These systems handle all the steps involved in the recording process, from initial data entry to preparation of the financial statements. In order to remain competitive, companies like Domino's Pizza Enterprises Ltd, Freedom Foods Group Limited and Nike are continually updating and improving their accounting systems to provide accurate and timely data for decision making. Continual developments in technology allow for greater speed and efficiency in sharing information between groups of people. For example, the growth in the use of Bluetooth wireless technology can work anywhere and everywhere. This technology has completely revolutionised our ability to be connected and share information. Bluetooth eliminates the need for cables and wires while providing connectivity on a level we've never experienced before. This low-cost solution links computers, mobile phones and any manner of other Bluetooth-enabled devices quickly and easily. We no longer need to be in our office to stay in touch.

In this chapter we focus on a manual accounting system because the accounting concepts and principles do not change whether a system is computerised or manual, and manual systems are easier to illustrate. Note, however, many of the problems in this and subsequent chapters can also be completed using a computerised accounting package or even a simple spreadsheet program.

The transactions demonstrated in this chapter do not include the effects of the goods and services tax (GST). GST is first introduced in the appendix to chapter 4.

LEARNING OBJECTIVE 1

Analyse the effects of accounting transactions and events on the basic accounting equation.

ACCOUNTING TRANSACTIONS AND EVENTS

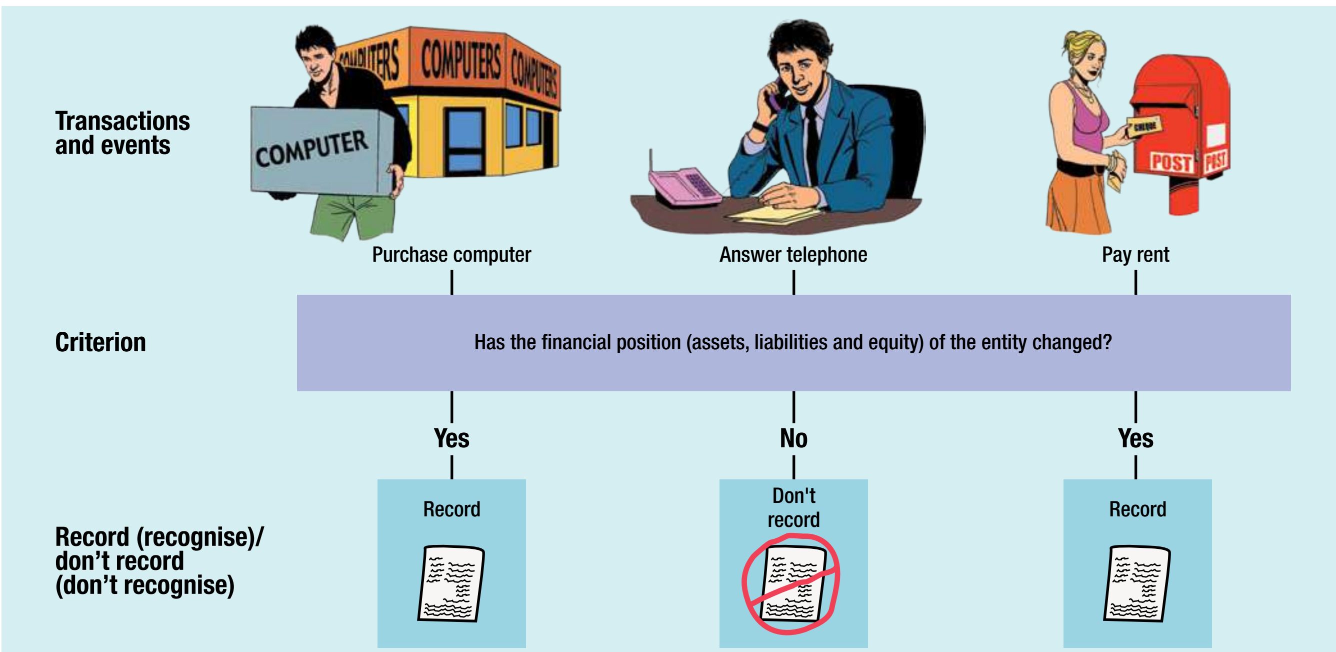
To use an accounting information system to develop financial statements, you need to know which economic transactions and events to record (recognise). Not all transactions and events are recorded and reported in the financial statements. A *transaction* is an external exchange of something of value between two or more entities. *Events* include price increases in business assets during an accounting period or the allocation of the cost of the long-lived assets of a business to different accounting periods. Events like these will be discussed in later chapters. For example, suppose Freedom Foods Group hired a new employee or purchased office equipment. Are these transactions and events entered in its accounting records? The hiring of a new employee (event) would not be recorded but the purchase of office equipment (transaction) would. How to account for these and many other events and transactions is explained in detail in this chapter.

Accounting transactions and events are those occurrences which must be recorded because they have an effect on the assets, liabilities or equity items of a business. Recall from chapter 1 that the *Conceptual Framework* outlines the definition and recognition criteria for assets, liabilities and equity items. These help us to record transactions. The purchase of a computer, the payment of rent and the sale of advertising space are examples of transactions that change an entity's assets, liabilities or equity. In this chapter we will focus on transaction analysis and in later chapters we will explore in more depth the definition and recognition criteria for assets, liabilities and equity from the *Conceptual Framework*. Figure 2.1 summarises the decision process used to decide whether or not to record transactions and events.

Helpful hint

Accountants often speak about 'recognising' the effects of transactions in the accounts. In this sense, to 'recognise' simply means to record the effects of transactions in the financial statements.

Figure 2.1 Accounting transaction and event identification process



ANALYSING TRANSACTIONS

In chapter 1 you were introduced to the basic accounting equation:

Assets	=	Liabilities	+	Equity

In this chapter you will learn how to analyse transactions, in terms of their effect on assets, liabilities and equity, in order to decide whether or not to record the transactions. **Transaction analysis** is the process of identifying the specific effects of transactions and events on the accounting equation. In subsequent chapters we will look at different events. Meanwhile, the focus of this chapter is on recording accounting transactions.

The accounting equation must always balance. Therefore, each transaction has a dual (double-sided) effect on the equation. For example, if an individual asset is increased, there must be a corresponding:

decrease in another asset, *or*
increase in a specific liability, *or*
increase in equity.

It is quite possible that two or more items could be affected when an asset is increased. For example, if an entity purchases office furniture for $10 000 by paying $6000 in cash and the remaining $4000 on credit, one asset (office furniture) increases $10 000, another asset (cash) decreases $6000, and a liability (accounts payable) increases $4000. The result is that the accounting equation remains in balance as assets increased by a net $4000 and liabilities increased by $4000, as shown below:

Assets	=	**Liabilities**	+	**Equity**
+$10 000		+$4 000		
− 6 000				
$ 4 000		$4 000		

Chapter 1 presented the financial statements for Wong Pty Ltd for its first month. To illustrate how transactions affect the accounting equation, we will examine a variety of transactions affecting Wong Pty Ltd during its first month.

Alternative terminology

An alternative term for share capital is *contributed equity*. In the United States, share capital is called *stock*.

(1) Issues shares for cash. On 1 October Wong Pty Ltd issues shares in exchange for $10 000 cash. This is a transaction because it involves an exchange which results in an increase in both assets and equity. There is an increase of $10 000 in cash (an asset) and an increase of $10 000 in share capital in the records of Wong Pty Ltd. The effect of this transaction on the basic equation is:

	Assets	=	**Liabilities**	+	**Equity**	
	Cash	=			Share capital	
(1)	**+$10 000**	=			**+$10 000**	**Issued shares**

The equation is in balance. The source of each change to equity is noted to the right of the transaction. In this case the source of the change was a share issue. Keeping track of the source of each change in equity is essential for later accounting activities and, in particular, the calculation of profit.

(2) Borrows money from a bank. On 1 October Wong Pty Ltd borrows $5000 from the ANZ Bank. This transaction results in an equal increase in assets and liabilities: cash (an asset) increases $5000, and bank loan (a liability) increases $5000. The specific effect of this transaction and the cumulative effect of the first two transactions are:

		Assets	=	**Liabilities**	+	**Equity**
		Cash	=	Bank loan	+	Share capital
	Old balance	$10 000				$10 000
(2)		**+5 000**		**+$5 000**		
	New balance	$15 000	=	$ 5 000	+	$10 000
				$15 000		

Note that total assets are now $15 000, and equity plus the new liability also total $15 000.

(3) Purchase of office equipment for cash. On 2 October Wong Pty Ltd acquires office equipment by paying $5000 cash to Superior Equipment Sales Ltd. This transaction results in an equal increase and decrease in Wong's assets. Office equipment (an asset) increases $5000, and cash (an asset) decreases $5000.

		Assets			=	**Liabilities**	+	**Equity**
		Cash	+	Office equipment	=	Bank loan	+	Share capital
	Old balance	$15 000				$5 000		$10 000
(3)		−5 000		+$5 000				
	New balance	$10 000	+	$ 5 000	=	$5 000	+	$10 000
		$15 000				$15 000		

The total assets are now $15 000, and equity plus the liability also total $15 000.

(4) Receipt of cash in advance from customer. On 2 October Wong Pty Ltd receives a $1200 cash advance from R. Knox, a client. In this transaction, cash (an asset) is received for advertising services that are expected to be completed by Wong Pty Ltd by 31 December. In the magazine and airline industries, customers are expected to prepay. These businesses have a liability to the customer until the magazines are delivered or the flight is provided. As soon as the product or service is provided, revenue can be recorded. Since Wong Pty Ltd received cash before performing the service, Wong Pty Ltd has a liability for the work due. Determining when to record revenue and when to record revenue received in advance is discussed further in chapter 3. In this example, cash increases by $1200, and a liability, service revenue received in advance (abbreviated as revenue received in advance), increases by an equal amount on 2 October:

Alternative terminology

Revenue received in advance is also called *unearned revenue*.

		Assets			=	**Liabilities**			+	**Equity**
		Cash	+	Office equipment	=	Bank loan	+	Revenue received in advance	+	Share capital
	Old balance	$10 000		$5 000		$5 000				$10 000
(4)		+1 200						+$1 200		
	New balance	$11 200	+	$5 000	=	$5 000	+	$ 1 200	+	$10 000
		$16 200				$16 200				

APPLICATION IN BUSINESS

Management perspective

Businesses can raise funds to finance their operations by borrowing money from a bank (called debt financing) or through selling shares (called equity financing). In the examples above, Wong Ltd raised $10 000 by issuing shares and $5000 by borrowing from the bank. International companies like Domino's, Freedom Foods Group, Westfield Group and Qantas have large amounts of both debt and equity financing, as shown in the table below:

	Debt A$m	**Equity A$m**
Domino's (2013)	87.17	102.58
Freedom Foods Group (2013)	44.44	82.34
Westfield Group (2013)	19 567.30	15 340.70
Qantas (2013)	14 264.00	5 954.00

(Liabilities and equity are explored further in chapters 9 and 10 respectively.)

Helpful hint

Recall from chapter 1 that, although a capital contribution by owners increases equity, it is *not* revenue.

(5) Renders services for cash. On 3 October Wong Pty Ltd receives $10 000 in cash from Copa & Co. for advertising services performed. In this transaction Wong Pty Ltd receives cash (an asset) in exchange for services. Advertising service is the principal revenue-producing activity of Wong Pty Ltd. *Revenue increases equity*. Both assets and equity are, then, increased by this transaction. Cash is increased by $10 000, and retained earnings is increased by $10 000. The new balances in the equation are:

		Assets		=	**Liabilities**		+	**Equity**		
		Cash +	Office equipment	=	Bank loan +	Revenue received in advance	+	Share capital +	Retained earnings	
	Old balance	$11 200	$5 000		$5 000	$1 200		$10 000		
(5)		+10 000							+$10 000	Service revenue
	New balance	$21 200 +	$5 000	=	$5 000 +	$1 200	+	$10 000 +	$ 10 000	
		$26 200			$26 200					

Alternative terminology

Another way to describe buying and selling goods 'on account' is buying and selling goods 'on credit'.

Often businesses sell goods or provide services 'on account'. That is, they provide services or goods for which they are paid at a later date. Instead of receiving cash, the business receives a different type of asset, an account receivable. **Accounts receivable** represent the right to receive payment at a later date. Suppose that Wong Pty Ltd had provided these services on account rather than for cash. This transaction would have been reported using the accounting equation as:

Assets	=	**Liabilities**	+	**Equity**	
Accounts receivable	=			Retained earnings	
+$10 000				+$10 000	Service revenue

Later, when the $10 000 is collected from the customer, accounts receivable would decrease by $10 000, and cash would increase by $10 000.

Assets		=	**Liabilities**	+	**Equity**
Cash	Accounts receivable				
+$10 000	−$10 000				

Note that in this case, equity is not affected by the collection of cash. Instead we record an exchange of one asset (accounts receivable) for a different asset (cash).

(6) Payment of rent in cash. On 3 October Wong Pty Ltd pays its office rent for the month of October in cash, $900. Rent is an expense incurred by Wong Pty Ltd in its effort to generate revenues. *Expenses decrease equity*. This transaction results in a decrease in cash and an increase in rent expense. It is recorded by decreasing cash and decreasing equity (specifically, retained earnings) to maintain the balance of the accounting equation. To record this transaction, cash is decreased by $900, and retained earnings is decreased by $900. The effect of the payment on the accounting equation is:

		Assets		=	**Liabilities**		+	**Equity**		
		Cash +	Office equipment	=	Bank loan +	Revenue received in advance	+	Share capital +	Retained earnings	
	Old balance	$21 200	$5 000		$5 000	$1 200		$10 000	$10 000	
(6)		−900							−900	Rent expense
	New balance	$20 300 +	$5 000	=	$5 000 +	$1 200	+	$10 000 +	$ 9 100	
		$25 300			$25 300					

(7) Payment of insurance in cash. On 4 October Wong Pty Ltd pays $600 for a 1-year insurance policy that will expire next year on 30 September. In this transaction one asset is exchanged for another. The asset cash is decreased by $600. The asset prepaid insurance is increased by $600. This is an asset because the insurance extends beyond the current month. Payments for benefits that continue for more than the current accounting period are identified as pre-paid expenses or prepayments. Note that the balance in total assets did not change; one asset account decreased by the same amount that another increased.

		Assets					=	Liabilities			+	Equity		
		Cash	+	Prepaid insurance	+	Office equipment	=	Bank loan	+	Revenue received in advance	+	Share capital	+	Retained earnings
	Old balance	$20 300				$5 000		$5 000		$1 200		$10 000		$9 100
(7)		**−600**		**+$600**										
	New balance	$19 700	+	$ 600	+	$5 000	=	$5 000	+	$1 200	+	$10 000	+	$9 100
				$25 300						$25 300				

(8) Purchase of supplies on credit. On 5 October Wong Pty Ltd purchases an estimated 3-month supply of advertising materials on account from Aero Supply for $2500. Assets are increased by this transaction because supplies represent a resource that will be used in the process of providing services to customers. Liabilities are increased by the amount owing to Aero Supply. The asset supplies is increased by $2500, and the liability accounts payable is increased by the same amount. **Accounts payable** represent amounts owing to suppliers for the purchase of goods or services on credit. The effect of the transaction on the accounting equation is:

Helpful hint

Recall that the term 'on account' means that the supplies will be provided now but the payment will be made at a later date.

		Assets							=	Liabilities					+	Equity		
		Cash	+	Supplies	+	Prepaid insurance	+	Office equipment	=	Bank loan	+	Accounts payable	+	Revenue received in advance	+	Share capital	+	Retained earnings
	Old balance	$19 700				$600		$5 000		$5 000				$1 200		$10 000		$9 100
(8)				**+$2 500**								**+$2 500**						
	New balance	$19 700	+	$ 2 500	+	$600	+	$5 000	=	$5 000	+	$ 2 500	+	$1 200	+	$10 000	+	$9 100
						$27 800								$27 800				

(9) Hiring of new employees. On 9 October Wong Pty Ltd hires four new employees to begin work on 15 October. Each employee is to receive a weekly salary of $500 for a 5-day working week, payable every 2 weeks. Employees are to receive their first pay on 26 October. There is no effect on the accounting equation because the assets, liabilities and equity of Wong Pty Ltd have not changed. A transaction has not occurred. At this point there is only an agreement that the employees will begin work on 15 October. (See transaction (11) overleaf for the first payment.)

(10) Payment of dividend. On 20 October Wong Pty Ltd pays a $500 dividend. Dividends are a distribution of profit and not an expense. A dividend transaction affects assets and equity as cash and retained earnings are decreased by $500.

		Assets							=	Liabilities					+	Equity			
		Cash	+	Supplies	+	Prepaid insurance	+	Office equipment	=	Bank loan	+	Accounts payable	+	Revenue received in advance	+	Share capital	+	Retained earnings	
	Old balance	$19 700		$2 500		$600		$5 000		$5 000		$2 500		$1 200		$10 000		$9 100	
(10)		**−500**																**−500**	**Dividends**
	New balance	$19 200	+	$2 500	+	$600	+	$5 000	=	$5 000	+	$2 500	+	$1 200	+	$10 000	+	$8 600	
						$27 300								$27 300					

(11) Payment of cash for employee salaries. Employees have worked 2 weeks, earning $4000 in salaries, which are paid on 26 October. Like the costs that were incurred for rent, salaries are an expense. They are a cost of generating revenues, and decrease equity. Cash and retained earnings are each decreased by $4000.

	Assets				=	**Liabilities**			+	**Equity**		
	Cash	+ Supplies	+ Prepaid insurance	+ Office equipment	=	Bank loan	+ Accounts payable	+ Revenue received in advance	+	Share capital	+ Retained earnings	
Old balance	$19 200	$2 500	$600	$5 000		$5 000	$2 500	$1 200		$10 000	$8 600	
(11)	−4 000										−4 000	Salaries expense
New balance	$15 200 +	$2 500 +	$600 +	$5 000	=	$5 000 +	$2 500 +	$1 200	+	$10 000 +	$4 600	
	$23 300					$23 300						

SUMMARY OF ACCOUNTING TRANSACTIONS

The transactions of Wong Pty Ltd, which you analysed to decide if they are to be recognised in the accounting records, are summarised in figure 2.2 to show their cumulative effect on the basic accounting equation. The transaction number, the specific effects of the transaction, and the balances after each transaction are indicated. Remember that (9) has no effect on the accounting equation, so no entry is included. The illustration demonstrates three significant facts:

1. Each transaction is analysed in terms of its effect on assets, liabilities and equity.
2. The two sides of the equation must always be equal (assets must equal liabilities plus equity).
3. The cause of each change in equity must be indicated.

Figure 2.2 Summary of transactions

	Assets				=	**Liabilities**			+	**Equity**		
	Cash	+ Supplies	+ Prepaid insurance	+ Office equipment	=	Bank loan	+ Accounts payable	+ Revenue received in advance	+	Share capital	+ Retained earnings	
(1)	+$10 000				=					+$10 000		Issued shares
(2)	+5 000					+$5 000						
	15 000				=	5 000			+	10 000		
(3)	−5 000			+$5 000								
	10 000			+ 5 000	=	5 000			+	10 000		
(4)	+1 200							+$1 200				
	11 200			+ 5 000	=	5 000		+ 1 200	+	10 000		
(5)	+10 000										+$10 000	Service revenue
	21 200			+ 5 000	=	5 000		+ 1 200	+	10 000 +	10 000	
(6)	−900										−900	Rent expense
	20 300			+ 5 000	=	5 000		+ 1 200	+	10 000 +	9 100	
(7)	−600		+$600									
	19 700		+ 600	+ 5 000	=	5 000		+ 1 200	+	10 000 +	9 100	
(8)		+$2 500					+$2 500					
	19 700 +	2 500 +	600	+ 5 000	=	5 000 +	2 500	+ 1 200	+	10 000 +	9 100	
(10)	−500										−500	Dividends
	19 200 +	2 500 +	600	5 000	=	5 000 +	2 500	+ 1 200	+	10 000 +	8 600	
(11)	−4 000			+							−4 000	Salaries expense
	$15 200 +	$2 500 +	$600	+ $5 000	=	$5 000 +	$2 500	+ $1 200	+	$10 000 +	$4 600	
	$23 300					$23 300						

In order to increase the likelihood of senior executive employees making strategic decisions that will have long-term benefits and increase shareholder value (and share price), most public companies offer executives share options as part of their remuneration packages with future exercise dates or cash incentives if earnings meet targets over a number of years. The details of these types of incentives are contained in the remuneration reports within the statutory Directors Report of a company's annual report. For example, refer to disclosure and discussion of the long-term incentives in the Domino's Pizza Enterprises Ltd's 2013 annual report in the appendix at the back of this book.

APPLICATION IN BUSINESS

Management perspective

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Has an accounting transaction occurred?	Details of the event	Accounting equation	Determine the effect, if any, on assets, liabilities and equity. A transaction has occurred if the accounting equation is affected.

THE ACCOUNT

LEARNING OBJECTIVE 2

Explain what an account is and how it helps in the recording process.

Rather than using a tabular summary like the one in figure 2.2 for Wong Pty Ltd, an accounting information system uses accounts. An **account** is an individual accounting record of increases and decreases in a specific asset, liability or equity item. For example, Wong Pty Ltd has separate accounts for cash, accounts receivable, accounts payable, service revenue, salaries expense, and so on. (Note that whenever we are referring to a specific account, we use title case for the name.)

In its simplest form, an account consists of three parts: (1) the name of the account, (2) a left, or debit, side, and (3) a right, or credit, side. Because the alignment of these parts of an account resembles the letter T, it is referred to as a **T account**. The basic form of an account is shown in figure 2.3.

The T-account form is used often throughout this book to explain basic accounting relationships. However, another common form of account is the running balance account, illustrated in figure 2.4 (overleaf). The running balance form provides a balance for the account after each transaction.

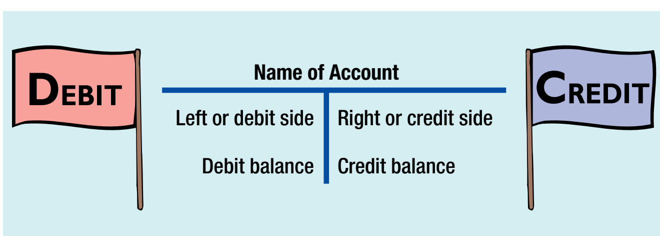


Figure 2.3 Basic or T form of account

DEBITS AND CREDITS

LEARNING OBJECTIVE 3

Define debits and credits and explain how they are used to record accounting transactions.

The term **debit** refers to the left side and the term **credit** refers to the right side when recording accounting transactions and events. They are commonly abbreviated as Dr for debit and Cr for credit. These terms are directional signals; they do *not* mean increase or decrease or good or bad as is commonly thought. The terms *debit* and *credit* are used repeatedly in the recording process to describe where entries are made in accounts. For example, the act of entering an amount on the left side of an account is called *debiting* the account. Making an entry on the right side is *crediting* the account. When the totals of the two sides of the T account are compared, an account will have a debit balance if the total of the debit amounts exceeds the total of the credits. Conversely, an account will have a credit balance if the total of the credit amounts exceeds the total of the debits. Note the position of the debit or credit balances in figure 2.3 (p. 101).

The procedure for recording debits and credits in an account is shown in figure 2.4 for the transactions affecting the cash account of Wong Pty Ltd. The data are taken from the cash column of the tabular summary in figure 2.2 (p. 100).

Tabular summary

Cash
$10 000
5 000
–5 000
1 200
10 000
–900
–600
–500
–4 000
$15 200

T-account form

Cash			
(Debits)	10 000	(Credits)	5 000
	5 000		900
	1 200		600
	10 000		500
			4 000

The balance of the T account is $15 200 Dr as the debit side exceeds the credit side by $15 200.

Running balance account form

Cash			
	Debit	Credit	Balance
	10 000		10 000
	5 000		15 000
		5 000	10 000
	1 200		11 200
	10 000		21 200
		900	20 300
		600	19 700
		500	19 200
		4 000	15 200 Dr

Figure 2.4 Tabular summary and account forms for Wong Pty Ltd's cash account

Every positive item in the tabular summary represents a receipt of cash; every negative amount represents a payment of cash. Note that in the account forms the increases in cash are recorded as debits and the decreases in cash are recorded as credits. In the T-account form, having increases on one side and decreases on the other side reduces recording errors and helps in determining the totals of each side of the account as well as the balance in the account. The account balance, a debit of $15 200, indicates that Wong Pty Ltd has $15 200 in its cash account. Since it started with a balance of zero, it has $15 200 more increases than decreases in cash.

DEBIT AND CREDIT PROCEDURES

Each transaction must affect two or more accounts to keep the basic accounting equation in balance. In other words, for each transaction, debits must equal credits. The equality of debits and credits provides the basis for the double-entry accounting system.

Under the universally used **double-entry system**, the dual (two-sided) effect of each transaction is recorded in appropriate accounts. This system provides a logical method for recording transactions. The double-entry system also offers a means of ensuring the accuracy of the recorded amounts. If every transaction is recorded with equal debits and credits, then the sum of all the debits to the accounts must equal the sum of all the credits. The double-entry system for determining the equality of the accounting equation is much more efficient than the plus/minus procedure used earlier. There, it was necessary after each transaction to compare total assets with total liabilities and equity to determine the equality of the two sides of the accounting equation.

APPLICATION IN BUSINESS

Historical perspective

Trade was flourishing in Italy by the late fifteenth century. In 1494, a Venetian monk named Luca Pacioli described a new system for recording business transactions, and the double-entry accounting system is still used in today's world of international commerce. Although accounting has developed and continues to develop in response to changing commercial requirements, many of the fundamental elements documented by Pacioli remain the same. For example, then, as now, monetary units are used to record accounting transactions. In Pacioli's time, the system was based on three books: a memorandum, a journal and a ledger. Today we retain only the journal and ledger. Also, capital and retained earnings accounts are still maintained separately and, as Pacioli said, the method can '. . . give the trader without delay information as to his assets and liabilities'.

Source: Adapted from B. Popoff and T.K. Cowan, *Analysis and Interpretation of Financial Statements*, 3rd edn, Butterworths, 1989; M. Chatfield, *A History of Accounting Thought*, Krieger, 1977.

Dr/Cr procedures for assets and liabilities

In figure 2.4 for Wong Pty Ltd, increases in cash (an asset) were entered on the left side of a T account, and decreases in cash were entered on the right side. We know that both sides of the basic equation (Assets = Liabilities + Equity) must be equal. Therefore increases and decreases in liabilities will have to be recorded *opposite from* increases and decreases in assets. Thus, increases in liabilities must be entered on the right or credit side, and decreases in liabilities must be entered on the left or debit side. The effects that debits and credits have on assets and liabilities are summarised in figure 2.5.

Debits	Credits
Increase assets	Decrease assets
Decrease liabilities	Increase liabilities

Figure 2.5 Debit and credit effects — assets and liabilities

Asset accounts normally show debit balances. That is, debits to a specific asset account should exceed credits to that account. Likewise, liability accounts normally show credit balances. That is, credits to a liability account should exceed debits to that account. The normal balances are illustrated in figure 2.6.

Assets	
Increase debit	Decrease credit
Normal balance	

Liabilities	
Decrease debit	Increase credit
	Normal balance

Figure 2.6 Normal balances — assets and liabilities

Knowing which is the normal balance in an account may help when you are trying to find errors. For example, a credit balance in an asset account such as land or a debit balance in a liability account such as wages payable usually indicates errors in recording. Occasionally, however, an abnormal balance may be correct. The cash account, for example, will have a credit balance when an entity has overdrawn its bank balance, i.e. when an entity has taken more money out of the bank account than it has put in. This is discussed further in later chapters.

APPLICATION IN BUSINESS

Management perspective

In computerised accounting systems such as MYOB or QuickBooks, the computer is programmed to flag violations of the normal balance and to print out error or exception reports. In manual systems, careful visual inspection of the accounts is required to detect normal balance problems. In computerised accounting systems, the software is written to minimise errors. For example, transactions where debits do not equal credits will not be processed.

Dr/Cr procedures for equity

Subdivisions of equity include share capital, retained earnings, dividends, revenues and expenses. In a double-entry system, accounts are kept for each of these subdivisions.

Share capital

Share capital is issued in exchange for the owners' investment. The share capital account is increased by credits and decreased by debits. For example, when cash is invested in the business, cash is debited and share capital is credited. The effects of debits and credits on the share capital account are shown in figure 2.7.

Debits	Credits
Decrease share capital	Increase share capital

Figure 2.7 Debit and credit effects — share capital

The normal balance in the share capital account may be illustrated as in figure 2.8 (overleaf).

Figure 2.8 Normal balance — share capital

Share Capital	
Decrease debit	Increase credit
	Normal balance

Retained earnings

Retained earnings is profit that is retained in the business. It represents the portion of equity that has been accumulated through the profitable operation of the business. The retained earnings account is increased by credits (e.g. profit) and decreased by debits (e.g. losses), as shown in figure 2.9.

Figure 2.9 Debit and credit effects — retained earnings

Debits	Credits
Decrease retained earnings	Increase retained earnings

The normal balance for retained earnings may be illustrated as in figure 2.10.

Figure 2.10 Normal balance — retained earnings

Retained Earnings	
Decrease debit	Increase credit
	Normal balance

Dividends

A **dividend** is a distribution by a company to its shareholders in an amount proportional to each investor's percentage ownership. The most common form of distribution is a cash dividend. Dividends result in a reduction of the shareholders' claims on retained earnings. Because dividends reduce equity, increases in the dividends account are recorded with debits. As shown in figure 2.11, the dividends account normally has a debit balance.

Figure 2.11 Normal balance — dividends

Dividends	
Increase debit	Decrease credit
Normal balance	

Revenues and expenses

When revenues are recognised, equity is increased. Accordingly, the effect of debits and credits on revenue accounts is identical to their effect on equity. Revenue accounts are increased by credits and decreased by debits.

On the other hand, expenses decrease equity. As a result, expenses are recorded by debits. Since expenses are the negative factor in the calculation of profit and revenues are the positive factor, it is logical that the increase and decrease sides of expense accounts should be the reverse of revenue accounts. Thus, expense accounts are increased by debits and decreased by credits. The effects of debits and credits on revenues and expenses are shown in figure 2.12.

Figure 2.12 Debit and credit effects — revenues and expenses

Debits	Credits
Decrease revenues	Increase revenues
Increase expenses	Decrease expenses

Credits (increases) to revenue accounts normally exceed debits (decreases), and debits (increases) to expense accounts should exceed credits (decreases). Thus, revenue accounts normally show credit balances, and expense accounts normally show debit balances. The normal balances may be illustrated as in figure 2.13.

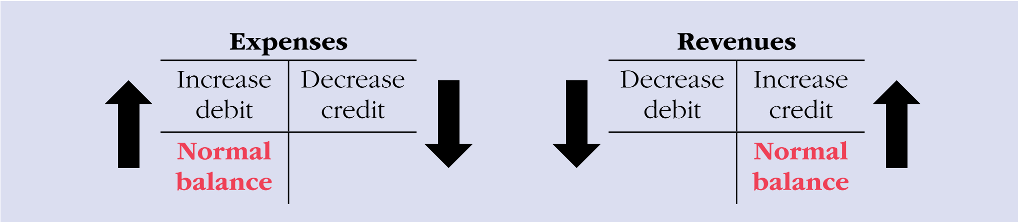
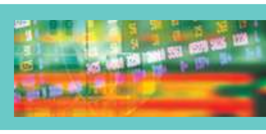


Figure 2.13 Normal balances — revenues and expenses



APPLICATION IN BUSINESS

Investor perspective

Investors buy shares in a company in order to receive a return on their investment. The return could be in the form of a dividend (cash or shares) or an increase in the company's share price. Companies like Telstra and Coca-Cola Amatil usually pay out large sums in dividends each year, as seen below.

Company	Dividend payout $'000
Coca-Cola Amatil	473 000
CSR	50 600
Domino's	20 762
Michael Hill	22 968
Telstra	3 480 000

EQUITY RELATIONSHIPS

As indicated in chapter 1, share capital, dividends and retained earnings for Wong Pty Ltd are reported in the equity section of the statement of financial position. Revenues and expenses are reported on the statement of profit or loss. Dividends, revenues and expenses are eventually transferred to retained earnings at the end of the period. The balance in the retained earnings account at the end of the period is calculated as follows: beginning balance in retained earnings plus profit (or minus loss) minus dividends. The relationships of the accounts affecting equity are shown in figure 2.14.

Helpful hint

The revenue and expenses are used to calculate profit in the period. The resulting profit is added to the retained earnings account. The retained earnings account is an equity account that is increased by profit and decreased by dividends — that is, when profit is distributed to shareholders. This will be expanded upon in chapter 10.

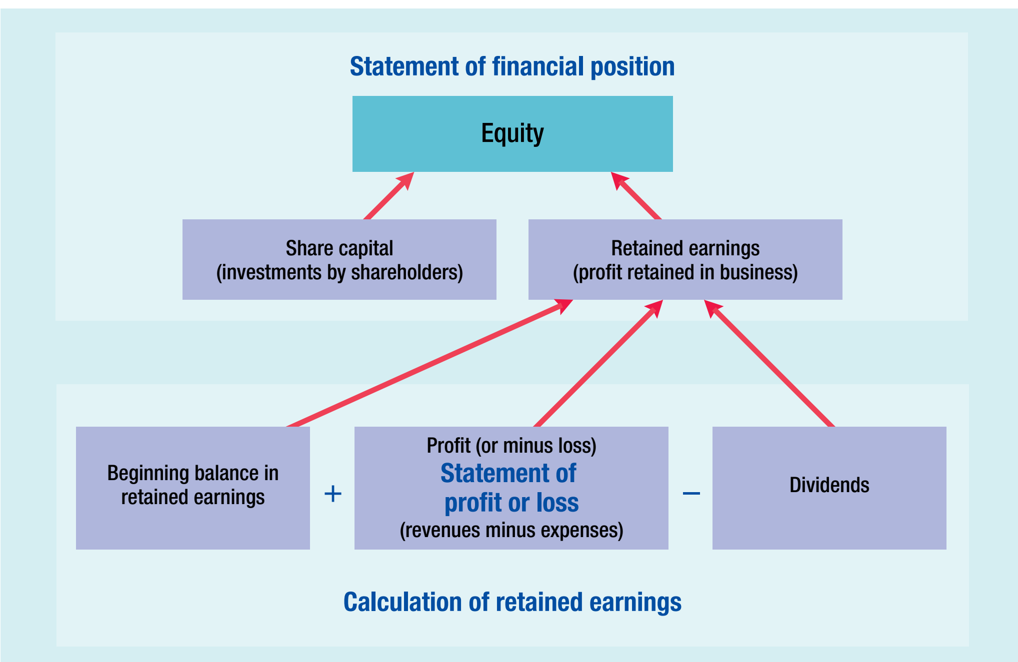


Figure 2.14 Equity relationships

Helpful hint

The accounting equation Assets = Liabilities + Equity can be used to analyse transactions for both a sole proprietor and a company.

EXPANSION OF THE BASIC ACCOUNTING EQUATION

You have already learned the basic accounting equation. Figure 2.15 expands this equation to show the accounts that make up equity. In addition, the debit/credit rules and effects on each type of account are illustrated. Study this diagram carefully. It will help you understand the fundamentals of the double-entry system. Like the basic equation, the expanded basic equation must be in balance; total debits must equal total credits.

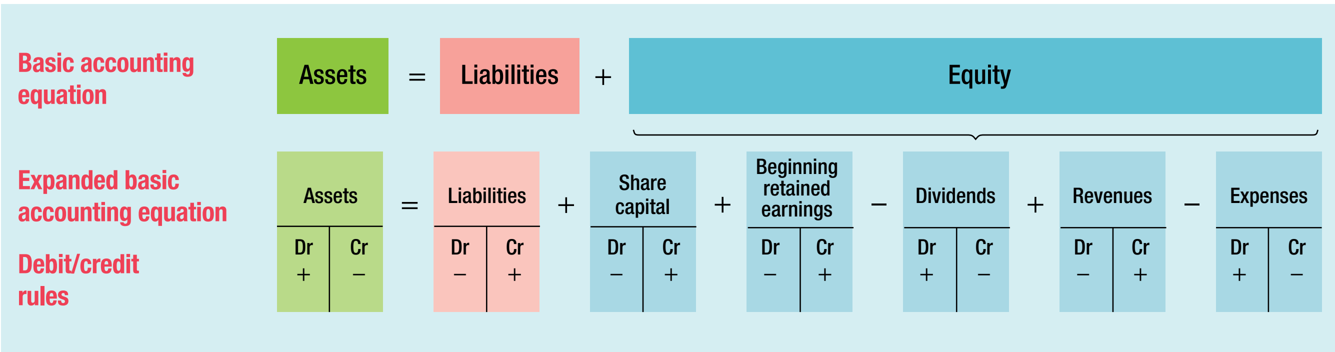


Figure 2.15 Expansion of the basic accounting equation

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What do the terms *debit* and *credit* mean?
2. Explain the debit and credit effects on assets, liabilities and equity.
3. What are the debit and credit effects on revenues, expenses and dividends?
4. What are the *normal* balances for the following accounts of Domino's: Trade and other receivables, income tax expense, revenue, food and paper expenses? (The answer to this question is on p. 150.)

>> DO IT

Kate Brown, managing director of Hair Affair Pty Ltd, has just rented space in a Westfield shopping centre for the purpose of opening and operating a hairdressing salon. Long before opening day and before purchasing equipment, hiring assistants and renovating the space, Kate was strongly advised to set up a double-entry set of accounting records in which to record the business transactions.

Identify the accounts that Hair Affair Pty Ltd is likely to need to record the transactions necessary to establish and open for business. Also, indicate whether the normal balance of each account is a debit or a credit.

REASONING: To start the business, Hair Affair Pty Ltd will need to have asset accounts for each different type of asset invested in the business. In addition, the company will need liability accounts for debts incurred by the business. Hair Affair Pty Ltd will need only one equity account for share capital when it begins the business. The other equity accounts will be needed only after business has commenced.

SOLUTION: Hair Affair Pty Ltd is likely to need the following accounts in which to record the transactions necessary to establish and ready the salon for opening day: cash (debit balance); equipment (debit balance); supplies (debit balance); accounts payable (credit balance); bank loan (credit balance), if the business borrows money; and share capital (credit balance).

STEPS IN THE RECORDING PROCESS

LEARNING OBJECTIVE 4
Identify the basic steps in the recording process.

Although it is possible to enter transaction information directly into the accounts, few businesses do so. Practically every business uses these three basic steps in the recording process.

1. Analyse each transaction in terms of its effect on the accounts.
2. Enter the transaction information in a journal.
3. Transfer the journal information to the appropriate accounts in the ledger.

The actual sequence of events begins with the transaction. Evidence of the transaction comes in the form of a **source document**, such as a purchase order (evidence of goods ordered from a supplier), a purchase invoice (evidence from a supplier of a purchase of goods or services on credit), a cheque (evidence of a payment), cash register tape (evidence of cash sales made through a cash register) or a sales invoice (evidence of a credit sale). Figure 2.16 is an example of a sales invoice, which provides evidence that the business has made a credit sale to a customer. The original sales invoice is sent to the customer for the customer's records, and the copy provides the evidence of a credit sale in the business's records. (Sales invoices are called tax invoices when the goods and services tax (GST) is payable. The GST is first introduced in the appendix to chapter 4.)

TAX INVOICE

No. 204403

M.BROWN & ASSOCIATES (i.e. name of entity)
ABN 33 123 689 701

Charge to:	Send to:
Smith & Retton 21 Edinburgh Street BOOVAL QLD 4304	Smith & Retton 21 Edinburgh Street BOOVAL QLD 4304

Account No.	Terms	Customer Order Ref.
210337	Net 30 days	25/8/2016

Stock No.	Quantity	Description	Unit Price	TOTAL
63147	20	XC M-type gear boxes	$27.50	$550.00
21003	40	XC Gear box brackets	$ 1.10	$ 44.00
			Total amount payable	$594.00
			Total includes GST of	$ 54.00

Figure 2.16 A sales invoice

Each source document is analysed to determine the effect of the transaction on specific accounts. The transaction is then entered in the journal. Finally, the journal entry is transferred to the designated accounts in the ledger. The sequence of events in the recording process is shown in figure 2.17 (overleaf).

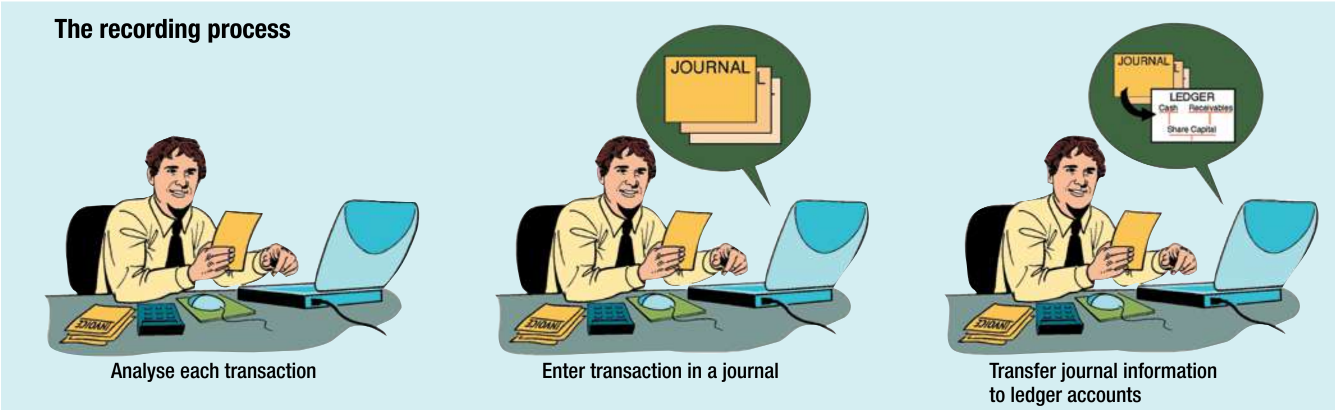


Figure 2.17 The recording process

The basic steps in the recording process occur repeatedly in every business. The analysis of transactions has already been illustrated, and more examples of this step are given in this and later chapters. The other steps in the recording process are explained in the next sections.

LEARNING OBJECTIVE 5
Explain what a journal is and how it helps in the recording process.

THE JOURNAL

Transactions are initially recorded in chronological order in a **journal** before they are transferred to the accounts. For each transaction the journal shows the debit and credit effects on specific accounts. Businesses may use various kinds of journals to record transactions; these are explored in detail in chapter 6. Every business has at least the most basic form of journal, a **general journal**. The general journal makes two significant contributions to the recording process.

1. It provides a chronological record of all transactions.
2. It discloses in one place the complete effect of a transaction. This helps to prevent or locate errors.

Entering transaction data in the journal is known as **journalising**. To illustrate the technique of journalising, let's look at the first three transactions of Wong Pty Ltd. These transactions were: 1 October, shares were issued in exchange for $10 000 cash; 1 October, $5000 was borrowed from a bank; 2 October, purchased office equipment costing $5000 for cash. In equation form, these transactions appeared in our earlier discussion as follows:

Assets	=	**Liabilities**	+	**Equity**	
Cash	=			Share capital	
+$10 000				+$10 000	Issued shares

Assets	=	**Liabilities**	+	**Equity**
Cash	=	Bank loan		
+$5 000		+$5 000		

Assets		=	**Liabilities**	+	**Equity**
Cash	Office equipment				
−$5 000	+$5 000				

Separate journal entries are made for each transaction. A complete entry consists of: (1) the date of the transaction, (2) the accounts and amounts to be debited and credited, and (3) a brief explanation of the transaction, referred to as a **narration**. Wong Pty Ltd's first three transactions are journalised in figure 2.18.

GENERAL JOURNAL				
Date	Account name (narration)	Post ref.	Debit	Credit
2016				
Oct. 1	Cash	100	10 000	
	Share capital	300		10 000
	(Issued shares for cash)			
1	Cash	100	5 000	
	Bank loan	230		5 000
	(Borrowed money from a bank)			
2	Office equipment	130	5 000	
	Cash	100		5 000
	(Purchased office equipment for cash)			

Figure 2.18 Recording transactions in journal form

Note the following features of the journal entries:

1. The date of the transaction is entered in the Date column.
2. The account to be debited is always entered first at the left. The account to be credited is then entered on the next line, indented under the line above. The indentation differentiates debits from credits and decreases the possibility of switching the debit and credit amounts.
3. The amounts for the debits are recorded in the debit (left) column, and the amounts for the credits are recorded in the credit (right) column.
4. A brief explanation of the transaction is given (narration). The narration is found directly below the transaction.
5. The posting reference column (abbreviated to Post ref.) contains the account number as it appears in the chart of accounts (discussed in the next section).

It is important to use correct and specific account names and numbers in journal entries. Since all accounts are used in preparation of the financial statements, erroneous account names lead to incorrect financial statements. Some flexibility exists initially in selecting account names. For example, a business could use any of these account names for recording the cost of delivery trucks: delivery vehicles, delivery trucks or trucks. The main criterion is that each name must appropriately describe the type of asset, liability, revenue, expense or equity represented in the account. You would expect entities that have similar business transactions, like Domino's and Freedom Foods Group to have similar account names. Once the business chooses the specific account name, all subsequent transactions involving the account should be recorded under that account name. An entity's chart of accounts facilitates the consistent recording of transactions as it provides a list of all the account names used to record transactions for that business.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What is the correct sequence of steps in the recording process?
2. What contribution does the journal make to the recording process?
3. What are the standard form and content of a journal entry made in the general journal?

>> DO IT

The following events occurred during the first month of business of Hair Affair Pty Ltd, Kate Brown's hairdressing salon:

1. Issued shares to shareholders in exchange for $20 000 cash.
2. Purchased $4800 of hair supplies inventory on account (to be paid in 30 days).
3. Interviewed three people for the position of hairdresser.

In what form (type of record) should the entity initially record these three activities? Prepare the entries to record the transactions.

REASONING: Kate should record the transactions in a journal, which is a chronological record of the transactions. The record should be a complete and accurate representation of the transactions' effects on the assets, liabilities and equity of her business.

SOLUTION: Each transaction that is recorded is entered in the general journal. The three activities are recorded as follows:

1.	Cash	20 000	
	Share capital		20 000
	(Issued shares for cash)		
2.	Inventory	4 800	
	Accounts payable		4 800
	(Purchased hair supplies inventory on account)		
3.	No entry because no transaction occurred.		

Helpful hint

If you are unsure of the solution to part 3 here, review transaction 9 on page 99 for Wong Pty Ltd.

CHART OF ACCOUNTS

All transactions for a business are recorded in accounts set up in the general ledger. The **chart of accounts** is a list of all these accounts. *Account numbers* as well as *account names* are often used for each account. One of the most important decisions when setting up the recording system is ensuring the information system is suitable to meet the needs of the users of the accounting information. In order to ensure the data is 'sorted and summarised' so the accounting reports provide the relevant information, you start with the required outputs and design the recording system to meet those needs. When you are designing the numbering system it should be flexible to allow for additional accounts to be added when required.

When establishing or modifying a chart of accounts, you should be careful to make sure that similar names are not used for different accounts. For example, the account name Motor Vehicle does not indicate whether a posting should be made to an asset account or an expense account, whereas including an account number and using names, such as motor vehicle asset account and motor vehicle expense account, leave no room for doubt. Using account numbers as well as account names is recommended, as it is easier to make sure the correct account is selected if similar names are used and you are unable to change them to make them more distinctive.

The number and type of accounts used differ for each business, depending on the size, complexity and type of business. For example, the number of accounts depends on the amount of detail desired by management. The management of one business may want one single account for all types of service expense. Another may keep separate expense accounts for each type of service expense, such as gas, electricity and water. Similarly, a small business like Wong Pty Ltd will not have many accounts compared with a large company like Domino's. Wong Pty Ltd may be able to manage and report its activities in 20 to 30 accounts, whereas companies such as Vodafone, Wesfarmers and Freedom Foods Group require thousands of accounts to keep track of their worldwide activities.

The chart of accounts for Wong Pty Ltd is shown in figure 2.19. Accounts shown in red are used in this chapter; accounts shown in black are explained in later chapters. New accounts may be created as needed during the life of the business.

Figure 2.19 Chart of accounts for Wong Pty Ltd

WONG PTY LTD — Chart of accounts

Assets		Liabilities		Equity		Revenues		Expenses	
No.	**Account name**	**No.**	**Account name**	**No.**	**Account name**	**No.**	**Account name**	**No.**	**Account name**
100	**Cash**	200	**Accounts payable**	300	**Share capital**	400	**Service revenue**	500	**Salaries expense**
104	**Accounts receivable**	210	Interest payable	310	**Retained earnings**	405	Commissions revenue	505	Supplies expense
105	Commissions receivable	213	**Revenue received in advance**	320	**Dividends**			510	**Rent expense**
110	**Advertising supplies**	215	Salaries payable	330	Profit or loss summary			515	Insurance expense
112	**Prepaid insurance**	230	**Bank loan**					518	Interest expense
130	**Office equipment**							520	Depreciation expense
131	Acc. depreciation—Office equipment								

THE GENERAL LEDGER

LEARNING OBJECTIVE 6

Explain what a general ledger is and how it helps in the recording process.

The general journal provides a chronological list of all of the transactions for a business. A chronological list on its own, however, is of limited use. Classifying and summarising data improves their usefulness for decision making. For example, a business's general journal could contain hundreds of purchases, cash receipts and cash payments transactions in any given month. If a sales manager wants to know the total sales revenue for any particular month, this information cannot be easily obtained from the general journal, but it can be obtained from the sales revenue account in the ledger. The ledger accumulates all the information about changes in specific account balances such as sales revenue, cash, and wages expense.

The entire group of accounts maintained by a business is referred to collectively as the general ledger. A **general ledger** contains all the assets, liabilities and equity accounts, as shown in figure 2.20. A business can use a loose-leaf binder or card file for the ledger, with each account kept on a separate sheet or card. Most businesses today, however, use a computerised accounting system. Computerised accounting systems are illustrated in chapter 6. Whenever the term *ledger* is used in this book without additional specification, it will mean the general ledger.

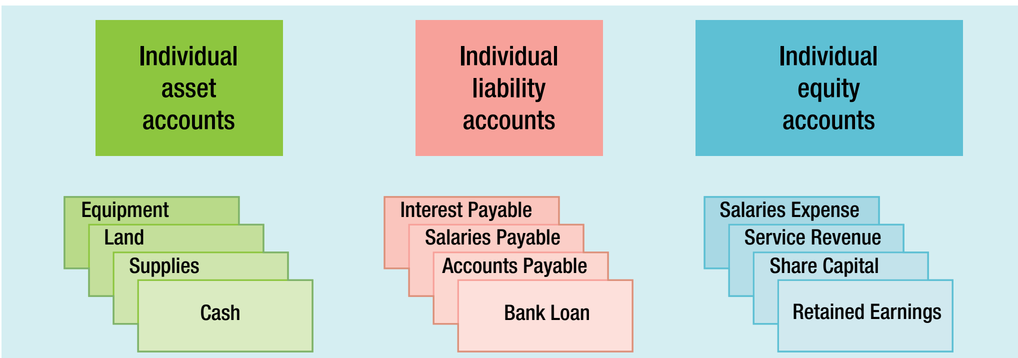


Figure 2.20 The general ledger

POSTING

LEARNING OBJECTIVE 7

Explain what posting is and how it helps in the recording process.

The procedure of transferring journal entries to ledger accounts is called **posting**. This phase of the recording process accumulates the effects of journalised transactions in the individual asset, liability, equity, revenue and expense accounts. Posting involves the following steps.

1. Using the account number in the posting reference column, locate in the ledger the account to be debited and enter the date the transaction occurred.
2. To the right of the date, enter the name of the ledger account to which the credit entry will be posted. This is called the cross-reference.
3. Enter the amount to be debited to the debit side of the ledger account. (If a running balance ledger account is used, enter the amount in the debit column of the ledger account and calculate the new balance in the balance column.)
4. In the general journal, place a tick beside the account number in the posting reference column. This signifies that the entry has now been posted to the ledger.
5. Repeat steps 1–4 for the credit side of the entry.

These steps are illustrated in figures 2.22 to 2.32 (pp. 112–17) in the next section.

A cross-reference in a ledger account is very useful as it provides additional information on each amount recorded in an individual ledger account. For example, figure 2.4 on page 102 illustrates the transactions affecting the cash account for Wong Pty Ltd for the month of October. In this very simple form of the cash ledger account, cross-references are not given and so no details are available on what the amounts represent. This simple cash ledger T account is reproduced in figure 2.21 (overleaf). Also in figure 2.21 is the same cash ledger account with cross-references included. *The cross-references serve two important purposes: (1) they indicate the corresponding ledger accounts to which the entries are posted, and (2) at a glance, they provide information on the nature of each transaction in the ledger account.* For example, in the cash ledger account in figure 2.21 the cross-reference indicates the nature of each cash outlay (credit entries) and the nature of the amount of incoming cash (debit entries). When you compare the cash ledger account which includes cross-references with the account that does not include cross-references, it is easy to see which is more useful and why cross-references are so important. In some chapters, where a very basic form of the ledger account is used due to space constraints, ledger cross-references may not always be shown. In practice, however, in businesses using computerised accounting packages, the cross-referencing is usually complete.

No cross-references

Cash			
(Debits)	10 000	(Credits)	5 000
	5 000		900
	1 200		600
	10 000		500
			4 000

Cross-references included

Cash					
Oct. 1	Share capital	10 000	Oct. 2	Office equipment	5 000
1	Bank loan	5 000	3	Rent expense	900
2	Revenue received in advance	1 200	4	Prepaid insurance	600
3	Service revenue	10 000	20	Dividends	500
			26	Salaries expense	4 000

Figure 2.21 Wong Pty Ltd's cash account with and without dates and cross-references

THE RECORDING PROCESS ILLUSTRATED

Figures 2.22 to 2.32 (pp. 112–17) show the basic steps in the recording process using the October transactions of Wong Pty Ltd. Its accounting period is a month. A basic analysis and a debit–credit analysis precede the journalising and posting of each transaction. Study these transaction analyses carefully. The purpose of transaction analysis is first to identify the type of account involved and then to determine whether a debit or a credit to the account is required. You should always perform this type of analysis before preparing a journal entry. Doing so will help you understand the journal entries discussed in this chapter as well as more complex journal entries to be described in later chapters.

Helpful hint

Remember to place a ✓ beside the account number in the general journal once the entry has been posted to the ledger. Note that the cross-references indicate the ledger account to which the opposite side of the entry is posted.

Transaction

1 October, Wong Pty Ltd issued shares for $10 000 cash.

Basic analysis

The asset cash is increased $10 000; equity (specifically share capital) is increased $10 000.

Equation analysis

	Assets	=	Liabilities	+	Equity
	Cash	=			Share capital
(1)	+$10 000				+$10 000 Issued shares

Debit–credit analysis

Debits increase assets: debit cash $10 000.
Credits increase equity: credit share capital $10 000.

Journal entry

Date	Account name (narration)	Post ref.	Debit	Credit
Oct. 1	Cash	100✓	10 000	
	Share capital	300✓		10 000
	(Issued shares for cash)			

Posting

Cash			No. 100
Oct. 1 Share capital	10 000		

Share capital			No. 300
		Oct. 1 Cash	10 000

Figure 2.22 Shares issued for cash

Helpful hint

In the cash ledger account, note that the cross-references indicate the nature of the cash received — $10 000 from a share issue and $5000 from a bank loan.

Transaction

1 October, borrowed $5000 from the ANZ Bank.

Basic analysis

The asset cash is increased $5000; the liability bank loan is increased $5000.

Equation analysis

	Assets	=	Liabilities	+	Equity
	Cash	=	Bank loan		
(2)	+$5 000		+$5 000		

Debit–credit analysis

Debits increase assets: debit cash $5000.
Credits increase liabilities: credit bank loan $5000.

Journal entry

Date	Account name (narration)	Post ref.	Debit	Credit
Oct. 1	Cash	100✓	5 000	
	Bank loan	230✓		5 000
	(Borrowed money from a bank)			

Posting

Cash			No. 100
Oct. 1 Share capital	10 000		
1 Bank loan	5 000		

Bank loan			No. 230
		Oct. 1 Cash	5 000

Figure 2.23 Bank loan

Transaction

2 October, paid $5000 cash to purchase office equipment.

Basic analysis

The asset office equipment is increased $5000; the asset cash is decreased $5000.

Equation analysis

	Assets			=	Liabilities	+	Equity
	Cash	+	Office equipment				
(3)	−$5 000		+$5 000				

Debit–credit analysis

Debits increase assets: debit office equipment $5000.
Credits decrease assets: credit cash $5000.

Journal entry

Date	Account name (narration)	Post ref.	Debit	Credit
Oct. 2	Office equipment	130✓	5 000	
	Cash	100✓		5 000
	(Purchased office equipment for cash)			

Posting

Cash			No. 100
Oct. 1 Share capital	10 000	Oct. 2 Office Equipment	5 000
2 Bank loan	5 000		

Office equipment			No. 130
Oct. 2 Cash	5 000		

Figure 2.24 Purchase of office equipment for cash

Helpful hint

Use the chart of accounts to help you analyse each transaction before you record it in the general journal. The chart of accounts lists all the account names and numbers used in the business.

Transaction

2 October, a $1200 cash advance is received from R. Knox, a client, for advertising services that are expected to be completed by 31 December.

Basic analysis

The asset cash is increased $1200; the liability revenue received in advance is increased $1200. That is, when an advance payment is received, a liability (revenue received in advance) should be recorded in order to recognise the obligation that exists. Note also that although many liabilities have the word 'payable' in their name, revenue received in advance is considered a liability even though the word *payable* is not used.

Equation analysis

	Assets	=	**Liabilities**	+	**Equity**
	Cash	=	Revenue received in advance		
(4)	+$1 200		+$1 200		

Debit–credit analysis

Debits increase assets: debit cash $1200.
Credits increase liabilities: credit revenue received in advance $1200.

Journal entry

Date	Account name (narration)	Post ref.	Debit	Credit
Oct. 2	Cash	100✓	1 200	
	Revenue received in advance	213✓		1 200
	(Received advance from R. Knox for future service)			

Posting

Cash — No. 100

Oct. 1	Share capital	10 000	Oct. 2	Office equipment	5 000
1	Bank loan	5 000			
2	Revenue received in advance	1 200			

Revenue received in advance — No. 213

			Oct. 2	Cash	1 200

Figure 2.25 Receipt of cash in advance from customer

Transaction

3 October, received $10 000 in cash from Copa & Co. for advertising services provided in October.

Basic analysis

The asset cash is increased $10 000; the revenue service revenue is increased $10 000.

Equation analysis

	Assets	=	**Liabilities**	+	**Equity**
	Cash	=			Retained earnings
(5)	+$10 000				+$10 000 Service revenue

Debit–credit analysis

Debits increase assets: debit cash $10 000.
Credits increase revenues: credit service revenue $10 000.

Journal entry

Date	Account name (narration)	Post ref.	Debit	Credit
Oct. 3	Cash	100✓	10 000	
	Service revenue	400✓		10 000
	(Received cash for services provided)			

Posting

Cash — No. 100

Oct. 1	Share capital	10 000	Oct. 2	Office equipment	5 000
1	Bank loan	5 000			
2	Revenue received in advance	1 200			
3	Service revenue	10 000			

Service revenue — No. 400

			Oct. 3	Cash	10 000

Figure 2.26 Services rendered for cash

Transaction	3 October, office rent for October is paid in cash, $900.
Basic analysis	The expense rent is increased $900 because the payment pertains only to the current month; the asset cash is decreased $900.

Equation analysis

	Assets	=	Liabilities	+	Equity
	Cash	=			Retained earnings
(6)	−$900				−$900 Rent expense

Debit–credit analysis

Debits increase expenses: debit rent expense $900.
Credits decrease assets: credit cash $900.

Journal entry

Date	Account name (narration)	Post ref.	Debit	Credit
Oct. 3	Rent expense	510✓	900	
	Cash	100✓		900
	(Paid cash for October office rent)			

Posting

Cash — No. 100

Oct. 1	Share capital	10 000	Oct. 2	Office equipment	5 000
1	Bank loan	5 000	3	Rent expense	900
2	Revenue received in advance	1 200			
3	Service revenue	10 000			

Rent expense — No. 510

Oct. 3	Cash	900			

Figure 2.27 Payment of rent in cash

Helpful hint

The narration provides additional information about the transaction. In this case, it indicates the period covered by the rent payment, i.e. the month of October.

Transaction	4 October, $600 is paid for a 1-year insurance policy that will expire next year on 30 September.
Basic analysis	The asset prepaid insurance is increased $600 because the insurance extends beyond the current month; the asset cash is decreased $600. Note that payments of expenses that will benefit more than one accounting period are identified as prepaid expenses or prepayments. When a payment is made, an asset account is debited in order to show the service or benefit that will be received in the future.

Equation analysis

	Assets			=	Liabilities	+	Equity
	Cash	+	Prepaid Insurance				
(7)	−$600		+$600				

Debit–credit analysis

Debits increase assets: debit prepaid insurance $600.
Credits decrease assets: credit cash $600.

Journal entry

Date	Account name (narration)	Post ref.	Debit	Credit
Oct. 4	Prepaid insurance	112✓	600	
	Cash	100✓		600
	(Paid 1-year policy, effective date 1 October)			

Posting

Cash — No. 100

Oct. 1	Share capital	10 000	Oct. 2	Office equipment	5 000
1	Bank loan	5 000	3	Rent expense	900
2	Revenue received in advance	1 200	4	Prepaid insurance	600
3	Service revenue	10 000			

Prepaid insurance — No. 112

Oct. 4	Cash	600			

Figure 2.28 Payment of insurance in cash

Helpful hint

Prepayments are discussed and illustrated in more detail in the next chapter.

Transaction

5 October, an estimated 3-month supply of advertising materials is purchased on account from Aero Supply for $2500.

Basic analysis

The asset advertising supplies is increased $2500; the liability accounts payable is increased $2500.

Equation analysis

	Assets	=	Liabilities	+	Equity
	Advertising supplies	=	Accounts payable		
(8)	+$2 500		+$2 500		

Debit–credit analysis

Debits increase assets: debit advertising supplies $2500.
Credits increase liabilities: credit accounts payable $2500.

Journal entry

Date	Account name (narration)	Post ref.	Debit	Credit
Oct. 5	Advertising supplies	110✓	2 500	
	Accounts payable	200✓		2 500
	(Purchased supplies on account from Aero Supply)			

Posting

Advertising supplies — No. 110

Oct. 5 Accounts payable 2 500	

Accounts payable — No. 200

	Oct. 5 Advertising supplies 2 500

Figure 2.29 Purchase of supplies on credit

Transaction/event

9 October, hired four employees to begin work on 15 October. Each employee is to receive a weekly salary of $500 for a 5-day working week, payable every 2 weeks — first payment made on 26 October.

Basic analysis

An accounting transaction has not occurred. There is only an agreement that the employees will begin work on 15 October. Thus, a debit–credit analysis is not needed because there is no accounting entry. (See transaction of 26 October for first salaries entry.)

Figure 2.30 Hiring of new employees

Transaction	20 October, Wong Pty Ltd paid a $500 cash dividend to shareholders.
Basic analysis	The dividends account is increased $500; the asset cash is decreased $500.
Equation analysis	see below
Debit–credit analysis	Debits increase dividends: debit dividends $500. Credits decrease assets: credit cash $500.

Equation analysis

	Assets	=	Liabilities	+	Equity	
	Cash	=			Retained earnings	
(10)	−$500				−$500	Dividends

Journal entry

Date	Account name (narration)	Post ref.	Debit	Credit
Oct. 20	Dividends	320✓	500	
	Cash	100✓		500
	(Paid a cash dividend)			

Posting

Cash — No. 100

Oct. 1	Share capital	10 000	Oct. 2	Office equipment	5 000
1	Bank loan	5 000	3	Rent expense	900
2	Revenue received in advance	1 200	4	Prepaid insurance	600
3	Service revenue	10 000	20	Dividends	500

Dividends — No. 320

Oct. 20	Cash	500			

Figure 2.31 Payment of dividend

Transaction	26 October, employee salaries of $4000 are paid in cash. (See 9 October event.)
Basic analysis	The expense account salaries expense is increased $4000; the asset cash is decreased $4000.
Equation analysis	see below
Debit–credit analysis	Debits increase expenses: debit salaries expense $4000. Credits decrease assets: credit cash $4000.

Equation analysis

	Assets	=	Liabilities	+	Equity	
	Cash	=			Retained earnings	
(11)	−$4 000				−$4 000	Salaries expense

Journal entry

Date	Account name (narration)	Post ref.	Debit	Credit
Oct. 26	Salaries expense	500✓	4 000	
	Cash	100✓		4 000
	(Paid salaries to date)			

Posting

Cash — No. 100

Oct. 1	Share capital	10 000	Oct. 2	Office equipment	5 000
1	Bank loan	5 000	3	Rent expense	900
2	Revenue received in advance	1 200	4	Prepaid insurance	600
3	Service revenue	10 000	20	Dividends	500
			26	Salaries expense	4 000

Salaries expense — No. 500

Oct. 26	Cash	4 000			

Figure 2.32 Payment of cash for employee salaries

Figures 2.22 (p. 112) to 2.32 (p. 117) illustrate the basic steps in the recording process using the October transactions of Wong Pty Ltd. Once recording is complete, a trial balance is prepared. To facilitate this process, the balance of each account in the general ledger must be calculated. The process of balancing a T account is illustrated using the cash account from figure 2.32. Balancing involves the following main steps.

1. For each account, add each side. Generally, the normal account balance side will be the side with the greater amount. If you need to review the normal balances for each type of account, refer to figures 2.6, 2.8, 2.10, 2.11 and 2.13.
2. Leaving a blank line, rule lines as illustrated in figure 2.33 and write in the greater amount calculated in step 1 on both the debit and credit sides of the account (between the ruled lines).
3. The closing balance for the account can now be determined by subtracting the amounts listed on the lesser side from the total. The words 'closing balance' and the amount calculated in this step are recorded on the lesser side (generally the side opposite to the normal balance side).
4. The date (the first day of the next month), the words 'opening balance' and the balance calculated in step 3 are written below the ruled-off lines on the greater account balance side (usually the normal balance side).

Once these four steps have been completed, the account has been balanced. It is very important to remember that the closing balance is *only* a balancing item, i.e. the amount needed to make the debit side equal the credit side and have the totals in balance. It is *not* the correct account balance because it is on the wrong side. The opening balance will be the correct account balance for the account. Understanding how to balance ledger accounts is important as it is an essential part of many accounting processes covered in this and later chapters and is used in later years of an accounting course. So take some time to understand how to balance accounts as illustrated in the cash account example in figure 2.33 and the following discussion.

For Wong Pty Ltd, the debit side of the cash account is the greater side and the normal account balance of the cash account. Adding the debit side reveals a total of $26 200. This amount is written between the ruled lines on both the debit and credit side of the account. All the amounts listed on the credit side of the account are then subtracted from the total to reveal a closing balance of $15 200. This means that the debit side of the account is $15 200 greater than the credit side. This amount is recorded on the debit side of the cash account on 1 November as the opening balance. The November transactions can then be recorded in the account.

Figure 2.33 Balancing the cash ledger account for Wong Pty Ltd

		Cash					**No. 100**
Oct.	1	Share capital	10 000	Oct.	2	Office equipment	5 000
	1	Bank loan	5 000		3	Rent expense	900
	2	Revenue received in advance	1 200		4	Prepaid insurance	600
	3	Service revenue	10 000		20	Dividends	500
					26	Salaries expense	4 000
					31	Closing balance	15 200
			26 200				26 200
Nov.	1	Opening balance	15 200				

SUMMARY ILLUSTRATION OF JOURNALISING AND POSTING

The journal for Wong Pty Ltd for the month of October is summarised in figure 2.34. The ledger is shown in figure 2.35, with all balances coloured in red.

Figure 2.34 General journal for Wong Pty Ltd

GENERAL JOURNAL

Date		Account name (narration)	Post ref.	Debit	Credit
2016					
Oct.	1	Cash	100	10 000	
		Share capital	300		10 000
		(Issued shares for cash)			
	1	Cash	100	5 000	
		Bank loan	230		5 000
		(Borrowed money from a bank)			
	2	Office equipment	130	5 000	
		Cash	100		5 000
		(Purchased office equipment for cash)			
	2	Cash	100	1 200	
		Revenue received in advance	213		1 200
		(Received advance from R. Knox for future service)			
	3	Cash	100	10 000	
		Service revenue	400		10 000
		(Received cash for services rendered)			
	3	Rent expense	510	900	
		Cash	100		900
		(Paid cash for October office rent)			
	4	Prepaid insurance	112	600	
		Cash	100		600
		(Paid 1-year policy; effective date 1 October)			
	5	Advertising supplies	110	2 500	
		Accounts payable	200		2 500
		(Purchased supplies on account from Aero Supply)			
	20	Dividends	320	500	
		Cash	100		500
		(Declared and paid a cash dividend)			
	26	Salaries expense	500	4 000	
		Cash	100		4 000
		(Paid salaries to date)			

Helpful hint

Enter the account number in the posting reference column at the time you record the general journal entry. Put the ✓ in the posting reference column once the amount has been posted to the ledger.

Figure 2.35 General ledger for Wong Pty Ltd

GENERAL LEDGER

Cash — No. 100

Oct.	1	Share capital	10 000	Oct.	2	Office equipment	5 000
	1	Bank loan	5 000		3	Rent expense	900
	2	Revenue received in advance	1 200		4	Prepaid insurance	600
					20	Dividends	500
	3	Service revenue	10 000		26	Salaries expense	4 000
					31	Closing balance	15 200
			26 200				26 200
Nov.	1	Opening balance	**15 200**				

Advertising supplies — No. 110

Oct.	5	Accounts payable	2 500	Oct.	31	Closing balance	2 500
			2 500				2 500
Nov.	1	Opening balance	**2 500**				

(continued)

Helpful hint

Due to space constraints the ledger cross-references to the source journals are not shown. The journal cross-references are demonstrated in chapters 3 and 6.

Figure 2.35 *(continued)*

Prepaid insurance — No. 112

Oct.	4	Cash	600	Oct.	31	Closing balance	600
			600				600
Nov.	1	Opening balance	**600**				

Office equipment — No. 130

Oct.	2	Cash	5 000	Oct.	31	Closing balance	5 000
			5 000				5 000
Nov.	1	Opening balance	**5 000**				

Accounts payable — No. 200

Oct.	31	Closing balance	2 500	Oct.	5	Advertising supplies	2 500
			2 500				2 500
				Nov.	1	Opening balance	**2 500**

Revenue received in advance — No. 213

Oct.	31	Closing balance	1 200	Oct.	2	Cash	1 200
			1 200				1 200
				Nov.	1	Opening balance	**1 200**

Bank loan — No. 230

Oct.	31	Closing balance	5 000	Oct.	1	Cash	5 000
			5 000				5 000
				Nov.	1	Opening balance	**5 000**

Share capital — No. 300

Oct.	31	Closing balance	10 000	Oct.	1	Cash	10 000
			10 000				10 000
				Nov.	1	Opening balance	**10 000**

Dividends — No. 320

Oct.	20	Cash	500	Oct.	31	Closing balance	500
			500				500
Nov.	1	Opening balance	**500**				

Service revenue — No. 400

Oct.	31	Closing balance	10 000	Oct.	3	Cash	10 000
			10 000				10 000
				Nov.	1	Opening balance	**10 000**

Salaries expense — No. 500

Oct.	26	Cash	4 000	Oct.	31	Closing balance	4 000
			4 000				4 000
Nov.	1	Opening balance	**4 000**				

Rent expense — No. 510

Oct.	3	Cash	900	Oct.	31	Closing balance	900
			900				900
Nov.	1	Opening balance	**900**				

Helpful hint

Post each of the entries from the general journal to the general ledger, then balance each of the accounts before preparing a trial balance.

Helpful hint

In this example, only the cash account needed to be balanced as all the other accounts had only one transaction. However, all accounts were balanced to clearly demonstrate the procedure.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. How does journalising differ from posting?
2. What is the purpose of (a) the ledger and (b) a chart of accounts?

>> DO IT

On 5 January, the day of her successful grand opening of Hair Affair Pty Ltd, Kate Brown collected $2280 in cash for hair styling services, and paid $400 in salaries and $92 for rent. Kate recorded these transactions in a general journal and posted the entries to the general ledger.

1. Explain the purpose and process of journalising and posting these transactions.
2. Journalise the three transactions (ignore post references).
3. Balance the cash account.

		Cash			No. 100
Jan. 5	Service revenue	2 280	Jan. 5	Wages expense	400
			5	Electricity expense	92

Use the chart of accounts for Wong Pty Ltd, page 110.

REASONING: Every business must keep track of its financial activities (receipts, payments, receivables, payables, etc.); journalising does this. However, just recording every transaction in chronological order does not make the entries useful. To be useful, the entries need to be classified and summarised; posting the entries to specific ledger accounts does this.

SOLUTION:

1. The purpose of journalising is to record every transaction in chronological order. Journalising involves dating every transaction, measuring the dollar amount of each transaction, identifying or labelling each amount with account names, and recording in a standard format equal debits and credits. Posting involves transferring the journalised debits and credits to specific accounts in the ledger.

2.

Date	Account name (narration)	Post ref.	Debit	Credit
Jan. 5	Cash	100	2 280	
	Service revenue	400		2 280
	(Received cash for services provided)			
5	Salaries expense	500	400	
	Cash	100		400
	(Paid wages to date)			
5	Rent expense	510	92	
	Cash	100		92
	(Paid rent bill)			

3.

		Cash			No. 100
Jan. 5	Service revenue	2 280	Jan. 5	Wages expense	400
			5	Electricity expense	92
			5	Closing balance	1 788
		2 280			2 280
6	Opening balance	1 788			

LEARNING OBJECTIVE 8

Explain the purposes of a trial balance.

THE TRIAL BALANCE

A **trial balance** is a list of accounts and their balances at a given time. Customarily, a trial balance is prepared at the end of an accounting period. The accounts are listed in the order in which they appear in the ledger. Debit balances are listed in the left column and credit balances in the right column. The totals of the two columns must be equal.

The main purpose of a trial balance is to prove the mathematical equality of debits and credits after posting. Under the double-entry system, this equality will occur when the sum of the debit account balances equals the sum of the credit account balances. A trial balance also uncovers some types of errors in journalising and posting, such as omitting one side of a journal entry and posting unequal amounts. The trial balance can facilitate the identification of a posting error that results in an account having a credit balance when it would normally have a debit balance, or a debit balance when it would normally have a credit balance. In addition, a trial balance is useful in the preparation of financial statements, as explained in the next chapter.

These are the procedures for preparing a trial balance:

1. List the account numbers, names and their balances.
2. Total the debit and credit columns.
3. Verify the equality of the two columns.

The trial balance prepared from the ledger of Wong Pty Ltd is presented in figure 2.36. Note that the total debits, $28 700, equal the total credits, $28 700.

Helpful hint

The trial balance for Wong Pty Ltd does not contain any end of period adjustments that may need to be made to ensure the accuracy of accounting information. It is an 'unadjusted' trial balance. Chapter 3 illustrates and explains end of period adjustments.

WONG PTY LTD
Trial balance
as at 31 October 2016

No.	Account name	Debit	Credit
100	Cash	$ 15 200	
110	Advertising supplies	2 500	
112	Prepaid insurance	600	
130	Office equipment	5 000	
200	Accounts payable		$ 2 500
213	Revenue received in advance		1 200
230	Bank loan		5 000
300	Share capital		10 000
320	Dividends	500	
400	Service revenue		10 000
500	Salaries expense	4 000	
510	Rent expense	900	
		$28 700	$28 700

Figure 2.36 Trial balance of Wong Pty Ltd

Helpful hint

Extracting a trial balance is essential when a manual accounting system is used to ensure debits equal credits. Companies like Domino's employ sophisticated computerised accounting systems where transactions are only processed when debits equal credits. These companies are less likely to prepare a trial balance but instead prepare complex accounting reports.

LIMITATIONS OF A TRIAL BALANCE

A trial balance does not guarantee that all transactions have been recorded or that the ledger is correct. Numerous errors may exist even though the trial balance columns agree. For example, the trial balance may balance even when any of the following occurs: (1) a transaction is not journalised, (2) a correct journal entry is not posted, (3) a journal entry is posted twice, (4) incorrect accounts are used in journalising or posting, or (5) offsetting errors are made in recording the amount of a transaction. In other words, as long as equal debits and credits are posted, even to the wrong account or in the wrong amount, the total debits will equal the total credits. Nevertheless, despite its limitations, the trial balance is a useful screen for finding errors and is frequently used in practice.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What is a trial balance, and how is it prepared?
2. What is the main purpose of a trial balance?
3. What are the limitations of a trial balance?

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
How do you determine that debits equal credits?	All account balances	Trial balance	List the account names and their balances; total the debit and credit columns; verify equality. If not equal look for error.

USING THE DECISION-MAKING TOOLKIT

The Western Farmers' Cooperative Ltd was formed in the late 1990s. Its purpose is to use raw materials, mainly grain and meat products grown by its members, to process this material into consumer food products and to distribute the products nationally. Profits not needed for expansion or investment are returned to the members annually, on a pro rata basis, according to the market value of the grain and meat products received from each farmer.

Assume that the following information was prepared for the company's trial balance.

WESTERN FARMERS' COOPERATIVE LTD
Trial balance
as at 31 December 2016

Account name	Debit $'000	Credit $'000
Accounts receivable	712 000	
Accounts payable		37 000
Advertising and promotion payable		141 000
Buildings	365 000	
Cash	32 000	
Cost of sales	2 384 000	
Current portion of long-term debt		12 000
Freight expense	500 000	
Inventories	1 291 000	
Land	110 000	
Long-term debt		1 368 000
Machinery and equipment	63 000	
Retained earnings		822 000
Sales revenue		3 741 000
Salaries and wages payable		62 000
Selling and administrative expense	651 000	
	$6 108 000	$6 183 000

Helpful hint

The current portion of the long-term debt is the amount of the debt due to be paid within 12 months.

Because the trial balance is not in balance, you have checked with various people responsible for entering accounting data and have discovered the following:

1. The purchase of five new trucks, costing $7 million and paid for with cash, was not recorded.
2. A data entry clerk accidentally deleted the account name for an account with a credit balance of $472 million, so the amount was added to the long-term debt account in the trial balance.
3. December cash sales revenue of $75 million was credited to the sales revenue account, but the other half of the entry was not made.
4. $50 million of selling expenses were mistakenly charged to freight expense.

REQUIRED

Answer these questions:

(a) Which mistake or mistakes have caused the trial balance to be out of balance?
(b) Should all the items be corrected? Explain.
(c) What is the name of the account the data entry clerk deleted?
(d) Make the necessary corrections and balance the trial balance.
(e) On your trial balance, write SFP beside the accounts that should be shown on the statement of financial position and P/L beside those that should be shown on the statement of profit or loss.

SOLUTION

(a) Only mistake 3 (sales revenue of $75 million not posted) has caused the trial balance to be out of balance.
(b) All the items should be corrected. The misclassification error (mistake 4) on the selling expense would not affect bottom line profit, but it does affect the amounts reported in the two expense accounts, and should, therefore, be corrected.
(c) There is no share capital account, so that must be the account that was deleted by the data entry clerk.
(d) and (e):

Helpful hint

The effects of the mistakes on the original unadjusted account balances are given in parentheses in the solution.

WESTERN FARMERS' COOPERATIVE LTD
Trial balance
as at 31 December 2016

Account name	Debit $'000	Credit $'000	
Accounts receivable	712 000		SFP
Accounts payable		37 000	SFP
Advertising and promotion payable		141 000	SFP
Buildings	365 000		SFP
Cash ($32 000 − $7000 + $75 000)	100 000		SFP
Cost of sales	2 384 000		P/L
Current portion of long-term debt		12 000	SFP
Freight expense ($500 000 − $50 000)	450 000		P/L
Inventories	1 291 000		SFP
Land	110 000		SFP
Long-term debt ($1 368 000 − $472 000)		896 000	SFP
Machinery and equipment ($63 000 + $7000)	70 000		SFP
Retained earnings		822 000	SFP
Sales revenue		3 741 000	P/L
Salaries and wages payable		62 000	SFP
Selling and administrative expense ($651 000 + $50 000)	701 000		P/L
Share capital		472 000	SFP
	$6 183 000	$6 183 000	

SUMMARY OF LEARNING OBJECTIVES

1 Analyse the effect of accounting transactions and events on the basic accounting equation.
Each business transaction must have a dual effect on the accounting equation. For example, if an individual asset is increased, there must be a corresponding (a) decrease in another asset or (b) increase in liabilities or (c) increase in equity.

2 Explain what an account is and how it helps in the recording process.
An account is an individual accounting record of increases and decreases in specific asset, liability, revenue, expense and equity items.

3 Define debits and credits and explain how they are used to record accounting transactions.
The terms *debit* and *credit* refer to the *left* and *right* sides of accounts. Assets, dividends and expenses are increased by debits and decreased by credits. Liabilities, share capital, retained earnings and revenues are increased by credits and decreased by debits.

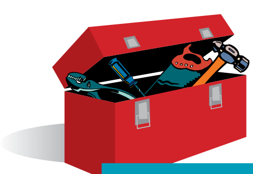
4 Identify the basic steps in the recording process.
The basic steps in the recording process are: (a) analyse each transaction in terms of its effect on the accounts, (b) enter the transaction information in a journal, and (c) transfer the journal information (post) to the appropriate accounts in the ledger.

5 Explain what a journal is and how it helps in the recording process.
The initial accounting record of a transaction is entered in a journal before the data are entered in the accounts. A journal provides a chronological record of all transactions. It records in one place the complete effect of a transaction, and this helps to prevent or locate errors.

6 Explain what a general ledger is and how it helps in the recording process.
The entire group of accounts maintained by an entity is referred to collectively as a general ledger. The ledger keeps in one place all the information about changes in specific account balances.

7 Explain what posting is and how it helps in the recording process.
Posting is the procedure of transferring journal entries to the ledger accounts. This phase of the recording process accumulates the effects of journalised transactions in the individual accounts.

8 Explain the purposes of a trial balance.
A trial balance is a list of accounts and their balances at a given time. The main purpose of the trial balance is to prove the mathematical equality of debits and credits after posting. A trial balance also uncovers some types of errors in journalising and posting and is useful in preparing financial statements.



DECISION-MAKING TOOLKIT — A SUMMARY

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Has an accounting transaction occurred?	Details of the event	Accounting equation	Determine the effect, if any, on assets, liabilities and equity. A transaction has occurred if the accounting equation is affected.
How do you determine that debits equal credits?	All account balances	Trial balance	List the account names and their balances; total the debit and credit columns; verify equality. If not equal look for error.

GLOSSARY

Account An individual accounting record of increases and decreases in a specific asset, liability or equity item (p. 101).

Accounting information system The system of collecting and processing transaction data and communicating financial information to interested parties (p. 94).

Accounting transactions and events Occurrences which affect the assets, liabilities and equity items in a business and must be recognised (recorded). A transaction is an external exchange of something of value between two or more entities. The allocation of the cost of an entity's long-lived assets over different accounting periods is an example of an event (p. 95).

Accounts payable Amounts owed to suppliers for the purchase of goods or services on credit. Also called creditors or trade creditors (p. 99).

Accounts receivable Amounts due from customers for the sale of goods or services on credit. Also called debtors or trade debtors (p. 98).

Chart of accounts A list of all an entity's ledger account names and account numbers (p. 110).

Credit The right side of an account (p. 101).

Debit The left side of an account (p. 101).

Dividend A distribution of profits by a company to its shareholders in an amount proportional to each shareholder's percentage ownership. The most common form is a cash distribution (p. 104).

Double-entry system A system that records the dual effect of each transaction in appropriate accounts (p. 102).

General journal The most basic form of journal where the transactions are initially recorded in chronological order (p. 108).

General ledger A ledger that contains all asset, liability, and equity accounts maintained by each individual business (p. 111).

Journal An accounting record in which transactions are initially recorded in chronological order (p. 108).

Journalising The procedure of entering transaction data in the journal (p. 108).

Narration A brief explanation of each transaction recorded in the general journal. The narration is generally found directly below the transaction it relates to (p. 108).

Posting The procedure of transferring journal entries to the ledger accounts (p. 111).

Source document A form that provides written evidence that a transaction has occurred, e.g. sales invoice, purchase order, cash register tape (p. 107).

T account The basic form of an account (p. 101).

Transaction analysis The process of identifying the specific effects of transactions and events on the accounting equation (Assets = Liabilities + Equity) (p. 95).

Trial balance A list of accounts and their balances at a given time (p. 122).

DEMONSTRATION PROBLEM

Nikola Subotic and his brothers opened Niky's Dry Cleaning Pty Ltd on 1 September 2015. During the first month of operations the following transactions occurred:

Sept.	1	The business issued shares and shareholders invested $20 000 cash in the business.
	2	Paid $1000 cash for shop rent for the month of September.
	3	Purchased industrial dry-cleaning equipment for $25 000, paying $10 000 in cash and $15 000 on credit.
	4	Paid $1200 for 1-year accident insurance policy.
	10	Received bill from the *Daily Telegraph* for advertising the opening of the cleaning service, $200.
	15	Performed services on account for $6200.
	20	Paid a $700 cash dividend to shareholders.
	30	Received $5000 from customers invoiced on 15 September.

The chart of accounts for the entity is the same as for Wong Pty Ltd except for the following: cleaning equipment (account number 131) and advertising expense (account number 512).

REQUIRED

(a) Journalise the September transactions.
(b) Open ledger accounts and post the September transactions.
(c) Prepare a trial balance at 30 September 2015.

Problem-solving strategies

1. Make separate journal entries for each transaction.
2. Note that all debits precede all credit entries.
3. In journalising, make sure debits equal credits.
4. Use specific account names and numbers taken from the chart of accounts.
5. Provide a narration explaining each entry.
6. Arrange ledger in statement order beginning with the statement of financial position.
7. Post in chronological order, place a ✓ in the post reference column and balance each account.
8. Prepare a trial balance, which lists accounts in the order in which they appear in the ledger.
9. List debit balances in the left column and credit balances in the right column.

SOLUTION TO DEMONSTRATION PROBLEM

(a) **GENERAL JOURNAL**

Date		Account name (narration)	Post ref.	Debit	Credit
2015					
Sept.	1	Cash	100✓	20 000	
		Share capital	300✓		20 000
		(Issued shares)			
	2	Rent expense	510✓	1 000	
		Cash	100✓		1 000
		(Paid September rent)			
	3	Cleaning equipment	131✓	25 000	
		Cash	100✓		10 000
		Accounts payable	200✓		15 000
		(Purchased cleaning equipment part paid for in cash and part on account)			
	4	Prepaid insurance	112✓	1 200	
		Cash	100✓		1 200
		(Paid 1-year insurance policy)			
	10	Advertising expense	512✓	200	
		Accounts payable	200✓		200
		(Received invoice from *Daily Telegraph* for advertising)			
	15	Accounts receivable	104✓	6 200	
		Service revenue	400✓		6 200
		(To record credit sale)			
	20	Dividends	320✓	700	
		Cash	100✓		700
		(Paid a cash dividend)			
	30	Cash	100✓	5 000	
		Accounts receivable	104✓		5 000
		(To record collection of accounts receivable)			

(b) **GENERAL LEDGER**

Cash — **No. 100**

Sept.	1	Share capital	20 000	Sept.	2	Rent expense	1 000
	30	Accounts receivable	5 000		3	Cleaning equipment	10 000
					4	Prepaid insurance	1 200
					20	Dividends	700
					30	Closing balance	12 100
			25 000				25 000
Oct.	1	Opening balance	12 100				

Accounts receivable — **No. 104**

Sept.	15	Service revenue	6 200	Sept.	30	Cash	5 000
					30	Closing balance	1 200
			6 200				6 200
Oct.	1	Opening balance	1 200				

(continued)

Helpful hint

Remember that a ✓ is placed in the post reference column after the journal entry has been posted to the general ledger. The ✓ indicates that the journal entry has been posted to the general ledger.

Prepaid insurance[*] — **No. 112**

Sept. 4	Cash	1 200	Sept. 30	Closing balance	1 200
		1 200			1 200
Oct. 1	Opening balance	1 200			

Cleaning equipment[*] — **No. 131**

Sept. 3	Cash/accounts payable	25 000	Sept. 30	Closing balance	25 000
		25 000			25 000
Oct. 1	Opening balance	25 000			

Accounts payable — **No. 200**

			Sept. 3	Cleaning equipment	15 000
Sept. 30	Closing balance	15 200	10	Advertising expense	200
		15 200			15 200
			Oct. 1	Opening balance	15 200

Share capital[*] — **No. 300**

Sept. 30	Closing balance	20 000	Sept. 1	Cash	20 000
		20 000			20 000
			Oct. 1	Opening balance	20 000

Dividends[*] — **No. 320**

Sept. 20	Cash	700	Sept. 30	Closing balance	700
		700			700
Oct. 1	Opening balance	700			

Service revenue[*] — **No. 400**

Sept. 30	Closing balance	6 200	Sept. 15	Accounts receivable	6 200
		6 200			6 200
			Oct. 1	Opening balance	6 200

Rent expense[*] — **No. 510**

Sept. 2	Cash	1 000	Sept. 30	Closing balance	1 000
		1 000			1 000
Oct. 1	Opening balance	1 000			

Advertising expense[*] — **No. 512**

Sept. 10	Accounts Payable	200	Sept. 30	Closing balance	200
		200			200
Oct. 1	Opening balance	200			

[*]These accounts did not need to be balanced as there was only one transaction. However, all accounts were balanced to show 1 Oct. balances more clearly.

(c)

NIKY'S DRY CLEANING PTY LTD Trial balance as at 30 September 2015			
No.	Account name	Debit	Credit
100	Cash	$12 100	
104	Accounts receivable	1 200	
112	Prepaid insurance	1 200	
131	Cleaning equipment	25 000	
200	Accounts payable		$15 200
300	Share capital		20 000
320	Dividends	700	
400	Service revenue		6 200
510	Rent expense	1 000	
512	Advertising expense	200	
		$41 400	$41 400

SELF-STUDY QUESTIONS *Answers are at the end of the chapter.*

(LO1) 1. The effects on the basic accounting equation of performing services for cash are to:
(a) increase assets and decrease equity.
(b) increase assets and increase equity.
(c) increase assets and increase liabilities.
(d) increase liabilities and increase equity.

(LO2) 2. Which statement about an account is *true*?
(a) In its simplest form, an account consists of two parts.
(b) An account is an individual accounting record of increases and decreases in specific asset, liability or equity items.
(c) There are separate accounts for specific assets and liabilities but only one account for equity items.
(d) The left side of an account is the credit or decrease side.

(LO3) 3. Debits:
(a) increase both assets and liabilities.
(b) decrease both assets and liabilities.
(c) increase assets and decrease liabilities.
(d) decrease assets and increase liabilities.

(LO3) 4. A revenue account:
(a) has a normal balance of a debit.
(b) is decreased by credits.
(c) is increased by debits.
(d) is increased by credits.

(LO3) 5. Which accounts normally have debit balances?
(a) Assets, expenses and revenues.
(b) Assets, expenses and retained earnings.
(c) Assets, liabilities and dividends.
(d) Assets, dividends and expenses.

(LO5) 6. Which of these statements about a journal is *false*?
(a) It contains only revenue and expense accounts.
(b) It provides a chronological record of transactions.
(c) It helps to prevent or locate errors because both debit and credit amounts for each entry are in one place.
(d) It records in one place the complete effect of a transaction.

(LO6) 7. A general ledger:
(a) contains only asset and liability accounts.
(b) should show accounts in alphabetical order.
(c) is a collection of the entire group of accounts maintained by an entity.
(d) provides a chronological record of transactions.

(LO7) 8. Posting:
(a) normally occurs before journalising.
(b) transfers ledger transaction data to the journal.
(c) is an optional step in the recording process.
(d) transfers journal entries to ledger accounts.

(LO8) 9. A trial balance:
(a) is a list of accounts with their balances at a given time.
(b) proves the accuracy of all journalised transactions in the ledger.
(c) will not balance if a correct journal entry is posted twice.
(d) proves that all transactions have been recorded.

(LO8) 10. A trial balance will not balance if:
(a) a correct journal entry is posted twice.
(b) the purchase of supplies on credit is debited to Supplies and credited to Cash.
(c) a $200 cash dividend is debited to Dividends for $2000 and credited to Cash for $200.
(d) a $450 payment on account is debited to Accounts Payable for $45 and credited to Cash for $45.

QUESTIONS

1. Describe the accounting information system and the steps in the recording process.
2. Are the following events recorded in the accounting records? Explain your answer in each case.
   (a) A major shareholder of the company dies.
   (b) Supplies are purchased on account.
   (c) An employee is fired.
   (d) The company pays a cash dividend to its shareholders.
3. Indicate how each business transaction affects the basic accounting equation.
   (a) Paid cash for cleaning services.
   (b) Purchased equipment for cash.
   (c) Issued shares to investors in exchange for cash.
   (d) Paid an account payable in full.
4. Charles Nguyen, a fellow student, contends that the double-entry system means each transaction must be recorded twice. Is Charles correct? Explain.
5. Tanya Nikolic, an introductory accounting student, believes debit balances are favourable and credit balances are unfavourable. Is Tanya correct? Discuss.
6. State the rules of debit and credit as applied to (a) asset accounts, (b) liability accounts, (c) the Share Capital account, (d) revenue accounts, (e) expense accounts and (f) Dividend account.
7. What is the normal balance for each of these accounts?
   (a) Equipment.
   (b) Cash.
   (c) Advertising Expense.
   (d) Accounts Payable.
   (e) Service Revenue.
   (f) Accounts Receivable.
   (g) Share Capital.
8. (a) What is a ledger?
   (b) Why is a chart of accounts important?
9. What is a trial balance and what are its purposes?
10. Two students are discussing the use of a trial balance. They wonder whether the following errors, each considered separately, would prevent the trial balance from balancing. If the trial balance did balance, does this mean the transactions were entered correctly? What would you tell them?
    (a) The bookkeeper debited Accounts Receivable for $900 and credited Cash for $900 for receipt of monies from sales made on account, previously recorded.
    (b) Cash collected on account was debited to Cash for $900, and Service Revenue was credited for $90.

BRIEF EXERCISES

Determine effect on basic accounting equation.
(LO1)

BE2.1 Presented here are three economic events. On a sheet of paper, list the letters (a), (b) and (c) with columns for assets, liabilities and equity. In each column, indicate whether the event increased (+), decreased (−) or had no effect (NE) on assets, liabilities and equity.
(a) Purchased equipment on account.
(b) Received cash for providing a service.
(c) Received cash from a customer who had purchased goods the previous week on account.

Indicate debit and credit effects.
(LO3)

BE2.2 For each of the following accounts indicate the effect of a debit or a credit on the account and the normal balance.

(a) Accounts Payable.
(b) Advertising Expense.
(c) Service Revenue.
(d) Accounts Receivable.
(e) Retained Earnings.
(f) Dividends.

Indicate basic debit–credit analysis.
(LO4)

BE2.3 Dudley Advertising Ltd had the following transactions during August of the current year. Indicate (a) the basic analysis and (b) the debit–credit analysis.

Aug.	1	Issued shares to investors in exchange for $15 000 cash.
	4	Paid insurance in advance for 6 months, $1800.
	16	Received $9000 from clients for services rendered.
	27	Paid secretary $500 salary.

Journalise transactions.
(LO5)

BE2.4 Use the data in BE2.3 and journalise the transactions. (Include narrations.)

Post journal entries to T accounts.
(LO7)

BE2.5 Selected transactions for Gonzales Ltd are presented in journal form (without narrations). Post the transactions to T accounts.

Date		Account name	Debit	Credit
May	5	Accounts Receivable	13 200	
		Service Revenue		13 200
	12	Cash	12 400	
		Accounts Receivable		12 400
	15	Cash	12 000	
		Service Revenue		12 000

Prepare a trial balance.
(LO8)

BE2.6 From the ledger balances below, prepare a trial balance for Evans Ltd at 30 June 2016. All account balances are normal.

Accounts Payable	$ 8 650	Service Revenue	$11 500
Cash	6 400	Accounts Receivable	5 600
Share Capital	30 000	Salaries Expense	9 000
Dividends	2 200	Rent Expense	3 950
Equipment	23 000		

Prepare a corrected trial balance.
(LO8)

BE2.7 An inexperienced bookkeeper prepared the following trial balance that does not balance. Prepare a correct trial balance, assuming all account balances are normal.

TIMARU LTD
Trial balance
as at 31 December 2015

	Debit	Credit
Cash	$32 100	
Prepaid Insurance		$ 1 500
Accounts Payable		8 700
Revenue Received in Advance	3 500	
Share Capital		25 000
Retained Earnings		9 000
Dividends		4 500
Service Revenue		34 800
Insurance Expense	8 700	
Salaries Expense	18 900	
Rent Expense		15 300
	$63 200	$98 800

EXERCISES

Analyse the effect of transactions.
(LO1)

E2.1 Selected transactions for Speedy Lawn Care Pty Ltd are listed here:
1. Issued shares to investors in exchange for cash.
2. Paid monthly rent.
3. Received cash from customers when service was rendered.
4. Invoiced customers for services performed.
5. Paid dividend to shareholders.

6. Incurred advertising expense on account.
7. Received cash from customers invoiced in (4).
8. Purchased additional equipment for cash.
9. Purchased equipment on account.

Required

Describe the effect of each transaction on assets, liabilities and equity. For example, the first answer is: (1) Increase in assets and increase in equity.

Analyse transactions and calculate profit. (LO1)

E2.2 An analysis of transactions for Foxes Ltd in August 2016, its first month of operations, is shown below. Each change in equity is explained.

	Cash	+	Accounts Receivable	+	Supplies	+	Office Equipment	=	Accounts Payable	+	Equity	
1.	+$34 000										+$34 000	Issued share capital
2.	− 4 000						+$10 000		+$6 000			
3.	−1 100				+$1 100							
4.	+21 800		+$5 600								+27 400	Service revenue
5.	−3 000								−3 000			
6.	−1 000										−1 000	Dividends
7.	−2 750										−2 750	Rent expense
8.	+3 200		−3 200									
9.	−5 700										−5 700	Salaries expense
10.									+1 500		−1 500	Electricity expense

Required

(a) Describe each transaction.
(b) Determine how much equity increased for the month.
(c) Calculate the profit for the month.
(d) Explain the relationship between profit and equity which is shown in the statement of financial position.

Prepare financial statements. (LO1)

E2.3 The analysis of transactions for Foxes Ltd is presented in E2.2.

Required

Prepare a statement of profit or loss for August, a statement of financial position as at 31 August 2016 and a calculation of retained earnings.

Identify debits, credits and normal balances. (LO3)

E2.4 Selected transactions for Expensive Designs Pty Ltd, an interior decorator, in its first month of business are as follows:

1. Issued shares to investors for $10 000 in cash.
2. Purchased used car for $5000 cash for use in business.
3. Purchased supplies on account for $500.
4. Invoiced customers $1800 for services performed.
5. Paid $200 cash for advertising start of business.
6. Received $700 cash from customers invoiced in transaction (4).
7. Paid creditor $300 cash on account.
8. Paid dividends of $400 cash to shareholders.

Required

For each transaction, indicate (a) the basic type of account debited and credited (asset, liability, equity), (b) the specific account debited and credited (Cash, Rent Expense, Service Revenue etc.), (c) whether the specific account is increased or decreased, and (d) the normal balance of the specific account. Use the following format, in which transaction 1 is given as an example:

	Account debited				Account credited			
Transaction	(a) Basic type	(b) Specific account	(c) Effect	(d) Normal balance	(a) Basic type	(b) Specific account	(c) Effect	(d) Normal balance
1	Asset	Cash	Increase	Debit	Equity	Share Capital	Increase	Credit

E2.5 Data for Expensive Designs Pty Ltd, interior decorator, are presented in E2.4.

Journalise transactions. (LO5)

Required
Journalise the transactions. Narrations are required.

E2.6 Selected transactions for Bookit Pty Ltd, a bookkeeping service, in its first month of business are as follows:

Identify debits, credits and normal balances. (LO3)

1. Issued shares to investors for $10 000 in cash.
2. Purchased used photocopier for $3000 on account, for use in business.
3. Purchased supplies on account for $400.
4. Invoiced customers $1800 for services performed.
5. Paid $300 cash for advertising start of business.
6. Received $1500 cash from customers invoiced in transaction (4).
7. Paid creditor $3400 cash on account.
8. Paid rent for month, $600 cash.

Required
For each transaction, indicate (a) the basic type of account debited and credited (asset, liability, equity), (b) the specific account debited and credited (Cash, Rent Expense, Service Revenue etc.), (c) whether the specific account is increased or decreased, and (d) the normal balance of the specific account. Use the following format, in which transaction (1) is given as an example:

	Account debited				Account credited			
Transaction	**(a) Basic type**	**(b) Specific account**	**(c) Effect**	**(d) Normal balance**	**(a) Basic type**	**(b) Specific account**	**(c) Effect**	**(d) Normal balance**
1	Asset	Cash	Increase	Debit	Equity	Share Capital	Increase	Credit

E2.7 Data for Bookit Pty Ltd, a bookkeeping service, are presented in E2.6.

Journalise transactions. (LO5)

Required
Journalise the transactions. Narrations are required.

E2.8 Selected transactions from the journal of Ink Pad Printers Ltd during its first month of operations are presented here:

Post journal entries and prepare a trial balance. (LO7,8)

Date	Account name	Debit	Credit
Aug. 1	Cash	17 000	
	Share Capital		17 000
10	Cash	12 400	
	Service Revenue		12 400
12	Office Equipment	4 000	
	Cash		1 000
	Bank Loan		3 000
25	Accounts Receivable	1 500	
	Service Revenue		1 500
31	Cash	600	
	Accounts Receivable		600

Required
(a) Post the transactions to T accounts.
(b) Prepare a trial balance as at 31 August 2017.

Journalise transactions from T accounts and prepare a trial balance.
(LO5,8)

E2.9 These simple T accounts summarise the ledger of Zebra Tours Ltd at the end of the first month of operations:

Cash

Apr.	1	10 000	Apr.	15	750
	12	1 900		25	3 500
	29	200			
	30	700			

Revenue Received in Advance

			Apr.	30	700

Accounts Receivable

Apr.	7	2 400	Apr.	29	200

Share Capital

			Apr.	1	10 000

Supplies

Apr.	4	4 800			

Service Revenue

			Apr.	7	2 400
				12	1 900

Accounts Payable

Apr.	25	3 500	Apr.	4	4 800

Salaries Expense

Apr.	15	750			

Required

(a) Prepare in the order they occurred the journal entries (including narrations) that resulted in the amounts posted to the account.
(b) Prepare a trial balance as at 30 April 2016.

Analyse transactions, prepare journal entries, and post transactions to T accounts.
(LO1,5,7)

E2.10 Selected transactions for Ranch Ltd during its first month in business are presented below:

Sept.	1	Issued shares in exchange for $45 000 cash received from investors.
	5	Purchased equipment for $25 000, paying $10 000 in cash and the balance on account.
	25	Paid $7500 cash on balance owed for equipment.
	30	Paid $1000 cash dividend.

Ranch Ltd's chart of accounts shows: Cash (no. 100), Equipment (no. 120), Accounts Payable (no. 200), Share Capital (no. 300), and Dividends (no. 320).

Required

(a) Prepare an analysis of the September transactions. The column headings should be: Cash + Equipment = Accounts Payable + Equity. For transactions affecting equity, provide explanations at the side, as shown on page 100.
(b) Journalise the transactions. Narrations are required.
(c) Post the transactions to T accounts.

Analyse errors and their effects on trial balance.
(LO8)

E2.11 The bookkeeper for Equipment Repair Pty Ltd made these errors in journalising and posting:

1. A credit posting of $600 to Accounts Payable was omitted.
2. A debit posting of $750 for Prepaid Insurance was debited to Insurance Expense.
3. A collection on account of $100 was journalised and posted as a debit to Cash $100 and a credit to Service Revenue $100.
4. A credit posting of $300 to Rates and Taxes Payable was made twice.
5. A cash purchase of supplies for $250 was journalised and posted as a debit to Supplies $25 and a credit to Cash $25.
6. A debit of $465 to Advertising Expense was posted as $456.

Required

(a) For each error, indicate (a) whether the trial balance will balance; if the trial balance will not balance, indicate (b) the amount of the difference and (c) the trial balance column that will have the greater total. Consider each error separately. Use the following form, in which error 1 is given as an example:

	(a)	(b)	(c)
Error	**In balance**	**Difference**	**Column with larger total**
1	No	$600	Debit

(b) Describe the types of errors a trial balance will not detect.

E2.12 The accounts in the ledger of Sushi To Go Ltd contain the following balances on 31 July 2016:

Prepare a trial balance. (LO8)

Accounts Receivable	$ 27 184	Prepaid Insurance	$ 3 836
Accounts Payable	14 692	Repair Expense	1 822
Cash	?	Service Revenue	31 220
Delivery Equipment	118 620	Dividends	1 300
Fuel Expense	1 416	Share Capital	79 900
Insurance Expense	946	Salaries Expense	8 756
Bank Loan	56 800	Salaries Payable	1 530
		Retained Earnings	9 172

Required

Prepare a trial balance with the accounts arranged as illustrated in this chapter, and fill in the missing amount for Cash.

E2.13 The accounts in the ledger of Boxer Ltd contain the following balances on 31 March 2017:

Prepare a trial balance. (LO8)

Accounts Receivable	$ 13 450	Prepaid Insurance	$ 6 345
Accounts Payable	23 774	Repair Expense	3 421
Cash	76 526	Service Revenue	67 589
Delivery Equipment	165 000	Dividends	2 700
Fuel Expense	7 890	Share Capital	112 000
Insurance Expense	4 568	Salaries Expense	23 700
Bank Loan	75 000	Salaries Payable	3 460
		Retained Earnings	?

Required

Prepare a trial balance with the accounts arranged as illustrated in the chapter, and fill in the missing amount for Retained Earnings.

PROBLEM SET A

PSA2.1 On 1 April Let's Go Travel Agency Ltd was established. These transactions were completed during the month:

Analyse transactions and calculate profit. (LO1)

1. Shareholders invested $40 000 cash in the company in exchange for shares.
2. Paid $800 cash for April office rent.
3. Purchased office equipment for $5000 cash.
4. Incurred $600 of advertising costs in *The Australian*, on account.
5. Paid $1200 for office supplies.
6. $18 000 of services was provided: cash of $2000 was received from customers, and the balance of $16 000 was invoiced to customers on account.
7. Paid $400 cash dividends.
8. Paid *The Australian* amount due in transaction (4).
9. Paid employees' salaries, $2400.
10. Received $16 000 in cash from customers who had previously been invoiced in transaction (6).

Required

(a) Prepare a transaction analysis using these column headings: Cash, Accounts Receivable, Supplies, Office Equipment, Accounts Payable, Share Capital, and Retained Earnings. Include in the margin all explanations for any changes in Retained Earnings.

(b) From an analysis of the column Retained Earnings, calculate profit or loss for April.

Analyse transactions and prepare financial statements. (LO1)

PSA2.2 Aurora Goodwin started her own consulting firm, Best Consulting Pty Ltd, on 1 May 2016. The following transactions occurred during the month of May:

May	1	Shareholders invested $10 000 cash in the business.
	2	Paid $1050 for office rent for the month.
	3	Purchased $250 of supplies on account.
	5	Paid $75 to advertise in the *Auckland News*.
	9	Received $1250 cash for services provided.
	12	Paid $100 for telephone.
	15	Performed $3500 of services on account.
	17	Paid $2000 for employee salaries.
	20	Paid for the supplies purchased on account on 3 May.
	23	Received a cash payment of $2250 for services provided on account on 15 May.
	26	Borrowed $2500 from the bank.
	29	Purchased office equipment for $1200 on account.
	30	Paid $125 for electricity.

Required

(a) Show the effects of the previous transactions on the accounting equation using the following format:

	Assets								Liabilities				Equity		
Date	**Cash**	+	**Accounts Receivable**	+	**Supplies**	+	**Office Equipment**	=	**Bank Loan**	+	**Accounts Payable**	+	**Share Capital**	+	**Retained Earnings**

Include margin explanations for any changes in Retained Earnings.

(b) Prepare a statement of profit or loss for the month of May.

(c) Prepare a statement of financial position as at 31 May 2016.

Analyse transactions and prepare financial statements. (LO1)

PSA2.3 Ivan Izo started a business providing legal services, Ivan Izo Pty Ltd, on 1 July 2016. On 31 July the statement of financial position showed: Cash $4000; Accounts Receivable $1500; Supplies $500; Office Equipment $5000; Accounts Payable $4200; Share Capital $6500; and Retained Earnings $300. During August the following transactions occurred:

1. Collected $1400 of amounts owing from accounts receivable.
2. Paid $2700 cash of the balance of accounts payable.
3. Recorded revenue of $6400, of which $3000 is collected in cash and the balance is due in September.
4. Purchased additional office equipment for $1000, paying $400 in cash and the balance on account.
5. Paid salaries $1500, rent for August $900, and advertising expenses $350.
6. Declared and paid a cash dividend of $550.
7. Borrowed $2000 from Kati Kati Bank.
8. Incurred electricity expense for the month of $250 on account.

Required

(a) Prepare a transaction analysis of the August transactions beginning with 31 July balances. The column headings should be: Cash + Accounts Receivable + Supplies + Office Equipment = Bank Loan + Accounts Payable + Share Capital + Retained Earnings. Include in the margin explanations for any changes in Retained Earnings.

(b) Prepare a statement of profit or loss for August, and a classified statement of financial position as at 31 August.

PSA2.4 Fantasy Miniature Golf and Driving Range Pty Ltd was opened on 1 March by Jim Zarle. These selected events and transactions occurred during March:

Journalise a series of transactions. (LO3,5)

Mar.	1	Shareholders invested $60 000 cash in the business in exchange for shares in the company.
	3	Purchased Lee's Golf Land for $38 000 cash. The price consists of land $23 000, building $9000, and equipment $6000.
	5	Advertised the opening of the driving range and miniature golf course, paying advertising expenses of $1600 cash.
	6	Paid cash $1480 for a 1-year insurance policy.
	10	Purchased golf clubs and other equipment for $1600 from Golf Australia, payable in 30 days.
	18	Received golf fees of $800 in cash for games played in March.
	19	Sold 100 voucher books for $15.00 each in cash. Each book contains ten vouchers that enable the holder to play one round of miniature golf or to hit one bucket of golf balls. (*Hint:* The revenue is recorded as Revenue Received in Advance until the customers use the vouchers.)
	25	Paid a $500 cash dividend.
	30	Paid salaries of $600.
	30	Paid Golf Australia in full.
	31	Received $800 of fees in cash.

The company uses these accounts: Cash (no. 100), Prepaid Insurance (no. 112), Land (no. 130), Buildings (no. 135), Equipment (no. 138), Accounts Payable (no. 200), Golf Revenue Received in Advance (no. 213), Share Capital (no. 300), Retained Earnings (no. 310), Dividends (no. 320), Golf Revenue (no. 400), Advertising Expense (no. 500) and Salaries Expense (no. 510).

Required

Journalise the March transactions. Include narrations.

PSA2.5 Mahon Consultants Pty Ltd opened as licensed architects on 1 April 2015. During the first month of the operation of the business, these events and transactions occurred:

Journalise transactions, post, and prepare a trial balance. (LO3,5,6,7,8)

Apr.	1	Shareholders invested $76 500 cash in exchange for shares.
	1	Hired a personal assistant at a salary of $5850 per month, payable monthly.
	2	Paid office rent for the month, $2850.
	3	Purchased drawing supplies on account from Speedy Supplies Ltd, $7650.
	10	Completed a contract and invoiced client $4050 for services.
	11	Received $1650 cash advance from R. Welk for the design of an extension.
	20	Received $9450 cash for services completed for P. Donahue.
	30	Paid assistant for the month, $5850.
	30	Paid $3450 owed to Speedy Supplies Ltd.

Mahon Consultants Pty Ltd uses these accounts: Cash (no. 100), Accounts Receivable (no. 110), Supplies (no. 115), Accounts Payable (no. 200), Revenue Received in Advance (no. 209), Share Capital (no. 300), Service Revenue (no. 400), Salaries Expense (no. 500), and Rent Expense (no. 510).

Required

(a) Journalise the transactions. Include narrations.
(b) Post to the ledger T accounts.
(c) Prepare a trial balance on 30 April 2015.

Journalise transactions, post, and prepare a trial balance.
(LO3,5,6,7,8)

PSA2.6 This is the trial balance of Lou Lou's Beauty Centre Pty Ltd on 30 September:

LOU LOU'S BEAUTY CENTRE PTY LTD Trial balance as at 30 September 2016			
No.	Account name	Debit	Credit
100	Cash	$32 800	
115	Accounts Receivable	7 600	
120	Supplies	5 600	
130	Equipment	30 800	
200	Accounts Payable		$18 800
210	Revenue Received in Advance		1 600
300	Share Capital		56 400
		$76 800	$76 800

The October transactions were as follows:

Oct.	5	Received $2400 cash from customers on account.
	10	Invoiced customers for services performed, $12 800.
	15	Paid employee salaries, $3600.
	17	Performed $1200 of services for customers who paid in advance in September for suntanning sessions to be used in October.
	20	Paid $5200 to creditors on account.
	29	Paid a $800 cash dividend.
	31	Paid electricity, $1600.

Required

(a) Prepare a general ledger using T accounts. Enter the opening balances in the ledger accounts as of 1 October. Provision should be made for these additional accounts: Dividends (no. 310), Service Revenue (no. 400), Salaries Expense (no. 500), and Electricity Expense (no. 510).
(b) Journalise the transactions, including narrations.
(c) Post to the ledger accounts, which you prepared in part (a).
(d) Prepare a trial balance as at 31 October 2016.

Journalise transactions, post, and prepare a trial balance.
(LO3,5,6,7,8)

PSA2.7 This is the trial balance of Western Laundry Services Pty Ltd on 30 April:

WESTERN LAUNDRY SERVICES PTY LTD Trial balance as at 30 April 2016			
No.	Account name	Debit	Credit
100	Cash	$ 4 250	
115	Accounts Receivable	1 100	
120	Supplies	850	
130	Equipment	4 000	
200	Accounts Payable		$ 2 500
210	Revenue Received in Advance		350
300	Share Capital		7 350
		$10 200	$10 200

The May transactions were as follows:

May	2	Received $450 cash from customers on account.
	8	Invoiced customers for services performed, $1750.
	12	Paid employee salaries, $600.
	15	Performed $300 of services for customers who paid in advance in April for services to be performed in May.
	18	Paid $800 to creditors on account.
	25	Paid a $250 cash dividend.
	31	Paid electricity, $350.

Required

(a) Prepare a general ledger using T accounts. Enter the opening balances in the ledger accounts as of 1 May. Provision should be made for these additional accounts: Dividends (no. 310), Service Revenue (no. 400), Salaries Expense (no. 500), and Electricity Expense (no. 510).
(b) Journalise the transactions, including narrations.
(c) Post to the ledger accounts, which you prepared in part (a).
(d) Prepare a trial balance as at 31 May 2016.

PSA2.8 The Drive-in Movie Palace Ltd was recently formed. It began operations in March 2015. The Movie Palace is unique in that it is a drive-in theatre and will show only triple features of sequential theme movies. As of 28 February, the ledger of The Drive-in Movie Palace Ltd showed: (100) Cash $19 100; (110) Equipment $19 100; (120) Land $45 100; (130) Buildings $21 100; (200) Accounts Payable $15 100; and (300) Share Capital $89 300. During the month of March the following events and transactions occurred:

Journalise transactions, post, and prepare a trial balance. (LO3,5,6,7,8)

Mar.	2	Acquired the three *Bourne* movies (*The Bourne Identity*, *The Bourne Supremacy* and *The Bourne Ultimatum*) to be shown for the first 3 weeks of March. The film rental was $15 100; $8000 was paid in cash and $7100 will be paid on 10 March.
	3	Ordered the *Iron Man* trilogy to be shown on the last 10 days of March. It will cost $500 per night.
	9	Received $11 600 cash from admissions.
	10	Paid balance due on the *Bourne* movies rental and $7100 on 28 February accounts payable.
	11	Hired B. Barista to operate a coffee cart. Barista agrees to pay The Drive-in Movie Palace Ltd 20% of gross receipts, payable monthly.
	12	Paid advertising expenses $3900.
	20	Received $10 300 cash from admissions.
	20	Received the *Iron Man* movies and paid rental fee of $5000.
	31	Paid salaries of $6900.
	31	Received statement from B. Barista showing gross receipts from coffee cart sales of $11 100 and the balance due to The Drive-in Movie Palace Ltd of $2220 for March. B. Barista paid half the balance due and will remit the remainder on 5 April.
	31	Received $21 600 cash from admissions.

In addition to the accounts identified above, the chart of accounts includes: (105) Accounts Receivable, (400) Admission Revenue, (410) Coffee Cart Revenue, (500) Advertising Expense, (510) Film Rental Expense, and (520) Salaries Expense.

Required

(a) Using T accounts, enter the beginning balances in the ledger.
(b) Journalise the March transactions, including narrations.
(c) Post the March journal entries to the ledger accounts you prepared in part (a).
(d) Prepare a trial balance as at 31 March 2015.

Prepare a correct trial balance. (LO8)

PSA2.9 This trial balance of Queenstown Ltd does not balance.

QUEENSTOWN LTD Trial balance as at 30 June 2017		
Account name	Debit	Credit
Cash		$ 17 940
Accounts Receivable	$21 093	
Supplies	5 700	
Equipment	18 900	
Accounts Payable		16 896
Revenue Received in Advance	8 100	
Share Capital		60 000
Dividends	5 700	
Service Revenue		15 180
Salaries Expense	21 300	
Office Expense	6 360	
	$87 153	$110 016

Each of the listed accounts has a normal balance. An examination of the ledger and journal reveals the following errors:

1. Cash received from a customer on account was debited to Cash for $3420, and Accounts Receivable was credited for the same amount. The actual collection was for $4320.
2. The purchase of a scientific calculator on account for $500 was recorded as a debit to Supplies for $500 and a credit to Accounts Payable for $500.
3. Services were performed on account for a client for $6240. Accounts Receivable was debited for $6240 and Service Revenue was credited for $624.
4. A debit posting to Salaries Expense of $4500 was omitted.
5. A payment on account for $2136 was credited to Cash for $2136 and credited to Accounts Payable for $2163.
6. Payment of a $3300 cash dividend to Queenstown Ltd's shareholders was debited to Salaries Expense for $3300 and credited to Cash for $3300.

Required

(a) Prepare the correct trial balance.

(b) Explain what adjustments were made and why they were necessary.

Prepare a correct trial balance. (LO8)

PSA2.10 This trial balance of Helpful Services Ltd does not balance.

HELPFUL SERVICES LTD Trial balance as at 30 June 2015		
Account name	Debit	Credit
Cash		$ 5 680
Accounts Receivable	$ 6 462	
Supplies	1 600	
Equipment	6 000	
Accounts Payable		5 332
Revenue Received in Advance	2 400	
Share Capital		18 000
Dividends	1 600	
Rental Revenue		4 760
Salaries Expense	6 800	
Office Expense	1 820	
	$26 682	$33 772

Each of the listed accounts has a normal balance. An examination of the ledger and journal reveals the following errors:

1. Cash received from a customer on account was debited to Cash for $1140, and Accounts Receivable was credited for the same amount. The actual collection was for $1500.
2. The purchase of a printer on account for $680 was recorded as a debit to Supplies for $680 and a credit to Accounts Payable for $680.
3. Services were performed on account by a client for $1780. Accounts Receivable was debited for $1780 and Service Revenue was credited for $178.
4. A debit posting to Salaries Expense of $1200 was omitted.
5. A payment on account for $412 was credited to Cash for $412 and credited to Accounts Payable for $520.
6. Payment of a $800 cash dividend to shareholders was debited to Salaries Expense for $800 and credited to Cash for $800.

Required

(a) Prepare the correct trial balance.
(b) Explain what adjustments were made and why they were necessary.

PROBLEM SET B

Analyse transactions and calculate profit. (LO1)

PSB2.1 Crazy Bob's Repair Shop Ltd was started on 1 May. Here is a summary of the May transactions:

1. Shareholders invested $16 000 cash in the company in exchange for shares.
2. Purchased equipment for $5000 cash.
3. Paid $400 cash for May office rent.
4. Paid $500 cash for supplies.
5. Incurred $550 of advertising costs in the *North Shore Times* on account.
6. Received $4100 in cash from customers for repair service.
7. Declared and paid a $500 cash dividend.
8. Paid part-time employee salaries, $1200.
9. Paid electricity bill, $140.
10. Provided repair service on account to customers, $400.
11. Collected cash of $120 for services invoiced in transaction (10).

Required

(a) Prepare a transaction analysis using these column headings: Cash, Accounts Receivable, Supplies, Equipment, Accounts Payable, Share Capital, and Retained Earnings. Revenue is called Service Revenue. Include in the margin explanations for any changes in Retained Earnings.
(b) From an analysis of the column Retained Earnings, calculate the profit or loss for May.

Analyse transactions and prepare financial statements. (LO1)

PSB2.2 Alex Rogers started his own delivery service, Rogers Deliveries Ltd, on 1 June 2016. The following transactions occurred during the month of June:

June	1	Shareholders invested $30 000 cash in the business in exchange for shares.
	2	Purchased a used van for deliveries for $20 000. Rogers paid $4000 cash and the remaining balance was on account.
	3	Paid $1000 for office rent for the month.
	5	Performed $2000 of services on account.
	9	Paid $400 in cash dividends.
	12	Purchased supplies for $300 on account.
	15	Received a cash payment of $1500 for services provided on 5 June.
	17	Purchased petrol for $200 on account.
	20	Received a cash payment of $3000 for services provided.
	23	Made a cash payment of $1000 on the amount owing for the delivery van purchased on 2 June.
	26	Paid $500 for electricity.
	29	Paid for the petrol purchased on account on 17 June.
	30	Paid $1000 for employee salaries.

Required

(a) Show the effects of the previous transactions on the accounting equation using the following format:

	Assets								Liabilities		Equity		
Date	**Cash**	+	**Accounts Receivable**	+	**Supplies**	+	**Delivery Van**	=	**Accounts Payable**	+	**Share Capital**	+	**Retained Earnings**

Include in the margin explanations for any changes in Retained Earnings.

(b) Prepare a statement of profit or loss for the month of June.

(c) Prepare a statement of financial position at 30 June 2016.

Analyse transactions and prepare a statement of profit or loss and a statement of financial position.
(LO1)

PSB2.3 Donna Corso opened Healthy Paws Ltd, a veterinary business, on 1 August 2015. On 31 August the statement of financial position showed: Cash $9000; Accounts Receivable $1700; Supplies $600; Office Equipment $6000; Accounts Payable $3600; Share Capital $13 000; and Retained Earnings $700. During September the following transactions occurred:

1. Paid $3100 cash on accounts payable.
2. Collected $1300 of accounts receivable.
3. Purchased additional office equipment for $4100, paying $800 in cash and the balance on account.
4. Earned a revenue of $8900, of which $2500 is paid in cash and the balance is due in October.
5. Declared and paid a $600 cash dividend.
6. Paid salaries $700, rent for September $900, and advertising expense $300.
7. Incurred electricity expense for month on account, $170.
8. Borrowed $7000 from Westpac Bank.

Required

(a) Prepare a transaction analysis of the September transactions beginning with 31 August balances. The column headings should be: Cash + Accounts Receivable + Supplies + Office Equipment = Bank Loan + Accounts Payable + Share Capital + Retained Earnings. Include in the margin explanations for any changes in Retained Earnings.

(b) Prepare a statement of profit or loss for September, a calculation of retained earnings for September, and a classified statement of financial position at 30 September 2015.

Journalise a series of transactions.
(LO3,5)

PSB2.4 Just for Fun Park was started on 1 April by Greg Winters. These selected events and transactions occurred during April:

Apr.	1	Shareholders invested $90 000 cash in the business in exchange for shares.
	4	Purchased land costing $45 000 for cash.
	8	Incurred advertising expense of $2700 on account.
	11	Paid salaries to employees, $2550.
	12	Hired park manager at a salary of $6000 per month, effective 1 May.
	13	Paid $4500 for a 1-year insurance policy.
	17	Paid $900 cash dividends.
	20	Received $8550 in cash for admission fees.
	25	Sold 150 voucher books for $25 each. Each book contains ten vouchers that entitle the holder to one admission to the park. (*Hint:* The revenue is recorded as Revenue Received in Advance until the vouchers are used.)
	30	Received $11 850 in cash admission fees.
	30	Paid $1050 on account for advertising incurred on 8 April.

Just for Fun Park uses the following accounts: Cash, Prepaid Insurance, Land, Accounts Payable, Revenue Received in Advance, Share Capital, Dividends, Admission Revenue, Advertising Expense and Salaries Expense.

Required

Journalise the April transactions, including narrations.

PSB2.5 Diane Smith incorporated Accurate Accountants, an accounting practice, on 1 May 2015. During the first month of operations of her business, these events and transactions occurred:

Journalise transactions, post, prepare a trial balance and financial statements. (LO3,5,6,7,8)

May	1	Shareholders invested $156 000 cash in exchange for shares in the company.
	2	Hired a receptionist at a salary of $3000 per month.
	3	Purchased $3600 of supplies on account from Read Supply Ltd.
	7	Paid office rent of $2700 for the month.
	11	Completed a tax return and invoiced the client $3300 for services provided.
	12	Received $13 500 advance on a management consulting engagement.
	17	Received cash of $3600 for services completed for H. Arnold Ltd.
	31	Paid receptionist $3000 salary for the month.
	31	Paid 40% of balance owing to Read Supply Ltd.

The following chart of accounts is used: (100) Cash, (110) Accounts Receivable, (115) Supplies, (200) Accounts Payable, (210) Revenue Received in Advance, (300) Share Capital, (400) Service Revenue, (500) Salaries Expense, and (510) Rent Expense.

Required

(a) Journalise the transactions, including narrations.
(b) Post to the ledger T accounts.
(c) Prepare a trial balance on 31 May 2015.
(d) Prepare a statement of profit or loss for the month of May and a classified statement of financial position as at 31 May 2015.

PSB2.6 The trial balance of Wellington Dry Cleaners on 30 June is given here:

Journalise transactions, post, prepare a trial balance and financial statements. (LO3,5,6,7,8)

WELLINGTON DRY CLEANERS
Trial balance
as at 30 June 2015

No.	Account name	Debit	Credit
100	Cash	$ 25 064	
110	Accounts Receivable	21 072	
120	Supplies	9 688	
130	Equipment	51 900	
200	Accounts Payable		$ 31 756
210	Revenue Received in Advance		3 460
300	Share Capital		72 508
		$107 724	$107 724

The July transactions were as follows:

July	8	Collected $9872 in cash on 30 June accounts receivable.
	9	Paid employee salaries, $4200.
	11	Received $9850 in cash for services provided.
	14	Paid 30 June creditors $21 500 on account.
	17	Purchased supplies on account, $1108.
	22	Invoiced customers for services provided, $9400.
	30	Paid employee salaries $6228, electricity $3168, and repairs $984.
	31	Paid $1000 cash dividend.

Required

(a) Prepare a general ledger using T accounts. Enter the opening balances in the ledger accounts as of 1 July. Provision should be made for the following additional accounts: (310) Dividends, (400) Dry Cleaning Revenue, (500) Repair Expense, (510) Salaries Expense, and (520) Electricity Expense.
(b) Journalise the transactions.

(c) Post to the ledger accounts, which you prepared in part (a).
(d) Prepare a trial balance on 31 July 2015.
(e) Prepare a statement of profit or loss for July and a classified statement of financial position as at 31 July 2015.

Journalise transactions, post, prepare a trial balance and financial statements. (LO3,5,6,7,8)

PSB2.7 Maria George incorporated Busy Bookkeepers Pty Ltd, a bookkeeping practice, on 1 January 2016. During the first month of operations, these events and transactions occurred:

Jan.	2	Shareholders invested $88 000 cash in exchange for shares in the company.
	3	Hired a receptionist at a salary of $2000 per month.
	4	Purchased $1600 of supplies on account from Abbey Supply Ltd.
	7	Paid office rent of $2400 for the month.
	11	Invoiced the clients $3800 for services provided.
	12	Received $3000 advance on a management consulting engagement.
	17	Received cash of $1600 for services completed for Pete's Plumbing. (These services were not included in the 11 January transaction.)
	31	Paid receptionist $2000 salary for the month.
	31	Paid 40% of balance owing to Abbey Supply Ltd.

The following chart of accounts is used: (100) Cash, (110) Accounts Receivable, (115) Supplies, (200) Accounts Payable, (210) Revenue Received in Advance, (300) Share Capital, (400) Service Revenue, (500) Salaries Expense, and (510) Rent Expense.

Required
(a) Journalise the transactions, including narrations.
(b) Post to the ledger T accounts.
(c) Prepare a trial balance as at 31 January 2016.
(d) Prepare a statement of profit or loss for the month of January and a classified statement of financial position as at 31 January 2016.

Journalise transactions, post, prepare a trial balance and financial statements. (LO3,5,6,7,8)

PSB2.8 Lights Out Theatre Ltd was recently formed. All facilities were completed on 31 March 2016. On 1 April, the ledger showed: (100) Cash $6000; (120) Land $10 000; (130) Buildings $8000; (140) Equipment $6000; (200) Accounts Payable $2000; (210) Mortgage Payable $8000; and (300) Share Capital $20 000. During April, the following events and transactions occurred:

Apr.	2	Paid film rental of $800 on first movie.
	3	Ordered two additional films at $700 each.
	9	Received $3800 cash from admissions.
	10	Made $2000 payment on mortgage and $1000 on accounts payable.
	11	Hired R. Thoms to operate a candy bar. Thoms agrees to pay Lights Out Theatre 17% of gross receipts, payable monthly.
	12	Paid advertising expenses, $300.
	20	Received one of the films ordered on 3 April and was invoiced $500. The film will be shown in April.
	25	Received $3200 cash from admissions.
	29	Paid salaries, $1600.
	30	Received statement from R. Thoms showing gross receipts of $1000 and the balance due to Lights Out Theatre of $170 for April. Thoms paid half of the balance due and will remit the remainder on 5 May.
	30	Prepaid $700 rental on special film to be run in May.

In addition to the accounts identified above, the chart of accounts shows: (105) Accounts Receivable, (107) Prepaid Rentals, (400) Admission Revenue, (410) Candy Bar Revenue, (510) Advertising Expense, (520) Film Rental Expense, (530) Salaries Expense.

Required
(a) Enter the beginning balances in the ledger T accounts as of 1 April.
(b) Journalise the April transactions, including narrations.

(c) Post the April journal entries to the ledger T accounts, prepared in part (a).
(d) Prepare a trial balance on 30 April 2016.
(e) Prepare a statement of profit or loss for April and a classified statement of financial position as at 30 April 2016.

PSB2.9 This trial balance of Theatre Adelaide Ltd does not balance.

Prepare a correct trial balance. (LO8)

THEATRE ADELAIDE LTD
Trial balance
as at 31 May 2016

Account name	Debit	Credit
Cash	$ 5 850	
Accounts Receivable		$ 2 750
Prepaid Insurance	700	
Equipment	8 000	4 500
Accounts Payable		
Rates and Taxes Payable	560	
Share Capital		5 700
Retained Earnings		6 000
Service Revenue	6 690	
Salaries Expense	4 200	
Advertising Expense		1 100
Rates and Taxes Expense	800	
	$26 800	$20 050

Your review of the ledger reveals that each account has a normal balance. You also discover the following errors:

1. The totals of the debit sides of Prepaid Insurance, Accounts Payable, and Rates and Taxes Expense were each understated $100.
2. Transposition errors were made in Accounts Receivable and Service Revenue. Based on postings made, the correct balances were $2570 and $6960, respectively.
3. A debit posting to Salaries Expense of $200 was omitted.
4. A $700 cash dividend was debited to Share Capital for $700 and credited to Cash for $700.
5. A $420 purchase of supplies on account was debited to Equipment for $420 and credited to Cash for $420.
6. A cash payment of $250 for advertising was debited to Advertising Expense for $25 and credited to Cash for $25.
7. A collection from a customer for $210 was debited to Cash for $210 and credited to Accounts Payable for $210.

Required

(a) Prepare the correct trial balance. (*Note:* The chart of accounts also includes the following: Dividends, Supplies, and Supplies Expense.)
(b) Explain what adjustments were made and why they were necessary.

Prepare a correct trial balance.
(LO8)

PSB2.10 This trial balance for Glasgow Pty Ltd does not balance.

GLASGOW PTY LTD
Trial balance
as at 31 December 2015

Account name	Debit	Credit
Cash		$ 7 804
Accounts Receivable	$ 9 736	
Supplies	3 640	
Equipment	9 560	
Accounts Payable		10 798
Revenue Received in Advance	3 200	
Share Capital		18 000
Dividends	1 200	
Service Revenue		19 808
Salaries Expense	12 600	
Office Expense	4 820	
	$44 756	$56 410

Each of the listed accounts has a normal balance. An examination of the ledger and journal reveals the following errors:

1. Cash received from a customer on account was debited to Cash for $1680 and Accounts Receivable was credited for the same amount. The actual collection was for $960.
2. The purchase of a printer on account for $440 was recorded as a debit to Supplies for $440 and a credit to Accounts Payable for $440.
3. Services were performed on account by a client for $1280. Accounts Receivable was debited $1280 and Service Revenue was credited $128.
4. A debit posting to Salaries Expense of $1800 was omitted.
5. A payment made on account for $818 was credited to Cash for $818 and credited to Accounts Payable for $980.
6. Payment of a $1200 cash dividend to shareholders was debited to Salaries Expense for $1200 and credited to Cash for $1200.

Required

(a) Prepare the correct trial balance.
(b) Explain what adjustments were made and why they were necessary.

BUILDING BUSINESS SKILLS

FINANCIAL REPORTING AND ANALYSIS

FINANCIAL REPORTING PROBLEM: *Domino's Pizza Enterprises Ltd*

BBS2.1 The financial statements of Domino's in the appendix at the back of this book contain the following selected accounts, all in thousands of dollars:

	2013 $'000
Issued Capital	40 855
Trade and Other Payables (Accounts Payable)	38 055
Trade and Other Receivables (Accounts Receivable)	26 412
Marketing Expenses	11 430
Prepayments (in Note 21)	4 136
Property, Plant and Equipment (net book value)	49 693
Revenue from Sale of Goods (in Note 5)	182 000

Required

(a) What is the increase and decrease side for each account? What is the normal balance for each account?

(b) Identify the probable other account in the transaction and the effect on that account when:
1. Accounts Receivable is decreased.
2. Accounts Payable is decreased.
3. Prepaid Expenses (Prepayments) is increased.

(c) Identify the other account(s) that ordinarily would be involved when:
1. Marketing Expense is increased.
2. Property, Plant and Equipment is increased.

COMPARATIVE ANALYSIS PROBLEM: *Domino's Pizza Enterprises Ltd vs. Freedom Foods Group Limited*

BBS2.2 Refer to the financial statements of Freedom Foods Group (www.freedomfoods.com.au) and the financial statements for Domino's Pizza Enterprises Ltd in the appendix at the back of this book.

Required

(a) Based on the information contained in these financial statements, determine the normal balance for:

Domino's Pizza Enterprises Ltd	Freedom Foods Group Limited
1. Cash	1. Inventories
2. Goodwill	2. Current Tax Liabilities
3. Borrowings	3. Provisions
4. Retained Earnings	4. Issued Capital
5. Revenue from sale of goods	5. Administrative Expenses

(b) Identify the other account ordinarily involved when:
1. Accounts Receivable is decreased.
2. Bank Loan is increased.
3. Equipment is increased.
4. Sales Revenue is increased.

INTERPRETING FINANCIAL STATEMENTS

BBS2.3 Obtain the latest annual report of a public company.

Address: www.asx.com.au or www.nzx.com

Steps:

1. On the Australian Securities Exchange home page, you will notice a blue banner across the top of the page. Click on the **Prices and research** button and a drop down menu will appear and click on **Company information** which will take you to a page where you can search for individual companies.

   There is also a heading for New Zealand–based companies dual listed in Australia and New Zealand.
2. You are now at the index for listed companies. Choose a letter and select a particular company (don't just choose the first company) by clicking on the ASX code.
3. From this page browse down to the internet address and click on the address which will take you to the company's web site.
4. From the web site, search around and find the latest annual report.

OR

For the New Zealand Stock Exchange:

1. Go to the home page and click on **MARKETS** on the top menu and select **NZX Main Board**.
2. This will take you to a side menu. Click on **All Securities**. You are now at the index for listed entities.
3. Scroll down the names and click on a company. This will take you to its page and under issuer details click it will provide the company's web site address on the next screen.

Required

Answer the following questions:

(a) What company did you select? Please also provide web address and date you accessed the web site.

(b) Search the annual report you selected and provide the following information and reference where in the annual report you found the information; for example, trade and other receivables in the statement of financial position, page 31.

1. Principal activities.
2. The number of controlled entities/subsidiaries and the countries in which they operate.
3. The percentage ownership in the company of the 20 largest shareholders.
4. The number of directors.
5. The accounting policy for depreciation.
6. The amount of income tax expense and the profit for the year.
7. Name of its auditors.
8. List the business segments.
9. The amount of current assets.
10. The amount of net cash flows from operating activities.
11. The amount of dividends paid.
12. Describe any related party transactions.

CRITICAL THINKING

GROUP DECISION CASE

BBS2.4 Mark Dingo operates Supreme Riding School Pty Ltd. The riding school's main sources of revenue are riding fees and lesson fees, which are provided on a cash basis. Mark also boards horses for owners, who are invoiced monthly for boarding fees. In a few cases, boarders pay in advance of expected use. For its revenue transactions, the riding school maintains these accounts: Cash, Accounts Receivable, Revenue Received in Advance, Riding Revenue, Lesson Revenue, and Boarding Revenue.

The riding school owns twenty horses, a stable, a riding field, riding equipment and office equipment. These assets are accounted for in accounts Horses, Building, Riding Field, Riding Equipment, and Office Equipment.

The riding school employs stable helpers and an office worker, who receive weekly salaries. At the end of each month, the mail usually brings invoices for advertising, electricity and veterinary services. Other expenses include feed for the horses and insurance. The riding school also maintains the following accounts: Hay and Feed Supplies, Prepaid Insurance, Accounts Payable, Salaries Payable, Salaries Expense, Advertising Expense, Electricity Expense, Veterinary Expense, Hay and Feed Expense, and Insurance Expense.

Mark Dingo's sole source of personal income is dividends from the riding school. Thus, the business declares and pays periodic dividends. To record equity in the business and dividends, two accounts are maintained: Share Capital and Dividends.

During the first month of operations an inexperienced bookkeeper was employed. Mark asks you to review the following eight general journal entries of the 50 entries made during the month. In each case, the explanation for the entry is correct.

May	1	Cash	200 000	
		Share Capital		200 000
		(Issued shares in exchange for $200 000 cash)		
	2	Salaries Expense	10 000	
		Salaries Payable		10 000
		(Hired employees services for the month)		
	5	Cash	5 000	
		Accounts Receivable		5 000
		(Received $5000 cash for lesson fees)		
	7	Cash	5 000	
		Boarding Revenue		5 000
		(Received $5000 for boarding of horses beginning 1 June)		
	9	Hay and Feed Expense	10 000	
		Cash		10 000
		(Purchased estimated 5 months supply of feed and hay for $10 000 on account)		
	14	Riding Equipment	2 50	
		Cash		2 500
		(Purchased desk and other office equipment for $2500 cash)		
	15	Salaries Expense	6 000	
		Cash		6 000
		(Issued cheque to Mark Dingo for personal use)		
	20	Cash	31 500	
		Riding Revenue		13 500
		(Received $13 500 cash for riding fees)		
	31	Veterinary Expense	6 750	
		Accounts Receivable		6 750
		(Received invoice of $6750 from veterinarian for services provided)		

Required

With the class divided into groups, answer the following:

(a) State which journal entries are correct. For each journal entry that is incorrect, prepare the entry that should have been made by the bookkeeper.

(b) Which of the incorrect entries would prevent the trial balance from balancing?

(c) What was the correct profit for May, assuming the bookkeeper originally reported profit of $15 100 after posting all 50 entries? (*Hint:* Assume errors occurred only in the 8 entries reported, i.e. the remaining 42 entries were recorded correctly.)
(d) What was the correct cash balance at 31 May, assuming the bookkeeper reported a balance of only $20 650 after posting all 50 entries?

COMMUNICATION ACTIVITY

BBS2.5 Fancy Flowers Ltd provides a flower delivery service. Two recurring transactions for the business are invoicing customers for services provided and paying employee salaries. For example, on 15 March invoices totalling $8500 were sent to customers, and $3200 was paid in salaries to employees.

Required
Write a memorandum to the new assistant accountant at Fancy Flowers that explains and illustrates the steps in the recording process for each of the 15 March transactions. Use the format demonstrated in the text under the heading 'The recording process illustrated' (pp. 112–17).

BBS2.6 John Jones, a new university graduate, has just been appointed as an assistant accountant in the small business division of a public accounting practice. One of John's first tasks is to verify the balances in the ledger of a new client. A trial balance listing was completed but it did not balance.

Required
Write a memorandum to John Jones explaining the purpose of the trial balance, outlining the types of recording errors a trial balance will and will not detect.

ETHICS CASE

BBS2.7 Answer the following questions on ethics by conducting research using the library and/or internet and reflecting on your knowledge of ethics, your life experiences and beliefs.
(a) What does the word 'ethics' mean and what is its origin (e.g. does the word come from a Latin or Greek word)?
(b) Now that you have a definition of ethics, explain in your own words what is considered 'ethical behaviour'.
(c) List five criteria you feel would indicate that an accountant was behaving ethically. Two examples of criteria are (i) the accountant has respect for the law and (ii) the accountant acts with discretion, i.e. not revealing private business affairs to outside parties.
(d) What are the 'costs', both personal and financial, of unethical behaviour?
(e) Provide an example from your own life experiences to illustrate how someone has behaved unethically in relation to you or with someone you know.

Answers to self-study questions
1. b 2. b 3. c 4. d 5. d 6. a 7. c 8. d 9. a 10. c

Answer to Review It question 4, p. 106
Trade and Other Receivables debit; Income Tax Expense debit; Revenue credit; Food and Paper Expenses debit.

CHAPTER 3

ACCRUAL ACCOUNTING CONCEPTS

LEARNING OBJECTIVES

After studying this chapter, you should be able to:

1. Differentiate between the cash basis and the accrual basis of accounting.
2. Explain criteria for revenue recognition and expense recognition.
3. Explain why adjusting entries are needed and identify the major types of adjusting entries.
4. Prepare adjusting entries for prepayments and accruals.
5. Describe the nature and purpose of the adjusted trial balance.
6. Explain the purpose of closing entries.
7. Describe the required steps in the accounting cycle.
8. Describe the purpose and the basic form of a worksheet.

LIVE THE GOOD LIFE

Most people know that to lead a healthy lifestyle they need to eat well and do some sort of exercise on a regular basis. Are you into fitness? Is walking, running, weights, martial arts, boxing or Pilates your thing? Are you motivated to exercise on your own or do you do you prefer to have a personal trainer or participate in one of the many group fitness activities offered by health clubs?

No matter what you're into there's probably a health club near you that offers your kind of fitness activity. Health clubs like Fitness First and Goodlife, and specialised centres like Fernwood, which is exclusive to women, have popped up all over the place to service people's need to maintain their health.

Goodlife Health Clubs is a major player in the health and fitness industry today. The chain's history began in 1998 when Goodlife was established in Queensland and it is one of the fastest growing health clubs in Australia. In July 2014, it had over 175 000 members in 66 locations throughout most states in Australia including New South Wales, Queensland, South Australia, Victoria and Western Australia.

So, let's assume you want to join a Goodlife Health Club near you. Will you choose a 3-month, 6-month membership, or a 12-month membership and/or one of the personal trainer session packages? Maybe a membership to access any of the health clubs nationally. So many choices! Let's say you choose a 12-month membership as it is cheaper per month and five sessions with a personal trainer, and pay online with your credit card. When should Goodlife Health Clubs record your payment as revenue in its accounts? Would it be as soon as you pay, at the end of the month when Goodlife receives your money from the credit card company, or after each of your personal training sessions? Good question, huh?

So far in this textbook, you have learned some principles and concepts about how to record business transactions. For example, you know that once you make a sale and supply the goods or service, the sale is recorded as revenue which increases profit. You also know that once you incur an expense it decreases profit, and, of course, you know that more profit is better than less profit. However, it is not only important to know *what* to record and *how* to record a transaction, it is also important to know *when* to record a transaction. It isn't always that easy to apply all the principles and concepts. In fact, it is often difficult to determine the period in which some revenues and expenses should be recorded and reported.

Consider you purchase a 12-month gym membership from Goodlife. If you pay your 12-month membership fee in one go, the whole 12 months is not revenue to the club at that point in time. Revenue is only recorded after you have used the facilities for a month and the services have been provided. So, Goodlife would recognise revenue at the end of each month. If you paid your membership monthly, the revenue can be recorded once the service has been provided for the month. In relation to the personal training sessions, revenue would only be recorded after you use each personal training session, or once the period has passed for the session to be used as outlined in the fine print in the terms and conditions.

To record transactions, accountants rely on principles and concepts to determine the correct timing for recording revenue and expenses. These will be discussed in detail in this chapter. Although principles give guidance, they are sometimes overlooked, misinterpreted or even intentionally ignored. You might ask, 'Why would management report revenues or expenses in the wrong period? What would be the point? There are several reasons. For example, some companies' management remuneration is tied to profits, and managers may be tempted to manipulate revenue reporting in order to receive a larger bonus. Also, in today's corporate environment, companies are competing for investors' dollars, which puts pressure on companies to report higher earnings every year. If actual performance falls short of expectations, management might be tempted to bend the accounting rules to report higher profits. While 'bending or stretching' the rules might not be a healthy activity for the company accountant, you can rest assured that bending and stretching in a health club can be great for you!

Source: **Adapted from information on the following web site: www.goodlifehealthclubs.com.au.**

On the World Wide Web
Goodlife Health Clubs:
www.goodlifehealthclubs.com.au

PREVIEW OF CHAPTER 3

As indicated in the opening story, recording transactions in the correct accounting period is important and necessary. To do otherwise leads to a misstatement of assets, liabilities, revenues, expenses and equity. In this chapter we introduce you to the accrual accounting concepts and decision making involved in adjusting entries that are an important part of accrual accounting.

ACCRUAL ACCOUNTING CONCEPTS

- **Timing issues**
  - Accrual versus cash basis of accounting
  - Revenue recognition criteria
  - New accounting standard for revenue recognition
  - Expense recognition criteria
- **The basics of adjusting entries**
  - Types of adjusting entries
  - Adjusting entries for prepayments
  - Adjusting entries for accruals
  - Summary of basic relationships
- **The adjusted trial balance and financial statements**
  - Preparing the adjusted trial balance
  - Preparing financial statements
- **Closing the books**
  - Preparing closing entries
  - Preparing a post-closing trial balance
- **Summary of the accounting cycle**
- **Appendix: Adjusting entries — using a worksheet**

LEARNING OBJECTIVE 1

Differentiate between the cash basis and the accrual basis of accounting.

TIMING ISSUES

Consider this story:

> A fish and chip shop owner who had emigrated years ago from England kept his accounts payable in a shoe box, accounts receivable on a note pad, and cash in a cigar box. His daughter, having just completed the CPA program, chided her father: 'I don't understand how you can run your business this way. How do you know what your profits are?'
>
> 'Well,' her father replied, 'when I got off the boat 40 years ago, I had nothing but the pants I was wearing. Today your brother is a doctor, your sister is a university lecturer, and you are a CPA. Your mother and I have a nice car, a well-furnished house, and a holiday house. We have a good business and everything is paid for. So, you add all that together, subtract the pants, and there's your profit.'

Helpful hint

An accounting time period that is 1 year long is called a **financial year**.

Although the old fish and chip shop owner may be correct in his evaluation of how to calculate profit over his lifetime, most businesses need more immediate feedback about how well they are doing. For example, management usually needs monthly reports on financial results, most large entities are required to present 6-monthly and annual financial statements to shareholders, and taxation authorities require all businesses to lodge annual tax returns. Consequently, accounting divides the economic life of a business into artificial time periods. As indicated in chapter 1, this is the **accounting period concept**. Accounting periods are generally a month, a quarter, a half a year, or a year.

Many business transactions affect more than one of these arbitrary time periods. For example, a new building purchased by Domino's or a new machine purchased by Fisher & Paykel will be used for many years. It doesn't make good sense to expense the full amount of the building or the machine at the time it is purchased because each will be used for many subsequent periods. Therefore, it is necessary to determine the impact of each transaction on specific accounting periods.

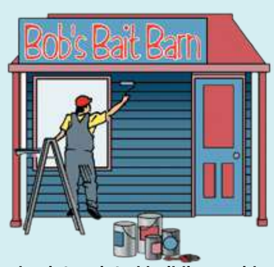
ACCRUAL VERSUS CASH BASIS OF ACCOUNTING

Revenues and expenses can be recorded or recognised on either a cash or an accrual basis. Under **cash-based accounting**, revenue is recorded only when the cash is received, and an expense is recorded only when cash is paid. When the majority of the transactions are carried out using cash (i.e. they have few receivables and payables), the cash basis will produce similar results to the accrual basis and is simpler to operate. However, it is not suitable where business organisations conduct a major part of their business on credit, because the statement of profit or loss produced under cash-based accounting would not represent the activities that relate to the current period.

Accrual-based accounting, on the other hand, records transactions and events in the accounting periods in which they occur rather than in the periods in which the entity receives or pays the related cash. Recall in chapter 1 we introduced the *Conceptual Framework*. One of the underlying assumptions described in the *Conceptual Framework* is that the statement of profit or loss and statement of financial position should be prepared on an accrual basis in order to best serve the function of providing relevant and reliable information for making decisions. For most merchandising businesses, using the accrual basis of accounting means recording revenues when goods are sold rather than when the cash is received. For entities that generate revenue by providing services, the accrual basis of accounting is typically applied by recording revenue when the service is performed rather than when the customer or client pays for the service. If services are part of a long-term contract, the revenue may need to be recognised progressively over several periods. The accounting reports prepared using the accrual-based system better reflect the true position and performance of the business for the period covered by the accounting period. Accountants are sometimes asked to convert cash-based records to the accrual basis. As you might expect, extensive adjustments to the accounting records are required for this task.

Figure 3.1 shows the relationship between accrual-based numbers and cash-based numbers, using a simple example. Suppose that the Blue Chip Painting Company paints a large building (Bob's Bait Barn) during year 1. In year 1 Blue Chip pays total expenses of $50 000, which include the cost of the paint and its employees' salaries. Now assume that Blue Chip billed Bob's Bait Barn $80 000 at the end of year 1 but was not paid until year 2. On an accrual basis, the revenue and expenses would be recognised in the same period (year 1) when the work was performed, and costs and revenue can be measured reliably. Thus, Blue Chip's profit for year 1 would be $30 000, and no revenue or expense from this project would be reported in year 2.

Figure 3.1 Accrual- versus cash-based accounting

	Year 1	Year 2
Activity	 Purchased paint, painted building, paid employees	 Received payment for work done in year 1
Accrual basis	Revenue $80 000 Expense 50 000 Profit $30 000	Revenue $ — Expense — Profit $ —
Cash basis	Revenue $ — Expense 50 000 Loss $(50 000)	Revenue $80 000 Expense — Profit $80 000

INTERNATIONAL NOTE

Although different accounting standards are often used by entities in other countries, the accrual basis of accounting is central to all of these standards.

The $30 000 profit reported for year 1 provides a useful indication of the profitability of Blue Chip during that period. If, instead, a cash basis of accounting was adopted, Blue Chip would report expenses of $50 000 in year 1 and revenues of $80 000 in year 2. The results would be a loss of $50 000 for year 1 and a profit of $80 000 for year 2. The cash-based measures are not very informative about the results of Blue Chip's efforts during years 1 and 2, but they are useful if you wish to know about the entity's cash flows.

Figure 3.2 summarises when transactions are recorded under accrual- versus cash-based accounting. Under the accrual basis, all cash transactions are still recorded but the difference lies in the analysis of the effect on the accounting equation. What you need to determine is whether the transaction has been partly recorded already in the books. For example, using accrual accounting you record the service when the service has been performed and invoiced. Hence, you recognise the increase in the asset accounts receivable and an increase in equity, service fees revenue. When payment is received from the customer, the analysis of the transaction is that you have an increase in an asset cash and, because you have already recognised the revenue when you billed the customer, the other side of the transaction is a decrease in an asset, accounts receivable.

Determining the amount of revenues and expenses to be reported in a given accounting period can be difficult. Proper reporting requires a thorough understanding of the nature of the entity's business. Accountants have developed criteria for the recognition of revenues and expenses to facilitate the recording process. These criteria form part of generally accepted accounting principles (GAAP).

		Transactions recorded in books of the seller	
Transaction	**Timing**	**Cash basis**	**Accrual basis**
Customer order received	1 August	Nothing recorded	Nothing recorded
Sold goods on credit and invoiced customer	5 August	Nothing recorded	Increase accounts receivable Increase sales revenue
Customer paid account	6 September	Increase cash Increase sales revenue	Increase cash Decrease accounts receivable
Ordered inventory (goods) from supplier	2 August	Nothing recorded	Nothing recorded
Received inventory and invoice from supplier	3 August	Nothing recorded	Increase inventory Increase accounts payable
Paid amount owing to supplier	7 September	Increase inventory Decrease cash	Decrease accounts payable Decrease cash

Figure 3.2 Timing of recording transactions using cash- and accrual-based accounting

LEARNING OBJECTIVE 2

Explain criteria for revenue recognition and expense recognition.

REVENUE RECOGNITION CRITERIA

In chapter 1 we introduced the *Conceptual Framework* which consists of four sections. One section outlines the definitions of the elements in the financial statements. Income is defined in the *Conceptual Framework* as encompassing both revenue and gains. The *Conceptual Framework* defines *revenue* as increases in economic benefits arising in the course of ordinary activities of an entity. It includes sales revenue, fees, interest, dividends, royalties and rent. *Gains* are other increases in economic benefits. They are no different in nature from revenue but are labelled as gains either because they do not arise in the ordinary course of business or because they are reported as a net amount, such as the gain on the sale of non-current assets.

A definition of revenue is helpful in determining *what* is to be recorded as revenue but we also need guidelines on *when* to record or recognise revenues. For example, entities that sell goods (merchandising entities) need to first purchase goods, then sell them to customers and collect the cash. The **operating cycle** is the length of time it takes for a business to acquire goods, sell them to customers and collect the cash from the sale. The question that arises is, at which point in the operating cycle should revenue be recognised?

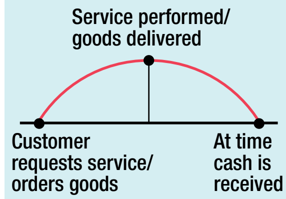
The recognition criteria for elements of financial statements are helpful in determining 'when' to record amounts. The *Conceptual Framework* provides **revenue recognition criteria**. Revenues should be recognised when and only when:

(a) it is probable that any future economic benefits associated with the revenue will flow to the entity and

(b) the revenue can be measured with reliability.

In the context of revenue recognition, the concept of probability refers to the degree of uncertainty that the future economic benefits will flow to the entity. The assessment of probability, or the degree of uncertainty, is made on the basis of evidence available when the financial statements are prepared. Ordinarily, this assessment is also made at the time that the transaction giving rise to the revenue occurs, thereby allowing the transaction to be recorded. However, when preparing the financial statements, the accountant must reconsider any information available at this time in order to assess whether the revenue should be reported as such in the financial statements.

Revenue recognition



Generally, revenue should be recognised in the accounting period in which the service is performed or the goods are delivered.

The requirement that the revenue can be measured reliably does not mean that it must be measured with absolute certainty. In some routine transactions, such as cash sales, measurement may be certain. However, in many instances, revenue must be estimated.

In applying the recognition criteria, many businesses adopt procedures for recognising revenue when it is earned. For example, when a surgeon earns revenue by conducting surgery on a patient, a claim against the patient arises for the doctor's fee. At that time, the amount of the fee could be measured reliably because the doctor would know what has been performed; and the flow of benefits would be probable because the doctor would have a valid claim against the patient for the fee.

IAS 18/AASB 118 *Revenue* prescribes principles for the recognition of revenue for the sale of goods. The revenue and the associated costs must be able to be reliably measured and it is probable the economic benefits, usually in the form of cash inflows, will accrue to the seller. The seller must have transferred to the buyer the effective control over the goods and not have any continuing managerial involvement, thereby transferring the significant risks and rewards of ownership.

Normally the transfer of significant risks and rewards of ownership occurs when legal title passes to the buyer. For example, when purchasing a car, the buyer takes out any required insurance policies because the risks of theft and accidents are borne by the new owner, not the car dealer. However, there are instances when the seller retains significant risks of ownership after legal title and possession have passed to the buyer. An example would be if the buyer had the right to return the goods for a specified reason, and significant uncertainty about whether they would be returned remained at the time of preparing the financial statements.

IAS 18/AASB 118 requires revenue arising from the provision of services to be recognised when the outcome of the transaction can be estimated reliably. The concept of reliable estimation of the outcome of a transaction captures both the reliability of measurement of the revenue and probability that the associated economic benefits will accrue to the entity as established in the *Conceptual Framework*. In addition the entity must be about to estimate reliably the stage of completion of the transaction together with the costs incurred to date and the estimated costs to complete the transactions.

Typically, all of the tests would be satisfied when revenue is earned, and one or more of the tests would not be satisfied when revenue is unearned. In this chapter, we will focus on these tests when exploring the recording of revenue. The application of the revenue recognition tests for a service business is described overleaf.

In a service entity, revenue is recognised at the time the service is performed. For example, assume a dry-cleaning business cleans clothing on 30 June, but customers do not pick up and pay for their clothes until the first week of July. Using the revenue recognition criteria, revenue is recorded in June when the service is performed, not in July when the cash is received. At 30 June, the tests for the recognition of revenue are met. The amount could be measured reliably because the entity would know how many items were cleaned. A claim to cash has been established by the provision of the agreed dry-cleaning service. This establishes probability. Before the service is performed, it is less probable that economic benefits will flow to the dry-cleaning business because the customer might cancel the dry-cleaning order. The stage of completion and costs incurred are known because the job is finished. The drycleaner would report a receivable on its statement of financial position and revenue in its statement of profit or loss for the service performed.

NEW ACCOUNTING STANDARD FOR REVENUE RECOGNITION

DECISION MAKING

In May 2014, the International Accounting Standards Board (IASB) released the long awaited standard on revenue recognition, IFRS 15 *Revenue from Contracts with Customers*, which is mandatory for reporting periods commencing 1 January 2017 but may be adopted earlier. When mandatory, this standard will replace IAS 15 (and a few other standards not covered in this textbook) and there will be one accounting standard for revenue recognition.

The project was commissioned because of the concerns of users of the financial statements that there was not a set of robust principles regarding when to recognise revenue. This resulted in many inconsistencies in the application of the current standards on revenue recognition. In the new standard a five-step model framework is adopted to identify when revenue should be recognised.

Helpful hint

A contract may be written or verbal.

Step 1. Identify the contract(s) with a customer.
The contract must be approved by parties to the contract and each party's rights with regards to the goods or services to be transferred must be clearly identified as well as the terms for payment. The contract must have commercial substance and it is probable that the consideration will be collected.

Step 2. Identify the performance obligation in the contract.
At the inception of the contract the performance obligation must be identified. It can be either a distinct good or service or a series of distinct goods or services that are delivered over time but are substantially the same and have the same pattern of transfer over time. For example, a cleaning service provided or a magazine subscription where delivery is over time.

Step 3. Determine the transaction price.
This is the transfer price the entity expects to receive based on past experience with the customer, net of discounts, rebates or refunds. If the contract has elements of variable consideration, then it must estimate the amount of consideration it expects to receive.

Step 4. Allocate the transaction price to the performance obligation in the contract.

Step 5. Recognise revenue when (or as) the entity satisfies the performance obligation.

Essentially revenue is recognised when an entity satisfies a performance obligation. In order to recognise revenue from contracts with customers to supply goods or services, the following conditions must be met:

- the contract has been approved by parties to the contract
- each party's rights in relation to the goods to be transferred has been identified
- the payment terms have been identified
- the contract has commercial substance; and
- it is probable that the consideration to which the entity is entitled to in exchange for the goods or services will be collected.

The new accounting standard has a longer than usual lead time before it is mandatory, 1 January 2017, to give entities time to reassess their existing and future contracts to take into account the new requirements and to adjust their accounting policies and accounting systems for the new rules.

APPLICATION IN BUSINESS

Management perspective

In Australia, ASIC announces each year the area of focus it will review for the upcoming financial reporting season. ASIC believes financial statements should provide useful and meaningful information for investors and other users, so on the watch list is how entities are justifying their calculation of accounting estimates. ASIC in particular mentioned revenue recognition and expense deferral. Revenue recognition should look at the substance of the underlying transaction. When considering expense deferral it is important that the item deferred meets the criteria of an asset as defined in the accounting standards. Lastly, appropriate and full disclosure must be made of estimates, uncertainties and significant judgements made by the report preparers. It is acknowledged that judgements are necessary, but they want to avoid entities misleading the users.

Source: R. Subramanian 2014, 'ASIC gears up for reporting season', *InTheBlack*, 13 June.

Generally, for merchandising businesses, revenue is recognised when the goods have been delivered. Improper application of revenue recognition criteria can lead to misstatement of profits.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
At what point should the entity recognise (record) revenue?	Need to understand the nature of the entity's business	Revenue is recognised when an entity satisfies a performance obligation in a contract. The following conditions must be met: the contract has been approved by parties to the contract; each party's rights in relation to the goods or services to be transferred have been identified; the payment terms have been identified; the contract has commercial substance; and it is probable that the consideration to which the entity is entitled to in exchange for the goods or services will be collected.	Recognising revenue too early overstates current period revenue; recognising it too late understates current period revenue.

EXPENSE RECOGNITION CRITERIA

DECISION MAKING

There are many types of expenses, such as wages expense, rent expense, interest expense and electricity expense. The *Conceptual Framework* defines expenses as encompassing both losses and expenses. *Expenses* are decreases in economic benefits. They include expenses that arise in the ordinary activities of the entity, such as cost of sales, wages and payments for rent. The term *losses* refers to expenses that do not necessarily arise in the ordinary course of business, such as the loss from a fire or flood, as well as reductions in economic benefits that are reported on a net basis (i.e. net of any associated revenue), such as a loss on the sale of non-current assets.

Put simply, expenses are decreases in equity during an accounting period that are not due to distributions to the owner(s). Consumptions or losses of future economic benefits include reductions in assets such as cash, and increases in liabilities include payables such as salaries payable.

The consumption of economic benefits is easily determined for some transactions, such as using cash to pay rent for the current period. However, some economic benefits, such as buildings and equipment, last for numerous accounting periods. Measuring the amount of economic benefits consumed in each accounting period can be difficult. This makes it difficult to determine how much of the cost of assets such as buildings and equipment should be allocated to expenses in each accounting period. This is discussed further in the section 'Depreciation' (pp. 165–67).

The definition of expenses is helpful in determining *what* is to be recorded as an expense but, as for revenues, we need guidelines on *when* to record or recognise expenses. The *Conceptual Framework* provides **expense recognition criteria**. Expenses should be recognised when and only when:

(a) the outflow of future economic benefits associated with the expense is probable, and
(b) the expense can be measured reliably.

Many expenses for merchandising and service entities involve little uncertainty as they result from the production or delivery of goods or services during an accounting period, such as the cost of employees' services (wages and salaries), supplies used (e.g. stationery) and electricity or gas used. It is important to note that an expense is recognised when the reduction in assets or the increase in liabilities is recognised, and that this may occur before, as or after cash is paid. Referring to the previous dry-cleaning business example, although wages may not be paid on 30 June for the hours worked by employees in providing dry-cleaning services, the expense is recognised as the increase in liabilities (wages payable) has occurred and the future outflow can be measured reliably.

Where the expenses result directly and jointly from the same transaction as the revenues, e.g. the cost of services provided or the cost of goods sold, expenses should be recognised on the basis of a direct association with revenues. This recognition technique is sometimes referred to as 'matching' of expenses with revenues — the simultaneous recognition of revenues and related expenses. The nature of and methods for recording cost of sales is further explored in chapters 4 and 5.

Determining the amount of revenues and expenses to be reported in each accounting period is facilitated by revenue and expense recognition criteria. Relationships between revenue recognition, expense recognition and the accounting period concept which form part of GAAP are depicted in figure 3.3.

Although most entities use the accrual basis of accounting, some small businesses use the cash basis because they have few receivables and payables. For these businesses, the cash basis may approximate the accrual basis.

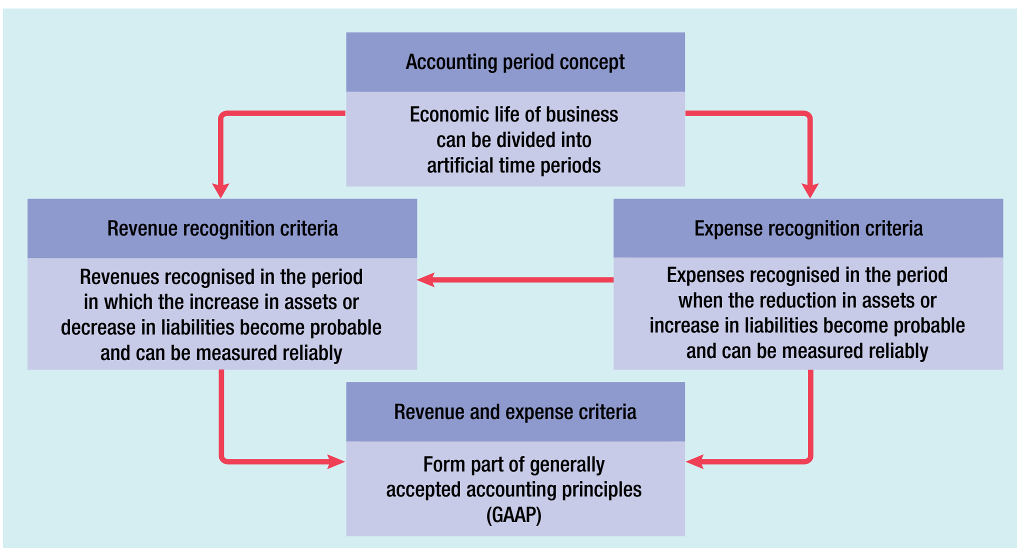


Figure 3.3 Relationships between revenue recognition, expense recognition and the accounting period concept

Note: The recognition criteria in figure 3.3 are the same as the *Conceptual Framework* which is currently under revision. The criteria in the decision-making toolkit are from the new accounting standard IFRS 15 *Revenue from Contracts with Customers*.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
At what point should the entity recognise (record) expenses?	Need to understand the nature of the entity's business	Expenses should be recognised when decreases in assets or increases in liabilities that result in a decrease in equity are probable and can be measured reliably.	Recognising expenses too early overstates current period expenses; recognising them too late understates current period expense.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What are the differences between the cash and accrual bases of accounting?
2. Explain revenue recognition and expense recognition criteria.

>> DO IT

During year 1, Services Ltd invoiced its customers \$100 000 for services performed. It received \$75 000 cash in year 1 and the balance in year 2. Expenses paid during year 1 amounted to \$45 000 but another \$13 000 of expenses were not paid until year 2. Calculate the profit for year 1 using (a) accrual-based accounting and (b) cash-based accounting.

REASONING: Accrual-based accounting revenues and expenses are recognised in the period in which the revenues are earned and the expenses are incurred, whereas when cash-based accounting is used the receipt and payment of the cash triggers the recognition.

SOLUTION: Accrual-based: Profit is the \$100 000 (invoiced) less \$45 000 (cash expenses paid) and \$13 000 (incurred but still unpaid) = \$100 000 − (\$45 000 + \$13 000) = \$42 000. Cash-based: Profit is \$75 000 (cash received) less \$45 000 (cash expenses paid) = \$30 000.

THE BASICS OF ADJUSTING ENTRIES

LEARNING OBJECTIVE 3
Explain why adjusting entries are needed and identify the major types of adjusting entries.

In order for revenues and expenses to be recorded in the correct accounting period, adjusting entries are made to revenue and expense accounts at the end of the accounting period. In short, **adjusting entries** are needed to ensure that the recognition criteria are followed for assets, liabilities, revenues and expenses.

The use of adjusting entries makes it possible to produce accurate financial statements at the end of the accounting period. Thus, the statement of financial position reports appropriate assets, liabilities and equity at the end of the reporting period, and the statement of profit or loss shows the appropriate profit (or loss) for the period. Adjusting entries are necessary because the general ledger may not contain up-to-date and complete data, for the following reasons.

1. Some events are not journalised daily because it would not be useful or efficient to do so. Examples are the use of supplies and the earning of wages by employees.
2. Some costs are not journalised during the accounting period because the economic benefits expire with the passage of time rather than as a result of recurring daily transactions. Examples include building and equipment deterioration, rent and insurance.
3. Some items may be unrecorded. An example is an electricity or telephone bill that will not be received until the next accounting period.

Adjusting entries are required every time financial statements are prepared. An essential starting point is an analysis of each account in the trial balance to determine whether it is complete and up to date for financial statement purposes.

None of the transactions demonstrated in this chapter and the end-of-chapter activities include the effects of the goods and services tax (GST). The appendix to chapter 4 introduces transactions with GST.

TYPES OF ADJUSTING ENTRIES

Adjusting entries can be classified as either prepayments or accruals. Each of these classes has two subcategories as shown in figure 3.4.

Prepayments
1. *Prepaid expenses:* Amounts paid in cash and recorded as assets until the economic benefits are used or consumed.
2. *Revenues received in advance:* Amounts received from customers and recorded as liabilities until the services are performed or the goods are provided and revenue is recognised.

Accruals
1. *Accrued revenues:* Amounts not yet received and not yet recorded for which the goods or services have been provided.
2. *Accrued expenses:* Amounts not yet paid and not yet recorded for which the consumption of economic benefits has occurred.

Figure 3.4 Categories of adjusting entries

Alternative terminology

Another term for prepayments is *deferrals*.

Alternatively, expenses when paid may be recorded as an expense and the adjustment is to defer the expense to the next period and record as an asset. Refer to figure 3.17 (p. 175).

Specific examples and explanations of each type of adjustment are given in subsequent sections. Each example is based on the 31 October trial balance of Wong Pty Ltd, from chapter 2, reproduced in figure 3.5. Note that the retained earnings account has been added to this trial balance with a nil balance. We will explain its use later.

It will be assumed that Wong Pty Ltd uses an accounting period of 1 month for internal reporting. Thus, monthly adjusting entries will be made. The adjusting entries will be dated 31 October.

WONG PTY LTD
Trial balance
as at 31 October 2016

No.	Account name	Debit	Credit
100	Cash	$15 200	
110	Advertising supplies	2 500	
112	Prepaid insurance	600	
130	Office equipment	5 000	
200	Accounts payable		$ 2 500
213	Service revenue received in advance		1 200
230	Bank loan		5 000
300	Share capital		10 000
310	Retained earnings		—
320	Dividends	500	
400	Service revenue		10 000
500	Salaries expense	4 000	
510	Rent expense	900	
		$28 700	$28 700

Figure 3.5 Trial balance of Wong Pty Ltd

LEARNING OBJECTIVE 4

Prepare adjusting entries for prepayments and accruals.

ADJUSTING ENTRIES FOR PREPAYMENTS

Prepayments are either prepaid expenses or revenues received in advance. Adjusting entries for prepayments are required at the end of the reporting period to record the portion of the prepayment that represents the expense or the revenue in the current accounting period. Adjusting entries for amounts recorded as prepayments are graphically depicted in figure 3.6.

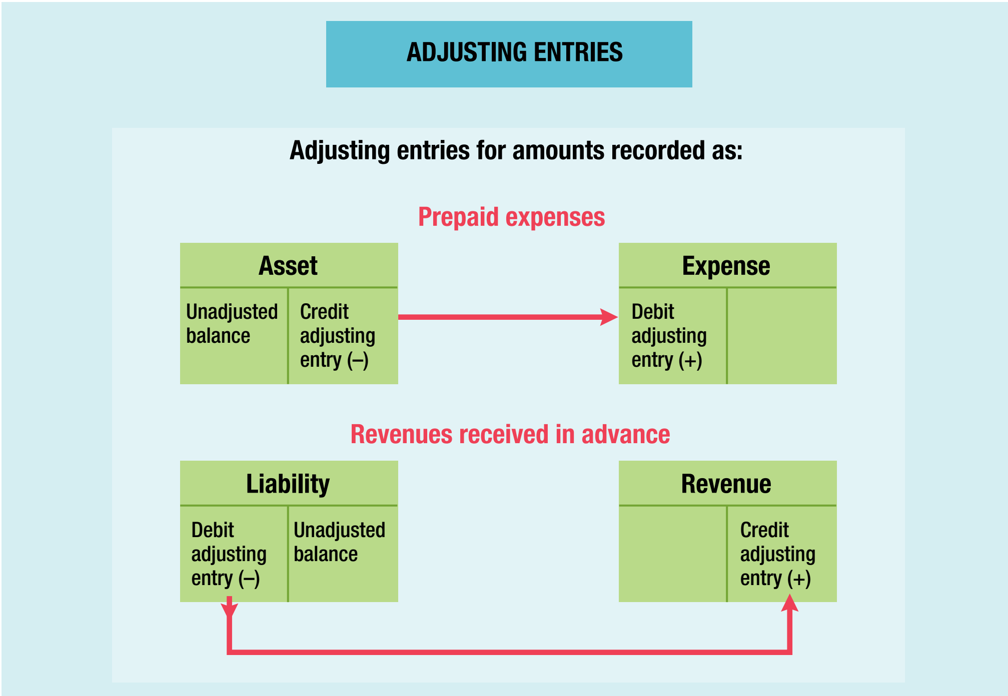


Figure 3.6 Adjusting entries for prepayments

PREPAID EXPENSES

Payments of amounts that will provide economic benefits for more than the current accounting period are called **prepaid expenses** or **prepayments**. When such a cost is incurred, an asset account is increased (debited) to show the service or benefit that will be received in the future. Examples of common prepayments are insurance, supplies, advertising and rent.

Prepaid expenses expire as the service is provided with the passage of time (e.g. rent and insurance) or through use (e.g. supplies). The expiration of these benefits does not require daily entries — that would be impractical and unnecessary. Accordingly, we postpone the recognition of the expiry of prepaid expenses until financial statements are prepared. At the end of each reporting period, adjusting entries are made to record the expenses applicable to the current accounting period and to show the remaining amounts in the asset accounts. Before adjustment, assets are overstated and expenses are understated. Therefore, an adjusting entry for prepaid expenses results in an increase (a debit) to an expense account and a decrease (a credit) to an asset account.

Alternatively, some entities may record the cost incurred immediately as an expense (debit) rather than an asset. Therefore, the adjusting entry will be to increase (debit) the asset account for the future benefit which is unexpired and to decrease the expense (credit). Hence, the expense has been deferred.

Supplies

The purchase of supplies, such as paper and envelopes, results in an increase (a debit) to an asset account. During the accounting period, supplies are used or consumed. Rather than record supplies expense as the supplies are used, many entities recognise supplies expense at the *end* of the accounting period. At the end of the accounting period the entity must count the remaining supplies. The difference between the unadjusted balance in the supplies (asset) account and the actual cost of supplies on hand represents the supplies used (expense) for that period. That is, the cost of the supplies consumed during the period is an expense.

Recall from the facts presented in chapter 2 that Wong Pty Ltd purchased advertising supplies costing $2500 on 5 October. The payment was recorded by increasing (debiting) the asset advertising supplies, and this account shows a balance of $2500 in the 31 October trial balance. A count at the close of business on 31 October reveals that $1000 of supplies are still on hand. Thus, the cost of supplies used is $1500 ($2500 – $1000). This use of supplies decreases an asset, advertising supplies, and decreases equity by

increasing an expense account, advertising supplies expense. The use of supplies affects the accounting equation in the following way:

Assets	=	Liabilities	+	Equity
−$1500				−$1500

Thus, the following entry is made:

Oct. 31	Advertising supplies expense	1 500	
	Advertising supplies		1 500
	(To record supplies used)		

After the adjusting entry is posted, the two supplies accounts, in T-account form, are as in figure 3.7.

Advertising supplies

Oct. 5	2 500	Oct. 31 **Adj. advertising supplies expense**	**1 500**
		cross-reference	

Advertising Supplies Expense

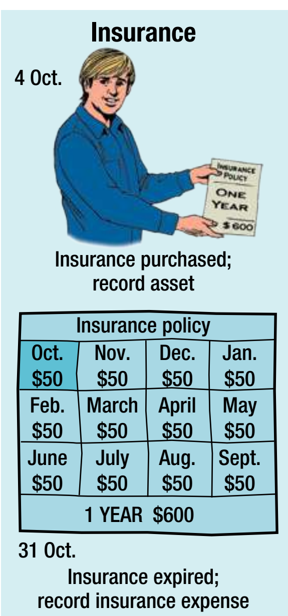
Oct. 31 **Adj. advertising supplies**	**1 500**		
cross-reference			

Figure 3.7 Supplies accounts after adjustment

For simplicity, the posting references have not been included in the general journal entry shown above and in the illustrations that follow. A more comprehensive example utilising many general ledger accounts is provided in figure 3.18 (p. 175), where posting references are included to help you trace the entries to the ledger accounts illustrated in figure 3.19 (p. 176).

The asset account advertising supplies now shows a debit balance of $1000, which is equal to the cost of supplies on hand at the end of the reporting period. In addition, advertising supplies expense shows a debit balance of $1500, which equals the cost of supplies used in October. If the adjusting entry was not made, October expenses would be understated and profit overstated by $1500. Moreover, both assets and equity will be overstated by $1500 on the 31 October statement of financial position.

Recall from chapter 2 that the account names listed inside each general ledger account are called cross-references and indicate the other account affected. For the remainder of the examples, cross-references are not included due to limited space. However, cross-references are included in figure 3.25 (p. 182).



Insurance

Entities purchase insurance to protect themselves from losses due to fire, theft and other unforeseen events. Insurance must be paid in advance, usually for a period of 1 year. Insurance payments (premiums) made in advance are normally recorded in the asset account prepaid insurance. At the end of the reporting period it is necessary to increase (debit) insurance expense and decrease (credit) prepaid insurance for the cost of insurance that has expired during the period.

On 4 October Wong Pty Ltd paid $600 for a 1-year insurance policy. Coverage began on 1 October. The payment was recorded by increasing (debiting) prepaid insurance when it was paid. This account shows a balance of $600 in the 31 October trial balance. An analysis of the policy reveals that $50 ($600/12) of insurance expires each month. The expiration of prepaid insurance has the following effect on the accounting equation in October (and each of the next 11 months):

Assets	=	Liabilities	+	Equity
−$50				−$50

Thus, the following adjusting entry is made:

Oct. 31	Insurance expense	50	
	Prepaid insurance		50
	(To record insurance expired)		

After the adjusting entry is posted, the accounts appear as in figure 3.8.

Prepaid insurance		Insurance expense	
Oct. 4 600	Oct. 31 **Adj. 50**	Oct. 31 **Adj. 50**	

Figure 3.8 Insurance accounts after adjustment

The asset prepaid insurance shows a debit balance of $550, which represents the costs allocated to the future economic benefits of the business for the remaining 11 months of coverage. At the same time the balance in insurance expense is equal to the insurance benefit that was used in October. If this adjustment was not made, October expenses would be understated by $50 and profit overstated by $50. Moreover, as the accounting equation shows, both assets and equity would be overstated by $50 on the 31 October statement of financial position.

The examples shown illustrate the recording of prepayments — amounts paid which provide benefits for more than one period. The amounts paid were initially recorded as assets, for example, supplies and prepaid insurance. However, the recording of such payments as assets at the time of payment is only one way of recording these transactions. As discussed earlier, an alternative way is to record the amounts paid as expenses at the time of payment; for example, supplies expense and insurance expense.

At the time of payment, it does not matter whether the amount is recorded as an expense or an asset, as adjusting entries will be made at the end of the reporting period to record the expenses that relate to the current period and show the unexpired cost in the asset accounts. Demonstration problem 2 (pp. 190–1) provides a comprehensive example illustrating the different ways in which these types of transactions can be recorded and the corresponding adjusting entries required at the end of the reporting period.

Depreciation

A business typically owns a variety of assets that have long lives, such as buildings, equipment and motor vehicles. These assets are called non-current assets as they provide future economic benefits to the business for more than one accounting period. The term **useful life** of the asset refers to the estimated total service potential or estimated period of time over which the future economic benefits are expected to be consumed by the entity. Because a building is expected to provide service for many years, it is recorded as an asset, rather than an expense, on the date it is acquired. As explained in chapter 1, such assets are recorded at cost, as required by the historical cost principle. According to expense recognition criteria, a portion of this cost should then be reported as an expense during each period of the asset's useful life. **Depreciation** is the process of allocating the cost of an asset to expense over its useful life.

Need for adjustment. From an accounting standpoint, the acquisition of long-lived assets is essentially a long-term prepayment for economic benefits. The need for making periodic adjusting entries for depreciation is therefore the same as described before for other prepaid expenses — that is, to recognise the cost of economic benefits that have been consumed during the period as expenses and to report the cost of economic benefits that remain at the end of the period as assets. One point is very important to understand: *depreciation is an allocation concept, not a valuation concept*. That is, we depreciate an asset to allocate its cost to the periods in which we use the asset. We are not attempting to reflect the actual change in the value of the asset.

Depreciation

2 Oct.

Office equipment purchased; record asset

Office equipment			
Oct. $40	Nov. $40	Dec. $40	Jan. $40
Feb. $40	March $40	April $40	May $40
June $40	July $40	Aug. $40	Sept. $40
Depreciation = $480/year			

31 Oct. Depreciation recognised; record depreciation expense

For Wong Pty Ltd, assume that depreciation on the office equipment is estimated to be $480 a year, or $40 per month. This would have the following impact on the accounting equation:

Assets	=	**Liabilities**	+	**Equity**
−$40				−$40

Accordingly, depreciation for October is recognised by this adjusting entry:

Oct. 31	Depreciation expense	40	
	Accumulated depreciation—office equipment		40
	(To record monthly depreciation)		

After the adjusting entry is posted, the accounts appear as in figure 3.9.

Office equipment

Oct. 2 5 000	

Accumulated depreciation—office equipment

	Oct. 31 **Adj. 40**

Depreciation expense

Oct. 31 **Adj. 40**	

Figure 3.9 Accounts after adjustment for depreciation

Helpful hint

All contra accounts have increases, decreases, and normal balances opposite to the account to which they relate.

The balance in the accumulated depreciation account will increase by $40 each month.

Statement presentation. Accumulated depreciation—office equipment is a **contra asset account**, which means that it is offset against office equipment on the statement of financial position, and its normal balance is a credit. This account is used instead of decreasing (crediting) office equipment in order to record *both* the original cost of the equipment and the total cost that has expired to date. In the statement of financial position, accumulated depreciation —office equipment is deducted from the related asset account as shown in figure 3.10.

Office equipment	$ 5 000
Less: Accumulated depreciation—office equipment	40
	$4 960

Figure 3.10 Statement of financial position presentation of accumulated depreciation

Alternative terminology

Carrying amount is also referred to as *book value*.

The difference between the cost of any depreciable asset and its related accumulated depreciation is referred to as its **carrying amount**. In figure 3.10, the carrying amount of the equipment at the end of the reporting period is $4960. The carrying amount and the market value of the asset are generally two different values.

Note also that depreciation expense identifies the amount of an asset's cost that has expired in October. The accounting equation shows that, as in the case of other prepaid adjustments, the omission of this adjusting entry would cause total assets, total equity and profit to be overstated and depreciation expense to be understated.

APPLICATION IN BUSINESS

Investor perspective

The notes to the financial statements clarify information presented in the financial statements and expand on the information provided where additional detail is needed. Investors can use the notes to find information on the assets of the entity such as the cost of non-current assets controlled by the entity, the accumulated depreciation on those assets and the depreciation expense for the period.

The depreciation expense for large businesses can be several million dollars each year. Thus, depreciation is one of the important adjusting entries made at the end of the reporting period which will have a significant effect on the profit for the period. For example, the notes to the 2013 financial statements revealed depreciation expenses of $85 700 000 for CSR Ltd, $7 860 000 for Domino's and $1 383 000 000 for Qantas.

As noted earlier, depreciation is a matter of cost allocation, not valuation. Property, plant and equipment, and intangible assets, such as a licence or franchise, are discussed at length in chapter 8.

REVENUES RECEIVED IN ADVANCE

Cash received before the revenue recognition criteria have been met is recorded by increasing (crediting) a liability account called **Revenues received in advance**. Items such as rent, the gym memberships mentioned at the beginning of the chapter and customer deposits for future service result in revenues received in advance. Airlines such as Qantas and Virgin Australia treat receipts from the sale of tickets as revenue received in advance until the flight service is provided. Health clubs treat membership revenue as deferred income until the service has been provided in accordance with the membership contract. Revenues received in advance are the opposite of prepaid expenses. Indeed, revenue received in advance in the records of one entity is likely to be a prepayment in the records of the entity that has made the advance payment. For example, if identical accounting periods are assumed, a landlord will have rent revenue received in advance when a tenant has prepaid rent.

Revenues received in advance

2 Oct.

Cash is received in advance; liability is recorded

31 Oct.

Some service has been provided; some revenue is recorded

When payment is received for services to be provided in a future accounting period, a revenue received in advance (a liability) account should be credited to recognise the obligation that exists. Revenues received in advance are subsequently recognised as revenue when the service is provided to a customer. During the accounting period it is not always practical to make daily entries to the revenue received in advance accounts as the services are provided. Instead, we delay recognition of revenue until the adjustment process. Then an adjusting entry is made to record the revenue during the period and to show the liability that remains at the end of the accounting period. Typically, before adjustment, liabilities are overstated and revenues are understated. Therefore, the adjusting entry for revenues received in advance results in a decrease (a debit) to a liability account and an increase (a credit) to a revenue account.

Wong Pty Ltd received $1200 on 2 October from R. Knox for advertising services expected to be completed by 31 December. The payment was credited to service revenue received in advance, and this liability account shows a balance of $1200 in the 31 October trial balance. An evaluation of the work performed by Wong for Knox indicated that services worth $400 were performed in October. This affects the accounting equation in the following way:

Assets	=	Liabilities	+	Equity
−$400				+$400

The following adjusting entry is made:

Oct.	31	Service revenue received in advance	400	
		Service revenue		400
		(To record revenue)		

After the adjusting entry is posted, the accounts appear as in figure 3.11.

Service revenue received in advance

Oct. 31	**Adj.**	**400**	Oct. 2		1 200

Service revenue

			Oct. 3		10 000
			31	**Adj.**	**400**

Figure 3.11 Service revenue accounts after adjustment

The liability service revenue received in advance now shows a credit balance of $800, which represents the remaining advertising services expected to be performed in the future. At the same time, service revenue shows total revenue in October of $10 400. If this adjustment were not made, revenues and profit would be understated by $400 in the statement of profit or loss. Moreover, liabilities would be overstated and equity would be understated by $400 on the 31 October statement of financial position.

The example illustrates the initial recording of revenue received in advance as a liability. Alternatively, amounts received in advance of the provision of goods and services could be recorded initially as revenue. The adjusting entry at the end of the reporting period would, then, be to decrease revenue and recognise a liability for revenue received in advance.

APPLICATION IN BUSINESS

Management perspective

There is pressure on many companies to manipulate the financial statements to present a view that does not accurately reflect the actual underlying performance and state of affairs of the business.

> Earnings management occurs when managers use judgement in financial reporting and in structuring transactions to alter financial reports either to mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depends on reported accounting numbers.

The degree or seriousness of earnings management varies from use of accounting estimates within GAAP such as delaying recognising sales or decreasing expenditure on research and development to a more aggressive approach by not recognising asset write-downs or underestimating warranty provisions. Lastly, there is the case of fraudulent reporting, such as creating fictitious sales, recording fictitious inventory or recognising revenue when you have not completed your obligations under a contract.

Source: Quote from PM Healy & JM Whalen 2000, 'A review of the earnings management literature and its implications for standard setting', *Accounting Horizons*, vol. 14, no. 2, p. 368.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What are the four types of adjusting entries?
2. What is the effect on assets, equity, expenses and profit if a prepaid expense adjusting entry is not made when a portion of the economic benefits has expired?
3. What is the effect on liabilities, equity, revenues and profit if an adjusting entry for revenue received in advance is not made when services have been performed or goods have been delivered?

>> DO IT

The ledger of Hammond Ltd on 31 March 2016 includes these selected accounts before adjusting entries are prepared:

	Debit	Credits
Prepaid insurance	$ 3 600	
Office supplies	2 800	
Office equipment	25 000	
Accumulated depreciation—office equipment		$5 000
Service revenue received in advance		9 200

An analysis of the accounts shows the following:

1. Insurance expires at the rate of $100 per month.
2. Supplies on hand total $800.
3. The office equipment depreciates by $200 each month.
4. In relation to the $9200 recorded as service revenue received in advance, $4000 of services were performed during March.

Prepare the adjusting entries for the month of March.

REASONING: In order to record all revenues and all expenses in an accounting period, adjusting entries are made at the *end* of the accounting period. They record the portion of the prepayment that represents an expense or revenue for the current accounting period. The failure to adjust for the prepayment would lead to an overstatement of the asset or liability and a related understatement of the expense or revenue.

SOLUTION:

1. Insurance expense	100	
Prepaid insurance		100
(To record prepaid insurance expired)		
2. Office supplies expense	2 000	
Office supplies		2 000
(To record supplies used)		
3. Depreciation expense	200	
Accumulated depreciation—office equipment		200
(To record monthly depreciation)		
4. Service revenue received in advance	4 000	
Service revenue		4 000
(To record revenue)		

ADJUSTING ENTRIES FOR ACCRUALS

DECISION MAKING

The second category of adjusting entries is *accruals*. Adjusting entries for accruals are required in order to record revenues and expenses in the current accounting period that have not been recognised through daily entries and thus are not yet reflected in the accounts. The revenue account (and the related asset account) or the expense account (and the related liability account) are understated if there are unrecorded revenues and expenses. Thus, the adjusting entry for accruals will increase the balances of accounts in both the statement of financial position and the statement of profit or loss. Adjusting entries for accruals are graphically depicted in figure 3.12.

Helpful hint

For accruals, there may have been no previous entry, and the accounts requiring adjustment may both have nil balances before adjustment.

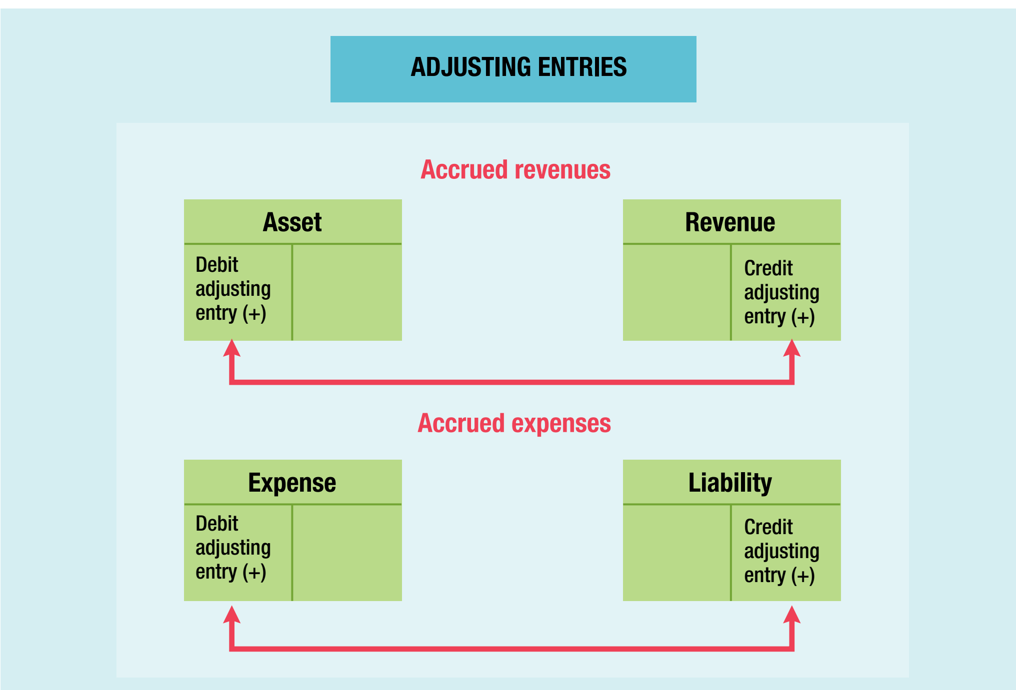


Figure 3.12 Adjusting entries for accruals

Accrued revenues

31 Oct.

Revenue and receivable are recorded for commissions not received and not recorded

Nov.

Cash is received; receivable is reduced

Accrued revenues

Accrued revenues are revenues that are recorded as adjusting entries because they have not been recorded in the daily recording of transactions. Accrued revenues may accumulate (accrue) over time, as in the case of rent revenue and interest revenue, or they may result from services that have been performed but neither invoiced nor collected, as in the case of commissions and fees. The former are unrecorded because the receipt of rent and interest revenues does not involve daily transactions. Fee revenue, or service revenue, may be unrecorded because only a portion of the total service has been provided and the clients won't be invoiced until the service has been completed. Alternatively commissions revenue may be due but not received by the end of the reporting period.

An adjusting entry is required to show the receivable that exists at the end of the reporting period and to record the revenue for the period. Before adjustment, both assets and revenues are understated. Accordingly, an adjusting entry for accrued revenues results in an increase (a debit) to an asset account and an increase (a credit) to a revenue account.

Wong Pty Ltd earns commission of 1% of sales revenue from one of its advertising clients. Although the client has not yet paid, Wong has been advised that the amount for October is $200. As this revenue has not yet been recorded, revenue and assets are understated. The required adjusting entry affects the accounting equation as follows:

Assets	=	Liabilities	+	Equity
+$200				+$200

Thus, the following adjusting entry is made:

Oct. 31	Commissions receivable	200	
	Commissions revenue		200
	(To accrue commissions revenue not recorded or collected)		

After the adjusting entry is posted, the accounts appear as in figure 3.13.

Commissions receivable		Commissions revenue	
Oct. 31 **Adj. 200**			Oct. 31 **Adj. 200**

Figure 3.13 Receivable and revenue accounts after accrual adjustments

The commissions receivable asset shows that $200 is owed by a client at the end of the reporting period. The credit balance of $200 in commissions revenue represents the total commissions revenue for the month of October. If the adjusting entry were not made, assets and equity on the statement of financial position, and revenues and profit on the statement of profit or loss would be understated.

The client pays the commission of $200 on 10 November. This transaction should be recorded as an increase in cash and a decrease in commissions receivable. No revenue is recognised when the cash is received because the revenue belongs to, and was recognised in, the October accounting period. The accounting equation is affected as follows:

Assets	=	Liabilities	+	Equity
+$200				
−$200				

Thus, the following entry is made:

Nov. 10	Cash	200	
	Commissions receivable		200
	(To record receipt of commissions accrued in October)		

Accrued expenses

Expenses not yet paid or recorded at the end of the reporting period are called **accrued expenses**. Interest, rent, taxes and salaries are common examples of accrued expenses. Accrued expenses result from the same factors as accrued revenues. In fact, an accrued expense in the records of one business is likely to be an accrued revenue to another business. For example, the $200 accrual of service revenue by Wong Pty Ltd is an accrued expense to the client that received the service.

Adjustments for accrued expenses are necessary to record the obligations that exist at the end of the reporting period and to recognise the expenses that apply to the current accounting period. Before adjustment, both liabilities and expenses are understated. Therefore, an adjusting entry for accrued expenses results in an increase (a debit) to an expense account and an increase (a credit) to a liability account.

Accrued interest

On 1 October Wong Pty Ltd borrowed $5000 from a bank, with interest payments required quarterly. The bank charges Wong Pty Ltd interest at an annual rate of 12%. The amount of the interest accumulation is determined by three factors: (1) the principal borrowed, (2) the interest rate, which is always expressed as an annual rate, and (3) the length of time the loan is outstanding. In this instance, the interest for October has not been paid because interest is not due until 1 January, 3 months after the commencement of the loan. The formula for calculating interest and its application to Wong Pty Ltd for the month of October are shown in figure 3.14.

Loan — principal borrowed	×	Annual interest rate	×	Time in terms of 1 year	=	Interest
$5000	×	12%	×	1/12	=	$50

Figure 3.14 Formula for interest

Note that the time period is expressed as a fraction of a year. The accrual of interest at 31 October would have the following impact on the accounting equation:

Assets	=	**Liabilities**	+	**Equity**
		+$50		−$50

This would be reflected in an accrued expense adjusting entry at 31 October as follows:

Oct. 31	Interest expense	50	
	Interest payable		50
	(To accrue interest on bank loan)		

After this adjusting entry is posted, the accounts appear as in figure 3.15.

Interest expense			Interest payable	
Oct. 31 **Adj.** **50**				Oct. 31 **Adj.** **50**

Figure 3.15 Interest accounts after adjustment

Alternative terminology

Accrued salaries can also be termed *accrued wages*.

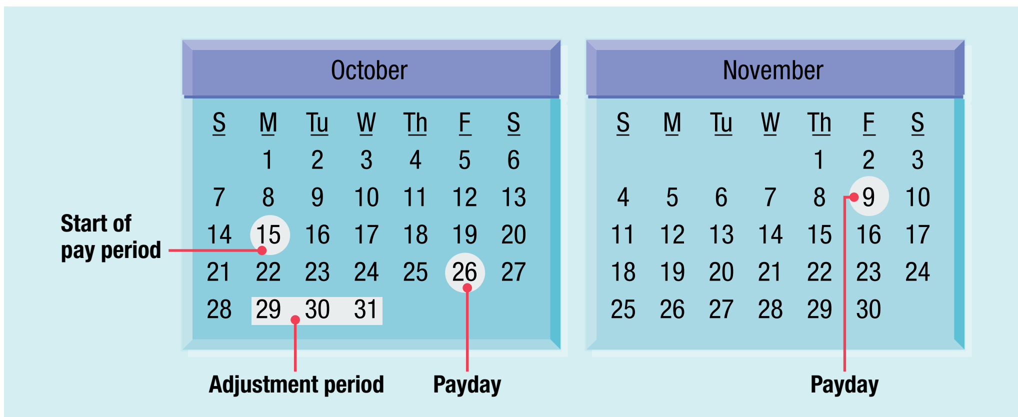
Interest expense shows the interest charges for the month of October. The amount of interest owed at the end of the reporting period is shown in interest payable. It will not be paid until the interest payment is due at the end of 3 months. The interest payable account is used, instead of crediting the bank loan account, to distinguish between the two different types of obligations — interest and principal — in the accounts and financial statements. If this adjusting entry were not made, liabilities and interest expense would be understated, and profit and equity would be overstated.

Accrued salaries

Some types of expenses, such as employee salaries and commissions, are paid for after the services have been performed. At Wong Pty Ltd, salaries were last paid on 26 October; the next payment of salaries will not occur until 9 November. As shown in the calendar, 3 working days remain in October (29–31 October).

Helpful hint

When you are preparing adjusting entries for accrued salaries you may find it helpful to draw a rough calendar and mark the dates for the start of the pay period, payday and the adjustment period as shown in this example.



At 31 October the salaries for 3 days represent an accrued expense and a related liability of Wong. The employees receive total salaries of $2000 for a 5-day working week, or $400 per day. Thus, accrued salaries at 31 October are $1200 ($400 × 3). This accrual increases a liability, salaries payable, and an expense account, salaries expense, and has the following effect on the accounting equation:

Assets	=	**Liabilities**	+	**Equity**
		+$1200		−$1200

The adjusting entry is:

Oct. 31	Salaries expense	1 200	
	Salaries payable		1 200
	(To record accrued salaries)		

After this adjusting entry is posted, the accounts are as in figure 3.16.

Salaries expense					Salaries payable		
Oct. 26		4 000					
31	**Adj.**	**1 200**			Oct. 31	**Adj.**	**1 200**

Figure 3.16 Salary accounts after adjustment

After this adjustment, the balance in salaries expense of $5200 is the actual salary expense for October. The balance in salaries payable of $1200 is the amount of the liability for salaries owed as at 31 October. If the $1200 adjustment for salaries were not recorded, Wong's expenses and liabilities would both be understated by $1200.

Wong pays salaries every 2 weeks. Consequently, the next payday is 9 November, when total salaries of $4000 will again be paid. The payment consists of $1200 of salaries payable at 31 October plus $2800 of salaries expense for November (7 working days × $400). The following entry is made on 9 November:

Nov. 9	Salaries payable	1 200	
	Salaries expense	2 800	
	Cash		4 000
	(To record 9 November payroll)		

This entry eliminates the liability for salaries payable that was recorded by the 31 October adjusting entry and records the correct amount of salaries expense for the period between 1 November and 9 November.

An alternative entry to the 9 November entry can be done if reversing entries are entered. Some accountants prefer to reverse the accrual, adjusting entries at the beginning of a new accounting period. A **reversing entry** is made at the beginning of the next accounting period and is the exact opposite of the adjusting entry made in the previous period. The purpose of the reversing entry is to make the recording of the transaction in the new accounting period easier. That is, you do not have to keep track of which items were accrued. The following entries demonstrate this:

Nov. 1	Salaries payable	1 200	
	Salaries expense		1 200
	(To record reversing entry)		
Nov. 9	Salaries expense	4 000	
	Cash		4 000
	(To record 9 November payroll)		

After the payroll entry on 9 November, salaries payable has a nil balance and the salaries expense account has a $2800 debit balance.

APPLICATION IN BUSINESS

Management perspective

Entities would rather report steadily increasing profits than fluctuating profits. To 'smooth' earnings, entities sometimes shift the reporting of revenues and expenses between periods. How do entities smooth earnings? There are many ways, including temporarily shipping inventory out to customers and recording the revenue or delaying filling customers' orders near the end of the reporting period and shipping the inventory to customers and recording revenues in the next financial year. Some commentators argue that managers may feel pressured to manipulate profits out of concern that investors will sell their shares and drive down the share price if the company does not meet profit expectations.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What is the effect on assets, equity, revenues and profit if an entry to accrue revenue is not made?
2. What is the effect on liabilities, equity, expenses and profit if an entry to accrue an expense is not made?
3. Does Domino's recognise royalties as revenue when cash is received or on an accrual basis? (*Hint:* Refer to note 1(s) of the notes to the financial statements.) (The answer to this question is on p. 219.)

>> DO IT

Chip Computer Services Ltd began operations on 1 August 2016. At the end of August 2016, management attempted to prepare monthly financial statements. This information relates to August:

1. At 31 August the entity owed its employees $800 in salaries that will be paid on 1 September.
2. On 1 August the entity borrowed $30 000 from a local bank on a 15-year loan. The annual interest rate is 10%.
3. Unrecorded rent revenue for August totalled $1100.

Prepare the adjusting entries needed at 31 August 2016.

REASONING: Adjusting entries for accruals are required to record revenues and expenses for the current accounting period that have not been recognised through daily entries. An adjusting entry for accruals will increase account balances in both the statement of financial position and the statement of profit or loss.

SOLUTION:

1. Salaries expense	800	
Salaries payable		800
(To record accrued salaries)		
2. Interest expense	250	
Interest payable		250
(To accrue interest on bank loan)		
3. Rent receivable	1 100	
Rent revenue		1 100
(To accrue rent revenue not recorded or collected)		

SUMMARY OF BASIC RELATIONSHIPS

Important data on each of the four basic types of adjusting entries are summarised in figure 3.17. Take some time to study and analyse the adjusting entries. Note that each adjusting entry affects one revenue or expense account and one statement of financial position account.

The journalising and posting of adjusting entries for Wong Pty Ltd on 31 October are shown in figures 3.18 and 3.19. When reviewing the general ledger in figure 3.19 (p. 176), note that the adjustments are highlighted in colour and that the asset, liability and equity accounts have been balanced to facilitate the preparation of an adjusted trial balance.

Type of adjustment	Accounts before adjustment	Adjusting entry
Prepaid expenses		
If amount paid is initially recorded as an asset	Assets overstated Expenses understated	Dr Expenses Cr Assets
If amount paid is initially recorded as an expense	Expenses overstated Assets understated	Dr Assets Cr Expenses
Revenues received in advance		
If amount received is initially recorded as a liability	Liabilities overstated Revenues understated	Dr Liabilities Cr Revenues
If amount received is initially recorded as revenue	Revenues overstated Liabilities understated	Dr Revenues Cr Liabilities
Accrued revenues	Assets understated Revenues understated	Dr Assets Cr Revenues
Accrued expenses	Expenses understated Liabilities understated	Dr Expenses Cr Liabilities

Figure 3.17 Summary of adjusting entries

GENERAL JOURNAL

Date	Account name (narration)	Post ref.	Debit	Credit
2016	Adjusting entries			
Oct. 31	Advertising supplies expense	505	1 500	
	Advertising supplies	110		1 500
	(To record supplies used)			
31	Insurance expense	515	50	
	Prepaid insurance	112		50
	(To record insurance expired)			
31	Depreciation expense	520	40	
	Acc. depn—office equipment	131		40
	(To record monthly depreciation)			
31	Service revenue received in advance	213	400	
	Service revenue	400		400
	(To record revenue)			
31	Commissions receivable	105	200	
	Commissions revenue	405		200
	(To accrue revenue not recorded or collected)			
31	Interest expense	518	50	
	Interest payable	210		50
	(To accrue interest on bank loan)			
31	Salaries expense	500	1 200	
	Salaries payable	215		1 200
	(To record accrued salaries)			

Figure 3.18 General journal showing adjusting entries

Figure 3.19 General ledger after recording adjustments and balancing of share capital, asset and liability accounts

GENERAL LEDGER

Cash — **No. 100**

Date		Particulars	Ref	Amount	Date		Particulars	Ref	Amount
Oct.	1	Share capital	GJ	10 000	Oct.	2	Office equipment	GJ	5 000
	1	Bank loan	GJ	5 000		3	Rent expense	GJ	900
	2	Service rev. rec'd in advance	GJ	1 200		4	Prepaid insurance	GJ	600
	3	Service revenue	GJ	10 000		20	Dividends	GJ	500
						26	Salaries exp.	GJ	4 000
						31	Closing bal.	GJ	15 200
				26 200					26 200
Nov.	1	Opening balance		15 200					

Commissions receivable* — **No. 105**

Date		Particulars	Ref	Amount	Date		Particulars	Ref	Amount
Oct.	31	Commissions revenue	GJ	**200**	Oct.	31	Closing balance		200
				200					200
Nov.	1	Opening bal.		200					

Advertising supplies — **No. 110**

Date		Particulars	Ref	Amount	Date		Particulars	Ref	Amount
Oct.	5	Accounts payable	GJ	2 500	Oct.	31	Adv. supplies exp.	GJ	**1 500**
						31	Closing bal.		1 000
				2 500					2 500
Nov.	1	Opening bal.		1 000					

Prepaid insurance — **No. 112**

Date		Particulars	Ref	Amount	Date		Particulars	Ref	Amount
Oct.	4	Cash	GJ	600	Oct.	31	Insurance exp.	GJ	**50**
						31	Closing bal.		550
				600					600
Nov.	1	Opening balance		550					

Office equipment* — **No. 130**

Date		Particulars	Ref	Amount	Date		Particulars	Ref	Amount
Oct.	2	Cash	GJ	5 000	Oct.	31	Closing bal.		5 000
				5 000					5 000
Nov.	1	Opening bal.		5 000					

Accumulated depreciation — office equipment* — **No. 131**

Date		Particulars	Ref	Amount	Date		Particulars	Ref	Amount
Oct.	31	Closing balance		40	Oct.	31	Depreciation exp.	GJ	**40**
				40					40
					Nov.	1	Opening balance		40

Accounts payable* — **No. 200**

Date		Particulars	Ref	Amount	Date		Particulars	Ref	Amount
Oct.	31	Closing bal.		2 500	Oct.	5	Advertising supplies	GJ	2 500
				2 500					2 500
					Nov.	1	Opening bal.		2 500

Interest payable* — **No. 210**

Date		Particulars	Ref	Amount	Date		Particulars	Ref	Amount
Oct.	31	Closing bal.		50	Oct.	31	Interest exp.	GJ	**50**
				50					50
					Nov.	1	Opening bal.		50

Service revenue received in advance — **No. 213**

Date		Particulars	Ref	Amount	Date		Particulars	Ref	Amount
Oct.	31	Service revenue	GJ	**400**	Oct.	2	Cash	GJ	1 200
	31	Closing bal.		800					
				1 200					1 200
					Nov.	1	Opening balance		800

Figure 3.19 *(continued)*

Salaries payable* **No. 215**

Oct.	31	Closing bal.	1 200	Oct.	31	Salaries exp.	GJ 1 200
			1 200				1 200
				Nov.	1	Opening bal.	1 200

Bank loan* **No. 230**

Oct.	31	Closing bal.	5 000	Oct.	1	Cash	GJ 5 000
			5 000				5 000
				Nov.	1	Opening balance	5 000

Share capital* **No. 300**

Oct.	31	Closing bal.	10 000	Oct.	1	Cash	GJ 10 000
			10 000				10 000
				Nov.	1	Opening balance	10 000

Retained earnings **No. 310**

Oct.	1	Closing bal.	—				

Dividends **No. 320**

Oct.	20	Cash	GJ 500				

Service revenue **No. 400**

Oct.	31	Closing bal.	10 400	Oct.	3	Cash	GJ 10 000
					31		400
			10 400				10 400
				Oct.	31	Opening bal.	10 400

Commissions revenue **No. 405**

				Oct.	31	Commissions receivable	GJ 200

Salaries expense **No. 500**

Oct.	31	Cash	GJ 4 000	Oct.	31	Closing bal.	5 200
	26	Salaries payable	1 200				
			5 200				5 200
Oct.	31	Opening bal.	5 200				

Advertising supplies expense **No. 505**

Oct.	31	Advertising supplies	GJ 1 500				

Rent expense **No. 510**

Oct.	3	Cash	GJ 900				

Insurance expense **No. 515**

Oct.	31	Prepaid insurance	GJ 50				

Interest expense **No. 518**

Oct.	31	Interest payable	GJ 50				

Depreciation expense **No. 520**

Oct.	31	Acc'd dep'n—office equipment	GJ 40				

*If the balance in the general ledger is shown, there is no need to balance. The accounts are balanced here only to illustrate that the balances are the 1 November opening balances.

Helpful hint

Recall from chapter 2 that the amount shown as the closing balance is *only* a balancing item in the ledger account presentation and does not represent the correct account balance at the end of the period because it is shown on the opposite side of the ledger account. The account balance at the end of the period is equal to the opening balance for the new period. Adjusting entries are shown in red.

LEARNING OBJECTIVE 5

Describe the nature and purpose of the adjusted trial balance.

THE ADJUSTED TRIAL BALANCE AND FINANCIAL STATEMENTS

Recall from chapter 2, figure 2.30 (p. 116) a trial balance was prepared. This was presented again in this chapter in figure 3.5. After all adjusting entries have been journalised and posted, another trial balance is prepared from the ledger accounts. This trial balance is called an **adjusted trial balance**. It shows the balances of all accounts, including those that have been adjusted, at the end of the accounting period. The purpose of an adjusted trial balance is to prove that the total debit balances equal the total credit balances in the ledger after all adjustments have been made. Because the accounts contain all the data that are needed for financial statements, the adjusted trial balance is the main basis for the preparation of financial statements.

PREPARING THE ADJUSTED TRIAL BALANCE

The adjusted trial balance for Wong Pty Ltd presented in figure 3.20 has been prepared from the ledger accounts in figure 3.19 (pp. 176–7). To facilitate the comparison of account balances, the trial balance data, labelled 'Before adjustment' (presented earlier in figure 3.5, p. 162), are shown alongside the adjusted data, labelled 'After adjustment'. In addition, the amounts affected by the adjusting entries are highlighted in colour in the 'After adjustment' columns.

Helpful hint

Use the *opening* balances for November given in figure 3.19 to prepare the adjusted trial balance. Recall that the closing balances are only balancing items and are on the wrong side of the account.

Alternative terminology

The trial balance before adjustments can be called the *unadjusted trial* balance.

WONG PTY LTD
Trial balances
as at 31 October 2016

No.	Account name	Before adjustment Dr	Before adjustment Cr	After adjustment Dr	After adjustment Cr
100	Cash	$15 200		$ 15 200	
105	Commissions receivable			**200**	
110	Advertising supplies	2 500		**1 000**	
112	Prepaid insurance	600		**550**	
130	Office equipment	5 000		5 000	
131	Accumulated depreciation—office equipment				**$ 40**
200	Accounts payable		$ 2 500		2 500
210	Interest payable				**50**
213	Service revenue received in advance		1 200		**800**
215	Salaries payable				**1 200**
230	Bank loan		5 000		5 000
300	Share capital		10 000		10 000
310	Retained earnings		—		—
320	Dividends	500		500	
400	Service revenue		10 000		**10 400**
405	Commissions revenue		—		**200**
500	Salaries expense	4 000		**5 200**	
505	Advertising supplies expense			**1 500**	
510	Rent expense	900		900	
515	Insurance expense			**50**	
518	Interest expense			**50**	
520	Depreciation expense			**40**	
	Profit	$28 700	$28 700	**$30 190**	**$30 190**

Figure 3.20 Trial balance and adjusted trial balance compared

PREPARING FINANCIAL STATEMENTS

Financial statements can be prepared directly from an adjusted trial balance. The interrelationships of data in the adjusted trial balance of Wong Pty Ltd are presented in figures 3.21 below and 3.22 (p. 180). As figure 3.21 shows, the statement of profit or loss is prepared from the revenue and expense accounts. Similarly, the retained earnings calculation is derived from the retained earnings account, dividends account, and the profit (or loss) shown in the statement of profit or loss. As shown in figure 3.22 (p. 180), the statement of financial position is then prepared from the asset and liability accounts and the ending retained earnings as shown in the statement of changes in equity.

WONG PTY LTD
Adjusted trial balance
as at 31 October 2016

Account name	Debit	Credit
Cash	$15 200	
Commissions receivable	200	
Advertising supplies	1 000	
Prepaid insurance	550	
Office equipment	5 000	
Accumulated depreciation — office equipment		$ 40
Accounts payable		2 500
Interest payable		50
Service revenue received in advance		800
Salaries payable		1200
Bank loan		5000
Share capital		10 000
Retained earnings		—
Dividends	500	
Service revenue		10 400
Commissions revenue		200
Salaries expense	5 200	
Advertising supplies expense	1 500	
Rent expense	900	
Insurance expense	50	
Interest expense	50	
Depreciation expense	40	
	$30 190	$30 190

WONG PTY LTD
Statement of profit or loss
for the month ended 31 October 2016

Revenues		
Service revenue		$10 400
Commissions revenue		200
		$10 600
Expenses		
Salaries expense	$5 200	
Advertising supplies expense	1 500	
Rent expense	900	
Insurance expense	50	
Interest expense	50	
Depreciation expense	40	
Total expenses		7 740
Profit		$ 2 860

WONG PTY LTD
Calculation of retained earnings
for the month ended 31 October 2016

Retained earnings, 1 October	$ —
Add: Profit	2 860
	2 860
Less: Dividends	500
Retained earnings, 31 October	$2 360

Figure 3.21 Preparation of the statement of profit or loss and calculation of retained earnings from the adjusted trial balance

WONG PTY LTD
Adjusted trial balance
as at 31 October 2016

Account name	Debit	Credit
Cash	$15 200	
Commissions receivable	200	
Advertising supplies	1 000	
Prepaid insurance	550	
Office equipment	5 000	
Accumulated depreciation — office equipment		$ 40
Accounts payable		2 500
Interest payable		50
Service revenue received in advance		800
Salaries payable		1 200
Bank loan		5 000
Share capital		10 000
Retained earnings		—
Dividends	500	
Service revenue		10 400
Commissions revenue		200
Salaries expense	5 200	
Advertising supplies expense	1 500	
Rent expense	900	
Insurance expense	50	
Interest expense	50	
Depreciation expense	40	
	$30 190	$30 190

WONG PTY LTD
Statement of financial position
as at October 2016

Net assets		
Cash		$15 200
Commissions receivable		200
Advertising supplies		1 000
Prepaid insurance		550
Office equipment	$5 000	
Less: Accumulated depreciation	40	4 960
Total assets		21 910
Liabilities		
Accounts payable	$ 2 500	
Interest payable	50	
Service revenue received in advance	800	
Salaries payable	1 200	
Bank loan	5 000	
Total liabilities		9 550
Net assets		$12 360
Equity		
Share capital	10 000	
Retained earnings	2360	
Total equity		12 360
Total equity		$12 360

Balance at 31 Oct. from calculation of retained earnings in figure 3.21

Figure 3.22 Preparation of the statement of financial position from the adjusted trial balance

LEARNING OBJECTIVE 6

Explain the purpose of closing entries.

CLOSING THE BOOKS

In previous chapters you learned that revenue and expense accounts and the dividends account are subdivisions of retained earnings, which is reported in the equity section of the statement of financial position. Because revenues, expenses and dividends relate to only a given accounting period, they are considered **temporary accounts**. In contrast, all statement of financial position accounts are considered **permanent accounts** because their balances are carried forward into future accounting periods. Figure 3.23 identifies the accounts in each category.

Alternative terminology

Temporary accounts are sometimes called *nominal accounts*.

Temporary	Permanent
All revenue accounts	All asset accounts
All expense accounts	All liability accounts
Dividends	Equity accounts

Figure 3.23 Temporary versus permanent accounts

PREPARING CLOSING ENTRIES

At the end of the reporting period, the temporary account balances are transferred to the permanent equity account — retained earnings — through the preparation of closing entries. **Closing entries** formally recognise in the ledger the transfer of profit (or loss) and dividends to retained earnings, which will be shown in the retained earnings section of the statement of changes in equity. For example, notice that in figure 3.22 retained earnings has an adjusted balance of nil. This is because it was Wong's first year of operations. Retained earnings started with a nil balance, and profit has not yet been calculated and closed to retained earnings. Therefore, the adjusted balance is still nil. Similarly, the nil balance does not reflect dividends declared during the period, since the dividends account has not yet been closed to retained earnings.

Helpful hint

Figure 3.23 shows the temporary and permanent accounts for a company. These are the same for a sole proprietorship except that 'Dividends' should be replaced with 'Drawings'.

In addition to updating retained earnings to its correct ending balance, closing entries produce a *nil balance in each temporary account*. As a result, these accounts are ready to accumulate data about revenues, expenses and dividends in the next accounting period that is separate from the data in the previous periods. Permanent accounts are not closed. Closing entries are recorded in the general journal and then posted to the general ledger.

When closing entries are prepared, each statement of profit or loss account could be closed directly to retained earnings. However, to do so would result in excessive detail in the retained earnings account. Accordingly, the revenue and expense accounts are closed to another temporary account, **profit or loss summary**, and only the resulting profit or loss is transferred from this account to retained earnings. The closing entries for Wong Pty Ltd are shown in figure 3.24. For the purposes of this illustration, we have assumed that 31 October is the end of Wong Pty Ltd's reporting period.

GENERAL JOURNAL

Date	Account name (narration)	Post ref.	Debit	Credit
	Closing entries			
2016	(1)			
Oct. 31	Service revenue	400	10 400	
	Commissions revenue	405	200	
	Profit or loss summary	330		10 600
	(To close revenue accounts)			
	(2)			
31	Profit or loss summary	330	7 740	
	Salaries expense	500		5 200
	Advertising supplies expense	505		1 500
	Rent expense	510		900
	Insurance expense	515		50
	Interest expense	518		50
	Depreciation expense	520		40
	(To close expense accounts)			
	(3)			
31	Profit or loss summary	330	2 860	
	Retained earnings	310		2 860
	(To close profit to retained earnings)			
	(4)			
31	Retained earnings	310	500	
	Dividends	320		500
	(To close dividends to retained earnings)			

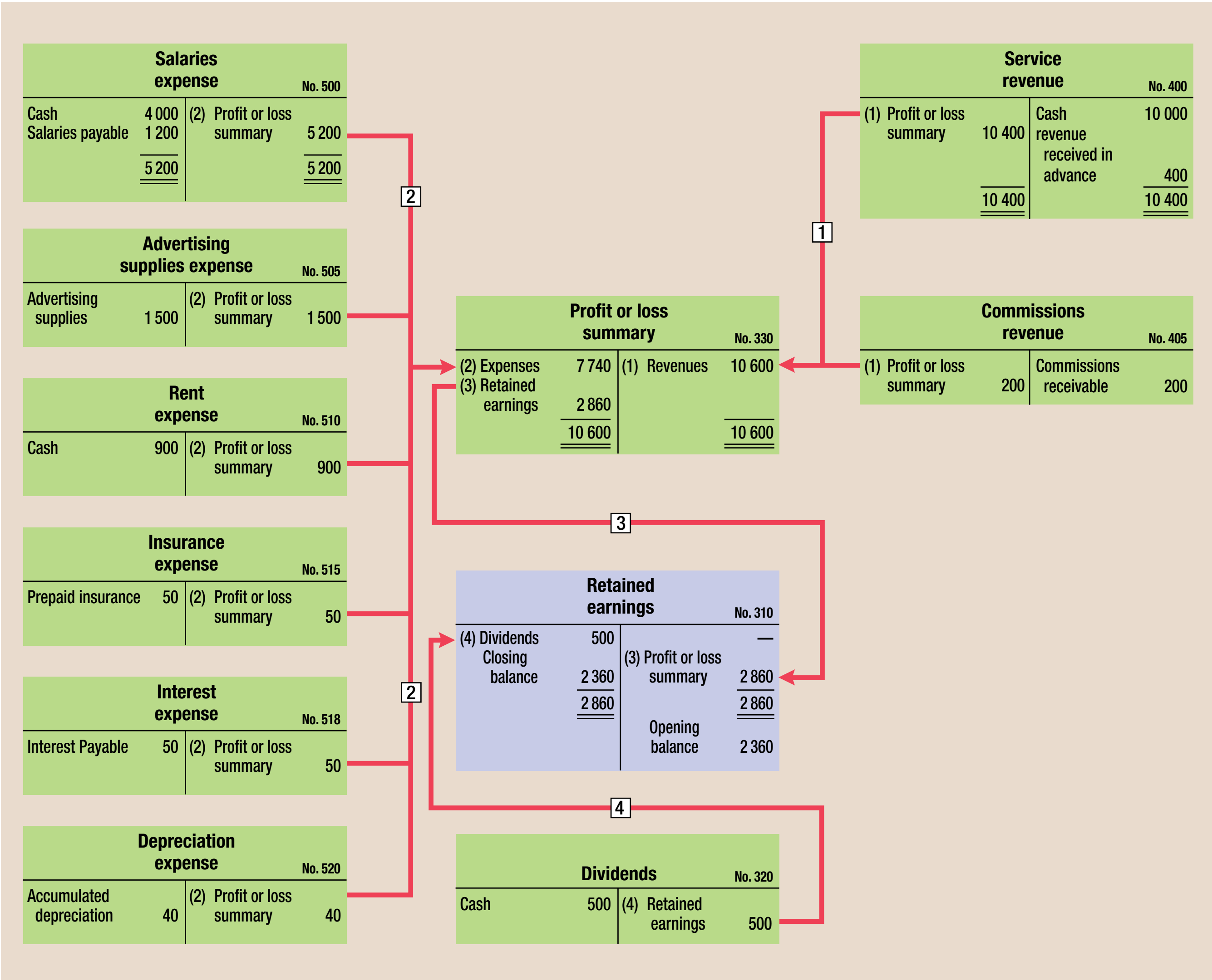
Figure 3.24 Closing entries journalised

Helpful hint

Total revenues are closed to profit or loss summary, total expenses are closed to profit or loss summary, and the balance in the profit or loss summary is a profit or loss.

The closing process for Wong Pty Ltd's closing entries is illustrated in figure 3.25 (overleaf). Note that expense accounts have debit balances. To make the account balance nil, we need to credit each expense account and debit profit or loss summary (in total) to transfer the total of the expense accounts to the profit or loss summary account. As revenue accounts have credit balances, we need to debit revenue accounts to reduce them to a nil balance and transfer the revenue to the profit or loss summary account.

Figure 3.25 Posting of closing entries



Helpful hint

Recall that the account names *within* each general ledger account are cross-references, e.g. 'Cash' in the salaries expense account. Cross-references indicate the ledger account to which the opposite side of the entry is posted. (See figure 2.21 (p. 112) and the associated text for more on cross-referencing.)

PREPARING A POST-CLOSING TRIAL BALANCE

After all closing entries are journalised and posted, another trial balance, called a **post-closing trial balance**, is prepared from the ledger. A post-closing trial balance is a list of all permanent accounts and their balances after closing entries are journalised and posted. The purpose of this trial balance is to prove the sum of the debit balances equals the sum of the credit balances that are carried forward into the next accounting period. Since all temporary accounts will have nil balances, the post-closing trial balance will contain only permanent — statement of financial position — accounts.

LEARNING OBJECTIVE 7

Describe the required steps in the accounting cycle.

SUMMARY OF THE ACCOUNTING CYCLE

The required steps in the accounting cycle are shown graphically in figure 3.26. You can see that the cycle begins with the analysis of business transactions and ends with the preparation of a post-closing trial balance. The steps in the cycle are performed in sequence and are repeated in each accounting period.

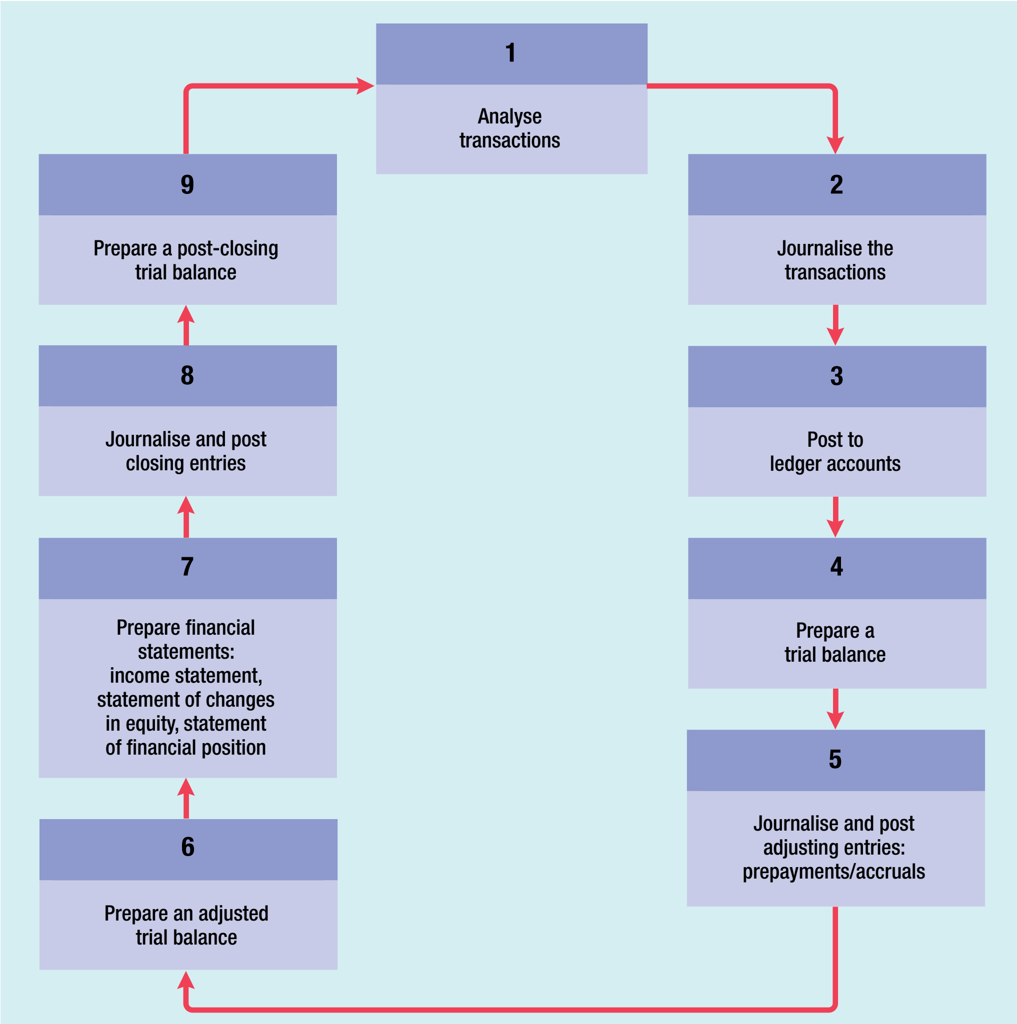


Figure 3.26 Required steps in the accounting cycle

Steps 1–3 may occur daily during the accounting period, as explained in chapter 2. Steps 4–7 are performed on a periodic basis, such as monthly, 6-monthly or annually. Steps 8 and 9, closing entries and a post-closing trial balance, are usually prepared only at the end of a business's financial year.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. How do permanent accounts differ from temporary accounts?
2. What four types of closing entries may be required at the end of the annual reporting period?
3. What are the content and purpose of a post-closing trial balance?
4. What are the required steps in the accounting cycle?

USING THE DECISION-MAKING TOOLKIT

People Care Ltd provides managed healthcare services to more than 12 000 people. With its head office in Auckland, it has over 160 employees throughout the North and South Islands. A simplified version of People Care's 31 December 2016 adjusted trial balance is shown below.

PEOPLE CARE LTD
Adjusted trial balance
as at 31 December 2016

Account name	Dr $'000	Cr $'000
Cash	913	
Short-term investments	1 594	
Receivables	276	
Other current assets	336	
Property and equipment, net	433	
Long-term investments	305	
Other non-current assets	1 639	
Medical costs payable		484
Trade creditors		1 865
Other current liabilities		294
Long-term borrowing		1 165
Share capital		935
Dividends	—	
Retained earnings		624
Revenues		9 781
Medical cost expense	8 041	
Selling and administrative expense	1 328	
Depreciation expense	128	
Other expenses	34	
Interest expense	47	
Income tax expense	74	
	$15 148	$15 148

REQUIRED

From the trial balance, prepare the following internal reports and calculations: a statement of profit or loss, a statement of changes in equity and a statement of financial position. Be sure to prepare them in that order, since the calculation of retained earnings depends on the profit that is determined in the statement of profit or loss, and the statement of financial position requires information generated by the calculation of retained earnings.

SOLUTION

PEOPLE CARE LTD
Statement of profit or loss
for the year ended 31 December 2016
(in thousands)

Revenues		$9 781
Medical cost expense	$8 041	
Selling and administrative expense	1 328	
Depreciation expense	128	
Interest expense	47	
Other expenses	34	
Income tax expense	74	9 652
Profit		$ 129

PEOPLE CARE LTD
Calculation of retained earnings
for the year ended 31 December 2016
(in thousands)

Beginning retained earnings	$624
Add: Profit	129
Less: Dividends	—
Ending retained earnings	$753

PEOPLE CARE LTD
Statement of financial position
as at 31 December 2016
(in thousands)

Net assets			
Current assets			
Cash	$ 913		
Short-term investments	1 594		
Receivables	276		
Other current assets	336		
Total current assets		$3 119	
Non-current assets			
Long-term investments	305		
Property and equipment, net	433		
Other non-current assets	1 639		
Total non-current assets		2 377	
Total assets			$5 496
Current liabilities			
Medical costs payable	$ 484		
Trade creditors	1 865		
Other current liabilities	294		
Total current liabilities		$2 643	
Non-current liabilities			
Long-term borrowing		1 165	
Total liabilities			$3 808
Net assets			$1 688
Equity			
Share capital		935	
Retained earnings		753	
Total equity			$1 688

SUMMARY OF LEARNING OBJECTIVES

1 Differentiate between the cash basis and the accrual basis of accounting.
Accrual-based accounting means that transactions and events are recognised in the periods in which they occur rather than when the associated cash flows occur. Under the cash basis, transactions and events are recognised only in the periods in which the business receives or pays the associated cash.

2 Explain criteria for revenue recognition and expense recognition.
Criteria for the recognition of revenues and expenses facilitate the recording of revenues and expenses in a given accounting period. Under the *Conceptual Framework*, revenues should be recognised when an inflow or saving in outflows of future economic benefits is probable and can be measured reliably. Generally, for

a service business, revenue is recognised when the service is performed, and for a merchandising business, revenue is recognised when the goods are delivered. Expenses should be recognised when the decrease in assets or the increase in liabilities is probable and can be measured reliably.

In May 2014, the IASB released the new accounting standard for recognising revenue. This new standard is not mandatory until 1 January 2017. Essentially revenue is recognised when an entity satisfies a performance obligation in a contract. The following conditions must be met: the contract has been approved by parties to the contract; each party's rights in relation to the goods or services to be transferred have been identified; the payment terms have been identified; the contract has commercial substance; and it is probable that the consideration to which the entity is entitled to in exchange for the goods or services will be collected.

3 Explain why adjusting entries are needed and identify the major types of adjusting entries.
Adjusting entries are made at the end of an accounting period. They ensure that all revenues and expenses are recorded in each accounting period. The major types of adjusting entries are prepaid expenses, revenues received in advance, accrued revenues and accrued expenses.

4 Prepare adjusting entries for prepayments and accruals.
Prepayments are either prepaid expenses or revenues received in advance. Adjusting entries for prepaid expenses and revenues that were originally recorded as assets and liabilities respectively are made by reducing the asset and increasing expenses and reducing the liability and increasing revenue. Accruals are either accrued revenues or accrued expenses. Adjusting entries for accruals record revenues and expenses and related assets and liabilities respectively in the current accounting period that have not been recognised through daily entries.

5 Describe the nature and purpose of the adjusted trial balance.
An adjusted trial balance is a trial balance that shows the balances of all accounts, including those that have been adjusted, at the end of an accounting period. The purpose of an adjusted trial balance is to show the effects of all financial events that have occurred during the accounting period, to check that debits equal credits, and to assist in preparing financial statements.

6 Explain the purpose of closing entries.
One purpose of closing entries is to transfer the results of operations for the reporting period to retained earnings. Additionally, it creates nil balances in all temporary accounts (revenue accounts, expense accounts and dividends), ready for the start of the next reporting period. To accomplish this, all temporary accounts are 'closed' at the end of the reporting period. Separate entries are made to close revenues and expenses to profit or loss summary, profit or loss summary to retained earnings, and dividends to retained earnings. Only temporary accounts are closed.

7 Describe the required steps in the accounting cycle.
The required steps in the accounting cycle are: (a) analyse business transactions, (b) journalise the transactions, (c) post to ledger accounts, (d) prepare a trial balance, (e) journalise and post adjusting entries, (f) prepare an adjusted trial balance, (g) prepare financial statements, (h) journalise and post closing entries, and (i) prepare a post-closing trial balance.

DECISION-MAKING TOOLKIT — A SUMMARY

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
At what point should the entity recognise (record) revenue?	Need to understand the nature of the entity's business	Revenue is recognised when an entity satisfies a performance obligation in a contract. The following conditions must be met: the contract has been approved by parties to the contract; each party's rights in relation to the goods or services to be transferred have been identified; the payment terms have been identified; the contract has commercial substance; and it is probable that the consideration to which the entity is entitled to in exchange for the goods or services will be collected.	Recognising revenue too early overstates current period revenue; recognising it too late understates current period revenue.

At what point should the entity recognise (record) expenses?	Need to understand the nature of the entity's business	Expenses should be recognised when decreases in assets or increases in liabilities that result in a decrease in equity are probable and can be measured reliably.	Recognising expenses too early overstates current period expenses; recognising them too late understates current period expenses.

APPENDIX ADJUSTING ENTRIES — USING A WORKSHEET

LEARNING OBJECTIVE 8

Describe the purpose and the basic form of a worksheet.

In the previous discussion we used T accounts and trial balances to arrive at the amounts used to prepare financial statements. Accountants often use a worksheet to determine these amounts. A **worksheet** is a multicolumn form that may be used in the adjustment process and in preparing financial statements (see figure 3A.1).

WONG PTY LTD
Worksheet
for the month ended 31 October 2016

No.	Account names	Trial balance Dr	Trial balance Cr	Adjustments Dr	Adjustments Cr	Adjusted trial balance Dr	Adjusted trial balance Cr	Statement of profit or loss Dr	Statement of profit or loss Cr	Statement of financial position Dr	Statement of financial position Cr
100	Cash	15 200				15 200				15 200	
110	Advertising supplies	2 500			(a) 1 500	1 000				1 000	
112	Prepaid insurance	600			(b) 50	550				550	
130	Office equipment	5 000				5 000				5 000	
200	Accounts payable		2 500				2 500				2 500
230	Bank loan		5 000				5 000				5 000
213	Serv. rev. recd in advance		1 200	(d) 400			800				800
300	Share capital		10 000				10 000				10 000
310	Retained earnings	500	—				—				—
320	Dividends					500				500	
400	Service revenue		10 000		(d) 400		10 400		10 400		
405	Commissions revenue				(e) 200		200		200		
500	Salaries expense	4 000		(g) 1 200		5 200		5 200			
510	Rent expense	900				900		900			
	Totals	28 700	28 700								
505	Advertising supplies expense			(a) 1 500		1 500		1 500			
515	Insurance expense			(b) 50		50		50			
131	Accum. depn — off. equip.				(c) 40		40				40
520	Depreciation expense			(c) 40		40		40			
518	Interest expense			(f) 50		50		50			
105	Commissions receivable			(e) 200		200				200	
210	Interest payable				(f) 50		50				50
215	Salaries payable				(g) 1 200		1 200				1 200
	Totals			3 440	3 440	30 190	30 190	7 740	10 600	22 450	19 590
	Profit							2 860			2 860
	Totals							10 600	10 600	22 450	22 450

1. Prepare a trial balance on the worksheet
2. Enter adjustment data
3. Calculate adjusted balances
4. Extend adjusted balances to appropriate statement columns
5. Total the statement columns, calculate profit (or loss), and complete worksheet

Figure 3A.1 Form and procedure for a worksheet

Worksheets can be prepared manually, but today most are prepared on computer spreadsheets. A worksheet is not a permanent accounting record; it is neither a journal nor a part of the general ledger. The worksheet is merely a device used to make it easier to prepare adjusting entries and the financial statements. In small businesses that have relatively few accounts and adjustments, a worksheet may not be needed. In large businesses with numerous accounts and many adjustments, it is almost indispensable.

The basic form of a worksheet is shown in figure 3A.1 (p. 187). Note the headings. The worksheet starts with two columns for the trial balance. The next two columns record all adjustments. Next is the adjusted trial balance. The last two sets of columns correspond to the statement of profit or loss and the statement of financial position. All items listed in the adjusted trial balance columns are recorded in either the statement of profit or loss or the statement of financial position columns. Note that the profit amount is shown in the debit column of the statement of profit or loss columns because it is the amount by which the revenue (credit) items exceed the expense (debit) items.

SUMMARY OF LEARNING OBJECTIVE FOR APPENDIX

8 Describe the purpose and the basic form of a worksheet.
The worksheet is used to make it easier to prepare adjusting entries and the financial statements. It is often prepared on a computer spreadsheet. The sets of columns of the worksheet are, from left to right, the unadjusted trial balance, adjustments, adjusted trial balance, statement of profit or loss and statement of financial position.

GLOSSARY

Accounting period concept An assumption that the economic life of a business can be divided into artificial time periods (p. 154).

Accrual-based accounting Accounting basis in which transactions and events are recorded in the periods in which they occur, rather than in the periods in which the entity receives or pays the related cash (p. 155).

Accrued expenses Amounts that are recorded as adjusting entries for expenses that are not yet paid and not yet recorded but for which the consumption of economic benefits has occurred (p. 171).

Accrued revenues Amounts recognised as adjusting entries for revenues that are not yet received and not yet recorded but for which the goods or services have been provided (p. 170).

Adjusted trial balance A list of accounts and their balances after all adjustments have been made (p. 178).

Adjusting entries Entries made at the end of an accounting period to ensure that recognition criteria are followed for assets, liabilities, revenues and expenses (p. 161).

Carrying amount The amount at which an asset is reported in financial statements, i.e. net of any contra account (p. 166).

Cash-based accounting An accounting basis in which revenue is recorded only when cash is received, and an expense is recorded only when cash is paid (p. 155).

Closing entries Entries at the end of the reporting period to transfer the balances of temporary accounts to a permanent equity account, retained earnings (p. 181).

Contra asset account An account that is offset against another account on the statement of financial position (p. 166).

Depreciation The process of allocating the cost of an asset to expense over its useful life (p. 165).

Expense recognition criteria Expenses are recognised when the outflow of future economic benefits is probable and can be measured reliably (p. 160).

Financial year An accounting period that is 1 year in duration (p. 154).

Operating cycle The length of time it takes for a business to acquire goods, sell them to customers and collect the cash from the sale (p. 156).

Permanent accounts Statement of financial position accounts; accounts for which balances are carried forward to the next accounting period (p. 180).

Post-closing trial balance A list of permanent accounts and their balances after closing entries have been journalised and posted (p. 182).

Prepaid expenses (prepayments) Amounts paid in cash and recorded as assets until the economic benefits expire or are consumed (p. 163).

Profit or loss summary A temporary account used in closing revenue and expense accounts (p. 181).

Revenue recognition criteria Under the *Conceptual Framework*, revenues are recognised when an inflow of future economic benefits is probable and can be measured reliably. According to IFRS 15, revenue is recognised when an entity satisfies a performance obligation in a contract and it is probable that the consideration to which the entity is entitled to in exchange for the goods or service will be collected (p. 157).

Revenues received in advance Amounts received from customers and recorded as liabilities until the services are performed or the goods are provided and the revenue is recognised (p. 167).

Reversing entry An entry made at the beginning of the next accounting period; the exact opposite of the adjusting entry made in the previous period (p. 173).

Temporary accounts Revenue, expense and dividend accounts; accounts for which balances are transferred to retained earnings at the end of a reporting period (p. 180).

Useful life The length of service of an asset to the entity (p. 165).

Worksheet A multicolumn spreadsheet, prepared either manually or electronically, that may be used in the adjustment process and in preparing financial statements (p. 187).

DEMONSTRATION PROBLEM 1

Web Expert Consultants Pty Ltd began business on 1 April. At 30 April the trial balance shows the following balances for selected accounts:

110	Prepaid insurance	$ 7 200
120	Equipment	56 000
200	Bank loan	40 000
210	Service revenue received in advance	9 600
300	Service revenue	3 600

Other accounts include:

100	Accounts receivable
121	Accumulated depreciation—equipment
205	Interest payable
400	Insurance expense
405	Depreciation expense
410	Interest expense

Analysis reveals the following additional data pertaining to these accounts:

1. Prepaid insurance is the cost of a 2-year insurance policy, effective 1 April.
2. Depreciation on the equipment is $1000 per month.
3. Web Expert Consultants Pty Ltd took out the loan on 1 April for a period of 6 months at an annual interest rate of 6%.
4. Eight customers paid for Web Expert Consultants Pty Ltd's 6-month service package of $1200 beginning in April. These customers were serviced in April.
5. Services performed for other customers but not invoiced at 30 April totalled $3000.

REQUIRED

Prepare the adjusting entries for the month of April. Show calculations and provide post references and narrations.

SOLUTION TO DEMONSTRATION PROBLEM 1

GENERAL JOURNAL

Date	Account name (narration)	Post ref.	Debit	Credit
Apr. 30	Insurance expense	400	300	
	Prepaid insurance	110		300
	(To record insurance expired: $7200 ÷ 24 = $300 per month)			

(continued)

Problem-solving strategies

1. Note that adjustments are being made for 1 month.
2. Make calculations carefully.
3. Select account names carefully.
4. Make sure debits are made first and credits are indented.
5. Check that debits equal credits for each entry.

GENERAL JOURNAL				
Date	Account name (narration)	Post ref.	Debit	Credit
Apr. 30	Depreciation expense	405	1 000	
	Accumulated depn—equipment	121		1 000
	(To record monthly depreciation)			
30	Interest expense	410	200	
	Interest payable	205		200
	(To accrue interest on loan: $40 000 × 6% × 1/12 = $200)			
30	Service revenue received in advance	210	1 600	
	Service revenue	300		1 600
	(To record revenue: $1200 ÷ 6 = $200; $200 per month × 8 = $1600 *or* $9600 ÷ 6)			
30	Accounts receivable	100	3 000	
	Service revenue	300		3 000
	(To accrue revenue not invoiced or collected)			

DEMONSTRATION PROBLEM 2

Rosy Narr is enrolled in an introductory accounting course at university. She is currently studying for a quiz on adjusting entries and has completed the following revision question from her textbook. She wasn't sure how to answer the question, so she answered it in three different ways. You are her tutor, and she has asked you to check and comment on her answers.

REVISION QUESTION

XYZ Ltd pays for a 1-year insurance policy commencing on 1 June 2016 in cash. The policy costs $12 000. This is the first time the entity has taken out an insurance policy. The end of the entity's reporting period is 30 June 2016.

REQUIRED

(a) Record the payment of insurance on 1 June 2016 in general journal format.
(b) Record the adjusting entry on 30 June 2016 in general journal format.
(c) Determine the balances in both the insurance expense and prepaid insurance general ledger accounts at 30 June 2016.

ROSY'S ANSWERS

Method 1

(a)	2016			
	June 1	Dr Prepaid insurance	12 000	
		Cr Cash		12 000
(b)	June 30	Dr Insurance expense	1 000	
		Cr Prepaid insurance		1 000

(c) Insurance expense $1000, Prepaid insurance $11 000 (Both are debit balances.)

Method 2

			Dr	Cr
(a)	2016			
	June 1	Dr Insurance expense	12 000	
		Cr Cash		12 000
(b)	June 30	Dr Prepaid insurance	11 000	
		Cr Insurance expense		11 000

(c) Insurance expense $1000, prepaid insurance $11 000 (Both are debit balances.)

Method 3

			Dr	Cr
(a)	2016			
	June 1	Dr Insurance expense	1 000	
		Dr Prepaid insurance	11 000	
		Cr Cash		12 000

(b) No adjusting entry required

(c) Insurance expense $1000, prepaid insurance $11 000 (Both are debit balances.)

TUTOR'S COMMENTS

All your answers are correct. Well done, Rosy! You have prepared a very comprehensive answer to the question and it shows that you have a very good understanding of recording adjusting entries for prepayments. In method 1 you record the entire insurance payment as an asset; the adjusting entry then decreases the asset by the amount that has expired and increases the expense that relates to the reporting period. This leaves the correct balances of $1000 for the insurance expense for the period and $11 000 for prepaid insurance (asset).

In method 2 you record all the insurance payment as an expense; at the end of the reporting period the adjusting entry reduces the expense and increases the asset account as you are deferring the amount that is still an asset. Once again, this results in the correct balance of $1000 for the insurance expense for the period and $11 000 prepaid insurance (asset).

Method 3 is also correct as it has correctly allocated the amount paid between the expense for the period and the remaining asset. This method requires no adjusting entry as the initial entry results in a correct balance of $1000 for the insurance expense for the period and $11 000 in prepaid insurance that would be reported in the financial statements.

Well done, Rosy. Good luck in the quiz.

SELF-STUDY QUESTIONS *Answers are at the end of the chapter.*

(LO1) 1. Under the cash basis of accounting:
(a) cash must be received before income is recognised.
(b) profit is calculated by deducting liabilities from the assets.
(c) events that change a company's accounting reports are recognised in the period they occur rather than in the period in which cash is paid or received.
(d) the ledger accounts must be adjusted to reflect unrecorded transactions before the financial reports are prepared.

(LO1) 2. Using accrual-based accounting, expenses are recorded and reported only:
(a) if they are paid before they are incurred.
(b) when they are incurred and paid at the same time.
(c) when they are incurred, whether or not cash is paid.
(d) if they are paid after they are incurred.

(LO1) 3. Betty's Bookkeeper Service uses cash-based accounting for the financial statements. Betty performs a bookkeeping service on 31 July. The client picks up their books and the financial reports on 1 August and mails the payment to Betty on 5 August. Betty receives the cheque in the mail on 6 August. When should Betty show that the income was earned?
(a) 31 July. (c) 5 August.
(b) 1 August. (d) 6 August.

(LO2) 4. What is the accounting period concept?
(a) A business will continue to operate for a long period of time.
(b) The economic life of a business can be divided into artificial time periods.
(c) The financial year should correspond with the calendar year.
(d) None of the above.

(LO3) 5. Adjusting entries are made to ensure that:
(a) economic transactions and events affecting the business are recorded even if cash has not been received or paid.
(b) statement of profit or loss accounts have correct balances at the end of an accounting period.
(c) statement of financial position accounts have correct balances at the end of an accounting period.
(d) all of the above.

(LO3) 6. Each of the following is a major type (or category) of adjusting entry *except*:
(a) prepaid expenses.
(b) accrued revenues.
(c) accrued expenses.
(d) earned expenses.

(LO4) 7. The trial balance shows Supplies $1350 and Supplies Expense $0. If $600 of supplies are on hand at the end of the period, the adjusting entry is:

(a)	Supplies	600	
	Supplies Expense		600
(b)	Supplies	750	
	Supplies Expense		750
(c)	Supplies Expense	750	
	Supplies		750
(d)	Supplies Expense	600	
	Supplies		600

(LO4) 8. Adjustments to decrease revenues received in advance:
(a) decrease liabilities and increase revenues.
(b) increase liabilities and increase revenues.
(c) increase assets and increase revenues.
(d) decrease revenues and decrease assets.

(LO4) 9. Adjustments to accrue revenues:
(a) increase assets and increase liabilities.
(b) increase assets and increase revenues.
(c) decrease assets and decrease revenues.
(d) decrease liabilities and increase revenues.

(LO4) 10. Kathy Kiska earned a salary of $1000 for the week ending Friday 3 October. She will be paid on 2 October. The adjusting entry for Kathy's employer at 30 September is:

(a)	Salaries Expense	1000	
	Salaries Payable		1000
(b)	Salaries Expense	600	
	Salaries Payable		600
(c)	Salaries Payable	600	
	Salaries Expense		600
(d)	Salaries Expense	400	
	Salaries Payable		400

(LO5) 11. Which statement is *incorrect* concerning the adjusted trial balance?
(a) An adjusted trial balance proves the equality of the total debit balances and the total credit balances in the ledger after all adjustments are made.
(b) The adjusted trial balance provides the main basis for the preparation of financial statements.
(c) The adjusted trial balance lists only permanent accounts.
(d) The adjusted trial balance is prepared after the adjusting entries have been journalised and posted.

(LO1) 12. Which one of these statements about the accrual basis of accounting is *false*?
(a) Events that change an entity's financial statements are recorded in the periods in which the events occur.
(b) For a service organisation, revenue is generally recognised in the period in which the service is performed.
(c) This basis is in accord with generally accepted accounting principles.
(d) Revenue is recorded only when cash is received, and expenses are recorded only when cash is paid.

(LO7) 13. The accounting cycle begins with the analysis of transactions and may end with the:
(a) preparation of financial statements.
(b) posting of transactions to ledger accounts.
(c) journalising of adjusting entries.
(d) preparation of a post-closing trial balance.

(LO6) 14. Which account will have a nil balance after closing entries have been journalised and posted?
(a) Service Revenue.
(b) Advertising Supplies.
(c) Prepaid Insurance.
(d) Accumulated Depreciation.

(LO6,7) 15. Which types of accounts will appear in the post-closing trial balance?
(a) Permanent accounts.
(b) Temporary accounts.
(c) Accounts shown in the statement of profit or loss columns of a worksheet.
(d) None of the above.

QUESTIONS

1. (a) How does the accounting period concept affect an accountant's analysis of accounting transactions?
   (b) Explain the term *financial year*.
2. Identify and state two generally accepted accounting principles that relate to adjusting the accounts.
3. Outline the revenue recognition criteria under IFRS 15 *Revenue from Contracts with Customers* and explain how they are applied to the sale of goods or performing a service.
4. Tony Gale, a solicitor, accepts a legal engagement in March, performs the work in April, and is paid in May. If Gale's law firm prepares monthly financial statements, when should it recognise revenue from this engagement? Why?
5. In completing the engagement in question 3, Gale incurs $2000 of expenses in March, $1000 in April, and $600 in May. How much expense should be deducted from revenues in the month the revenue is recognised? Why?
6. Why might the financial information in a trial balance not be up to date and complete?
7. Distinguish between the two categories of adjusting entries, and identify the types of adjustments applicable to each category.
8. Explain the differences between depreciation expense and accumulated depreciation.
9. An entity has recognised revenue for which the services have not been performed but the cash has been received. Which of the following accounts are involved in the adjusting entry: (a) asset, (b) liability, (c) revenue or (d) expense? For the accounts selected, indicate whether they would be debited or credited in the entry.
10. An entity recognised some expenditure as an expense but the future benefits have not expired. Indicate which of the following accounts is debited and which is credited in the adjusting entry: (a) asset, (b) liability, (c) revenue or (d) expense.
11. For each of the following items before adjustment, indicate the type of adjusting entry — prepaid expense, revenue received in advance, accrued revenue, and accrued expense — that is needed to correct the misstatement. If the misstatement could result from more than one type of entry or unrecorded item, indicate each or all of the adjustments required.
    (a) Assets are understated.
    (b) Liabilities are overstated.
    (c) Liabilities are understated.
    (d) Expenses are understated.
    (e) Assets are overstated.
    (f) Revenue is understated.
12. What is the basic form and purpose of a worksheet?

BRIEF EXERCISES

BE3.1 Transactions that affect profits do not necessarily affect cash.

Identify the impact of transactions on cash and retained earnings.
(LO1)

Required
Identify the effect, if any, that each of the following transactions would have upon cash and retained earnings. The first transaction has been completed as an example.

	Cash	**Retained earnings**
(a) Purchased $120 supplies for cash.	$–120	$—
(b) Recorded an adjusting entry to record use of $60 of the above supplies.		
(c) Made sales of $1200, all on account.		
(d) Received $960 from customers in payment of their accounts.		
(e) Purchased a photocopier for cash, $3000.		
(f) Recorded depreciation of building for period used, $1200.		
(g) Purchased inventory, $2000 on account.		

BE3.2 Riko Ltd accumulates the following adjustment data at 31 March. Indicate (1) the type of adjustment (prepaid expense, accrued revenues, and so on) and (2) the status of the accounts before adjustment (overstated or understated).

Identify the major types of adjusting entries.
(LO3)

(a) Supplies of $600 are on hand. Supplies account shows $1900 balance.
(b) Service provided to customers but not invoiced total $900.
(c) Interest of $200 is due on a bank loan.
(d) The period for which rent had been collected in advance, totalling $800, has expired.

BE3.3 At the end of its first year, the trial balance of Shah Ltd shows Equipment $25 000 and zero balances in Accumulated Depreciation—Equipment and Depreciation

Prepare adjusting entry for depreciation.
(LO4)

Expense. Depreciation for the year is estimated to be $3000. Prepare the adjusting entry for depreciation at 30 June, post the adjustments to T accounts, and indicate the statement of financial position presentation of the equipment at 30 June.

Prepare adjusting entries for accruals.
(LO4)

BE3.4 The bookkeeper for DeVoe Ltd asks you to prepare the following accrued adjusting entries at 30 June:
(a) Interest on loan of $200 is accrued.
(b) Services performed but not yet invoiced total $700.
(c) Salaries of $700 earned by employees have not been recorded.
Use these account names: Service Revenue, Service Revenue Receivable, Interest Expense, Interest Payable, Salaries Expense, and Salaries Payable.

Analyse accounts in an adjusted trial balance.
(LO5)

BE3.5 The trial balance of Hoi Ltd includes the following statement of financial position accounts. Identify the accounts that might require adjustment and for each indicate (1) the type of adjusting entry (prepaid expenses, revenue received in advance, accrued revenues, and accrued expenses) and (2) the related account in the adjusting entry.
(a) Accounts Receivable.
(b) Prepaid Insurance.
(c) Equipment.
(d) Accumulated Depreciation—Equipment.
(e) Bank Loan.
(f) Interest Payable.
(g) Service Revenue Received in Advance.
(h) Interest Receivable.
(i) Wages Payable.

Identify financial statement for selected accounts; identify post-closing trial balance accounts.
(LO6,7)

BE3.6 The following selected accounts appear in the adjusted trial balance for Khanna Ltd. Indicate the financial statement on which each balance would be reported, and identify the accounts that would be included in a post-closing trial balance.
(a) Accumulated Depreciation.
(b) Depreciation Expense.
(c) Retained Earnings.
(d) Dividends.
(e) Service Revenue.
(f) Supplies.
(g) Accounts Payable.

List the required steps in the accounting cycle sequence.
(LO7)

BE3.7 The required steps in the accounting cycle are listed in random order below. List the steps in proper sequence.
(a) Journalise the transactions.
(b) Post to ledger accounts.
(c) Prepare a post-closing trial balance.
(d) Prepare an adjusted trial balance.
(e) Analyse business transactions.
(f) Journalise and post closing entries.
(g) Journalise and post adjusting entries.
(h) Prepare financial statements.
(i) Prepare a trial balance.

EXERCISES

Determine cash-basis and accrual-basis revenue.
(LO1)

E3.1 In its first year of operations, Tang Pty Ltd generated $78 000 for services provided, $12 000 of which was on account and still outstanding at year-end. The remaining $66 000 was received in cash from customers.

The company incurred operating expenses of $45 000. Of these expenses $40 500 were paid in cash; $4500 was still on account at year-end. In addition, Ng prepaid $6500 for insurance coverage that would not commence until the second year of operations.

Required
(a) Calculate the first year's profit under the cash basis of accounting, and calculate the first year's profit under the accrual basis of accounting.
(b) Which basis of accounting (cash or accrual) provides more useful information for decision makers?

E3.2 These are the concepts, principles, criteria and constraints discussed in this and previous chapters:

Identify accounting concepts, principles, criteria and constraints. (LO2)

1. Accounting entity concept.
2. Accounting period concept.
3. Cost principle.
4. Expense recognition criteria.
5. Full disclosure principle.
6. Going concern principle.
7. Materiality.
8. Monetary principle.
9. Revenue recognition criteria.

Required

Identify by number the accounting concept, principle or constraint that describes each situation below. Do not use a number more than once.

____________ (a) Is the rationale for why plant assets are not reported at liquidation value. (Do not use the cost principle.)

____________ (b) Indicates that personal and business record-keeping should be separately maintained.

____________ (c) Ensures that all relevant financial information is reported.

____________ (d) Assumes that the dollar is the 'measuring stick' used to report on financial performance.

____________ (e) Requires that accounting standards be followed for items that are reasonably expected to affect decisions.

____________ (f) Separates financial information into time periods for reporting purposes.

____________ (g) Requires recognition of expenses when the flow of economic benefits from the entity is probable and able to be reliably measured.

____________ (h) Indicates that market value changes subsequent to purchase are not recorded in the accounts.

E3.3 Here are some accounting reporting situations:

Identify the violated concept, principle or criterion. (LO2)

(a) Tercek Ltd recognises revenue at the end of the production cycle but before sale. The price of the product, as well as the amount that can be sold, is not certain.
(b) Bonilla Co. Ltd is in its fifth year of operation and has yet to issue financial statements. (Do not use the full disclosure principle.)
(c) Barton Ltd is carrying inventory at its current market value of $100 000. Inventory had an original cost of $110 000.
(d) Hospital Supply Co. Ltd reports only current assets and current liabilities on its statement of financial position. Property, plant and equipment and bills payable are reported as current assets and current liabilities, respectively. Property, plant and equipment is stated at the amount for which it could be sold at short notice. Liquidation of the entity is unlikely.
(e) Watts Ltd has inventory on hand that cost $400 000. Watts reports inventory on its statement of financial position at its current market value of $425 000.
(f) Steph Wolfson, manager of Classic Music Ltd, bought a computer for her personal use. She paid for the computer with company funds and debited the 'computers' account.

Required

For each situation, give the concept, principle, recognition criteria or constraint that has been violated, if any. Some of these concepts, principles and constraints were presented in the previous chapter. Give only one answer for each situation.

E3.4 Presented below are the concepts, principles and criteria used in this and previous chapters.

Identify accounting concepts, principles and criteria. (LO2)

1. Accounting entity concept.
2. Going concern principle.
3. Monetary principle.
4. Accounting period concept.
5. Full disclosure principle.
6. Revenue recognition criteria.
7. Expense recognition criteria.
8. Cost principle.
9. Materiality test.

Required

Identify by number the accounting concept, principle or criteria that describes each of these situations. Do not use a number more than once.

____________ (a) Repair tools are expensed when purchased.
____________ (b) Recognises an expense for unpaid salaries.
____________ (c) Assumes that the dollar is the measuring unit used to report financial information.
____________ (d) Separates financial information into time periods for reporting purposes.
____________ (e) Market value changes subsequent to purchase are not recorded in the accounts. (Do not use the revenue recognition criteria.)
____________ (f) Indicates that personal and business record keeping should be separately maintained.
____________ (g) Ensures that all relevant financial information is reported.
____________ (h) Requires recognition of revenues when an entity has completed a performance obligation and it is probable that the consideration to which the entity is entitled to in exchange for the goods will be collected.

Identify types of adjustments and accounts before adjustment.
(LO3,4)

E3.5 Zimbabwe Ltd accumulates the following adjustment data at 30 June:

(a) Services provided but not yet invoiced total $600.
(b) Store supplies of $300 are on hand. Supplies account shows $2300 balance.
(c) Electricity expenses of $225 are unpaid and unrecorded.
(d) Service for which payment of $260 was collected in advance has been performed.
(e) Salaries of $800 are unpaid and unrecorded.
(f) Benefits arising from prepaid insurance totalling $350 have expired.

Required

(a) For each item indicate (1) the type of adjustment (prepaid expense, revenue received in advance, accrued revenue or accrued expense) and (2) the accounts before adjustment (overstatement or understatement).
(b) Calculate the effect on profit if the adjustments were not recorded.

Prepare adjusting entries from selected account data.
(LO4)

E3.6 The ledger of Uniform Ltd on 30 June of the current year includes these *selected* accounts and corresponding account numbers before adjusting entries have been prepared.

	Debits	Credits
100 Prepaid Insurance	$ 14 040	
110 Supplies	8 400	
120 Equipment	97 500	
121 Accumulated Depreciation—Equipment		$ 31 800
200 Bank Loan		78 000
210 Rent Revenue Received in Advance		36 270
300 Rent Revenue		234 000
400 Interest Expense	—	
410 Wage Expense	54 600	

An analysis of the accounts shows the following:

1. The equipment depreciates $1600 per month.
2. The rent revenue received in advance was for the 9 months commencing 1 April.
3. Interest of $975 is accrued on the bank loan.
4. Supplies on hand total $2800.
5. The benefits of prepaid insurance expire at the rate of $1170 per month.

Required

Prepare the adjusting entries at 30 June, assuming that adjusting entries are made *quarterly*. Additional accounts and account numbers are: 420 Depreciation Expense, 430 Insurance Expense, 220 Interest Payable, and 440 Supplies Expense.

Prepare adjusting entries.
(LO4)

E3.7 Con James commenced a dental practice on 1 January 2016. During the first month of operations the following transactions occurred.

(a) Performed services for patients and, at 31 January, $1500 was earned for these services but not yet billed to the patients.

(b) Electricity expense incurred and not paid or recorded prior to 31 January, $1040.
(c) Purchased dental equipment on 1 January 2016 for $160 000, paying $40 000 in cash and signing a $120 000 interest-bearing note payable. (Interest is payable on 31 December 2016.) The equipment depreciates at $1600 per month and interest on the note is $500 per month.
(d) Purchased a 1-year insurance policy on 1 January 2016 for $24 000.
(e) Purchased $3200 of dental supplies (recorded as an asset). On 31 January, $700 worth of supplies was still on hand.

Required
Prepare the adjusting entries on 31 January 2016. Use these account names: Accumulated Depreciation—Dental Equipment, Depreciation Expense, Service Revenue, Accounts Receivable, Interest Expense, Insurance Expense, Salaries Expense, Interest Payable, Prepaid Insurance and Salaries Payable.

Prepare adjusting entries.
(LO4)

E3.8 The trial balance for Wong Pty Ltd is shown in figure 3.5 (p. 162). In lieu of the adjusting entries shown in the text at 31 October, assume the following adjustment data.
1. Advertising supplies on hand at 31 October total $1600.
2. Benefits of prepaid insurance of $100 have expired.
3. Depreciation for the month is $60.
4. Services performed in relation to cash received in advance total $300.
5. Services performed but not invoiced at 31 October total $700.
6. Interest accrued at 31 October is $80.
7. Accrued salaries at 31 October are $1300.

Required
Prepare the adjusting entries for these items. Use the account names and numbers from figure 2.19 (p. 110).

Prepare a correct statement of profit or loss.
(LO1,3,4,5)

E3.9 The statement of profit or loss of Wolfmother Ltd for the month of July 2017 shows a profit of $1400 based on Service Revenue $5500; Wages Expense $2300; Supplies Expense $1200; and Electricity Expense $600. In reviewing the statement, you discover:
1. The benefit consumed for prepaid insurance during July was not recorded — $300.
2. Supplies expense includes $400 of supplies that are still on hand at 31 July.
3. Depreciation on equipment of $150 was omitted.
4. Accrued but unpaid wages at 31 July of $300 were not included.
5. Services totalling $800 were performed but not invoiced.

Required
Prepare a correct statement of profit or loss for the month of July 2017.

Analyse adjusted data.
(LO3,4,5)

E3.10 This is a partial adjusted trial balance of Darcy Designs Pty Ltd.

DARCY DESIGNS PTY LTD
Adjusted trial balance (partial)
as at 31 July 2016

No.	Account name	Debit	Credit
110	Supplies	$1 500	
112	Prepaid Insurance	2 400	
212	Salaries Payable		$1 500
213	Service Revenue Received in Advance		1 125
400	Service Revenue		3 000
500	Salaries Expense	7 300	
505	Supplies Expense	1 220	
515	Insurance Expense	800	

Required
Answer these questions, assuming the year begins on 1 July:
(a) If the amount in Supplies Expense is the 31 July adjusting entry, and $1320 of supplies was purchased in July, what was the balance in Supplies on 1 July?

(b) If the amount in Insurance Expense is the July adjusting entry, and the original insurance premium was for 1 year, what was the total premium and when was the policy purchased?
(c) If $7500 of salaries was paid in July, what was the balance in Salaries Payable at 30 June 2016?
(d) There were no additional amounts of revenue received in advance during July. An amount of $2400 was received for services performed in July. What was the amount of Service Revenue Received in Advance at 1 July 2016/30 June 2016?
(*Hint:* Reconstruct the T accounts to help answer these questions.)

Analyse adjusted data.
(LO3,4,5)

E3.11 This is a partial adjusted trial balance of Martin Pty Ltd.

MARTIN PTY LTD
Adjusted trial balance
as at 31 March 2017

No.	Account name	Debit	Credit
110	Supplies	$ 700	
112	Prepaid Insurance	2 400	
212	Salaries Payable		$ 800
213	Service Revenue Received in Advance		750
400	Service Revenue		2 000
500	Salaries Expense	1 800	
505	Supplies Expense	950	
515	Insurance Expense	400	

Required
Answer these questions, assuming the year begins on 1 March.
(a) If the amount in Supplies Expense is the 31 March adjusting entry, and $850 of supplies was purchased in March, what was the balance in Supplies on 1 March?
(b) If the amount in Insurance Expense is the March adjusting entry, and the original insurance premium was for 1 year, what was the total premium and when was the policy purchased?
(c) If $2500 of salaries was paid in March, what was the balance in Salaries Payable at 1 March 2017?
(d) There were no additional amounts of revenue received in advance during March. An amount of $1600 was received in March for services performed in March. What was the amount of Service Revenue Received in Advance at 1 March 2017?
(*Hint:* Reconstruct the T accounts to help answer these questions.)

Journalise basic transactions and adjusting entries.
(LO4)

E3.12 Selected accounts of Snowmass Ltd are shown here.

Supplies Expense

July 31 500	

Salaries Payable

	July 31 1 200

Salaries Expense

July 15 1 200	
31 1 200	

Service Revenue

	July 14 3 000
	31 900
	31 500

Supplies

July 1 Bal. 1 100	July 31 500
10 200	

Service Revenue Receivable

July 31 500	

Service Revenue Received in Advance

July 31 900	July 1 Bal. 1 500
	20 700

Required
After analysing the accounts, journalise (a) the July transactions and (b) the adjusting entries that were made on 31 July. (*Hint:* July transactions were for cash.)

Prepare adjusting entries. (LO3,4)

E3.13 A review of the ledger of Monkey Ltd at 30 June 2016 produced the following data relating to the preparation of annual adjusting entries.

1. Prepaid Insurance $37 260: the entity has separate insurance policies on its buildings and its motor vehicles. Policy B4564 on the building was purchased on 1 January 2015 for $33 300. The policy has a term of 3 years. Policy A2958 on the vehicles was purchased on 1 July 2015 for $9510. This policy has a term of 2 years.
2. Subscription Revenue Received in Advance $135 200: the entity began selling magazine subscriptions on 1 April 2016 on an annual basis. The selling price of a subscription is $130. A review of subscription contracts reveals the following.

Subscription start date	Number of subscriptions
1 April	200
1 May	300
1 June	540
	1 040

   The annual subscription is for 12 monthly issues. The June magazine for all of the subscriptions had been delivered to the subscribers at 30 June 2016.
3. Bank Loan $100 000: the loan was taken out on 1 April at an annual interest rate of 6%.
4. Salaries Payable: There are eight salaried employees. Salaries are paid every Friday for the current week. Four employees receive a salary of $1050 each per week, and three employees earn $1350 each per week. 30 June is a Tuesday. Employees do not work on weekends. All employees worked the last 2 days of June.

Required

(a) Prepare the adjusting journal entries at 30 June 2016.
(b) Explain why the business would not recognise the full subscription revenue when the customers sign up for the magazines and pay for the subscription.

PROBLEM SET A

Prepare adjusting entries, post to ledger accounts, and prepare adjusted trial balance. (LO3,4,5)

PSA3.1 Ewok Ltd began operations on 1 May 2015. The trial balance at 30 June is as follows.

EWOK LTD
Trial balance
as at 30 June 2015

No.	Account name	Debit	Credit
100	Cash	$ 34 560	
104	Accounts Receivable	26 040	
112	Prepaid Insurance	9 600	
113	Supplies	13 600	
130	Office Equipment	86 400	
200	Accounts Payable		$ 19 800
213	Service Revenue Received in Advance		4 800
300	Share Capital		100 000
400	Service Revenue		76 600
500	Salaries Expense	23 800	
510	Rent Expense	7 200	
		$201 200	$201 200

In addition to those accounts listed on the trial balance, the chart of accounts for Ewok Ltd also contains the following accounts: 131 Accumulated Depreciation—Office Equipment, 218 Electricity Payable, 215 Salaries Payable, 520 Depreciation Expense, 515 Insurance Expense, 530 Electricity Expense, and 505 Supplies Expense.

Other data:

1. Supplies on hand at 30 June total $7200.
2. An electricity bill for $1200 has not been recorded and will not be paid until next month.
3. The insurance policy is for a year, commencing 1 May 2015.
4. Services were performed during the period in relation to $3000 of Revenue Received in Advance.
5. Salaries of $6400 are owed at 30 June.
6. The office equipment has a 5-year life with no resale value and is being depreciated at $1440 per month for 60 months.
7. Invoices representing $8000 of services performed during the month have not been recorded as of 30 June.

Required

(a) Prepare the adjusting entries for the month of June.
(b) Using T accounts, enter the totals from the trial balance as beginning account balances and then post the adjusting entries to the ledger accounts.
(c) Prepare an adjusted trial balance as at 30 June 2015.
(d) Calculate the profit for the month.
(e) Discuss the impact on profit for the current period and year and future years if the equipment was depreciated over 2 years not the 5 years and yet the business uses the equipment for the 5 years.

Prepare adjusting entries, post to ledger accounts, and prepare adjusted trial balance. (LO3,4,5)

PSA3.2 The unadjusted trial balance at 30 June 2017 for Maxi Services Ltd is as follows.

MAXI SERVICES LTD
Trial balance
as at 30 June 2017

No.	Account name	Debit	Credit
100	Cash	$ 54 800	
104	Accounts Receivable	15 000	
112	Prepaid Insurance	3 200	
113	Supplies	1 500	
130	Office Equipment	30 000	
131	Accumulated Depreciation		$ 20 000
200	Accounts Payable		7 400
213	Service Revenue Received in Advance		4 000
300	Share Capital		60 000
310	Retained Earnings		7 500
400	Service Revenue		46 800
500	Salaries Expense	34 000	
510	Rent Expense	2 000	
515	Insurance Expense	1 200	
530	Electricity Expense	4 000	
		$145 700	$145 700

The chart of accounts for Maxi Services Ltd contains the following accounts in addition to those listed on the trial balance: 218 Electricity Payable, 215 Salaries Payable, 520 Depreciation Expense, and 505 Supplies Expense.

Other data:

1. Supplies on hand at 30 June total $1000.
2. An electricity bill for $300 for June has not been recorded and will not be paid until next month.
3. The balance of the prepaid insurance account is the annual premium for insurance commencing 1 January 2017.
4. Services were performed during the current period in relation to $3000 of Revenue Received in Advance.

5. Salaries of $4600 are owed at 30 June.
6. Depreciation expense for the year is $4000.
7. Invoices representing $4400 of services performed during the month have not been recorded as of 30 June 2017.

Required

(a) Prepare the adjusting entries from the information provided.
(b) Using T accounts, enter the totals from the trial balance as beginning account balances and then post the adjusting entries to the ledger accounts.
(c) Prepare an adjusted trial balance as at 30 June 2017.
(d) Calculate profit or loss for the year ended 30 June 2017.
(e) If the business wanted to report a higher profit which of the adjusting entries above would be avoided? Which stakeholders would be affected by the misreported profit?

PSA3.3 Auckland Consulting Ltd began operations on 1 July 2016. Quarterly financial statements are prepared. The trial balance and adjusted trial balance on 30 September are shown below.

Prepare adjusting entries and financial statements; identify accounts to be closed. (LO4,5,6,7)

AUCKLAND CONSULTING LTD
Trial balances
as at 30 September 2016

		Unadjusted		Adjusted	
No.	Account name	Dr	Cr	Dr	Cr
100	Cash	$ 4 950		$ 4 950	
110	Accounts Receivable	1 200		19 800	
120	Prepaid Rent	4 500			
130	Supplies	1 350		900	
150	Equipment	45 000		45 000	
151	Accumulated Depreciation—Equipment				$ 2 250
200	Accounts Payable		$ 4 530		4 530
210	Salaries Payable				4 200
220	Interest Payable				300
230	Rent Rev. Recd in Advance		4 200		1 800
250	Bank Loan		15 000		15 000
300	Share Capital		42 000		42 000
310	Retained Earnings		—		—
311	Dividends	1 800		1 800	
400	Commission Revenue		3 600		22 200
410	Rent Revenue		30 000		32 400
500	Salaries Expense	24 000		28 200	
510	Rent Expense	15 000		19 500	
520	Depreciation Expense			2 250	
530	Supplies Expense			450	
540	Electricity Expense	1 530		1 530	
550	Interest Expense			300	
		$99 330	$ 99 330	$124 680	$124 680

Required

(a) Journalise the adjusting entries that were made.
(b) Prepare a statement of profit or loss and a calculation of retained earnings for the 3 months ending 30 September and prepare a statement of financial position as at 30 September.
(c) Identify which accounts should be closed on 30 September.
(d) If the interest rate on the loan is 12%, when did the entity take out the loan?

Prepare adjusting entries from analysis of trial balances; prepare financial statements from adjusted trial balance. (LO4,5,6)

PSA3.4 The trial balances shown below are before and after adjustment for Frog Ltd at the end of its reporting period.

FROG LTD
Trial balances
as at 30 June 2015

		Unadjusted		Adjusted	
No.	Account name	Dr	Cr	Dr	Cr
100	Cash	$ 14 500		$ 14 500	
110	Accounts Receivable	13 200		14 100	
120	Office Supplies	3 450		1 050	
130	Prepaid Insurance	6 000		3 750	
140	Office Equipment	18 000		18 000	
141	Accumulated Depreciation— Office Equipment		$ 3 600		$ 5 400
200	Accounts Payable		8 700		8 700
210	Salaries Payable		—		1 650
220	Rent Revenue Received in Advance		2 250		1 050
300	Share Capital		15 000		15 000
310	Retained Earnings		5 600		5 600
400	Service Revenue		51 000		51 900
410	Rent Revenue		16 500		17 700
500	Salaries Expense	25 500		27 150	
510	Office Supplies Expense	—		2 400	
520	Rent Expense	22 000		22 000	
530	Insurance Expense	—		2 250	
540	Depreciation Expense	—		1 800	
		$102 650	$102 650	$107 000	$107 000

Required

(a) Prepare the adjusting journal entries that were made.
(b) Prepare the statement of profit or loss and the calculation of retained earnings for the year ended 30 June 2015 and prepare the statement of financial position as at 30 June 2015.
(c) Prepare the closing journal entries for the temporary accounts at 30 June.

Prepare adjusting entries and financial statements; identify accounts to be closed. (LO4,5,6,7)

PSA3.5 Nathan Ltd began operations on 1 July 2016. Quarterly financial statements are prepared. The trial balance and adjusted trial balance on 30 September are shown below.

NATHAN LTD
Trial balance
as at 30 September 2016

		Unadjusted		Adjusted	
No.	Account name	Dr	Cr	Dr	Cr
100	Cash	$114 450		$114 450	
110	Accounts Receivable	5 400		12 900	
120	Prepaid Rent	22 500		15 000	
130	Supplies	9 000		4 500	
150	Equipment	120 000		120 000	
151	Accumulated Depreciation—Equipment				$ 6 000
200	Accounts Payable		$ 19 200		19 200
210	Salaries Payable				10 800
220	Interest Payable				900
230	Comm Rev. Recd in Advance		12 000		5 400

250	Bank Loan		90 000		90 000
300	Share Capital		105 000		105 000
310	Retained Earnings				
311	Dividends	3 000		3 000	
400	Sales Revenue		77 700		85 200
410	Commission Revenue		45 000		51 600
500	Salaries Expense	54 300		65 100	
510	Rent Expense	15 000		22 500	
520	Depreciation Expense			6 000	
530	Supplies Expense			4 500	
540	Electricity Expense	5 250		5 250	
550	Interest Expense			900	
		$348 900	$348 900	$374 100	$374 100

Required

(a) Journalise the adjusting entries that were made.
(b) Prepare a statement of profit or loss and a calculation of retained earnings for the 3 months ending 30 September and prepare a statement of financial position as at 30 September.
(c) Identify which accounts should be closed on 30 September.
(d) If the interest rate on the loan is 6%, when did the entity take out the loan?
(e) If the business uses straight-line depreciation and it was estimated the residual value of the equipment was zero, calculate the estimated useful life of the equipment.

PSA3.6 Characters Ltd adjusted and unadjusted trial balances as of 30 June 2017 are as follows.

Prepare adjusting entries, and financial statements; identify accounts to be closed. (LO4,5,6,7)

CHARACTERS LTD
Trial balances
as at 30 June 2017

		Unadjusted		Adjusted	
No.	Account name	Dr	Cr	Dr	Cr
100	Cash	$ 24 520		$ 24 520	
110	Accounts Receivable	22 400		24 080	
130	Supplies	9 400		5 600	
140	Prepaid Insurance	3 750		2 800	
150	Printing Equipment	67 200		67 200	
151	Accumulated Depreciation		$ 31 360		$ 39 200
200	Accounts Payable		5 600		5 600
220	Interest Payable				120
230	Revenue Received in Advance		7 840		6 270
240	Salaries Payable				1 400
250	Bank Loan (long term)		18 000		18 000
300	Share Capital		22 400		22 400
310	Retained Earnings		6 160		6 160
311	Dividends	13 440		13 440	
400	Revenue		65 630		68 880
500	Salaries Expense	11 200		12 600	
505	Insurance Expense			950	
510	Interest Expense	600		720	
520	Depreciation Expense			7 840	
530	Supplies Expense			3 800	
540	Rent Expense	4 480		4 480	
		$156 990	$156 990	$168 030	$168 030

Required

(a) Journalise the annual adjusting entries that were made.
(b) Prepare a statement of profit or loss and a calculation of retained earnings for the year ended 30 June 2017 and prepare a statement of financial position as at 30 June 2017.
(c) Identify which accounts should be closed on 30 June.
(d) If the bank loan was taken out 6 months ago, what is the annual interest rate on the loan?
(e) If the entity paid $13 400 in salaries in 2017, what was the balance in Salaries Payable on 30 June 2016?
(f) What is the effect on profit as a result of these adjusting entries?
(g) The statement of profit or loss presents the performance of the business over the past year. What other information concerning the profitability of the business would be useful for the financial statement users?

Prepare adjusting entries, adjusted trial balance, and financial statements.
(LO4,5,6)

PSA3.7 Smart Rentals Ltd opened for business on 1 April 2017. Here is its trial balance before adjustment on 30 June 2017 presented on a worksheet.

SMART RENTALS LTD
Worksheet
as at 30 June 2017

		Trial balance		Adjustments		Adjusted trial balance		Statement of profit or loss		Statement of financial position	
No.	Account name	Dr	Cr	Dr	Cr	Dr	Cr	Dr	Cr	Dr	Cr
100	Cash	$ 15 000									
112	Prepaid Insurance	10 800									
113	Supplies	11 400									
120	Land	90 000									
122	Building	420 000									
130	Furniture	100 800									
200	Accounts Payable		28 200								
212	Rent Revenue Received in Advance		21 600								
220	Mortgage Payable		210 000								
300	Share Capital		360 000								
400	Rent Revenue		55 200								
505	Advertising Expense	3 000									
510	Electricity Expense	6 000									
525	Salaries Expense	18 000									
	Totals	$675 000	$675 000								

In addition to those accounts listed on the trial balance, the chart of accounts for Showroom Rentals Ltd also contains the following accounts: 123 Accumulated Depreciation—Building, 131 Accumulated Depreciation—Furniture, 506 Depreciation Expense, 512 Insurance Expense, 515 Interest Expense, and 530 Supplies Expense.

Other data:

1. Insurance expires at the rate of $900 per month and is an annual premium commencing 1 April 2017.
2. An inventory of supplies shows $7200 of unused supplies on 30 June.
3. Annual depreciation is $5400 on the building and $4500 on furniture.
4. The mortgage interest rate is 6%. (The mortgage was taken out on 1 April.)
5. $9000 of the Rent Revenue Received in Advance pertains to June. The remainder pertains to July.
6. Salaries of $1800 are unpaid at 30 June.

Required

(a) Using information provided complete the above worksheet. (A blank worksheet is available within the course management system that accompanies the text.)
(b) Journalise the adjusting entries on 30 June.

(c) Prepare a ledger using T accounts. Enter the trial balance amounts as opening balances and post the adjusting entries.
(d) Prepare an adjusted trial balance on 30 June.
(e) Prepare the statement of profit or loss and a calculation of retained earnings for the quarter ended 30 June 2017, and prepare the statement of financial position as at 30 June 2017.
(f) Identify which accounts should be closed on 30 June.

Complete all steps in accounting cycle.
(LO4,5,6,7)

PSA3.8 Central Cleaning Ltd began operations on 1 July 2016. During July the following transactions were completed.

July	1	Issued 60 000 shares at $1 each.
	1	Purchased used truck for $48 000, paying $15 000 cash and the balance on account.
	3	Purchased cleaning supplies for $3600 on account.
	5	Paid $14 400 cash on 1-year insurance policy effective 1 July.
	12	Invoiced customers $15 720 for cleaning services.
	18	Paid $9000 cash of amount owed on truck and $2400 of amount owed on cleaning supplies.
	20	Paid $9600 cash for employee salaries.
	21	Collected $12 000 cash from customers invoiced on 12 July.
	25	Invoiced customers $10 800 for cleaning services.
	31	Paid petrol and oil for month on truck $1200.
	31	Paid $2250 cash dividend.

The chart of accounts for Central Cleaning Ltd contains the following accounts and account numbers: 100 Cash, 110 Accounts Receivable, 120 Cleaning Supplies, 130 Prepaid Insurance, 170 Truck, 171 Accumulated Depreciation—Truck, 200 Accounts Payable, 210 Salaries Payable, 300 Share Capital, 310 Retained Earnings, 315 Dividends, 320 Profit or Loss Summary, 400 Service Revenue, 500 Petrol and Oil Expense, 510 Cleaning Supplies Expense, 520 Depreciation Expense, 530 Insurance Expense, and 540 Salaries Expense.

Required

(a) Journalise the July transactions.
(b) Post to the ledger accounts (use T accounts).
(c) Prepare a trial balance as at 31 July.
(d) Journalise the following adjustments.
  1. Services provided but not invoiced and uncollected at 31 July were $6000.
  2. Depreciation on truck for the month was $750.
  3. One-twelfth of the insurance expired.
  4. An inventory count shows $1200 of cleaning supplies on hand at 31 July.
  5. Unpaid employee salaries were $900.
(e) Post adjusting entries to the T accounts prepared in part (b).
(f) Prepare an adjusted trial balance.
(g) Prepare the statement of profit or loss and a calculation of retained earnings for July, and prepare a classified statement of financial position as at 31 July.
(h) Journalise and post closing entries and complete the closing process as if it were the end of the financial year.
(i) Prepare a post-closing trial balance at 31 July.
(j) The business purchases cleaning supplies which are 'environmentally friendly' but cost twice the price of an alternative brand. Joe a potential investor doesn't understand why a business would not just try to reduce costs. Prepare a short response to Joe explaining why a business would choose to operate this way.

Journalise transactions and follow through accounting cycle to preparation of financial statements.
(LO4,5,6,7,8)

PSA3.9 On 1 July 2016, the following were the account balances of Bulwara Ltd.

	Debits
Cash	$ 5 000
Accounts Receivable	5 600
Supplies	2 000
Store Equipment	20 000
	$32 600

	Credits
Accumulated Depreciation	$ 1 000
Accounts Payable	4 200
Service Revenue Received in Advance	800
Salaries Payable	1 000
Share Capital	20 000
Retained Earnings	5 600
	$32 600

During July the following summary transactions were completed.

July	8	Paid $3000 for salaries due to employees, of which $2000 is for July and $1000 is for June.
	10	Received $2000 cash from customers in payment of their accounts.
	12	Received $800 cash for services performed in July 2016.
	15	Purchased store equipment on account $8000.
	17	Purchased supplies on account $3400.
	24	Paid accounts payable $2000.
	24	Paid July/August rent $800.
	25	Paid salaries $3000.
	27	Performed services on account and invoiced customers for services provided $2300.
	27	Received $1300 from customers for future service.

Other data:

1. Supplies on hand are valued at $3200.
2. Accrued salaries payable are $1000.
3. Depreciation for the month is $240.
4. Services have been performed in relation to $600 recorded in Service Revenue Received in Advance.

Required

(a) Prepare a chart of accounts. (*Hint:* Refer to Wong Ltd in chapter 2 of textbook.)
(b) Enter the 1 July balances in the ledger accounts (use T accounts).
(c) Journalise the July transactions.
(d) Post to the ledger accounts you prepared for part (c) above. Use Service Revenue, Depreciation Expense, Supplies Expense, Salaries Expense and Rent Expense.
(e) Prepare a trial balance at 31 July before adjusting entries.
(f) Journalise and post adjusting entries.
(g) Prepare an adjusted trial balance.
(h) Prepare a statement of profit or loss and a calculation of retained earnings for July and prepare a statement of financial position as at 31 July 2016.
(i) *Optional:* Using the information in this problem starting at part (e), prepare a worksheet using the format in figure 3A.1, p. 187. (A blank worksheet is available within the course management system that accompanies the text.)

Complete all steps in accounting cycle.
(LO3,4,5,6,7,8)

PSA3.10 Willard Cleaning Ltd began operations on 1 April 2017. During April the following transactions were completed.

April	1	Issued $37 500 shares for cash.
	1	Purchased used truck for $22 500, paying $12 500 cash and the balance on account.
	5	Purchased cleaning supplies for $4875 on account.
	7	Paid $5820 cash on 1-year insurance policy effective 1 April.
	14	Invoiced customers $6850 for cleaning services.
	21	Paid $10 000 cash of amount owed on truck and $2125 of amount owed on cleaning supplies.
	21	Paid $3400 cash for employee salaries.
	23	Collected $3250 cash from customers invoiced on 14 April.
	25	Invoiced customers $5975 for cleaning services.
	30	Paid petrol and oil for month on truck $432.
	30	Paid $600 cash dividend.

The chart of accounts for Cortex Cleaning Ltd contains the following accounts and account numbers: 100 Cash, 110 Accounts Receivable, 120 Cleaning Supplies, 130 Prepaid Insurance, 171 Motor Vehicles, 172 Accumulated Depreciation—Motor Vehicles, 200 Accounts Payable, 210 Salaries Payable, 300 Share Capital, 310 Retained Earnings, 315 Dividends, 320 Profit or Loss Summary, 400 Service Revenue, 500 Petrol and Oil Expense, 510 Cleaning Supplies Expense, 520 Depreciation Expense, 530 Insurance Expense, and 540 Salaries Expense.

Required

(a) Journalise the April transactions.
(b) Post to the ledger accounts (use T accounts).
(c) Prepare a trial balance as at 30 April.
(d) Journalise the following adjustments.
   1. Services provided but not invoiced and uncollected at 30 April were $1150.
   2. Depreciation on the truck for the month was $375.
   3. One-twelfth of the insurance expired.
   4. An inventory count shows $750 of cleaning supplies on hand at 30 April.
   5. Unpaid employee salaries were $1200.
(e) Post adjusting entries to the T accounts prepared in part (b).
(f) Prepare an adjusted trial balance.
(g) Prepare the statement of profit or loss and a calculation of retained earnings for April, and prepare a classified statement of financial position as at 30 April.
(h) Journalise and post closing entries and complete the closing process, as if it were the end of the financial year.
(i) Prepare a post-closing trial balance at 30 April.
(j) *Optional:* Using the information in this problem starting a part (e), prepare a worksheet using the format in figure 3A.1, p. 187. (A blank worksheet is available within the course management system that accompanies the text.)

PROBLEM SET B

Prepare adjusting entries, post to ledger accounts, and prepare adjusted trial balance. (LO3,4,5)

PSB3.1 Solo Ltd began operations on 1 June 2016. The trial balance at 30 June is as follows.

SOLO LTD
Trial balance
as at 30 June 2016

No.	Account name	Debit	Credit
100	Cash	$ 7 750	
104	Accounts Receivable	6 000	
112	Prepaid Insurance	2 400	
113	Supplies	2 000	
130	Office Equipment	15 000	
200	Accounts Payable		$ 4 500
213	Service Revenue Received in Advance		4 000
300	Share Capital		21 750
400	Service Revenue		7 900
500	Salaries Expense	4 000	
510	Rent Expense	1 000	
		$38 150	$38 150

In addition to those accounts listed on the trial balance, the chart of accounts for Solo Ltd also contains the following accounts: 131 Accumulated Depreciation—Office Equipment, 218 Electricity Payable, 215 Salaries Payable, 520 Depreciation Expense, 515 Insurance Expense, 530 Electricity Expense, and 505 Supplies Expense.

Other data:

1. Supplies on hand at 30 June total $1300.
2. An electricity bill for $150 has not been recorded and will not be paid until next month.
3. The insurance policy is for a year.
4. Services were performed during the period in relation to $2500 of Revenue Received in Advance.
5. Salaries of $1500 are owed at 30 June.
6. The office equipment has a 5-year life with no resale value and is being depreciated at $250 per month for 60 months.
7. Invoices representing $3000 of services performed during the month have not been recorded as of 30 June.

Required

(a) Prepare the adjusting entries for the month of June.

(b) Using T accounts, enter the totals from the trial balance as beginning account balances and then post the adjusting entries to the ledger accounts.

(c) Prepare an adjusted trial balance as at 30 June 2016.

(d) Calculate the profit for the month

(e) Discuss the impact on profit for the current period and year and future years if the equipment was depreciated over 2 years instead of 5 years and yet the business used the equipment for 5 years.

Prepare adjusting entries, post to ledger accounts, and prepare adjusted trial balance. (LO3,4,5)

PSB3.2 Brothers Ltd began operations on 1 February 2016. The trial balance at 30 June is as follows.

BROTHERS LTD
Trial balance
as at 30 June 2016

No.	Account name	Debit	Credit
100	Cash	$ 9 480	
104	Accounts Receivable	3 150	
112	Prepaid Insurance	2 520	
113	Supplies	2 350	
130	Office Equipment	22 500	
200	Accounts Payable		$ 1 550
213	Service Revenue Received in Advance		1 500
300	Share Capital		20 000
400	Service Revenue		25 495
500	Salaries Expense	3 295	
510	Rent Expense	5 250	
		$48 545	$48 545

In addition to those accounts listed on the trial balance, the chart of accounts for Brothers Ltd also contains the following accounts: 131 Accumulated Depreciation—Office Equipment, 218 Electricity Payable, 215 Salaries Payable, 520 Depreciation Expense, 515 Insurance Expense, 530 Electricity Expense, and 505 Supplies Expense.

Other data:

1. Supplies on hand at 30 June total $490.
2. An electricity bill for $110 has not been recorded and will not be paid until next month.
3. The insurance policy is for a year, commencing 1 February 2016.
4. Services were performed during the period in relation to $800 of Revenue Received in Advance.
5. Salaries of $770 are owed at 30 June.

6. The office equipment has a 5-year life with no resale value and is being depreciated at $375 per month for 60 months.
7. Invoices representing $1500 of services performed during the month have not been recorded as of 30 June.

Required

(a) Prepare the adjusting entries for the month of June.
(b) Using T accounts, enter the totals from the trial balance as beginning account balances and then post the adjusting entries to the ledger accounts.
(c) Prepare an adjusted trial balance as at 30 June 2016.
(d) If the business wanted to report a higher profit which of the adjusting entries would be avoided? Which stakeholders would be affected by the misreported profit?

PSB3.3 Matrix Ltd began operations on 1 July 2016. Quarterly financial statements are prepared. The trial balance and adjusted trial balance on 30 September are shown below.

Prepare adjusting entries, and financial statements; identify accounts to be closed.
(LO4,5,6,7)

MATRIX LTD
Trial balances
as at 30 September 2016

		Unadjusted		Adjusted	
No.	Account name	Dr	Cr	Dr	Cr
100	Cash	$ 8 710		$ 8 710	
110	Commissions Receivable	520		1 300	
120	Prepaid Rent	1 950		1 170	
130	Supplies	1 560		1 300	
150	Equipment	19 500		19 500	
151	Accumulated Depreciation—Equipment				$ 455
200	Accounts Payable		$ 1 963		1 963
210	Salaries Payable				520
220	Interest Payable				65
230	Rent Rev. Recd in Advance		1 170		780
250	Bank Loan		6 500		6 500
300	Share Capital		18 200		18 200
310	Retained Earnings		—		—
311	Dividends	780		780	
400	Commission Revenue		18 200		18 980
410	Rent Revenue		520		910
500	Salaries Expense	11 700		12 220	
510	Rent Expense	1 170		1 950	
520	Depreciation Expense			455	
530	Supplies expense			260	
540	Electricity Expense	663		663	
550	Interest Expense			65	
		$46 553	$46 553	$48 373	$48 373

Required

(a) Journalise the adjusting entries that were made.
(b) Prepare a statement of profit or loss and a calculation of retained earnings for the 3 months ending 30 September and prepare a statement of financial position as at 30 September.
(c) Identify which accounts should be closed on 30 September.
(d) If the interest rate on the loan is 12%, when did Matrix Ltd take out the loan?

Prepare adjusting entries from analysis of trial balances; prepare financial statements from adjusted trial balance. (LO4,5,6)

PSB3.4 The trial balances shown below are before and after adjustment for Aurora Pty Ltd at the end of its reporting period.

AURORA PTY LTD
Trial balances
as at 30 June 2017

		Unadjusted		Adjusted	
No.	Account name	Dr	Cr	Dr	Cr
100	Cash	$ 5 200		$ 5 200	
110	Accounts Receivable	4 400		4 700	
120	Office Supplies	1 150		350	
130	Prepaid Insurance	2 000		1 250	
140	Office Equipment	7 000		7 000	
141	Acc. Depn—Office Equipment		$ 1 800		$ 2 400
200	Accounts Payable		2 900		2 900
210	Salaries Payable		—		550
220	Rent Rev. Recd in Advance		750		350
300	Share Capital		5 000		5 000
310	Retained Earnings		2 800		2 800
400	Service Revenue		17 000		17 300
410	Rent Revenue		5 500		5 900
500	Salaries Expense	8 500		9 050	
510	Office Supplies Expense	—		800	
520	Rent Expense	7 500		7 500	
530	Insurance Expense	—		750	
540	Depreciation Expense	—		600	
		$35 750	$35 750	$37 200	$37 200

Required

(a) Prepare the adjusting entries that were made.

(b) Prepare the statement of profit or loss and the calculation of retained earnings for the year ended 30 June 2017 and prepare the statement of financial position as at 30 June 2017.

(c) Prepare the closing entries for the temporary accounts at 30 June.

Prepare adjusting entries and financial statements; identify accounts to be closed. (LO4,5,6,7)

PSB3.5 McPherson Ltd began operations on 1 January 2015. Quarterly financial statements are prepared. The trial balance and adjusted trial balance on 31 March are shown below.

MCPHERSON LTD
Trial balance
as at 31 March 2015

		Unadjusted		Adjusted	
No.	Account name	Dr	Cr	Dr	Cr
100	Cash	$15 750		$15 750	
110	Accounts Receivable	1 300		6 800	
120	Prepaid Rent	2 000		—	
130	Supplies	1 500		600	
150	Equipment	32 000		32 000	
151	Accumulated Depreciation—Equipment				$ 1 750
200	Accounts Payable		$ 1 840		1 840
210	Salaries Payable				1 800
220	Interest Payable				250
230	Rent Rev. Recd in Advance		1 000		500
250	Bank Loan		15 000		15 000

300	Share Capital		25 000		25 000
310	Retained Earnings				
311	Dividends	600		600	
400	Sales Revenue		13 100		18 600
410	Rent Revenue		11 500		12 000
500	Salaries Expense	9 540		11 340	
510	Rent Expense	4 000		6 000	
520	Depreciation Expense			1 750	
530	Supplies expense			900	
540	Electricity Expense	750		750	
550	Interest Expense			250	
		$67 440	$67 440	$76 740	$76 740

Required

(a) Journalise the adjusting entries that were made.

(b) Prepare a statement of profit or loss and a calculation of retained earnings for the 3 months ending 31 March, and prepare a statement of financial position as at 31 March.

(c) Identify which accounts should be closed on 31 March.

(d) If the interest rate on the loan is 10%, when did the entity take out the loan?

Prepare adjusting entries, and financial statements; identify accounts to be closed. (LO4,5,6,7)

PSB3.6 Lou's Advertising Agency Pty Ltd was founded by Louise Lou in 2001. Presented here are both the adjusted and unadjusted trial balances as of 31 December 2017.

LOU'S ADVERTISING AGENCY PTY LTD
Trial balances
as at 31 December 2017

		Unadjusted		Adjusted	
No.	Account name	Dr	Cr	Dr	Cr
100	Cash	$ 30 800		$ 30 800	
110	Accounts Receivable	56 000		60 200	
130	Art Supplies	23 520		14 000	
140	Prepaid Insurance	9 380		7 000	
150	Printing Equipment	168 000		168 000	
151	Accumulated Depreciation		$ 78 400		$ 98 000
200	Accounts Payable		14 000		14 000
220	Interest Payable				420
230	Advertising Revenue Received in Advance		19 600		15 680
240	Salaries Payable				3 640
250	Bank Loan (long term)		14 000		14 000
300	Share Capital		56 000		56 000
310	Retained Earnings		15 400		15 400
311	Dividends	33 600		33 600	
400	Advertising Revenue		164 080		172 200
500	Salaries Expense	28 000		31 640	
505	Insurance Expense			2 380	
510	Interest Expense	980		1 400	
520	Depreciation Expense			19 600	
530	Art Supplies Expense			9 520	
540	Rent Expense	11 200		11 200	
		$361 480	$361 480	$389 340	$389 340

Required

(a) Journalise the annual adjusting entries that were made.

(b) Prepare a statement of profit or loss and a calculation of retained earnings for the year ended 31 December 2017 and prepare a statement of financial position as at 31 December 2017.

(c) Identify which accounts should be closed on 31 December.

(d) If the bank loan was taken out 10 months ago, what is the annual interest rate on the loan?

(e) If the entity paid $31 200 in salaries in 2017, what was the balance in Salaries Payable on 31 December 2016?

(f) What is the effect on profit as a result of these adjusting entries?

Prepare worksheet, adjusting entries, adjusted trial balance, and financial statements. (LO3,4,5,6,8)

PSB3.7 The Palpatine Hotel Ltd opened for business on 1 May 2016. A worksheet as at 31 May 2016 for Palpatine Hotel has been started as follows.

PALPATINE HOTEL LTD
Worksheet
as at 31 May 2016

		Trial balance		Adjustments		Adjusted trial balance		Statement of profit or loss		Statement of financial position	
No.	Account name	Dr	Cr	Dr	Cr	Dr	Cr	Dr	Cr	Dr	Cr
100	Cash	$ 4 500									
112	Prepaid Insurance	2 520									
113	Supplies	2 660									
120	Land	21 000									
122	Building	98 000									
130	Furniture	23 520									
200	Accounts Payable		$ 6 580								
212	Rent Rev. Recd in Advance		5 040								
220	Mortgage Payable		50 000								
300	Share Capital		84 000								
400	Rent Revenue		12 880								
505	Advertising Expense	700									
510	Electricity Expense	1 400									
525	Salaries Expense	4 200									
	Totals	$158 500	$158 500								

In addition to those accounts listed on the trial balance, the chart of accounts for Palpatine Hotel also contains the following accounts: 123 Accumulated Depreciation—Building, 131 Accumulated Depreciation—Furniture, 506 Depreciation Expense, 512 Insurance Expense, 515 Interest Expense, and 530 Supplies Expense.

Other data:

1. Insurance expires at the rate of $210 per month.
2. An inventory of supplies shows $1680 of unused supplies on 31 May.
3. Annual depreciation is $5040 on the building and $4200 on furniture.
4. The mortgage interest rate is 12%. (The mortgage was taken out on 1 May.)
5. $2100 of the Rent Revenue Received in Advance relates to May and is now earned.
6. Salaries of $420 are unpaid at 31 May.

Required

(a) Using information provided complete the above worksheet. (A blank worksheet is available within the course management system that accompanies the text.)

(b) Journalise the adjusting entries on 31 May.

(c) Prepare the general ledger using T accounts. Enter the trial balance amounts and post the adjusting entries.

(d) Prepare an adjusted trial balance on 31 May.
(e) Prepare the statement of profit or loss and a calculation of retained earnings for the month of May and prepare the statement of financial position as at 31 May 2016.
(f) Identify which accounts should be closed on 31 May.

PSB3.8 Contract Cleaners Pty Ltd began operations on 1 July 2015. During July the following transactions were completed.

Complete all steps in accounting cycle.
(LO3,4,5,6,7)

July	1	Issued $27 000 shares for cash.
	1	Purchased used truck for $18 000, paying $9000 cash and the balance on account.
	3	Purchased cleaning supplies for $2700 on account.
	5	Paid $3600 cash on 1-year insurance policy effective 1 July.
	12	Invoiced customers $7500 for cleaning services.
	18	Paid $3000 cash of amount owed on truck and $1500 of amount owed on cleaning supplies.
	20	Paid $3600 cash for employee salaries.
	21	Collected $4200 cash from customers invoiced on 12 July.
	25	Invoiced customers $6000 for cleaning services.
	31	Paid petrol and oil for month on truck $600.
	31	Paid $1800 cash dividend.

The chart of accounts for Contract Cleaners Pty Ltd contains the following accounts and account numbers: 100 Cash, 110 Accounts Receivable, 120 Cleaning Supplies, 130 Prepaid Insurance, 171 Motor Vehicles, 172 Accumulated Depreciation—Motor Vehicles, 200 Accounts Payable, 210 Salaries Payable, 300 Share Capital, 310 Retained Earnings, 315 Dividends, 320 Profit or Loss Summary, 400 Service Revenue, 500 Petrol and Oil Expense, 510 Cleaning Supplies Expense, 520 Depreciation Expense, 530 Insurance Expense, and 540 Salaries Expense.

Required
(a) Journalise the July transactions.
(b) Post to the ledger accounts (use T accounts).
(c) Prepare a trial balance as at 31 July.
(d) Journalise the following adjustments.
1. Services provided but not invoiced and uncollected at 31 July were $3300.
2. Depreciation on the truck for the month was $600.
3. One-twelfth of the insurance expired.
4. An inventory count shows $1800 of cleaning supplies on hand at 31 July.
5. Unpaid employee salaries were $1200.

(e) Post adjusting entries to the T accounts you prepared in part (b).
(f) Prepare an adjusted trial balance.
(g) Prepare the statement of profit or loss and a calculation of retained earnings for July, and prepare a classified statement of financial position as at 31 July.
(h) Journalise and post closing entries and complete the closing process, as if it were the end of the financial year.
(i) Prepare a post-closing trial balance at 31 July.
(j) What is the change in reported profit as a result of the adjusting entries?

PSB3.9 On 1 November 2015, the following were the account balances of Naboo Equipment Ltd.

Journalise transactions and follow through accounting cycle to preparation of financial statements and a worksheet.
(LO3,4,5,6,7,8)

	Debits
Cash	$ 3 348
Accounts Receivable	3 012
Supplies	1 200
Store Equipment	12 000
	$19 560

	Credits
Accumulated Depreciation	$ 600
Accounts Payable	2 520
Service Revenue Received in Advance	480
Salaries Payable	600
Share Capital	12 000
Retained Earnings	3 360
	$19 560

During November the following summary transactions were completed.

Nov.	8	Paid $1320 for salaries due to employees, of which $720 is for November and $600 is for October.
	10	Received $1440 cash from customers on account.
	12	Received $1680 cash for services performed in November.
	15	Purchased store equipment on account $3600.
	17	Purchased supplies on account $1800.
	20	Paid creditors on account $3000.
	22	Paid November rent $360.
	25	Paid salaries $1200.
	27	Performed services on account and invoiced customers for services provided $1080.
	29	Received $660 from customers for future service.

Other data:

1. Supplies on hand are valued at $1920.
2. Accrued salaries payable are $600.
3. Depreciation for the month is $144.
4. Services have been performed in relation to $360 recorded in Service Revenue Received in Advance.

Required

(a) Prepare a chart of accounts. (*Hint:* Refer to Wong Ltd in chapter 2 of textbook.)
(b) Enter the 1 July balances in the ledger accounts (use T accounts).
(c) Journalise the November transactions.
(d) Post to the ledger accounts you prepared for part (c) above. Use Service Revenue, Depreciation Expense, Supplies Expense, Salaries Expense, and Rent Expense.
(e) Prepare a trial balance at 30 November before adjusting entries.
(f) Journalise and post adjusting entries.
(g) Prepare an adjusted trial balance.
(h) Prepare a statement of profit or loss and a calculation of retained earnings for November and prepare a statement of financial position as at 30 November 2015.
(i) *Optional:* Using the information in this problem starting a part (e), prepare a worksheet using the format in figure 3A.1, p. 187. (A blank worksheet is available within the course management system that accompanies the text.)

Complete all steps in accounting cycle.
(LO3,4,5,6,7,8)

PSB3.10 On Call Services Ltd began operations on 1 September 2015. During September the following transactions were completed.

September	1	Issued $150 000 shares for cash.
	1	Purchased used truck for $90 000, paying $45 000 cash and the balance on account.
	5	Purchased cleaning supplies for $18 600 on account.
	7	Paid $27 000 cash on 1-year insurance policy effective 1 September.
	14	Invoiced customers $26 700 for cleaning services.
	21	Paid $45 000 cash of amount owed on truck and $10 500 of amount owed on cleaning supplies.

September	21	Paid $15 300 cash for employee salaries.
	23	Collected $18 000 cash from customers invoiced on 14 September.
	25	Invoiced customers $28 500 for cleaning services.
	30	Paid petrol and oil for month on truck $1980.
	30	Paid $900 cash dividend.

The chart of accounts for On Call Services Ltd contains the following accounts and account numbers: 100 Cash, 110 Accounts Receivable, 120 Cleaning Supplies, 130 Prepaid Insurance, 171 Motor Vehicles, 172 Accumulated Depreciation—Motor Vehicles, 200 Accounts Payable, 210 Salaries Payable, 300 Share Capital, 310 Retained Earnings, 315 Dividends, 320 Profit or Loss Summary, 400 Service Revenue, 500 Petrol and Oil Expense, 510 Cleaning Supplies Expense, 520 Depreciation Expense, 530 Insurance Expense, and 540 Salaries Expense.

Required

(a) Journalise the September transactions.
(b) Post to the ledger accounts (use T accounts).
(c) Prepare a trial balance as at 30 September.
(d) Journalise the following adjustments.
1. Services provided but not invoiced and uncollected at 30 September were $5400.
2. Depreciation on the truck for the month was $1500.
3. One-twelfth of the insurance expired.
4. An inventory count shows $3600 of cleaning supplies on hand at 30 September.
5. Unpaid employee salaries were $5400.

(e) Post adjusting entries to the T accounts prepared in part (b).
(f) Prepare an adjusted trial balance.
(g) Prepare the statement of profit or loss and a calculation of retained earnings for September and prepare a classified statement of financial position as at 30 September.
(h) Journalise and post closing entries and complete the closing process, as if it were the end of the financial year.
(i) Prepare a post-closing trial balance at 30 September.
(j) *Optional:* Using the information in this problem starting a part (e), prepare a worksheet using the format in figure 3A.1, p. 187. (A blank worksheet is available within the course management system that accompanies the text.)

BUILDING BUSINESS SKILLS

FINANCIAL REPORTING AND ANALYSIS

FINANCIAL REPORTING PROBLEM: *Domino's Pizza Enterprises Ltd*

BBS3.1 The 2013 financial statements of Domino's Pizza Enterprises Ltd are presented in the appendix at the back of this book.

Required

(a) Using the statement of profit or loss and other comprehensive income, statement of financial position and the notes to the financial statements, identify any two items that may result in adjusting entries for accruals. (*Hint:* Review the adjusting entries for accruals explained in the chapter.)

(b) What was the total amount of the employee benefits provision (a liability) at the end of the 2013 reporting period? (*Hint:* You will need to refer to Note 25.) How much was current and how much non-current?

(c) What was the cash paid for income taxes during 2013? Where was this reported? What was the income tax expense for 2013? Where was this reported?

FINANCIAL REPORTING PROBLEM: *Domino's Pizza Enterprises Ltd*

BBS3.2 The 2013 financial statements of Domino's Pizza Enterprises Ltd are presented in the appendix at the back of this book.

Required

(a) Review part 3.8 'Revenue recognition' in 'Note 3 significant accounting policies'. Explain the different forms of revenue recorded by Domino's and, in particular, the different ways the company recognises each type of revenue.

(b) Are Domino's methods of revenue recognition consistent with the revenue recognition criteria discussed in the chapter?

(c) What are the sources and amounts of revenues during 2013? Explain the distinction between revenue and other income as disclosed in the 2013 accounts.

INTERPRETING FINANCIAL STATEMENTS

BBS3.3 Micro Ltd, based in Perth, manufactures computers. Micro Ltd's products are distributed through both independent and company-owned distribution entities, which are located throughout Australasia. Micro Ltd's partial statement of profit or loss for 2016 is shown below.

MICRO LTD
Statement of profit or loss (partial)
for the year ended 30 June 2016
(in millions)

Revenues		
Net sales	$8 607	
Interest revenue and other income	418	
		$9 025
Cost and expenses		
Cost of sales	7 050	
Selling, general and administrative	1 121	
Research and development	336	
Interest expense	360	
		8 867
Profit before income tax		$ 158

Assume that this partial statement of profit or loss was prepared before all adjusting entries had been made, and that the internal audit staff identified the following items that require adjustments:

1. Depreciation on the administrative offices of $50 million needs to be recorded.
2. A physical inventory determined that $2 million in office supplies had been used in 2016.
3. $30 million in salaries have been incurred but not recorded. Half of this amount is for the salaries of R&D staff; the other half is for the administrative staff.
4. $4.5 million in insurance premiums was prepaid on 1 May 2015. The premiums were for one year and insurance has not been renewed.
5. $12 million in prepaid rent is no longer prepaid at year-end.
6. Interest of $20 million has been incurred but not paid at year-end.

Required

(a) Make the adjusting entries required. Use standard account names.
(b) For each of the accounts in these adjusting entries that will be posted to the general ledger, show which item on the statement of profit or loss will be increased or decreased.
(c) Prepare a new partial statement of profit or loss based on the adjusting entries prepared.
(d) What information concerning the revenues and expenses would be useful to disclosure for the users of the financial statements?

FINANCIAL ANALYSIS ON THE WEB

BBS3.4 ***Purpose:*** This exercise explores information contained in notes to financial statements.

Address: www.fairfaxmedia.com.au

Steps:

1. *Choose* **Investors**.
2. Then select **Annual reports**.
3. Choose the most recent annual report.

Required

(a) In the annual report, find 'Note 1 Summary of significant accounting policies', and read the sections on revenue recognition. Explain Fairfax Media's policy for recognising revenue.
(b) Which items referred to in the revenue recognition policy require accrual adjustments and which items require adjustments for prepaid revenue?
(c) Is the way Fairfax Media recognises revenue consistent with the revenue recognition criteria discussed in the chapter?

CRITICAL THINKING

GROUP DECISION CASE

BBS3.5 Holiday Travel Australasia commenced business on 1 April 2016. Alice Adare is a good manager but a poor accountant. From the trial balance prepared by a part-time bookkeeper, Alice prepared the following statement of profit or loss for the year ended 31 March 2017 on the following page. Alice knew something was wrong with the statement because profit up to February had not exceeded $40 000. Knowing that you are an experienced accountant, she asks you to review the statement of profit or loss and other data.

You first look at the trial balance. In addition to the account balances reported in the statement of profit or loss, the general ledger contains these selected balances at 31 March 2017.

Advertising supplies on hand	$15 000
Prepaid Insurance	21 000
Bank Loan	20 000

HOLIDAY TRAVEL AUSTRALASIA Statement of profit or loss for the year ended 31 March 2017		
Revenues		
Service revenue		$150 000
Operating expenses		
Advertising	$ 8 700	
Wages	56 400	
Electricity	4 600	
Depreciation	1 200	
Repairs	4 000	
Total operating expenses		74 900
Profit		$ 75 100

You then make enquiries and discover the following:

1. Service revenues include advanced money for holidays after March, $16 000.
2. There were only $5200 of advertising supplies on hand at 31 March.
3. Prepaid insurance resulted from the payment of a 1-year policy on 1 July 2016.
4. The following invoices have not been paid or recorded: advertising for week of 24 March, $3200; repairs made 10 March, $2000; and electricity expense, $320.
5. At 31 March, 2 days' wages had not been paid or recorded, amounting to $300.
6. The business took out the loan on 1 January 2017 at an annual interest rate of 10%.

Required

With the class divided into groups, answer the following:

(a) Prepare a correct statement of profit or loss for the year ended 31 March 2017.

(b) Explain to Alice the generally accepted accounting principles that she did not follow in preparing her statement of profit or loss and their effect on her results.

COMMUNICATION ACTIVITY

BBS3.6 For the past 7 years, Sam Portafello has been running a small business and has been using the cash basis of accounting to record transactions. He is thinking about inviting family members to invest in the business as he feels the business has potential to expand if there were more funds. His daughter, Maria, who has just completed a commerce degree at the University of Sydney, urges him to adopt the accrual basis of accounting so he can better understand the profitability of his business and increase his chances of raising the funds required.

Being a stubborn man, he refuses to listen to his daughter and claims that cash is what is important. Maria decides to seek help from a third party to convince her father of the merits of accrual accounting, so she consults an accountant. You are that accountant and Maria asks you to write a report to explain the benefits of accrual accounting to her father.

Required

Prepare a report on the benefits of accrual accounting. In your report, cover the following issues:

(a) Explain the difference between accrual and cash accounting.

(b) List the items that are not recorded under cash accounting which are recorded under accrual accounting.

(c) Sam's plans to expand the business require the purchase of more equipment. He will be able to pay for some of it in cash but will need to apply for credit. Explain the implications of the purchase on the accounting reports under the accrual basis and cash basis of accounting.

(d) Conclude the report by summarising the advantages and disadvantages of accrual accounting and cash accounting, and give your recommendation on whether Sam Portafello should use accrual or cash accounting in his business.

ETHICS CASE

BBS3.7 Wellcovered Insurance Ltd sells general insurance policies. At the end of the reporting period, the business information system manager, Mark Duncan, found that the company's accounting system had been infected by a computer virus and any general ledger account balances could not be relied upon. Mark advised the chief financial officer, Ben Nguyen, and the chief executive officer, Sarah Chan, that the profit reports would be delayed extensively while the software was disinfected.

Sarah said that she needed to issue a press release for the profit figures and didn't want this to be delayed because stakeholders would think something was wrong with the company. She explained to Ben that it was not in the shareholders' best interests to delay profit figures and asked him to estimate them so that the press release would not be late. Ben argued that he did not have documentation or other sources of information on which to base the estimates because they depended on the computer to determine how many insurance contracts had been sold. Sarah countered that this should not be a problem because accounting uses a lot of estimates and judgements. She added that this was what was meant by *timeliness*, which Sarah recalled was mentioned in an accounting textbook she had read a long time ago.

Required

(a) Who are the stakeholders in this situation?
(b) Is Sarah correct about the estimation of revenue, expenses and profit for the period being consistent with the timeliness constraint?
(c) Would the actions requested by Sarah be consistent with accounting principles?
(d) Would reporting the estimated figures be ethical?
(e) What do you think would be the consequences of a significant error in the estimation that overestimated profit?

COMMUNICATION ACTIVITY

BBS3.8 Woolworths Limited published a sustainability strategy report, *Doing the right thing — sustainability strategy 2007–2015*, which can be found on Woolworths' web site, www.woolworthslimited.com.au.

This document outlines the company's approach and major commitments and targets.

Required

Access the sustainability strategy report and the priority of the environmental sustainability issues. Then access Woolworths' latest corporate responsibility report and summarise Woolworths' achievements in the areas of contribution to the community and environmental stewardship.

Answers to self-study questions

1. a 2. c 3. d 4. b 5. d 6. d 7. c 8. a 9. b 10. d
11. c 12. d 13. d 14. a 15. a

Answer to Review It question 3, p. 174

Royalties income is recognised on an accrual basis (note 3.8.4).

CHAPTER 4

INVENTORIES

LEARNING OBJECTIVES

After studying this chapter, you should be able to:

1. Identify the differences between a service business and a merchandising business.
2. Explain the recording of purchases under a perpetual inventory system.
3. Explain the recording of sales revenues under a perpetual inventory system.
4. Prepare a fully classified statement of profit or loss.
5. Use ratios to analyse profitability.
6. Understand the basic process and main features of the goods and services tax (GST).
7. Complete journal entries to record GST.

THE LATEST ELECTRONIC GADGETS IN TOWN

iPad, iPhone, Wii, Xbox, 3D TV . . . are you into computer and electronic products? Chances are that you might have shopped at JB Hi-Fi for the latest digital gadgets, CDs or DVDs. However, you may not know that JB Hi-Fi traces its origin to the analogue age of vinyl records back in the 1970s. Here is a very brief history of the company's journey into the digital era.

JB Hi-Fi was founded in 1974 by John Barbuto in a suburban Melbourne store that specialised in hi-fi equipment, hence the name JB Hi-Fi. The business expanded into a chain of 10 stores in Melbourne and Sydney, turning over $150 million by 2000 when it was purchased by private equity. The company was subsequently floated (listed on the Australian Securities Exchange) in 2003 and this allowed for further growth and expansion. As at 30 June 2013, there were 176 JB Hi-Fi branded stores throughout Australia and New Zealand. The company also planned to open more new stores in the 2014 financial year.

JB Hi-Fi's product offerings are closely influenced by technological developments in the music industry. For example, as the popularity of vinyl records declined, the company was one of the first Australian music retailers to phase out the entire stock of records. It began offering exclusively CDs in 1991. However, with the recent revival of interest in vinyl records, some of the larger JB Hi-Fi retail outlets are now again stocking records to service the niche market of audiophiles, collectors and DJs.

Over the years, JB Hi-Fi has diversified its business from predominantly selling music CDs to a wide range of products including televisions, sound systems, cameras, game consoles and computers. To its customers, these are desirable items for the home and office; to JB Hi-Fi, they are inventories.

As a retailer, buying and selling inventories is what JB Hi-Fi does, so management needs to make sure that there are enough inventories on the shelves and the showroom to meet customer needs. This requires an efficient inventory replenishment system to ensure that the products most in demand will be readily available for the customers as needed.

However, like any business, JB Hi-Fi also needs to take measures to prevent inventory from leaving the store before it has been paid for. In a large retail chain store, inventory security is a major concern and it could be very costly to the business if not properly managed. JB Hi-Fi has a number of loss prevention measures in place such as security cameras and electronic tags and sensors. Inventory management systems enable the company to monitor, replenish and secure inventories, i.e. to have the stock available for purchase. This not only keeps the customers happy, but also keeps the profit rolling in.

On the World Wide Web
JB Hi-Fi Limited:
www.jbhifi.com.au

And the profits are rolling in! In JB Hi-Fi's latest annual report, the company recorded sales revenue of $3.31 billion for the year ended 30 June 2013, an increase of 5.8% from $3.13 billion in 2012. Net profit after tax for the year was $116.6 million compared with $104.6 million for the previous financial year. This was an increase of 11%. Now that is a lot of sales!

The next time you are walking around retail outlets like JB Hi-Fi, you might think about how much care is exercised in supplying and safeguarding the products you purchase.

Source: **Based on information from JB Hi-Fi Limited's web site, and the 2013 annual report.**

PREVIEW OF CHAPTER 4

JB Hi-Fi, Harvey Norman and Woolworths are called merchandising businesses because they buy and sell merchandise (known as **inventory**) rather than perform services as their main source of revenue. Inventories or stocks are goods acquired for the purpose of resale in the ordinary course of business activities. Businesses that sell inventories directly to consumers are called *retailers*. Businesses that sell inventories to retailers are known as *wholesalers*.

Retail businesses make up a significant proportion of Australian businesses. Understanding the financial statements of these businesses is important. The content and organisation of the chapter are as follows.

INVENTORIES

Merchandising operations
- Operating cycles
- Inventory systems

Recording purchases of inventories
- Purchase returns and allowances
- Freight costs
- Purchase discounts

Recording sales of inventories
- Sales returns and allowances
- Sales discounts

Statement of profit or loss presentation
- Sales revenue
- Gross profit
- Other revenue
- Operating expenses

Evaluating profitability
- Gross profit ratio
- Operating expenses to sales ratio

Appendix: The goods and services tax
- Overview of the GST process
- Accounting for GST

LEARNING OBJECTIVE 1

Identify the differences between a service business and a merchandising business.

MERCHANDISING OPERATIONS

The main source of revenues for merchandising businesses is the sale of inventory, often referred to simply as **sales revenue** or sales. Expenses for a merchandising business are divided into two categories: the cost of sales and operating expenses.

The **cost of sales (COS)** is the total cost of inventory sold during the period. This expense is directly related to the revenue recognised from the sale of goods. The profit measurement process for a merchandising business is shown in figure 4.1. Determination of profit is one of the major objectives of accounting for inventories. The items in the two blue boxes in figure 4.1 are unique to a merchandising business; they are not used by a service business.

Alternative terminology

Cost of sales can also be called *cost of goods sold* (COGS).

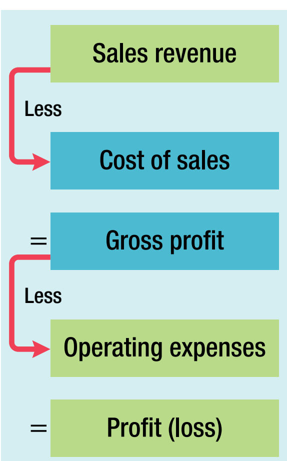


Figure 4.1 Profit measurement process for a merchandising business

OPERATING CYCLES

The operating cycle of a merchandising business ordinarily is longer than that of a service business. The purchase of inventory and its eventual sale lengthen the cycle. The operating cycles of service and merchandising businesses are contrasted in figure 4.2. Note that the added asset account for a merchandising business is the Inventory account.

INVENTORY SYSTEMS

A merchandising business keeps track of its inventory to determine what is available for sale and what has been sold. One of two systems is used to account for inventory: a perpetual inventory system or a periodic inventory system.

Perpetual system

In a **perpetual inventory system**, detailed records of the cost of each inventory purchase and sale are maintained. The perpetual inventory system is so named because the accounting records continuously — that is, perpetually — show the quantity and cost of inventory that should be on hand at any time. For example, a Mercedes dealership has separate inventory records for each car, truck and van in its car yard and on the showroom floor. Similarly, with the use of bar codes and optical scanners, JB Hi-Fi can keep a daily running record of every computer and television that it buys and sells. Under a perpetual inventory system, the cost of sales is *determined each time a sale occurs.*

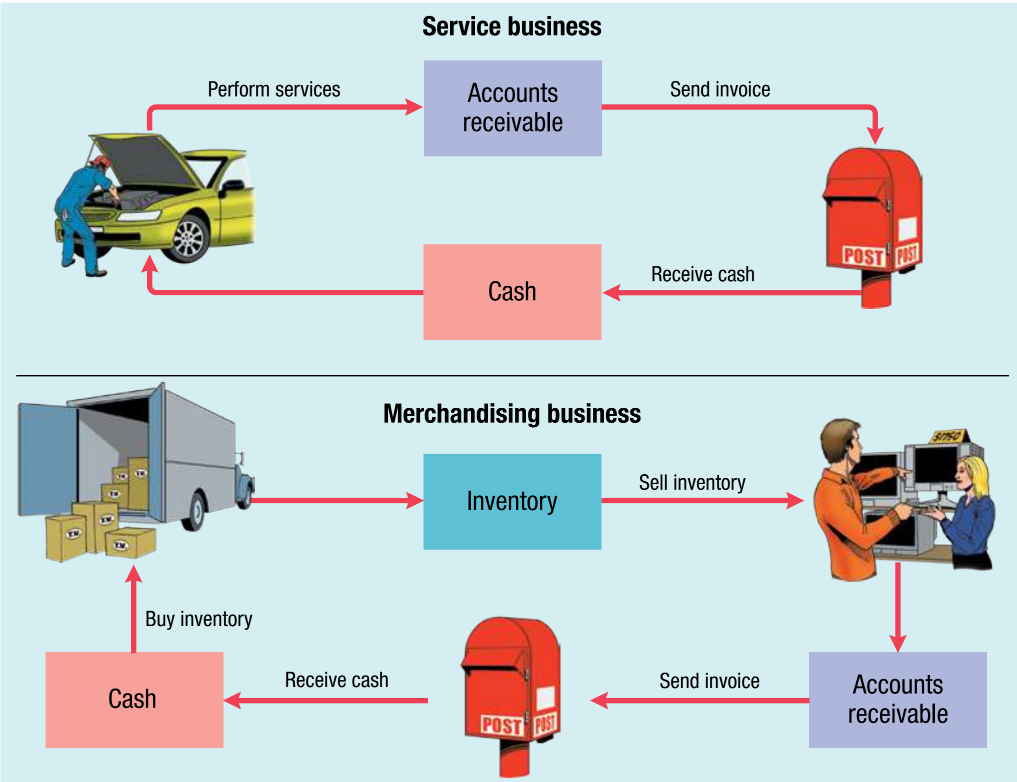


Figure 4.2 Operating cycles for a service business and a merchandising business

Periodic system

In a **periodic inventory system**, detailed inventory records of the goods on hand are not kept throughout the period. The cost of sales is *determined only at the end of the accounting period* — i.e. periodically — when a physical inventory count (or stocktake) is taken to determine the quantity and cost of goods on hand. To determine the cost of sales under a periodic inventory system, the following steps are necessary: (1) determine the cost of goods on hand at the beginning of the accounting period; (2) add to it the cost of goods purchased; and (3) subtract the cost of goods on hand at the end of the accounting period.

Figure 4.3 (overleaf) graphically compares the sequence of activities and the timing of the cost of sales calculation under the two inventory systems.

Computerised inventory systems

An increasing number of businesses are adopting computerised inventory systems to take advantage of technology improvements in recent years. An integrated inventory system is linked with accounts payable and purchases and with accounts receivable and sales to record the number of units purchased, number of units sold and quantities of goods on hand. For example, the cash register or the self-checkout counter at a JB Hi-Fi store or a Woolworths supermarket is a computer terminal that records a sale and updates inventory records instantly. Commonly, barcodes, which represent the inventory and cost data of each stock item, are scanned by a laser as part of the computerised inventory system. As the computerised inventory system keeps up-to-the-minute records, managers can access the most current inventory information at any time. Having the most current inventory information available at any time also assists managers in making decisions about when to replenish and re-order inventory to ensure that enough is available to meet customer sales.

DECISION MAKING

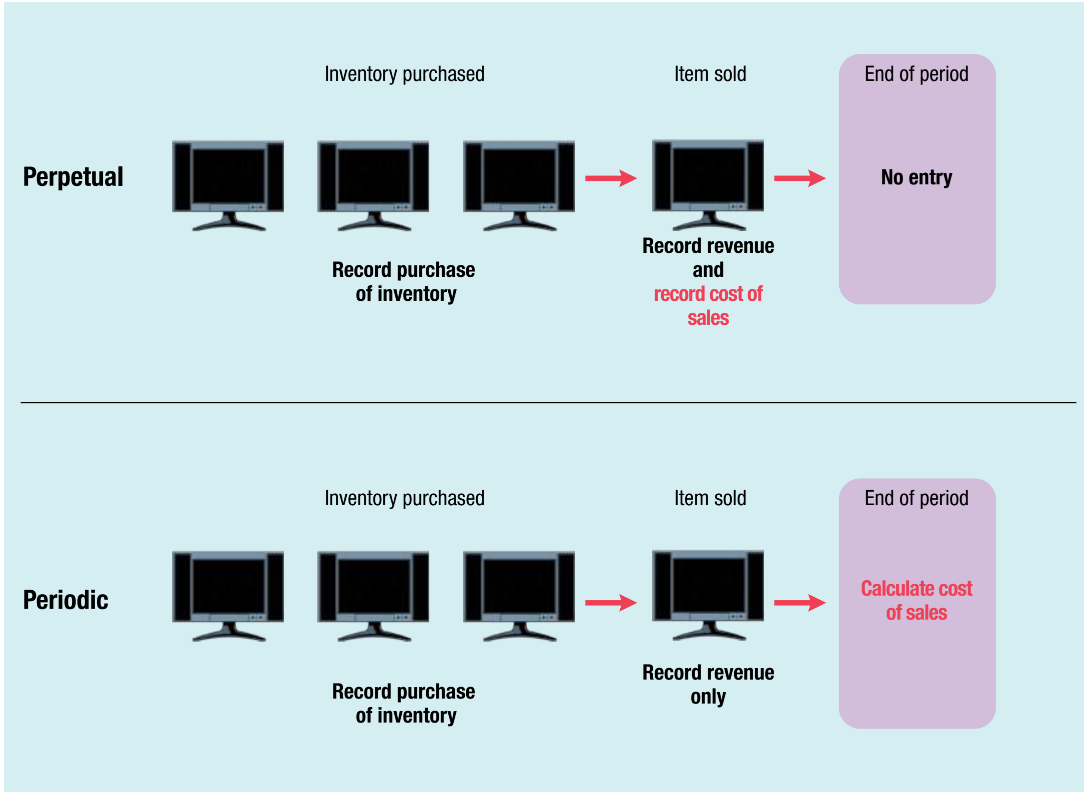


Figure 4.3 Cost of sales — comparing periodic and perpetual inventory systems

Additional considerations

A perpetual inventory system provides better control over inventories than a periodic system. Since the inventory records show the quantities that should be on hand, the goods can be counted at any time to see whether the amount of goods on hand agrees with the inventory records. Any shortages uncovered can be investigated immediately. Although a perpetual inventory system requires additional clerical work and additional cost to maintain the records, a computerised system can minimise this cost.

Helpful hint

For control purposes a physical inventory count is taken under the perpetual system, even though it is not needed to determine cost of sales.

Some businesses find it either unnecessary or uneconomical to invest in a computerised perpetual inventory system. Many small retail businesses, in particular, find that a perpetual inventory system costs more than it is worth. Managers of small businesses, such as greengrocers, cafés, restaurants and convenience stores, can control their inventories and manage day-to-day operations without detailed inventory records by simply looking at their shelves.

The perpetual inventory system, which is growing in popularity and use, is illustrated in this chapter. The periodic system, still widely used among small businesses, is described in the next chapter.

APPLICATION IN BUSINESS

E-business perspective

Advancements in information technology in recent years have enabled businesses to integrate inventory systems with sophisticated supply chain management systems. Some inventory and logistic systems even allow suppliers of specific items to access the purchasing entity's inventory database via the internet so that a supplier can monitor and replenish their customers' inventory levels automatically. Star Track Express, a leading transport and logistics company in Australia, plays a key role in providing integrated logistics solutions for warehousing, order fulfilment and time-sensitive deliveries to businesses across Australia and New Zealand. Star Track Express is committed to using the latest technology in order to provide superior freight facilities and service excellence for its customers. The company provides a range of online and offline freight solutions for all types of freight movements, enabling its customers to ship freight in a paperless environment.

Source: Based on information from Star Track Express's web site, www.startrack.com.au.

RECORDING PURCHASES OF INVENTORIES

LEARNING OBJECTIVE 2

Explain the recording of purchases under a perpetual inventory system.

Merchandising businesses purchase inventories for resale. For example, JB Hi-Fi purchases inventories from suppliers, such as Apple and LG, to sell to customers. Purchases of inventories may be made for cash or on credit (on account). Purchases made for cash are those that are paid for when the goods are delivered. Payments at the time of delivery may be made by cash, by cheque, by credit card or by electronic funds transfer. They are referred to as cash purchases because the payment is made at the time of delivery.

Credit purchases are those that are paid for after delivery of the goods, i.e. the purchase is on credit terms. Common credit terms are 30 days and 7 days. If purchases are on 7-day terms, the supplier allows the purchaser up to 7 days to pay for the goods. Similarly, if purchases are on terms of 30 days, the purchaser has up to 30 days from the date of the invoice (which is usually on or close to the delivery date) to pay for the goods.

Alternative terminology

Other terms for suppliers include *sellers* and *vendors*.

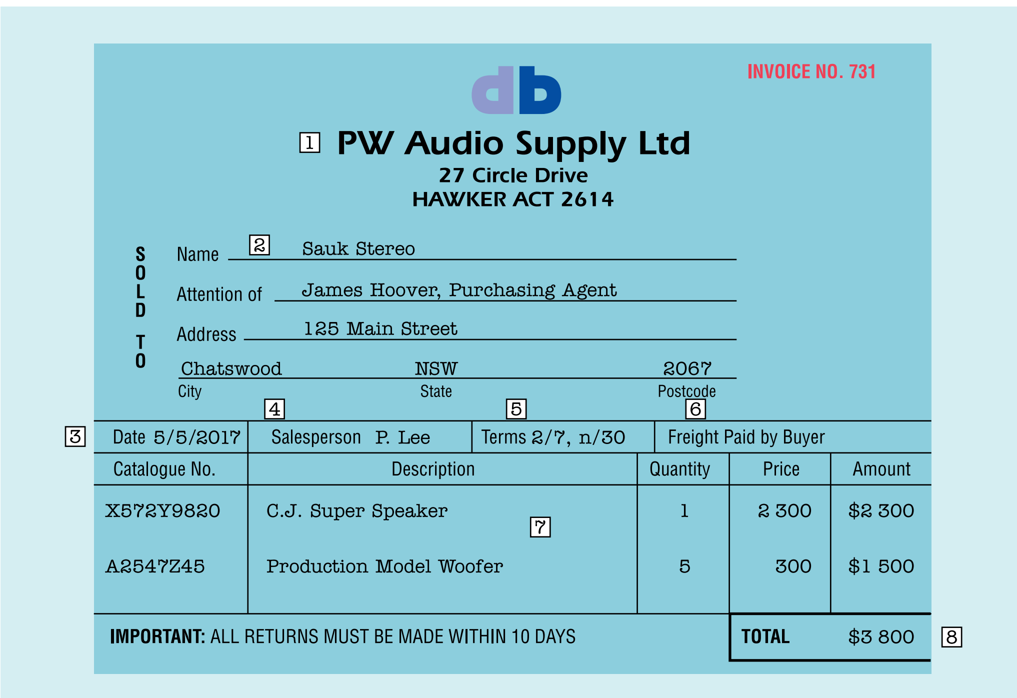
Purchases are normally recorded when the goods are received from the seller. Every purchase should be supported by source documents that provide written evidence of the transaction. Each cash purchase should be supported by a cheque payment, a cash receipt and/or a supplier's invoice indicating the items purchased and amounts paid. Cash purchases are recorded by an increase in inventory and a decrease in cash.

Each credit purchase should be supported by a supplier's invoice. The **supplier's invoice** is a document evidencing the supplier's claim against the purchaser. It states the quantity and cost of each item supplied, the total purchase price and the terms of payment.

In this chapter, to illustrate inventory recording processes, we will follow a series of transactions between PW Audio Supply Ltd and Sauk Stereo. PW Audio Supply Ltd sells inventories to Sauk Stereo. We begin with Sauk Stereo's purchase of inventory. Figure 4.4 shows the sales invoice prepared by PW Audio Supply Ltd (the seller) which is sent to Sauk Stereo (the buyer). Sauk Stereo uses the invoice to record the purchase.

Helpful hint

As we are ignoring the effects of GST in this part of the chapter, GST is not included on this invoice. GST is discussed in the appendix.



INVOICE NO. 731

1 PW Audio Supply Ltd
27 Circle Drive
HAWKER ACT 2614

SOLD TO
Name 2 Sauk Stereo
Attention of James Hoover, Purchasing Agent
Address 125 Main Street
Chatswood (City) NSW (State) 2067 (Postcode)

3 Date 5/5/2017 | 4 Salesperson P. Lee | 5 Terms 2/7, n/30 | 6 Freight Paid by Buyer

Catalogue No.	Description	Quantity	Price	Amount
X572Y9820	C.J. Super Speaker 7	1	2 300	$2 300
A2547Z45	Production Model Woofer	5	300	$1 500

IMPORTANT: ALL RETURNS MUST BE MADE WITHIN 10 DAYS — **TOTAL** $3 800 8

Figure 4.4 Sales invoice from PW Audio Supply Ltd

The important elements of this invoice are numbered in figure 4.4 and explained as follows.

1. The seller (supplier) is PW Audio Supply Ltd.
2. The purchaser is Sauk Stereo.
3. The invoice date is 5 May 2017 and is needed for determining whether the purchaser receives a discount for prompt payment (see point 5).
4. The salesperson is P. Lee and is important for calculation of sales commission, if any.

5. The credit terms of the transaction are 2/7, n/30; that is, if Sauk Stereo pays within 7 days of the invoice date, it may deduct a 2% discount. Otherwise, the full invoice amount is due in 30 days. (The discussion of discounts starts on p. 227)
6. The freight terms are that Sauk Stereo is responsible for the transportation costs. (Freight costs are discussed below).
7. The details of the goods sold are one unit of item C.J. Super Speaker and five units of the item Production Model Woofer.
8. The total invoice amount is $3800.

The associated entry for Sauk Stereo for the invoice from PW Audio Supply Ltd is:

A	=	L	+	E
+3800		+3800		

May	5	Inventory	3 800	
		Accounts payable		3 800
		(To record goods purchased on account from PW Audio Supply Ltd)		

In the margins next to key journal entries are **equation analyses** that summarise the effects of the transaction on the three elements of the accounting equation.

Under the perpetual inventory system, purchases of goods for resale are recorded in the Inventory account. Thus, JB Hi-Fi, for example, would increase (debit) inventory for television, computers and anything else purchased for resale to customers. Not all purchases are debited to inventory. Purchases of assets acquired for use by JB Hi-Fi, such as stationery, equipment and similar items, are recorded as increases to specific asset accounts rather than to inventory. For example, JB Hi-Fi would increase supplies to record the purchase of materials used to make shelf signs or for cash register receipt paper.

PURCHASE RETURNS AND ALLOWANCES

A purchaser may be dissatisfied with the inventory received because the goods are damaged or defective, of inferior quality, or do not meet the purchaser's specifications. In such cases, the purchaser may return the goods to the seller for credit if the sale was made on credit, or for a cash refund if the purchase was for cash. This transaction is known as a *purchase return*. Alternatively, the purchaser may choose to keep the inventory if the seller is willing to grant an allowance (deduction) from the purchase price. This transaction is known as a *purchase allowance*.

Assume that Sauk Stereo returned goods costing $300 to PW Audio Supply Ltd on 8 May. The entry by Sauk Stereo for the returned merchandise is:

A	=	L	+	E
−300		−300		

May	8	Accounts payable	300	
		Inventory		300
		(To record return of goods received from PW Audio Supply Ltd)		

Because Sauk Stereo increased inventory when the goods were received, inventory is decreased when Sauk returns the goods.

FREIGHT COSTS

The sales invoice indicates whether the seller or the buyer pays the cost of transporting the goods to the buyer's place of business. When the buyer pays the transport costs, these costs are considered part of the cost of purchasing inventory and are called **freight-in**. Conceptually, the cost of inventory includes the invoice price plus freight charges. However, in practice, freight costs are often recorded in a freight-in account because of the difficulty of allocating freight costs to individual inventory items when several different items are delivered at the same time. As a result, the freight-in account is increased. Although freight-in costs are not directly debited to inventory, they are included in the cost of inventory. How this is achieved is illustrated in chapter 5.

In this example, on delivery of the goods on 6 May, Sauk Stereo pays We Deliver Freight Co. $150 for freight charges, and the entry in Sauk Stereo's records is:

A	=	L	+	E
−150				−150

May	6	Freight-in	150	
		Cash		150
		(To record payment of freight on goods purchased)		

In contrast, freight costs incurred by the seller on outgoing inventory are called **freight-out** and are an operating expense to the seller. These costs increase an expense account entitled freight-out or delivery expense. For example, if the freight terms on the invoice in figure 4.4 had required that PW Audio Supply Ltd pay the $150 freight charges, the entry by PW Audio Supply Ltd would be:

May 5	Freight-out	150	
	Cash		150
	(To record payment of freight on goods sold)		

A	=	L	+	E
−150				−150

When the freight charges are paid by the seller, the seller may establish a higher invoice price for the goods to cover the delivery expense.

PURCHASE DISCOUNTS

Many businesses offer discounts to their customers. Discounts fall into two categories: settlement discounts and trade discounts.

Settlement discounts

Alternative terminology

A settlement discount can also be called a *cash discount.*

The credit terms of a purchase on account may permit the buyer to claim a discount for prompt payment. The buyer calls this settlement discount **discount received**. This incentive offers advantages to both parties — the purchaser saves money, and the seller is able to shorten the operating cycle by converting the accounts receivable into cash earlier.

Helpful hint

The term *net* in 'net 30' means the remaining amount due after subtracting any returns or allowances and partial payments.

The credit terms specify the amount of the cash discount and time period during which it is offered. They also indicate the time within which the purchaser is expected to pay the full invoice price. In the sales invoice in figure 4.4 (p. 225), credit terms are 2/7, n/30, which is read as 'two-seven, net thirty'. This means that a 2% cash discount may be taken on the invoice price, less ('net of') any returns or allowances, if payment is made within 7 days of the invoice date (the *discount period*); otherwise, the invoice price, less any returns or allowances, is due 30 days from the invoice date.

When the seller elects not to offer a settlement discount for prompt payment, credit terms will specify only the maximum time period for paying the balance due. For example, the time period may be stated as n/30 or, less commonly n/60, meaning that the net amount must be paid in 30 days or 60 days respectively from the invoice date.

When an invoice is paid within the discount period, the amount of the discount is credited to discount received. Discounts are recorded by the buyer as revenue, as a discount represents a saving in outflows and a consequential reduction in liabilities and an increase in equity. To illustrate, assume Sauk Stereo pays the balance due of $3500 (gross invoice price of $3800 less purchase returns and allowances of $300) on 12 May, the last day of the discount period. The settlement discount is $70 ($3500 × 2%), and the amount of cash paid by Sauk Stereo is $3430 ($3500 − $70). The entry to record the 12 May payment by Sauk Stereo is shown below.

May 12	Accounts payable	3 500	
	Cash		3 430
	Discount received		70
	(To record payment within discount period)		

A	=	L	+	E
−3430		−3500		+70

If Sauk Stereo failed to take the discount and instead made full payment on 3 June, Sauk's entry is:

June 3	Accounts payable	3 500	
	Cash		3 500
	(To record payment with no discount taken)		

A	=	L	+	E
−3500		−3500		

In Australia and in New Zealand the treatment of settlement discounts can be interpreted and recorded in a number of ways, which is in accordance with IAS 2/AASB 102 *Inventories*.

One way is to record the purchase discount as a credit to discount received, as demonstrated in the journal entry on the previous page. Under this method, the discount is considered to be related to the management of accounts receivable and therefore is treated as revenue. Another way is to credit inventory by the amount of the discount when an invoice is paid within the discount period. Entities justify this approach by arguing that inventory is recorded at cost and, by paying within the discount period, the buyer has reduced its cost.

The recording of a settlement discount as a credit to inventory is illustrated below, using the same information as given for the 12 May payment where Sauk Stereo pays the balance due of \$3500 (gross invoice price of \$3800 less purchase returns and allowances of \$300) and the settlement discount is \$70 (3500 × 2%). The entry to record the payment is:

A	=	L	+	E
−3430		−3500		
−70				

May	12	Accounts payable	3 500	
		Cash		3 430
		Inventory		70
		(To record payment within discount period)		

Companies such as Woolworths Limited and Harvey Norman Holdings Limited treat settlement discounts as a credit to inventory in their 2013 annual reports. Given that both approaches are acceptable, which approach do you prefer — the credit to discount received or the credit to inventory? Why?

Note: When completing the exercises and problems at the end of the chapters, use only the first method illustrated. That is, record all purchase discounts as a credit to discount received unless the question explicitly requires you to record the purchase discount as a credit to inventory.

Helpful hint

So as not to miss settlement discounts, unpaid invoices should be filed by due dates. This procedure helps the purchaser remember the discount date, prevents early payment of bills, and maximises the time that cash can be used for other purposes. With computerised accounting systems, payments can be automated to ensure they are made by due dates.

Businesses can save money by taking advantage of settlement discounts, provided that they are not paying more in interest than they are saving with the discount. For example, Sauk Stereo could pay \$3430 on 12 May (taking the discount) or pay \$3500 on 4 June, 23 days later.

Another way of looking at the discount is to say that it would cost Sauk Stereo an additional \$70 to have the use of the money (\$3430) for another 23 days. How does \$70 (or 2%) interest for 23 days compare with the interest that Sauk Stereo would pay for money it borrows from the bank? We can convert the 2% for 23 days to an annual interest rate as follows:

$$\frac{365}{23} \times 2\% = 31.7\% \text{ p.a.}$$

Thus, unless Sauk Stereo pays more than 31.7% interest p.a. for the money that it uses (such as a bank overdraft), it will save money by taking advantage of the discount. Obviously, it would be better for Sauk Stereo to borrow money at the prevailing bank interest rates of 6% to 10% than to lose the discount.

Helpful hint

In the records of the seller, the sale of inventory would be recorded in the amount of \$4500. Hence, the \$500 trade discount is not recorded in the records of either the buyer or the seller.

Trade discounts

Trade discounts, unlike settlement discounts, do not depend on early payment of the amount due and are not recorded in the records of either the buyer or the seller. Trade discounts are disclosed on the sales invoice as a percentage reduction in the list price of the inventories sold. For example, assume that a seller quotes a list price of \$500 per item and allows a trade discount of 10% for buyers who purchase in large quantities (in this example, assume that 8 items or more are considered a large purchase). If the buyer purchases 10 items of inventory on 19 May, taking a trade discount of 10%, the invoice price would be \$4500 (10 × \$500 × 90%). The purchase would be recorded in the buyer's records as:

A	=	L	+	E
+4500		+4500		

May	19	Inventory	4 500	
		Accounts payable		4 500
		(To record purchase of inventory on account with a trade discount of \$500)		

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. How does the measurement of profit in a merchandising business differ from that in a service business?
2. In what ways is a perpetual inventory system different from a periodic system?
3. Under the perpetual inventory system, what entries are made to record purchases, purchase returns and allowances, discounts received, and freight costs?

RECORDING SALES OF INVENTORIES

LEARNING OBJECTIVE 3
Explain the recording of sales revenues under a perpetual inventory system.

Sales revenues, like service revenues, are recognised (recorded) when the inflow of economic benefits is probable and can be measured reliably. There are set criteria for the recognition of revenue for the sale of goods under IFRS 15 *Revenue from Contracts with Customers*. Please refer to page 157 to review these criteria. Typically, revenue recognition occurs when the goods are transferred from the seller to the buyer. At this point the sales transaction is completed, a claim arises against the buyer, and the sales price has been established.

Sales may be made on credit or for cash. Every sales transaction should be supported by a source document that provides written evidence of the sale. Cash register tapes or cash receipts provide evidence of cash sales. A **sales invoice**, like the one that was shown in figure 4.4 (p. 225), provides support for a credit sale. The original copy of the invoice goes to the customer, and a copy is kept by the seller for use in recording the sale. The invoice shows the date of sale, customer name, total sales price and other relevant information.

Under a perpetual inventory system, two entries are made for each sale. The first entry records the sale: assuming a cash sale, cash is increased by a debit, and sales is increased by a credit at the selling (invoice) price of the goods. The second entry records the cost of the inventory sold: cost of sales is increased by a debit, and inventory is decreased by a credit for the cost of those goods. For example, assume that on 5 May PW Audio Supply Ltd made cash sales of $2200, and that the goods sold cost $1400. The entries to record the day's cash sales are as follows:

May	5	Cash	2 200	
		Sales		2 200
		(To record daily cash sales)		
	5	Cost of sales	1 400	
		Inventory		1 400
		(To record cost of inventories sold for cash)		

A	=	L	+	E
+2200				+2200

A	=	L	+	E
−1400				−1400

For credit sales (1) accounts receivable is increased and sales is increased, and (2) cost of sales is increased and inventory is decreased. As a result, the inventory account will show at all times the amount of inventory that should be on hand. To illustrate a credit sales transaction, PW Audio Supply Ltd's sale of $3800 on 5 May to Sauk Stereo (see figure 4.4, p. 225) is recorded as follows (assume the goods sold cost PW Audio Supply Ltd $2400):

May	5	Accounts receivable	3 800	
		Sales		3 800
		(To record credit sale to Sauk Stereo per invoice no. 731)		
	5	Cost of sales	2 400	
		Inventory		2 400
		(To record cost of inventories sold on invoice no. 731 to Sauk Stereo)		

A	=	L	+	E
+3800				+3800

A	=	L	+	E
−2400				−2400

Helpful hint

The sales account is credited only for sales of goods held for resale. Sales of assets not held for resale, such as equipment or land, are accounted for separately.

DECISION MAKING

For internal decision-making purposes, businesses may use more than one sales account. For example, JB Hi-Fi keeps separate sales accounts for its various computers and home theatre products, and PW Audio Supply Ltd may decide to keep separate sales accounts for its sales of TV sets and DVD players. By using separate sales accounts for major product lines, rather than a single combined sales account, management can monitor sales trends more closely and respond in a more appropriate strategic manner to changes in sales patterns. For example, if TV sales are increasing while DVD player sales are decreasing, the business should re-evaluate both its advertising and pricing policies on each of these items to ensure they are the best possible. However, on its statement of profit or loss, presented to outside investors, a retail entity would normally report only total sales revenue as part of an aggregate revenue figure.

SALES RETURNS AND ALLOWANCES

Helpful hint

Returned goods are debited to Inventory *only* if they are not damaged or faulty.

We now look at purchase returns and allowances from the supplier's perspective. When a customer returns goods, the seller may give a cash refund or a credit note. A credit note reduces the amount owed by the customer. Cash refunds and credit notes are recorded as **sales returns and allowances** in the records of the seller. PW Audio Supply Ltd's entries to record a credit for returned goods from sales to Sauk Stereo that are not faulty or damaged involve (1) an increase in sales returns and allowances and a decrease in accounts receivable at the $300 selling price, and (2) an increase in inventory (assume a $140 cost) and a decrease in cost of sales as follows:

A	=	L	+	E
−300				−300

A	=	L	+	E
+140				+140

May	8	Sales returns and allowances	300	
		Accounts receivable		300
		(To record credit granted to Sauk Stereo for returned goods)		
	8	Inventory	140	
		Cost of sales		140
		(To record cost of goods returned)		

If PW Audio Supply Ltd gave Sauk Stereo a cash refund, the cash account would be credited for $300 instead of accounts receivable. All other entries would be the same. The effect on the accounting equation would be the same because both cash and accounts receivable are asset accounts.

Alternative terminology

Inventory write-down expense can also be referred to as *inventory write-off expense, damaged inventory expense* or *obsolete inventory expense.*

Let's assume that the goods returned were, in fact, faulty. Faulty and damaged goods cannot be returned to inventory for resale. PW Audio Supply Ltd's entries to record a credit for faulty goods returned would involve (1) an increase in sales returns and allowances and a decrease in accounts receivable (or cash if a refund is given) at the $300 selling price, and (2) an increase in an expense account called **inventory write-down** and a decrease in cost of sales ($140 cost) as follows:

A	=	L	+	E
−300				−300

A	=	L	+	E
				−140
				+140

May	8	Sales returns and allowances	300	
		Accounts receivable		300
		(To record credit granted to Sauk Stereo for returned goods)		
	8	Inventory write-down	140	
		Cost of sales		140
		(To record cost of faulty goods returned)		

Helpful hint

Remember that the increases, decreases and normal balances of contra accounts are the opposite of the accounts to which they correspond.

The inventory write-down account can also be used to record inventory shrinkage (e.g. evaporation of inventories such as ink or fuel), inventory waste (e.g. offcuts of fabric or building materials), inventory obsolescence or inventory that has been lost or stolen.

Sales returns and allowances is a **contra revenue account** to sales. The normal balance of sales returns and allowances is a debit. A contra account is used, instead of debiting sales, to separately identify in the accounts and in the statement of profit or loss the amount of sales returns and allowances. This information is important to management as it may impact on decisions made with regards to inventory. For example, if excessive returns are due to inferior inventory, then management may decide to source their products or raw materials in making those products from different suppliers. Excessive returns and allowances may not be indicative only of inferior inventories, but could be due also to inefficiencies in filling orders, errors in invoicing customers or mistakes in delivery and shipment of goods. Moreover, a decrease (debit) recorded directly to sales would obscure the relative importance of sales returns and allowances as a percentage of sales. It also could distort comparisons between total sales in different accounting periods.

DECISION MAKING

APPLICATION IN BUSINESS

Investor perspective

From a shareholder's point of view, inventories are considered to be valuable assets of a business. This is because they can be sold at a profit and profits can lead to more dividends for shareholders. However, sometimes, due to changes in demand, inventory can be classified as obsolete, where the items are unable to be sold or must be sold below cost. This can be very expensive for larger firms and result in losses in the thousands or millions. For example, in Harvey Norman Holdings' notes to the 2013 financial statements it was reported that current inventories of finished goods totalled $249 490 000 and the provision for obsolescence totalled $4 497 000. This resulted in a net figure for current inventories of $244 993 000. So, purchasing the right type and amount of inventory is imperative to avoid large losses through obsolete stock.

Source: Based on information from Harvey Norman Holdings Ltd's web site, www.harveynorman.com.au, and the 2013 annual report.

SALES DISCOUNTS

DECISION MAKING

As mentioned in our discussion of purchase transactions, the seller may offer the customer a settlement discount for the prompt payment of the balance due. Like a purchase discount, a sales discount is based on the invoice price less returns and allowances, if any. Businesses decide on the percentage of discount to be offered to customers based on many factors, including rewarding valuable customers and encouraging speedy payment. Businesses decide on the amount of discount to offer based on how much cash they are willing to forgo while ensuring that the discount provides enough incentive for the customer to pay within the discount period. The discount allowed account is increased (debited) for discounts that are taken by customers. The entry by PW Audio Supply Ltd to record the cash receipt on 12 May from Sauk Stereo within the discount period is:

May	12	Cash	3 430	
		Discount allowed	70	
		Accounts receivable		3 500
		(To record collection within 2/7, n/30 discount period from Sauk Stereo)		

A	=	L	+	E
+3430				−70
−3500				

If Sauk Stereo pays the amount owing outside the discount period, PW Audio Supply Ltd increases cash for $3500 and decreases accounts receivable for the same amount on the day payment is received.

Discount allowed is reported as an expense in the statement of profit or loss and provides information to management on the amount of discount taken by customers. Sellers offer customers settlement discounts to encourage early payment of the account and have the cash available for use by the business before the end of the credit period.

Helpful hint

A sales discount, recorded as discount allowed in the seller's accounts, is a mirror reflection of the settlement discount, recorded as discount received in the buyer's accounts.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. Under a perpetual inventory system, what are the two entries that must be recorded at the time of each sale?
2. Why is it important to use the sales returns and allowances account, rather than simply reducing the sales account, when goods are returned?

>> DO IT

On 5 September, De La Hoya Ltd buys inventories on account from Junot Ltd. The selling price of the goods is $1500, and the cost to Junot Ltd was $800. Due to an error in filling the order, incorrect goods with a selling price of $200 and a cost of $80 are returned on 8 September. Prepare journal entries to record these transactions for each entity.

REASONING: Under a perpetual inventory system the purchaser will record goods at cost. The seller will record both the sale and the cost of goods sold at the time of the sale. When goods are returned, the purchaser will directly reduce inventory, but the seller records the return in a contra account, sales returns and allowances.

SOLUTION:

De La Hoya Ltd (The purchaser)

Sept. 5	Inventory	1 500	
	Accounts payable		1 500
	(To record goods purchased on account)		
Sept. 8	Accounts payable	200	
	Inventory		200
	(To record return of incorrect goods)		

Junot Ltd (The seller)

Sept. 5	Accounts receivable	1 500	
	Sales		1 500
	(To record credit sale)		
5	Cost of sales	800	
	Inventory		800
	(To record cost of goods sold on account)		
Sept. 8	Sales returns and allowances	200	
	Accounts receivable		200
	(To record credit granted for receipt of returned goods)		
8	Inventory	80	
	Cost of sales		80
	(To record cost of goods returned)		

Helpful hint

The goods returned in the example are *incorrect*, not faulty or damaged, so they are returned into inventory by debiting the Inventory account. Recall that damaged goods are not returned to inventory but debited to the inventory write-down expense account.

LEARNING OBJECTIVE 4

Prepare a fully classified statement of profit or loss.

STATEMENT OF PROFIT OR LOSS PRESENTATION

A fully classified statement of profit or loss generated for internal use contains a number of main components including sales revenue, gross profit, operating expenses and profit. Note that income tax expense is reported in a separate section of the statement and is deducted from profit before tax to determine profit after tax. The following discussion provides additional information about some of the main components of a fully classified statement of profit or loss as shown in figure 4.6 (p. 234).

SALES REVENUE

The statement of profit or loss for a merchandising business typically presents gross sales revenue for the period and provides details about deductions from that total amount. Sales returns and allowances, a contra revenue account, is deducted from sales in the statement of profit or loss to arrive at **net sales**. The sales revenue section of the statement for PW Audio Supply Ltd is shown in figure 4.5.

PW AUDIO SUPPLY LTD Statement of profit or loss (extract)	
Sales revenue	
Sales	$ 480 000
Less: Sales returns and allowances	(20 000)
Net sales	**$460 000**

Figure 4.5 Statement of profit or loss presentation of sales revenue section

GROSS PROFIT

Cost of sales is deducted from sales revenue to determine **gross profit**. In 2013, JB Hi-Fi reported a gross profit of $712.2 million (revenue of $3308.4 million less cost of sales of $2596.2 million).

Alternative terminology

Gross profit is sometimes referred to as *gross margin*.

On the basis of the sales data presented in figure 4.5 above (net sales of $460 000) and the cost of sales (assume a balance of $316 000), the gross profit for PW Audio Supply Ltd is $144 000, calculated as follows:

Net sales	$ 460 000
Less: Cost of sales	(316 000)
Gross profit	**$144 000**

It is important to understand what gross profit is — and what it is not. Gross profit is the surplus of sales revenue over the cost of sales. It is *not* a measure of the overall profit of a business because operating expenses have not been deducted. Nevertheless, the amount and trend of gross profit are closely watched by management and other interested parties. Comparisons of current gross profit with gross profit in previous periods and with gross profit of other businesses in the industry indicate the effectiveness of a business's purchasing and pricing policies.

OTHER REVENUE

Revenue items other than sales revenue are included *after* gross profit. **Other revenue** includes items such as rent revenue and discount received. The other revenue for PW Audio Supply Ltd (see figure 4.6, overleaf) consists of:

Rent revenue	$12 000
Interest revenue	9 000
Discount received	3 000

OPERATING EXPENSES

Operating expenses are the next component in measuring profit for a merchandising business. These expenses are similar in merchandising and service businesses. At PW Audio Supply Ltd, operating expenses were $125 000.

Subgrouping of operating expenses

In a fully classified statement of profit or loss, operating expenses are subdivided into selling, administrative and financial expenses (as shown in the statement in figure 4.6). *Selling expenses* are those associated with making sales. They include advertising expenses and storage costs as well as expenses of completing the sale, such as delivery and shipping expenses. *Administrative expenses* relate to the operating activities of the general, accounting and personnel offices. They include office salaries expense and rent expense. *Financial expenses* are those associated with the financing of the firm's operations and debt collection. They include interest expense and discount allowed.

In figure 4.6 (overleaf) we have provided a fully classified statement of profit or loss of PW Audio Supply Ltd.

Alternative terminology

Administrative expenses are sometimes called *general expenses*.

Note: For homework problems, the fully classified form of the statement of profit or loss should be used unless the requirements state otherwise.

Helpful hint

This is an internal report. External reports differ in their presentation style to internal reports, as illustrated in chapter 1.
What is and is not reported?
1. Did the entity sell on credit? Yes, it had discount allowed.
2. Did the entity take all available purchase discounts? Don't know; discounts *not* taken are not reported.

PW AUDIO SUPPLY LTD
Statement of profit or loss
for the year ended 30 June 2017

Operating revenue			
Sales revenue			
Gross sales revenue			$ 480 000
Less: Sales returns and allowances			(20 000)
Net sales revenue			460 000
Less: **Cost of sales**			(316 000)
Gross profit			144 000
Other operating revenue			
Rent revenue		$12 000	
Interest revenue		9 000	
Discount received		3 000	24 000
			168 000
Operating expenses			
Selling expenses			
Sales salaries and commission expense	$45 000		
Advertising expense	16 000		
Freight-out	8 000		
Rent expense—store space	7 000		
Depn expense—store equipment	5 000	81 000	
Administrative expenses			
Office salaries expense	19 000		
Electricity expense	4 000		
Rent expense—office space	10 000		
Depn expense—office equipment	3 000		
Insurance expense	2 000	38 000	
Financial expenses			
Interest expense	2 000		
Discount allowed	4 000	6 000	
			(125 000)
Profit before income tax			43 000
Less: Income tax expense			(12 900)
Profit after tax			$ 30 100

Figure 4.6 Fully classified statement of profit or loss

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. Under the perpetual inventory system, what entries are made to record sales, sales returns and allowances, and discount allowed?
2. How are sales and contra revenue accounts reported in the statement of profit or loss?
3. What is the significance of gross profit?

LEARNING OBJECTIVE 5

Use ratios to analyse profitability.

EVALUATING PROFITABILITY

GROSS PROFIT RATIO

An entity's gross profit may be expressed as a percentage by dividing the amount of gross profit by net sales; this is referred to as the **gross profit ratio**. For PW Audio Supply Ltd the gross profit ratio is 31.3% (Gross profit $144 000 ÷ Net sales $460 000). The gross profit *ratio* is generally considered to be more informative than the gross profit *amount* because it expresses a more meaningful relationship between gross profit and net sales. For example, a gross profit amount of $1 000 000 may sound impressive. But if it was the result of sales of $100 000 000, the business's gross profit ratio was only 1%. Such a low gross profit ratio is acceptable in only a few industries.

A decline in a business's gross profit ratio might have several causes. The business may have begun to sell products with a lower 'mark-up' — for example, budget blue jeans versus designer blue jeans. Increased competition may have resulted in a lower selling price. Or the business may be forced to pay higher prices to its suppliers without being able to pass these costs on to its customers.

In chapter 1 we introduced ratio analysis using 2013 data from Nick Scali Limited and Fantastic Holdings Limited to illustrate how to calculate and interpret profitability, liquidity and solvency ratios. In order to continue our analysis and understanding of these companies, the gross profit ratios are presented in figure 4.7.

$$\text{Gross profit ratio} = \frac{\text{Gross profit}}{\text{Net sales}}$$

($ in thousands)	2013	2012
Fantastic Holdings	$\frac{\$209\,308}{\$445\,190} = 0.47$ or 47%	$\frac{\$214\,747}{\$445\,760} = 0.48$ or 48%
Nick Scali	$\frac{\$77\,506}{\$127\,431} = 0.61$ or 61%	$\frac{\$66\,508}{\$109\,391} = 0.61$ or 61%

Figure 4.7 Gross profit ratio

Fantastic Holdings reported a marginal (0.1%) decrease in sales from $445 760 000 in 2012 to $445 190 000 in 2013 and a small (2.5%) decrease in gross profit from $214 747 000 in 2012 to $209 308 000 in 2013. This resulted in a small decrease of 1% in the gross profit ratio over the 2 years. The company attributed this drop in sales and profit to a challenging year in difficult retail trading conditions. Due to fixed and rising costs, the reduction in expected sales had a larger than normal impact on profit. In contrast, Nick Scali reported a substantial (16.5%) increase in sales from $109 391 000 in 2012 to $127 431 000 in 2013 and the same level of increase (16.5%) in gross profit from $66 508 000 in 2012 to $77 506 000 in 2013. As a consequence, the gross profit ratio remained constant at 61% over the 2 years. Nick Scali attributed this relatively high profit margin to record sales revenue from newly opened stores, an increase in marketing activity and careful selection of the product range and pricing for its furniture items.

Despite a challenging and competitive retail environment, Nick Scali achieved a gross profit ratio of 61% in 2013, which is significantly higher than Fantastic Holdings (47%). This comparison reveals that Nick Scali can command a larger mark-up on its furniture items than Fantastic Holdings. The difference may be explained by the fact that Fantastic Holdings prides itself as being the 'best value' company in the furniture market segment. Nick Scali, on the other hand, may be perceived by the marketplace as 'better quality' and is therefore able to command a higher mark-up on its furniture sales.

Potential investors, shareholders, lenders and other users are interested in evaluating a company's profitability when making decisions about providing resources to a company. For example, potential investors and lenders would have greater confidence in investing resources in a profitable company. One of the key measures of profitability is the gross profit. As shown in the decision-making toolkit overleaf, calculating the gross profit ratio using the gross profit and net sales data from financial statements assists users in determining whether the entity is maintaining an adequate margin between the selling price and the cost of inventory. A higher gross profit ratio suggests that the average margin between selling price and inventory cost is increasing. Management should take caution in determining an appropriate mark-up on inventory as too high a margin may result in lower sales.

DECISION MAKING

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Is management maintaining an adequate margin between the selling price and the cost of inventory?	Gross profit and net sales	$\text{Gross profit ratio} = \frac{\text{Gross profit}}{\text{Net sales}}$	Higher ratio suggests the average margin between selling price and inventory cost is increasing. Too high a margin may result in lower sales.

OPERATING EXPENSES TO SALES RATIO

A useful measure of operating expenses is the **operating expenses to sales ratio**. Over the last decade many entities have improved the efficiency of their operations, thus reducing the ratio of operating expenses to sales. As a consequence, they have increased their profitability. The record profits of many entities in the 1990s were achieved as much by reducing costs as by increasing revenues. The use of computers and changes in organisational structure have brought added efficiency. For example, one study of a thousand businesses that successfully re-engineered their warehouse operations by using new technologies found savings on labour costs averaging 25%. Epson Computers, for example, reported space savings of 50%, labour savings of 43%, and operating cost savings of 25% on their warehouses. Operating costs have been reduced to such low levels for so many entities that many investors believe further improvements in profits from cost reductions will be difficult to accomplish.

The ratios of operating expenses to sales for Fantastic Holdings and Nick Scali are presented in figure 4.8.

$$\text{Operating expenses to sales ratio} = \frac{\text{Operating expenses}}{\text{Net sales}}$$

($ in thousands)	2013	2012
Fantastic Holdings	$\frac{\$194\,104}{\$445\,190} = 0.44$ or 44%	$\frac{\$187\,031}{\$445\,760} = 0.42$ or 42%
Nick Scali	$\frac{\$60\,014}{\$127\,431} = 0.47$ or 47%	$\frac{\$53\,863}{\$109\,391} = 0.49$ or 49%

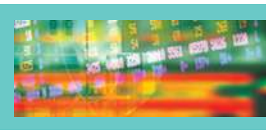
Figure 4.8 Operating expenses to sales ratio

DECISION MAKING

In 2013, Fantastic Holdings incurred 44 cents of operating costs for every dollar of sales, whereas Nick Scali incurred 47 cents of operating costs for every dollar of sales. These figures suggest that Fantastic Holdings is better at controlling its operating costs when compared with Nick Scali. It appears that Nick Scali is able to command a higher mark-up on its furniture sales, as evidenced by the higher gross profit margin ratio of 61% compared to Fantastic Holdings of 47%. This is, however, offset by the fact that Nick Scali incurs higher operating costs per dollar sales. This information is helpful for management by providing some insight into how future profits can be improved. One option for Nick Scali could be to review its operating costs and take measures to reduce where possible. By 2013, its operating expenses to sales ratio had decreased from 49% to 47%.

We will introduce other measures of operational efficiency, in terms of inventory management, in chapter 5.

In this chapter we have compared the gross profit ratios and operating expenses to sales ratios of Fantastic Holdings and Nick Scali — competitors in the retail furniture industry. Although such comparisons are vital to an analysis of various entities, we must alert you to one problem often encountered in such comparisons. Entities do not always classify revenues and expenses in the same way. For example, some entities recognise purchase settlement discounts as 'Other operating revenue' whereas for Harvey Norman Holdings purchase settlement discounts are recorded as a decrease in the cost of inventory. Both methods are permitted under Australian and New Zealand accounting standards as discussed on page 227. These differences will affect the cost of sales, the profit figures and any ratios calculated based on these numbers. So, understanding accounting policy differences is important when comparing entities.



APPLICATION IN BUSINESS

Investor perspective

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. How is the gross profit ratio calculated? What might cause it to decline?
2. What effect does improved efficiency of operations have on the operating expenses to sales ratio?

Another important measure of profitability is the operating expenses to sales ratio. By comparing the entity's operating expenses to net sales data from financial statements, users can determine whether management is effective in controlling operating costs. A higher operating expenses to sales ratio should be investigated to determine whether greater control of expenses is required by management.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Is management effective in controlling operating costs?	Net sales and operating expenses	Operating expenses to sales ratio $= \dfrac{\text{Operating expenses}}{\text{Net sales}}$	Higher ratio should be investigated to determine whether greater control of expenses is required.

USING THE DECISION-MAKING TOOLKIT

David Jones Limited is one of Australia's leading and oldest retailers with 35 department stores, two warehouse outlets and David Jones Online. The following financial data are derived from the 2013 financial statements of David Jones Limited for the 2012 and 2013 reporting periods (consolidated figures). Follow the instructions below and comment on profitability over the 2-year period.

($ in thousands)	**2013**	**2012**
Profit after income tax	$ 101 554	$ 101 103
Ending total assets	1 237 785	1 240 897
Beginning total assets	1 240 897	1 214 550
Sales	1 845 012	1 867 817
Cost of sales	1 147 968	1 167 987
Operating expenses	619 678	602 985

REQUIRED

(a) Using the details from the table, calculate the following components of David Jones's profitability for the years 2013 and 2012:
   i. Return on assets ratio
   ii. Profit margin ratio
   iii. Gross profit ratio
   iv. Operating expenses to sales ratio.

(b) Compare David Jones's gross profit ratio and operating expenses to sales ratio with the results for Fantastic Holdings and Nick Scali.

SOLUTION

(a)

David Jones Limited ($ in thousands)	2013	2012
Return on assets ratio		
Profit after income tax	$ 101 554	$ 101 103
Average total assets(i)	1 239 341	1 227 724
	8.2%	8.2%
Profit margin ratio		
Profit after income tax	101 554	101,103
Sales	1 845 012	1 867 817
	5.5%	5.4%
Gross profit ratio		
Gross profit(ii)	697 044	699 830
Sales	1 845 012	1 867 817
	37.8%	37.5%
Operating expenses to sales ratio		
Operating expenses	619 678	602 985
Sales	1 845 012	1 867 817
	33.6%	32.3%

(i) Average total assets = (Beginning total assets + Ending total assets)/2
(ii) Gross profit = Sales − Cost of sales

The return on assets ratio for David Jones remained constant at 8.2% from 2012 to 2013. This was due to a marginal increase (0.4%) in profit after income tax from $101 103 000 to $101 554 000 with a similar increase (0.9%) in average total assets between 2012 and 2013. The profit margin ratio increased slightly from 5.4% to 5.5% despite a drop in sales, which was down 1.2% on the prior year reflecting the challenging trading environment in 2013. The gross profit ratio increased slightly from 37.5% to 37.8% in 2013 despite a $22 805 000 decline in sales. The gross profit of $697 044 000 was impacted by a $9 100 000 charge related to the write down of inventory associated with the Dick Smith brand. The gross profit improvement is attributed to David Jones' ongoing focus on reducing the breadth and depth of discounting, and an improvement in inventory management. The operating expenses to sales ratio showed a similar increase from 32.3% to 33.6% over the 2-year period. This increase relates to higher employee costs, higher lease and occupancy costs and higher depreciation charges. The increase in lease and occupancy costs reflects the opening of the new Highpoint store and higher occupancy costs. The higher depreciation charge reflects the company's significant investment in technology in 2012 and 2013.

(b)

2013	David Jones	Fantastic Holdings	Nick Scali
Gross profit ratio	37.8%	47%	61%
Operating expenses to sales ratio	33.6%	44%	47%

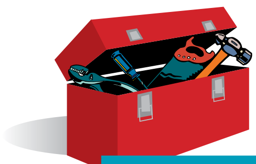
David Jones's gross profit ratio of 37.8% in 2013 is significantly lower than Fantastic Holdings (47%) and Nick Scali (61%), suggesting that, on average across all of its inventory items, it applies a lower mark-up on its goods across a more diverse range of products. However, David Jones's operating expenses to sales ratio of 33.6% suggests that it has greater control over its costs in comparison to Fantastic Holdings (44%) and Nick Scali (47%).

Source: Based on information from the Nick Scali Limited, Fantastic Holdings Limited and David Jones Limited 2013 annual reports from their web sites, www.nickscali.com.au, www.fantasticholdings.com.au and www.davidjones.com.au.

SUMMARY OF LEARNING OBJECTIVES

1 Identify the differences between a service business and a merchandising business.
Because of the presence of inventory, a retail business has sales revenue, cost of sales and gross profit. To account for inventory, a retail business must choose between a perpetual inventory system and a periodic inventory system.

2 Explain the recording of purchases under a perpetual inventory system.
The inventory account is debited for all purchases of inventories, and it is credited for purchase returns and allowances.



3 Explain the recording of sales revenues under a perpetual inventory system.
When inventory is sold, accounts receivable (or cash) is debited and sales is credited for the selling price of the inventories. At the same time, cost of sales is debited and inventory is credited for the cost of inventory items sold.

4 Prepare a fully classified statement of profit or loss.
A fully classified statement of profit or loss is an internal report which shows numerous steps in determining profit including the calculation of gross profit, other revenue, expenses classified by function into three categories — selling, administrative and financial expenses — and profit before and after income tax expense.

5 Use ratios to analyse profitability.
Profitability is affected by gross profit, as measured by the gross profit ratio, and by management's ability to control costs, as measured by the ratio of operating expenses to sales.

DECISION-MAKING TOOLKIT — A SUMMARY

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Is management maintaining an adequate margin between the selling price and the cost of inventory?	Gross profit and net sales	Gross profit ratio $= \dfrac{\text{Gross profit}}{\text{Net sales}}$	Higher ratio suggests the average margin between selling price and inventory cost is increasing. Too high a margin may result in lower sales.
Is management effective in controlling operating costs?	Net sales and operating expenses	Operating expenses to sales ratio $= \dfrac{\text{Operation expenses}}{\text{Net sales}}$	Higher ratio should be investigated to determine whether greater control of expenses is required.

APPENDIX THE GOODS AND SERVICES TAX

LEARNING OBJECTIVE 6
Understand the basic process and main features of the goods and services tax (GST).

Generally, businesses have to deal with a variety of taxes, both direct and indirect. In previous chapters, we have introduced company income tax which is a direct tax on income. The focus of this appendix is the **goods and services tax (GST)** which is an indirect tax, i.e. a tax on some other measure of activity rather than directly on income. In Australia, the government introduced the GST as part of its tax reform package which took effect on 1 July 2000. The GST is a value-added tax, as explained below. Value-added taxes are also levied in other countries, e.g. in New Zealand and Canada where it is also called the GST, and in the United Kingdom where it is called the VAT (value-added tax).

OVERVIEW OF THE GST PROCESS

The GST is a **value-added tax** which means that the tax is levied on the *value added* by a business at each stage in the production and distribution chain, i.e. at each stage from the initial purchase of supplies for production to the final stage where goods and services are provided to consumers. For example, the price paid by a furniture manufacturer for timber purchased includes GST, the price paid by a furniture retailer to the furniture manufacturer includes GST and the price paid by a consumer for goods purchased from the furniture retailer also includes GST.

A business is defined broadly in the legislation to include any profession, trade, religious institution and charitable organisation. This makes the GST a broad-based tax, i.e. the GST is included in the selling price of most goods and services at each stage in the production and distribution chain. Goods and services which attract a GST are referred to as **taxable supplies**. In Australia, the rate levied on taxable supplies is 10% and in New Zealand it increased from 12.5% to 15% on 1 October 2010.

INTERNATIONAL NOTE

In New Zealand, GST-free supplies are called *zero rated supplies* and input taxed supplies are called *exempt supplies*.

There are two exceptions where the consumer does not pay GST — **GST-free supplies** and **input taxed supplies**. GST-free supplies include basic food, education, health services and exported goods, which are non-taxable under GST legislation. Input taxed supplies include financial services and residential rents. The difference between GST-free supplies and input taxed supplies is that the supplier can obtain an input tax credit from the taxation authority for GST-free supplies but cannot obtain a credit for input taxed supplies.

Helpful hint

The GST a business pays is received back from the ATO, thus GST paid is an asset (GST receivable). On the other hand, the GST a business collects is a liability (GST payable) because the GST is collected on behalf of the ATO.

It is important to note that, even though GST may be paid on taxable supplies at each stage in the commercial chain, in most cases it is the final consumer who bears the cost. That is, if the supplier (seller) includes GST in the final selling price, the GST is imposed on the final private consumption of goods and services, so the supplier does not bear the cost of the GST but effectively acts as a collector of GST for the **taxation authority**. The Australian Taxation Office (ATO) and the New Zealand Inland Revenue (IR) are the appropriate authorities in Australia and New Zealand. In relation to taxable supplies, registered suppliers receive a credit (called an **input tax credit**) for all the GST paid on goods or services purchased in the commercial chain. At regular intervals (monthly, quarterly or yearly) businesses must report the amount of GST paid and collected during a period and discharge any GST liability owing to the taxation authority. The information is provided by filling in a report called a **business activity statement (BAS)** (called a GST return in New Zealand). Thus, the accounting system of the business must provide all the information necessary to complete this return.

In summary, GST is generally collected by a business from its customers and clients when goods or services are supplied (taxable supplies). The business also pays GST on goods and services it purchases (creditable acquisitions) from its suppliers for which it may claim a tax credit. The difference between the total amount of GST the business collects on sales and the total it pays on purchases is remitted to the taxation authority at regular intervals along with the BAS. If the GST paid is greater than the GST collected, the taxation authority refunds the amount to the business.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. At which stage(s) of the production and distribution chain is GST paid and who ultimately bears the cost of the GST?
2. What type of tax is the GST?

Each of the various stages in the process is explained on the following pages.

A SIMPLE CASE

A timber merchant sells timber to a furniture manufacturer for $220 (this amount includes 10% GST). The furniture manufacturer then makes a table and sells it to Fabulous Furniture Ltd, a furniture retailer, for $440 (including GST). The retailer sells the table to a consumer for $550 (including GST). How is the GST remitted to the taxation authority when it has been collected at various stages in the supply and distribution chain? Let's look at the effects of GST in this case.

The total amount of GST that needs to be paid to the taxation authority is $50, i.e. the amount of GST levied on the final consumer. The final sale is to the consumer who buys the table for $550 (including GST). To calculate the amount of GST levied, we divide the selling price of $550 by 11. The answer is $50 which represents the 10% GST included in the price. This is the total amount owing to the taxation authority. The $50 is collected by the taxation authority as described below and opposite.

The timber merchant

The timber merchant sells timber to the furniture manufacturer for $220 (including $20 GST), so the timber merchant collects $20 of GST from the manufacturer on behalf of the taxation authority. As no GST has been *paid* by the merchant, the whole amount is remitted to the taxation authority. The taxation authority now has $20.

The manufacturer

The manufacturer sells $440 worth of goods to the retailer (including $40 GST) and so the manufacturer collects $40 of GST from the retailer on behalf of the taxation authority. As the manufacturer has already paid $20 GST to the timber merchant, the manufacturer remits only the difference between the amount collected and the amount paid to the taxation authority — $20 — thus the taxation authority now has $40 ($20 from the timber merchant and $20 from the manufacturer).

The retailer

The retailer sells $550 worth of goods to a customer (including $50 GST) and so the retailer collects $50 GST from the consumer on behalf of the taxation authority. The retailer has already paid $40 GST to the manufacturer. Thus, the retailer need remit only $10 to the taxation authority. Once this is remitted, the taxation authority has the final $10 of the $50 GST.

ACCOUNTING FOR GST

LEARNING OBJECTIVE 7
Complete journal entries to record GST.

The basic journal entries used by businesses to record GST transactions are demonstrated in this section. For the purposes of demonstrating the recording it will be assumed that the accrual (non-cash) basis is used for accounting and GST purposes. The transactions will be demonstrated using general journals.

To record the GST two separate accounts will be used, one for GST collected and one for GST paid. However, some businesses prefer to use one GST clearing account rather than two separate accounts. The debits to the GST clearing account represent the GST paid and the credit to the GST clearing account represents the GST collected. The GST clearing account could be an asset or a liability, depending on whether its balance represents an amount owing to or owing from the taxation authority.

PURCHASING INVENTORY

Roger Retailer (who uses a perpetual inventory system) purchases 10 tables on credit from the manufacturer for $440 each (including $40 GST per item).

Inventory (10 × $400)	4 000	
GST paid (an asset account)	400	
Accounts payable		4 400
(To record purchase of furniture from the manufacturer)		

A	=	L	+	E
+4000		+4400		
+400				

Note that the $400 debit to the GST paid account represents an asset, a future economic benefit for the firm, as this amount can be offset against any future GST liability owing to the taxation authority. The inventory is recorded net of GST, as the $400 is not part of the cost of acquiring inventory. The full amount is payable to the manufacturer, including the GST, as the manufacturer acts as a collecting agent for the taxation authority.

Helpful hint
In a periodic system, the debit is to purchases not to inventory.

PURCHASES RETURNS

Roger Retailer ordered the incorrect quantity and returned 3 of the tables to the manufacturer and received an adjustment credit note from the manufacturer. The tables originally cost $440 each (including $40 GST per item).

Accounts payable	1 320	
Inventory (3 × $400)		1 200
GST paid (an asset account)		120
(To record return of furniture to the manufacturer)		

A	=	L	+	E
−1200	=	−1320		
−120				

Note that the effect of the purchase return is the reverse of the purchase. Inventory and the GST paid accounts are reduced and the amount owing to the supplier is now only \$3080 (\$4400 − \$1320). The balance of the GST paid account is now the \$280 debit. The inventory balance is \$2800 (7 tables × \$400).

SELLING INVENTORY

Roger Retailer sells 5 tables on credit to a customer, who was buying the goods for family members, for \$550 including \$50 GST. Credit terms of 2% cash discount apply if the account is settled within 10 days from date of invoice, and the amount is due by 30 days.

A	=	L	+	E
+2750		+250		+2500

Accounts receivable	2 750	
GST collected (a liability account)		250
Sales (5 × \$500)		2 500
(To record sale of furniture to a customer)		

A	=	L	+	E
−2000				−2000

Cost of sales	2 000	
Inventory (5 × \$400)		2 000
(To record the cost of inventories sold)		

The \$250 GST collected represents an amount owing to the taxation authority based on GST collected. The sales account is credited only for \$2500 net of the GST, the \$250 GST is not sales revenue but was collected on behalf of the taxation authority. A debit of \$2750 (5 × \$550) is made to accounts receivable to recognise amount due from the customer. When the goods are sold an entry is made to record the cost of sales. This does not involve GST as the inventory is recorded net of any GST.

SALES RETURNS AND ALLOWANCES

The next day the customer returned one of the tables as they realised they needed only 4 of the tables purchased the day before. Roger Retailer issued an adjustment note and credited their account.

A	=	L	+	E
−550		−50		−500

Sales returns and allowances	500	
GST collected (a liability account)	50	
Accounts receivable		550
(To record sales return of furniture from a customer)		

A	=	L	+	E
+400				+400

Inventory	400	
Cost of sales		400
(To record the cost of goods returned)		

The \$50 GST collected represents an amount which is no longer owed to the taxation authority. The sales account is debited only for \$500 as the original sales transaction was net of GST. A credit of \$550 is made to accounts receivable to recognise amount no longer due from the customer. As the goods were returned into inventory, inventory is increased and cost of sales decreased, again net of any GST as the asset inventory is recorded net of the GST paid.

SETTLEMENT DISCOUNT

A week later Roger Retailer's customer wishes to settle their account. The amount owing from the original sale of 5 tables less the 1 table returned is \$2200. The terms of the sale was a settlement discount of 2% granted if the customer paid within 10 days. So the amount the customer will pay is \$2156 (the \$2200 less 2% (\$44)). The original supply due of \$2200 includes \$200 for the GST collected from the customer to be remitted by Roger Retailer to the taxation authority. As a settlement discount was offered and taken by the customer the GST collected (liability) will need to be adjusted. Roger Retailer will not be required to issue an adjustment as the original tax invoice is sufficient evidence. Therefore the discount given of $44 is split $4 against the GST collected account ($200 × 2%) and the $40 is the discount allowed expense.

Cash ($2200 × 98%)	2 156	
Discount allowed ($2000 × 2%)	40	
GST collected ($200 × 2%)	4	
Accounts receivable		2 200
(To record payment of the account by the customer within the discount period)		

A	=	L	+	E
−2200		−4		−40
+2156				

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

In recording GST transactions, a business can use the following accounts: GST clearing, GST paid and GST collected. Explain the nature of each account and how it is used to record collections and payments of GST.

>> DO IT

The preceding illustration demonstrated the purchase and sale transactions for Roger Retailer. Assume Roger Retailer paid to the manufacturer the balance owing and was entitled to claim a 5% settlement discount. Record the journal entry to pay the amount owing to the manufacturer (supplier).

REASONING: Using the same logic as illustrated for discount allowed, similarly the discount received by Roger Retailer will need to be adjusted for the input tax credits not available as Roger Retailer paid to their supplier the amount per the invoice less the discount amount. The amount owing to the supplier is the original purchase of 10 tables ($4400) less the purchase return of 3 tables ($1320). The amount owing is $3080. This amount is subject to a 5% discount, so $2926 is payable. The amount of GST paid in the balance owing is $280 (7 tables × $40) or $3080 ÷ 11 = $280. So the increasing adjustment is $280 × 5% = $14. The discount revenue is $140 ($3080 × 5% × 10 ÷ 11).

SOLUTION:

Accounts payable	3 080	
Discount received*		140
GST paid		14
Cash		2 926
(To record payment of the account by the Roger Retail within the discount period)		

A	=	L	+	E
−2926		−3080		+140
−14				

*Discount revenue is often credited to inventory to reduce the cost of inventory purchased.

REMITTING GST TO THE TAXATION AUTHORITY

At the end of each taxation reporting period, the business is required to report to the taxation authority and pay the GST liability. Assume the GST collected is $4000 and the GST paid is $3000. This will leave a net balance owing to the tax authority of $1000 which is remitted. If the amount of GST paid is greater than the amount of GST collected, a refund is paid to the business.

Continuing the example above for Roger Retailer to illustrate requires a debit to GST Collected for the total amount of GST collected during the period (this sets the liability account to nil); a credit to the GST paid account for the total GST paid for the reporting period; and a debit to cash, which is the refund due from the taxation authority. The GST paid balance is $266 ($400 − $120 − $14) and the GST collected is $196 ($250 − $50 − $4).

A	=	L	+	E
−266		−196		
+70				

Account	Debit	Credit
GST collected (a liability account)	196	
Cash	70	
GST paid (an asset account)		266
(To record refund of GST owing from the taxation authority)		

If the amount collected exceeds the paid collected during a period, then a different entry would be recorded. For example, let's assume that during the reporting period a service firm collected $200 GST from customers and paid $160 GST to suppliers — the amount paid to the taxation authority would be $40. This would be recorded as follows:

A	=	L	+	E
−160		−200		
−40				

Account	Debit	Credit
GST collected (a liability account)	200	
GST paid (an asset account)		160
Cash		40
(To record payment of GST paid to taxation authority)		

Helpful hint

The business could initially record a receivable for the amount owing from the taxation authority. Then, once the refund is actually received, the business would debit cash and credit the receivable.

The accumulated amounts of GST collected and GST paid in each taxation reporting period are cleared by the payment of the GST to the taxation authority. In the next period the GST collected and GST paid accounts accumulate amounts for that taxation reporting period.

Some businesses prefer to use one GST clearing account rather than two separate accounts — one for GST collected and one for GST paid. The GST clearing account could be an asset or a liability, depending on whether its balance represents an amount owing to or owing from the taxation authority. Typically, the GST clearing account is a liability account because most businesses collect more GST from customers than they pay to suppliers.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

In recording GST transactions, a business can use the following accounts — GST clearing, GST paid, GST collected. Explain the nature of each account and how it is used to record collections and payments of GST.

>> DO IT

Games Mania made sales of $11 000 (including GST) and purchases of $7700 (including GST) in the quarter ending December 2017. All transactions were on credit and all purchases and sales were subject to GST. Record the relevant transactions to record the collection of GST, payment of GST and the discharge of the liability to the taxation authority.

SOLUTION:

A	=	L	+	E
+7000		+7700		
+700				

A	=	L	+	E
+11 000		+1000		+10 000

A	=	L	+	E
−700		−1000		
−300				

Account	Debit	Credit
Inventory	7 000	
GST paid (an asset account)	700	
Accounts payable		7 700
(To record purchase of games disc)		
Accounts receivable	11 000	
GST collected (a liability account)		1 000
Sales		10 000
(To record sales of games disc to customers)		
GST collected (a liability account)	1 000	
GST paid (an asset account)		700
Cash		300
(To record payment of GST owing to taxation authority)		

SUMMARY OF LEARNING OBJECTIVES FOR APPENDIX

6 Understand the basic process and main features of the goods and services tax (GST). The GST is essentially a 10% (12.5% increased to 15% from 1 October 2010 in New Zealand) value-added tax imposed on most goods and services. The tax is paid at each stage in the production and supply chain, but it is the final consumer who bears the cost. Businesses that supply goods and services are generally eligible for a credit from the taxation authority on the tax paid. Suppliers essentially act as tax collectors for the taxation authority. The difference between how much GST a business has collected and paid determines whether the business has a GST liability to pay to the taxation office or will receive a refund from the taxation authority.

7 Complete journal entries to record GST. GST included in amounts paid to suppliers is debited to a GST paid account (an asset account). GST collected from customers is credited to a GST collected account (a liability account). At the end of the reporting period, if the amount of GST collected exceeds the amount paid, the business pays the net amount to the taxation authority. The payment is recorded as a debit to GST collected, a credit to GST paid and a credit to cash to discharge the GST liability with the taxation authority. If the amount of GST paid exceeds GST collected, the business will receive a refund from the taxation authority. This is recorded as a debit to cash, a debit to GST collected and a credit to GST paid.

GLOSSARY

Business activity statement (BAS) (GST return in New Zealand) A report filed at regular intervals (monthly, quarterly or yearly) by a business with the taxation authority. It details the amount of GST collected by a business on taxable supplies, the amount of GST paid on purchases and the amount owing to or the refund due from the taxation authority (p. 240).

Contra revenue account An account that is offset against a revenue account on the statement of profit or loss, e.g. sales returns and allowances (p. 230).

Cost of sales (COS) The total cost of inventories sold during the period (p. 222).

Discount allowed A settlement discount given by a seller for prompt payment of a balance due (p. 231).

Discount received A settlement discount claimed by a buyer for prompt payment of a balance due (p. 227).

Freight-in An expense incurred by the buyer of inventory which is considered part of the cost of inventory (p. 226).

Freight-out An expense incurred by the seller of inventory which is classified as a selling expense (p. 227).

Goods and services tax (GST) A broad-based indirect tax levied on most supplies of goods and services. In Australia the rate applied is 10% and in New Zealand it is 15% (p. 239).

Gross profit The excess of net sales revenue over the cost of sales (p. 233).

Gross profit ratio Gross profit expressed as a percentage by dividing the amount of gross profit by net sales (p. 234).

GST-free supplies (zero rated in New Zealand) Goods and services that do not attract GST under GST legislation, such as basic food, education, health services and exported goods (p. 240).

Input tax credit The credit received by registered suppliers from the taxation authority for the amount of GST paid on all goods and services purchased in the supply chain (p. 240).

Input taxed supplies (exempt supplies in New Zealand) Goods and services that do not attract GST under GST legislation such as residential rents and financial supplies (p. 240).

Inventory Goods acquired by a retail business for the purposes of resale in the ordinary course of business activities (p. 222).

Inventory write-down An expense account used to record damaged, stolen, obsolete or lost inventory as well as inventory shrinkage or waste that occurs (p. 230).

Net sales Sales less sales returns and allowances (p. 232).

Operating expenses to sales ratio The ratio of operating expenses to net sales, measured by dividing operating expenses by net sales (p. 236).

Other revenue Revenue items other than sales revenue, such as interest revenue and rent revenue (p. 233).

Periodic inventory system An inventory system in which detailed records are not maintained and the cost of sales and inventory on hand is determined only at the end of an accounting period (p. 223).

Perpetual inventory system A detailed inventory system in which the cost of each inventory item is maintained and the records continuously show the cost of sales and inventory that should be on hand (p. 222).

Sales invoice A document prepared by the seller evidencing a claim for payment for goods or services provided to a customer (p. 229).

Sales returns and allowances Cash refunds or credit notes recorded in the books of the seller for merchandise returned or discounted if faulty or incorrect (p. 230).

Sales revenue Revenue generated from the sale of inventory (p. 222).

Supplier's invoice A document prepared by the supplier, evidencing a claim for payment for goods and services provided (p. 225).

Taxable supply Goods and services that have GST included in the selling price (p. 240).

Taxation authority The body that administers tax legislation. In Australia, this is the Australian Taxation Office (ATO). In New Zealand it is the Inland Revenue department (p. 240).

Trade discount A reduction in the list price granted to certain customers. The discount is shown as a reduction from the list price on the invoice but is not recorded in the accounts of either the buyer or the seller (p. 228).

Value-added tax An indirect tax levied on the value added by a business at each stage of the production and distribution chain, i.e. from the purchase of raw materials to the sale of the finished product or supply of the service to the final consumer. GST is a value-added tax (p. 239).

DEMONSTRATION PROBLEM

The adjusted trial balance as at 30 June 2017 for Zhang Ltd is shown below.

ZHANG LTD
Adjusted trial balance
as at 30 June 2017

	Dr	Cr
Cash	$ 15 950	
Accounts receivable	12 210	
Inventory	31 900	
Prepaid insurance	2 750	
Store equipment	94 600	
Accumulated depreciation		$ 19 800
Accounts payable		11 660
Bank loan		27 500
Share capital		77 000
Retained earnings		12 100
Dividends	13 200	
Sales		590 480
Sales returns and allowances	7 370	
Discount allowed	5 500	
Cost of sales	399 740	
Freight-out	8 360	
Advertising expense	13 200	
Salaries expense		
– Store	39 600	
– Office	22 000	
Electricity expense	19 800	
Rent expense		
– Store	13 200	
– Office	13 200	
Depreciation expense		
– Store	3 300	
– Office	6 600	
Income tax expense	9 900	
Insurance expense	4 950	
Interest expense	3 960	
Interest revenue		2 200
Discount received		550
	$741 290	$741 290

REQUIRED

Prepare a fully classified statement of profit or loss for Zhang Ltd.

SOLUTION TO DEMONSTRATION PROBLEM

ZHANG LTD
Statement of profit or loss
for the year ended 30 June 2017

Operating revenue			
Sales revenue			
Gross sales revenue			$ 590 480
Less: Sales returns and allowances			(7 370)
Net sales revenue			583 110
Less: Cost of sales			(399 740)
Gross profit			183 370
Other operating revenue			
Interest revenue		$ 2 200	
Discount received		550	2 750
			186 120
Operating expenses			
Selling expenses			
Store salaries expense	$39 600		
Advertising expense	13 200		
Rent expense — store space	13 200		
Freight-out	8 360		
Depn expense — store equipment	3 300		
		77 660	
Administrative expenses			
Office salaries expense	22 000		
Electricity expense	19 800		
Rent expense — office space	13 200		
Depn expense — office equipment	6 600		
Insurance expense	4 950		
		66 550	
Financial expenses			
Discount allowed	5 500		
Interest expense	3 960	9 460	
			(153 670)
Profit before income tax			32 450
Less: Income tax expense			(9 900)
Profit after income tax			$ 22 550

Problem-solving strategies

1. In preparing the statement of profit or loss, remember that the key components are net sales, cost of sales, gross profit, total operating expenses, and profit (loss). These components are reported in the right-hand column of the statement.
2. Operating expenses are classified into three subgroups: selling expenses, administrative expenses and financial expenses.

SELF-STUDY QUESTIONS *Answers are at the end of the chapter.*

(LO2) 1. Which of the following statements about a periodic inventory system is true?
(a) Cost of sales is determined only at the end of the accounting period.
(b) Detailed records of the cost of each inventory purchase and sale are maintained continuously.
(c) The periodic system provides better control over inventories than a perpetual system.
(d) The increased use of computerised systems has increased the use of the periodic system.

(LO2) 2. Which of the following statements in true for the perpetual inventory system?
(a) The increased use of computerised systems has increased the use of the perpetual system.
(b) Cost of sales is determined only at the end of the accounting period.
(c) The periodic inventory system provides better control over inventories than the perpetual system does.
(d) The Purchases account is updated after each purchase of inventory.

(LO2) 3. Which of the following items does *not* result in an adjustment in the Inventory account under a perpetual system?
(a) A purchase of inventory.
(b) A return of inventory to the supplier.
(c) Payment of freight costs for goods shipped to a customer.
(d) A return from a customer of inventory that is not faulty.

(LO3) 4. Which of the following accounts normally has a credit balance?
(a) Discount received.
(b) Purchase returns and allowances.
(c) Both (a) and (b).
(d) Neither (a) nor (b).

(LO3) 5. A credit sale of $750 is made on 13 June, terms 2/7, n/30, on which a return of $50 is granted on 16 June. The customer paid the amount owing on 17 June. What amount did the customer pay?
(a) $700.
(b) $686.
(c) $685.
(d) $650.

(LO4) 6. Gross profit will result if:
(a) operating expenses are less than profit.
(b) sales revenue is greater than operating expenses.
(c) sales revenue is greater than cost of sales.
(d) operating expenses are greater than cost of sales.

(LO4) 7. If net sales revenue is $420 000, cost of sales is $320 000, and operating expenses are $60 000, what is the gross profit?
(a) $340 000.
(b) $100 000.
(c) $40 000.
(d) $420 000.

(LO4) 8. Which of the following are reported on the statement of profit or loss of a merchandising business?
(a) Gross profit.
(b) Cost of sales.
(c) A sales revenue section.
(d) All of the above.

(LO5) 9. Which of the following would affect the gross profit ratio?
(a) An increase in sales returns.
(b) An increase in the depreciation expense.
(c) A decrease in the electricity expense.
(d) An increase in interest revenue.

(LO5) 10. Which of the following would *not* affect the operating expenses to sales ratio? (Assume sales remains constant.)
(a) An increase in advertising expense.
(b) A decrease in depreciation expense.
(c) An increase in cost of sales.
(d) A decrease in insurance expense.

(LO5) 11. The gross profit ratio is equal to:
(a) profit divided by net sales.
(b) cost of sales divided by net sales.
(c) net sales minus cost of sales, divided by net sales.
(d) net sales minus cost of sales, divided by cost of sales.

(LO5) 12. Which factor would *not* affect the gross profit ratio?
(a) An increase in sales staff salaries.
(b) An increase in the sales price of luxury items.
(c) An increase in the use of 'discount pricing' to sell inventories.
(d) An increase in the cost of inventory items.

(LO6,7) 13. When a business pays GST to suppliers it records:
(a) an asset.
(b) a liability.
(c) an expense.
(d) a revenue.

(LO7) 14. If a business uses a GST clearing account to record GST transactions, then GST paid would:
(a) be recorded as a credit to the GST clearing account.
(b) be recorded as a debit to the GST clearing account.
(c) not be recorded in the GST clearing account.
(d) be recorded as both a debit and a credit to the GST clearing account.

QUESTIONS

1. (a) 'The steps in the accounting cycle for a merchandising business are different from the steps in the accounting cycle for a service business.' Do you agree or disagree?
(b) Is the measurement of profit in a merchandising business conceptually the same as in a service business? Explain.

2. (a) Explain the profit measurement process in a merchandising business.
(b) How does profit measurement differ between a merchandising business and a service business?

3. Frasier Ltd has net sales revenue of $220 000, cost of sales of $154 000, and operating expenses of $44 000. What is its gross profit?

4. Peter Freeman believes revenues from credit sales may be recognised before they are collected in cash. Do you agree? Explain.
5. (a) What is a primary source document for recording (1) cash sales and (2) credit sales?
   (b) Using XXs for amounts, give the journal entry for each of the transactions in part (a).
6. Goods costing $2240 are purchased on account on 18 July with credit terms of 2/7, n/30. On 20 July a $140 credit note is received from the supplier for damaged goods. Give the journal entry on 24 July to record payment of the balance due within the discount period.
7. MBA Ltd reports net sales of $480 000, gross profit of $348 000, and profit before tax of $180 000. What are its operating expenses?
8. What types of businesses are most likely to use: (a) a perpetual inventory system? (b) a periodic system?
9. What factors affect a business's gross profit ratio, i.e. what can cause the gross profit ratio to increase and what can cause it to decrease?
10. Which of the following statements relating to GST is true? Give reasons for your answers.
    (a) The first purchaser bears the cost of the GST.
    (b) GST is not a tax on business income.

BRIEF EXERCISES

Calculate missing amounts in determining profit. (LO4)

BE4.1 Presented here are the components in Felix Ltd's statement of profit or loss. Determine the missing amounts.

Sales	Cost of sales	Gross profit	Operating expenses	Profit
$195 000	(b)	$113 100	(d)	$28 080
$280 800	$ 169 000	(c)	(e)	$76 700
(a)	$ 186 940	$284 960	$102 700	(f)

Journalise perpetual inventory entries. (LO2,3)

BE4.2 Neo Ltd buys inventory on account from Gruff Ltd. The selling price of the goods is $1800 and the cost of goods to Mayo Ltd is $1200. Both entities use perpetual inventory systems. Journalise the transactions in the records of both entities.

Journalise sales transactions. (LO3)

BE4.3 Prepare the journal entries to record the following transactions in Simon Ltd's records using a perpetual inventory system.
(a) On 2 March Simon Ltd sold $450 000 of inventory to Finkle Ltd, terms 2/7, n/30. The cost of the inventory sold was $300 000.
(b) On 6 March Finkle Ltd returned $65 000 of the inventory purchased on 2 March because it was incorrect. The cost of the inventory returned was $40 000.
(c) On 8 March Simon Ltd received the balance due from Finkle Ltd.

Prepare sales revenue section of the statement of profit or loss. (LO4)

BE4.4 Aditya Ltd provides this information for the month ended 31 October 2015: sales on credit $363 000; cash sales $121 000; discount allowed $6050; and sales returns and allowances $24 200. Prepare the sales revenue section of the statement of profit or loss based on this information.

Identify placement of items on a fully classified statement of profit or loss. (LO4)

BE4.5 Explain where each of these items would appear on a fully classified statement of profit or loss: interest revenue, cost of sales, depreciation expense, sales returns and allowances, purchase returns and allowances, discount received and discount allowed.

Calculate profitability ratios. (LO5)

BE4.6 Long Pty Ltd reported net sales of $275 000, cost of sales of $110 000, operating expenses of $55 000, profit after tax of $88 000, beginning total assets of $550 000, and ending total assets of $660 000. Calculate each of these values:
(a) Return on assets ratio.
(b) Profit margin ratio.
(c) Gross profit ratio.
(d) Operating expenses to sales ratio.

Calculate GST and revenue earned. (LO7)

BE4.7 Maori Jewellery is a respected jeweller in Christchurch. For the month of June, Maori Jewellery sold NZ$25 000 (excluding GST) worth of merchandise to customers for cash. The GST was 15%. How much cash did Maori Jewellery receive? How much sales revenue did Maori Jewellery earn?

Understanding GST journal entries. (LO7)

BE4.8 The following journal entry was recorded in the books of Sellers Limited.

Dr	GST Collected	100	
Cr	GST Paid		90
Cr	Cash		10

Explain the nature of this journal entry.

EXERCISES

Journalise sales transactions.
(LO3)

E4.1 The following transactions are for Unique Artworks Ltd.

1. On 7 December Unique Artworks Ltd sold $792 000 of inventory to Cambridge Collectables Ltd, terms 2/7, n/30. The cost of the inventory sold was $528 000.
2. On 8 December Cambridge Collectables Ltd was granted an allowance of $33 000 for inventory purchased on 7 December.
3. On 13 December Unique Artworks Ltd received the balance due from Cambridge Collectables Ltd.

Required

(a) Prepare the journal entries to record these transactions in the records of Unique Artworks Ltd.

(b) Assume that Unique Artworks Ltd received the balance due from Cambridge Collectables Ltd on 2 January of the following year instead of 13 December. Prepare the journal entry to record the receipt of payment on 2 January.

(c) What are the advantages and disadvantages associated with granting a discount for early payment?

Journalise perpetual inventory transactions.
(LO2,3)

E4.2 On 1 July Queenscliff Pty Ltd sold inventory to Stokers Pty Ltd for $20 000. The credit terms were 3/10, n/30. Stokers Pty Ltd paid the account promptly on 10 July and uses the perpetual inventory system to record transactions.

Required

(a) Record the purchase and payment of inventory in the accounts of Stokers Pty Ltd.

(b) Assume Stokers Pty Ltd decided to record the discount as a credit to inventory. Record the journal entry.

(c) What is the difference between the effect on (i) profit and (ii) assets between the treatment of the discount in parts (a) and (b)?

Journalise sales transactions.
(LO3)

E4.3 Use the information provided in E4.2 to complete the following activities.

Required

(a) Record the sales of inventory in the accounts of Queescliff Pty Ltd. The cost of the inventory sold has $12 000.

(b) What are the journal entries on 10 July when Queescliff Pty Ltd received the amount from Stokers Pty Ltd?

Journalise perpetual inventory entries.
(LO2,3)

E4.4 On 1 September Cambells Office Supplies had an inventory of 30 deluxe pocket calculators at a cost of $22 each. The business uses a perpetual inventory system. During September these transactions occurred:

Sept.	6	Purchased 80 calculators at $22 each from Digital Ltd for cash.
	9	Paid freight of $88 to We Deliver on calculators purchased from Digital Ltd.
	10	Returned two calculators to Digital Ltd for $44 credit because they did not meet specifications.
	12	Sold 26 calculators costing $22 for $33 each to Techno Store, terms n/30.
	14	Granted credit of $33 to Techno Store for the return of one calculator that was not ordered.
	20	Sold 30 calculators costing $22 for $33 each to Uni Card Shop, terms n/30.

Required

Journalise the September transactions.

Journalise purchase transactions.
(LO2)

E4.5 The following information relates to Hampton Pty Ltd.

1. On 5 April purchased inventory from R. Ward & Co. for $9000, terms 2/7, n/30.
2. On 6 April paid freight costs to Freight Masters of $450 on inventories purchased from R. Ward & Co.
3. On 7 April purchased equipment on account for $52 000.
4. On 8 April returned incorrect inventories to R. Ward & Co. and was granted a $1500 allowance.
5. On 11 April paid the amount due to R. Ward & Co.

Required

(a) Prepare the journal entries to record the transactions listed in the records of Hampton Pty Ltd.

(b) Assume that Hampton Pty Ltd paid the balance due to R. Ward & Co. on 4 May instead of 11 April. Prepare the journal entry to record this payment.

Journalise purchase transactions. (LO2)

E4.6 On 10 June Grand Accessories Ltd purchased $5400 of inventories from Highend Distributors Ltd, terms 2/7, n/30. Grand Accessories Ltd pays the freight costs of $270 to Freight Masters on 11 June. Goods totalling $270 are returned to Highend Distributors Ltd for credit on 12 June. On 17 June Grand Accessories Ltd pays Highend Distributors Ltd the amount owing. Both entities use a perpetual inventory system.

Required

(a) Prepare separate entries for each transaction in the records of Grand Accessories Ltd.

(b) Prepare separate entries for each transaction for Highend Distributors Ltd. The inventory purchased by Grand Accessories on 10 June cost Highend Distributors $2700, and the goods returned cost Highend Distributors $135.

(c) Explain the difference between freight-in and freight-out. How are they classified in the statement of profit or loss?

Prepare a statement of profit or loss and calculate profitability ratios. (LO4,5)

E4.7 Presented is information related to Dawson Ltd for the month of January 2015:

Cost of sales	$416 000	Discount allowed	$ 16 000
Freight-out	14 000	Sales returns and allowances	26 000
Insurance expense	12 000	Sales	700 000
Salary expense—office	61 000	Bank charges	100
Discount received	14 000	Income tax expense	45 270
Rent expense—store space	20 000	Rent revenue	2 000

Required

(a) Prepare a fully classified statement of profit or loss using the format presented in figure 4.6 on page 234. Operating expenses should be segregated into selling, administrative and financial expenses.

(b) Calculate the following: profit margin ratio, gross profit ratio, and the operating expenses to sales ratio.

(c) Why is it useful to calculate ratios? Provide examples to support your answer.

Calculate missing amounts and calculate profitability ratios. (LO4,5)

E4.8 Financial information is presented here for two entities:

	Bright Ltd	**Dull Ltd**
Sales	$180 000	?
Sales returns	?	$10 000
Net sales	162 000	190 000
Cost of sales	112 000	?
Gross profit	?	76 000
Operating expenses	30 000	?
Profit	?	30 000

Required

(a) Fill in the missing amounts. Show all calculations.

(b) Calculate the profit margin ratio, gross profit ratio, and operating expenses to sales ratio for each entity.

Prepare a fully classified statement of profit or loss and calculate profitability ratios. (LO4,5)

E4.9 In its statement of profit or loss for the year ended 30 June 2016, Lulu Ltd reported the following condensed data:

Administrative expenses	$261 000	Income tax expense	$ 37 980
Cost of sales	593 400	Selling expenses	414 000
Financial expenses	42 000	Net sales	1 410 000
Other operating revenue	27 000		

Required

(a) Prepare a fully classified statement of profit or loss.

(b) Calculate the profit margin ratio, gross profit ratio, and operating expenses to sales ratio.

Prepare sales revenue section of a statement of profit or loss.
(LO4)

E4.10 The adjusted trial balance of Snuffy Pty Ltd shows these data pertaining to sales at the end of its financial year, 30 June 2015: sales $585 000; freight-out $7800; sales returns and allowances $9100; and discount allowed $7800.

Required
Prepare the sales revenue section of the statement of profit or loss.

Prepare journal entries for GST.
(LO7)

E4.11 Ezios Earthenware Ltd lodges quarterly business activity statements with the taxation authority.

Required
(a) Record the journal entries during the March 2016 quarter for sales $6600 (including GST) and purchases $1210 (including GST).
(b) What is the journal entry to discharge the GST liability?

Prepare journal entries for GST.
(LO7)

E4.12 Phams Pottery Ltd reported the following transactions for May:

May	3	Purchased inventory for $440 (including $40 GST).
	10	Sold inventory for $550 (including $50 GST).

Required
Record the journal entries for May and the journal entry to discharge the GST liability.

Prepare journal entries for GST.
(LO7)

E4.13 Use the data provided in E4.11 to answer the following questions:

Required
(a) Record the journal entries for the March quarter assuming the company uses a GST clearing account.
(b) Record the journal entry to discharge the GST liability assuming the company uses a GST clearing account.

PROBLEM SET A

Journalise, post, prepare partial statement of profit or loss and calculate ratios.
(LO2,3,4,5)

PSA4.1 Papermark Ltd completed the following inventory transactions in the month of May. At the beginning of May, Papermark Ltd's ledger showed Cash $3500 and Share Capital $3500.

May	2	Sold inventory on account for $3150, terms 2/7, n/30. The cost of the inventory sold was $2100.
	3	Purchased inventory on account from Pen & Paper Wholesale Supply for $4200, terms 2/7, n/30.
	5	Returned inventory and received credit from Pen & Paper Wholesale Supply for $140.
	9	Received amounts owing from customers invoiced on sales of $3150 on 2 May.
	10	Paid Pen & Paper Wholesale Supply the amount owing.
	11	Purchased supplies for cash $630.
	12	Purchased inventory for cash $1680.
	15	Returned goods and received a refund for poor-quality inventory from supplier on cash purchase $161.
	20	Purchased inventory from Harlow Distributors for $1330, terms 2/7, n/30.
	21	Paid freight to DHL on 20 May purchase $175.
	24	Sold inventory for cash $4340. The cost of the inventory sold was $3038.
	25	Purchased inventory from Art World Ltd for $700, terms 2/7, n/30.
	27	Paid Harlow Distributors the amount outstanding.
	29	Made refunds to cash customers for inventory sold for $70. The returned inventory had cost $49. The inventory returned was not faulty.
	31	Sold inventory on account for $1120, terms n/30. The cost of the inventory sold was $784.

Papermark Ltd's chart of accounts includes 100 Cash, 110 Accounts Receivable, 120 Inventory, 130 Supplies, 200 Accounts Payable, 300 Share Capital, 400 Sales, 405 Sales Returns and Allowances, 410 Discount Received, 500 Discount Allowed, 505 Cost of Sales, and 510 Freight Inwards.

Required

(a) Journalise the transactions using a perpetual inventory system.

(b) Post the transactions to T accounts. Be sure to enter the beginning Cash and Share Capital balances.

(c) Prepare a statement of profit or loss up to gross profit for the month of May 2015.

(d) Calculate the profit margin ratio and the gross profit ratio. (Assume operating expenses were $980 and the income tax expense was $133.)

Journalise purchase and sale transactions under a perpetual inventory system. (LO2,3)

PSA4.2 The Novelty Bookstore distributes hardback books to retail stores and extends credit terms of 2/7, n/30 to all of its customers. During the month of June the following inventory transactions occurred.

June	2	Purchased 130 books on account for $6 each from Reader's World Publishers, terms 1/7, n/30. Also made a cash payment to Classic Couriers of $60 for the freight on this date.
	3	Sold 140 books on account to the Book Nook for $12 each.
	6	10 books returned to Reader's World Publishers. Received $60 credit.
	9	Paid Reader's World Publishers the amount owing.
	15	Received payment from the Book Nook.
	17	Sold 120 books on account to Read-A-Lot Bookstore for $12 each.
	20	Purchased 120 books on account for $6 each from Read More Publishers, terms 2/7, n/30.
	24	Received payment of account from Read-A-Lot Bookstore.
	26	Paid Read More Publishers the amount owing.
	28	Sold 110 books on account to Readers Bookstore for $12 each.
	30	Granted Readers Bookstore $180 credit for 15 books returned costing $90. The books were returned into inventory.

Required

(a) Journalise the transactions for the month of June for The Novelty Bookstore, using a perpetual inventory system. Assume the cost of each book sold was $6.

(b) What are the advantages and disadvantages for The Novelty Bookstore of using a perpetual inventory system as opposed to a periodic system?

Prepare financial statements and calculate profitability ratios. (LO4,5)

PSA4.3 Harrots Department Store Pty Ltd is located in the city centre. During the past several years, profit has been declining because suburban shopping centres have been attracting business away from city areas. At the end of the company's financial year on 30 June 2015, the accounts shown below appeared in its adjusted trial balance:

Accounts Payable	$ 39 053
Accounts Receivable	16 830
Accumulated Depreciation—Office Equipment	28 142
Accumulated Depreciation—Store Equipment	59 774
Bank Loan	65 780
Cash	11 440
Cost of Sales	905 505
Depreciation Expense—Office Equipment	5 720
Depreciation Expense—Store Equipment	13 585
Discount Received	1 430
Dividends	17 160
Electricity Expense	15 158
Freight-out	11 726
Income Tax Expense	28 314
Income Tax Payable	28 314
Insurance Expense	12 870
Interest Expense	11 440
Interest Revenue	5 720
Inventory	51 766

Office Equipment	81 510
Prepaid Insurance	6 435
Rates and Taxes Expense	5 005
Rates and Taxes Payable	5 005
Rent Expense	
— Store	12 870
— Office	28 600
Retained Earnings	20 306
Salaries Expense	
— Sales	100 100
— Office	57 200
Sales	1 301 300
Sales Commissions Expense	20 020
Sales Commissions Payable	8 580
Sales Returns and Allowances	14 300
Share Capital	42 900
Store Equipment	178 750

Required

(a) Prepare a fully classified statement of profit or loss, a calculation of retained earnings (refer to figure 1.8, p. 21) and a classified statement of financial position.

(b) Calculate the return on assets ratio, profit margin ratio, gross profit ratio, and operating expenses to sales ratio. Assume that total assets at the beginning of the year were $228 800.

(c) Why is it helpful to fully classify items in the statement of profit or loss?

Journalise, post, and prepare trial balance and partial statement of profit or loss. (LO2,3,4)

PSA4.4 On 1 April the ledger of Alexander's Tennis Pro Shop Pty Ltd showed Cash $4500, Inventory $6300, and Share Capital $10 800. The following transactions occurred during April 2016:

Apr.	7	Purchased racquets and balls on account from Tennis Australia Ltd $3060, terms 2/7, n/60.
	8	Paid freight on Tennis Australia Ltd purchase $144.
	9	Returned inventory and received credit from Tennis Australia Ltd for $360.
	10	Sold inventory on account $1620, terms n/30. The inventory sold had a cost of $1134.
	14	Purchased tennis shoes, T-shirts and other accessories on account from Sharp Sporting Goods $1188, terms 1/7, n/30.
	14	Paid Tennis Australia Ltd the amount due.
	17	Returned inventory and received credit from Sharp Sporting Goods for $108.
	20	Made sales on account to customers $1260, terms n/30. The cost of the inventory sold was $882.
	21	Paid Sharp Sporting Goods the amount owing.
	27	Granted an allowance to customers for clothing that did not fit properly $108.
	30	Received payments on account, $1980.

The chart of accounts for the shop includes 100 Cash, 105 Accounts Receivable, 115 Inventory, 200 Accounts Payable, 300 Share Capital, 400 Sales, 405 Sales Returns and Allowances, 410 Discount Received, 500 Cost of Sales, and 505 Freight Inwards.

Required

(a) Journalise the April transactions using a perpetual inventory system.

(b) Using T accounts, enter the beginning balances in the ledger accounts and post the April transactions.

(c) Prepare a trial balance as at 30 April 2016.

(d) Prepare a statement of profit or loss to gross profit.

PSA4.5 An inexperienced accountant prepared this statement of profit or loss for Peninsula Pty Ltd, a merchandising firm that has been in business for a number of years.

Prepare a fully classified statement of profit or loss. (LO4)

PENINSULA PTY LTD Statement of profit or loss for the year ended 30 June 2015	
Revenues	
Net sales	$462 000
Other revenues	13 200
	475 200
Cost of sales	305 250
Gross profit	169 950
Operating expenses	
Selling expenses	57 200
Administrative expenses	44 000
Financial expenses	4 950
	106 150
Profit before tax	$ 63 800

As an experienced, knowledgeable accountant, you review the statement and determine the following facts:

1. Net sales consist of sales $495 000, less delivery expense on inventory sold $16 500, and sales returns and allowances $16 500.
2. Other revenues consist of discount received $8800 and rent revenue $4400.
3. Selling expenses consist of salespersons' salaries $44 000; depreciation on office equipment $4400; advertising $5500; and sales commissions $3300. The commissions represent commissions paid. At 30 June, $2200 of commissions have been earned by salespersons but have not been paid.
4. Administrative expenses consist of office salaries $20 350; dividends $2750; electricity $6600; interest expense $1100; and rent expense $13 200, which includes prepayments totalling $3300 for rent for the first quarter of 2016.
5. Financial expenses consist of bank charges $550, and discount allowed $4400.
6. The company tax rate is 30%.

Required

Prepare a fully classified statement of profit or loss.

PSA4.6 The trial balance of Rankins Ltd contained the accounts shown at 30 June, the end of the company's reporting period:

Journalise, post and prepare adjusted trial balance and financial statements. (LO4)

Rankins Ltd Trial balance as at 30 June 2016		
	Debit	Credit
Cash	$ 50 100	
Accounts Receivable	56 400	
Inventory	165 000	
Land	138 000	
Buildings	295 500	
Accumulated Depreciation—Buildings		$ 85 500
Store Equipment	125 250	
Accumulated Depreciation—Store Equipment		63 600
Accounts Payable		56 250
Bank Loan		75 000
Share Capital		300 000
Retained Profits		101 700
Dividends	15 000	

(continued)

	Debit	Credit
Interest Revenue		1 500
Sales		1 381 650
Sales Returns and Allowances	1 500	
Discount Allowed	5 400	
Cost of Sales	1 064 850	
Salaries Expense		
— Office	82 500	
— Sales	22 200	
Electricity Expense	14 100	
Repair Expense (computers)	13 350	
Petrol and Oil Expense	10 800	
Insurance Expense	5 250	
	$2 065 200	$2 065 200

Adjustment data:
1. Depreciation is $15 000 on buildings and $13 500 on store equipment.
2. Interest of $10 500 is due and unpaid on bank loan at 30 June.

Other data: $22 500 of the bank loan is payable next year. The income tax rate is 30%.

Required

(a) Journalise the adjusting entries.
(b) Create T accounts for all accounts used in part (a). Enter the trial balance amounts into the T accounts and post the adjusting entries.
(c) Prepare an adjusted trial balance.
(d) Prepare a fully classified statement of profit or loss, a calculation of retained earnings (refer figure 1.8, p. 21) and a classified statement of financial position as at 30 June 2016.
(e) Explain why the statement of profit or loss is prepared for a period of time while the statement of financial position is prepared as at a particular date.

Journalise, post, prepare partial statement of profit or loss, and calculate ratios.
(LO2,3,4,5)

PSA4.7 Belle Boutique Fashion Pty Ltd completed these inventory transactions in the month of April 2015. At the beginning of April, the ledger of Belle Boutique Fashion showed Cash of $4950 and Share Capital of $4950.

Apr.	4	Purchased inventory on account from Upmarket Supply Ltd $3245, terms 2/7, n/30.
	6	Sold inventory on account $2750, terms 2/7, n/30. The cost of the inventory sold was $2200.
	6	Received credit from Upmarket Supply Ltd for inventory returned $165.
	7	Paid $110 freight to We Deliver on 6 April sale.
	11	Paid Upmarket Supply Ltd the amount outstanding.
	13	Received payments from customers invoiced on 6 April.
	14	Purchased inventory for cash $2420.
	16	Received refund from supplier on cash purchase of 14 April, $275.
	21	Purchased inventory from French Fashion Ltd $3150, terms 2/7, n/30.
	22	Paid freight $55 to Fast Delivery Ltd for the 21 April purchase.
	23	Sold inventory for cash $4070. The cost of the inventory sold was $3366.
	26	Purchased inventory for cash $1265.
	27	Paid French Fashion Ltd the amount owing.
	29	Made refunds to cash customers for inventory sold for $50. The returned inventory had a cost of $38.
	30	Sold inventory on account $2035, terms n/30. The cost of the inventory sold was $1650.

Belle Boutique Fashion Pty Ltd's chart of accounts includes Cash, Accounts Receivable, Inventory, Accounts Payable, Share Capital, Sales, Sales Returns and Allowances, Discount Received, Discount Allowed, Cost of Sales, Freight-out, and Freight-in.

Required

(a) Journalise the transactions using the perpetual inventory system.

(b) Post the transactions to T accounts. Be sure to enter the beginning Cash and Share Capital balances.
(c) Prepare the statement of profit or loss up to gross profit for the month of April.
(d) Calculate the profit margin ratio and the gross profit ratio. (Assume operating expenses were $495 and ignore the effects of income tax for this question.)

PSA4.8 Kids + Kites Ltd sells all kinds of children's toys. The entity's accountant, Fred Heights, was preparing the information needed to account for the GST and report to the taxation authority for the quarter ending 31 March 2016, when he came down with a nasty flu and had to stay at home. You have been hired to take over Fred's role until he recovers. Before Fred fell ill, he prepared the following information for the quarter:

Journalise GST transactions. (LO7)

Total sales (including GST)	$70 700
Total sales returns (including GST)	1 400
Total purchases (including GST)	28 560
Purchase returns (including GST)	3 360

Required

(a) Journalise the sales and purchases transactions, as well as payment of GST to the taxation authority, using the GST Paid and GST Collected accounts.
(b) Journalise the sales and purchases transactions, as well as payment of GST to the taxation authority, using the GST Clearing account.
(c) Assuming the total net sales for the quarter were $28 560 (including GST) and the total net purchases were $70 700 (including GST), journalise the sales and purchases transactions, as well as the refund from the taxation authority, using the GST Paid and GST Collected accounts.
(d) Using the same information as in part (c), journalise the sales and purchases transactions, as well as the refund from the taxation authority, using the GST Clearing account.

PROBLEM SET B

PSB4.1 Clucker Poultry Distributing Company completed these inventory transactions in the month of April. At the beginning of April, the ledger of Clucker Poultry' showed Cash of $4500 and Share Capital of $4500.

Journalise, post, prepare partial statement of profit or loss, and calculate ratios. (LO2,3,4,5)

Apr.	4	Purchased inventory on account from Leghorn Supply Ltd $2950, terms 2/7, n/30.
	6	Sold inventory on account $2500, terms 2/7, n/30. The cost of the inventory sold was $2000.
	7	Paid $100 freight on 6 April sale.
	8	Received credit from Leghorn Supply Ltd for inventory returned $150.
	11	Paid Leghorn Supply Ltd in full, less discount.
	13	Received collections in full, less discounts, from customers billed on 6 April.
	14	Purchased inventory for cash $2200.
	16	Received refund from supplier on cash purchase of 14 April, $250.
	21	Purchased inventory from Pigeon Distributors $2100, terms 2/7, n/30.
	22	Paid freight on 21 April purchase $50.
	23	Sold inventory for cash $3700. The cost of the inventory sold was $3060.
	26	Purchased inventory for cash $1150.
	27	Paid Pigeon Distributors in full, less discount.
	29	Made refunds to cash customers for inventory sold for $45. The returned inventory had a cost of $35.
	30	Sold inventory on account $1850, terms n/30. The cost of the inventory sold was $1500.

Clucker Poultry Distributing Company's chart of accounts includes Cash, Accounts Receivable, Inventory, Accounts Payable, Share Capital, Sales, Sales Returns and Allowances, Discount Allowed, Cost of Sales, Freight-in, and Freight-out.

Required

(a) Journalise the transactions.
(b) Post the transactions to T account. Be sure to enter the beginning cash and share capital balances.

(c) Prepare the statement of profit or loss up to gross profit for the month of April 2016.
(d) Calculate the profit margin ratio and the gross profit ratio. (Assume operating expenses were $450 and ignore the effects of income tax for this question.)

Journalise purchase and sale transactions under a perpetual inventory system.
(LO2,3)

PSB4.2 Wen Goh Warehouse distributes miniature paintings to retail stores and extends credit terms of 1/7, n/30 to all of its customers. During the month of January the following inventory transactions occurred:

July	1	Purchased 50 paintings on account for $15 each from Reproductions R Us, terms 1/7, n/30.
	3	Sold 40 paintings on account to Mini Paintings Ltd for $25 each.
	6	Paid Reproductions R Us in full.
	9	Received payment in full from Mini Paintings Ltd.
	17	Sold 30 paintings on account to Little Painters for $25 each.
	18	Purchased 60 paintings on account for $15 each from Small Artistry, terms 2/7, n/30. Also made a cash payment of $100 for freight on this date.
	20	Received $150 credit for 10 paintings returned to Small Artistry.
	21	Received payment in full from Little Painters.
	22	Sold 40 paintings on account to The Paint Box for $25 each.
	30	Paid Small Artistry in full.
	31	Granted The Paint Box $125 credit for 5 paintings returned costing $75.

Required

(a) Journalise the transactions for the month of January for Wen Goh Warehouse, using a perpetual inventory system. Assume the cost of each painting sold was $15.
(b) What are the advantages and disadvantages for Wen Goh Warehouse of using a perpetual inventory system as opposed to a periodic system?

Prepare financial statements and calculate profitability ratios.
(LO4,5)

PSB4.3 Enoteca Department Store is located near the Village Shopping Mall. At the end of Enoteca's financial year on 30 June 2015, the following accounts appeared in its adjusted trial balance.

Accounts Payable	$ 87 230
Accounts Receivable	55 330
Accumulated Depreciation—Building	57 750
Accumulated Depreciation—Equipment	47 190
Building	209 000
Cash	36 300
Cost of Sales	453 970
Depreciation Expense—Building	11 440
Depreciation Expense—Equipment	14 630
Dividends	30 800
Electricity Expense	12 100
Equipment	110 000
Insurance Expense	7 920
Interest Expense	12 100
Interest Payable	8 800
Interest Revenue	4 400
Inventory	82 500
Mortgage Payable	88 000
Office Salaries Expense	35 200
Prepaid Insurance	2 640
Rates and Taxes Payable	5 280
Rates and Taxes Expense	5 280
Retained Earnings	29 260
Sales Salaries Expense	83 600
Sales	690 800
Sales Commissions Expense	15 950
Sales Commissions Payable	3 850
Sales Returns and Allowances	8 800
Share Capital	165 000

Additional data: $22 000 of the mortgage payable is due for payment next year.

Required

(a) Prepare a fully classified statement of profit or loss, a calculation of retained earnings (refer figure 1.8, p. 21), and a classified statement of financial position. (Ignore income tax expense.)

(b) Calculate the return on assets ratio, profit margin ratio, gross profit ratio and operating expenses to sales ratio. Assume total assets at the beginning of the year were $352 000.

(c) Why is it helpful to fully classify items in the statement of profit or loss?

PSB4.4 At the beginning of April 2016, the ledger of Racquets 'R' Us Tennis Shop showed Cash $3750; Inventory $2550; and Share Capital $6300. The following transactions were completed during April.

Journalise, post, and prepare trial balance and partial statement of profit or loss. (LO2,3,4)

Apr.	6	Purchased racquets and balls from Robert Ltd $1260, terms 3/7, n/30.
	7	Paid freight on Robert Ltd purchase $60.
	8	Sold inventory to members $1350, terms n/30. The inventory sold cost $900.
	10	Received credit of $60 from Robert Ltd for a racquet that was returned.
	11	Purchased tennis shoes from Niki Sports for cash $450.
	13	Paid Robert Ltd in full.
	14	Purchased tennis shirts and shorts from Martina's Sportswear $750, terms 2/7, n/60.
	15	Received cash refund of $75 from Niki Sports for damaged inventory that was returned.
	17	Paid freight on Martina's Sportswear purchase $45.
	18	Sold inventory to members $1350, terms n/30. The cost of the inventory sold was $795.
	20	Received $750 in cash from members in settlement of their accounts.
	21	Paid Martina's Sportswear in full.
	27	Granted an allowance of $45 to members for tennis clothing that did not fit properly.
	30	Received cash payments on account from members $750.

The chart of accounts for the tennis shop includes Cash, Accounts Receivable, Inventory, Accounts Payable, Share Capital, Sales, Sales Returns and Allowances, and Cost of Sales and Freight Inwards.

Required

(a) Journalise the April transactions.

(b) Using T accounts, enter the beginning balances in the ledger accounts and post the April transactions.

(c) Prepare a trial balance on 30 April 2016.

(d) Prepare a statement of profit or loss up to gross profit.

(e) What is the purpose of the chart of accounts? Why is it helpful in recording transactions?

PSB4.5 A part-time bookkeeper prepared the statement of profit or loss for Sirimon Ltd for the year ending 30 June 2016. As an experienced, knowledgeable accountant, you review the statement and determine the following facts.

Prepare a correct statement of profit or loss. (LO4)

1. Sales include $15 000 of deposits from customers for future sales orders.
2. Other revenues contains one item: interest revenue $7950.
3. Selling expenses consist of sales salaries $114 000, advertising $15 000, depreciation on store equipment $11 250, and sales commissions expense $9750.
4. Administrative expenses consist of office salaries $28 500; electricity expense $12 000; rent expense $24 000; and insurance expense $10 500. Insurance expense includes $1800 of prepaid insurance. Financial expenses consist of bank charges $1500 and interest expense $6000.

SIRIMON LTD Statement of profit or loss 30 June 2016		
Revenues		
Sales		$1 053 000
Less: Freight-out	$15 000	
Discount allowed	16 950	31 950
Net sales		1 021 050
Other revenues (net)		1 950
Total revenues		1 023 000
Expenses		
Cost of sales		705 000
Selling expenses		150 000
Administrative expenses		73 500
Financial expenses		1 500
Dividends		18 000
Total expenses		948 000
Profit		$ 75 000

Required

Prepare a corrected fully classified statement of profit or loss.

Journalise, post, and prepare adjusted trial balance and financial statements. (LO4)

PSB4.6 The unadjusted trial balance of Daniela's Fashion House contained the following accounts at 30 June, the end of the company's financial year:

DANIELA's FASHION HOUSE Trial balance 30 June 2017		
	Debit	Credit
Cash	$ 18 350	
Accounts Receivable	16 850	
Inventory	22 500	
Store Supplies	2 750	
Store Equipment	42 500	
Accumulated Depreciation—Store Equipment		$ 19 000
Office Equipment	19 000	
Accumulated Depreciation—Office Equipment		3 000
Notes Payable		20 500
Accounts Payable		24 250
Share Capital		40 000
Retained Earnings		15 000
Dividends	6 000	
Sales		373 600
Sales Returns and Allowances	2 100	
Cost of Sales	253 700	
Salaries Expense		
Administrative Staff	50 000	
Sales Staff	15 000	
Advertising Expense	13 200	
Electricity Expense	7 000	
Repair Expense	6 050	
Freight-out	8 350	
Rent (Office space)	12 000	
	$495 350	$495 350

Adjustment data:
1. Store supplies on hand total $1750.
2. Depreciation is $4500 on the store equipment and $3500 on the office equipment.
3. Interest of $5500 is accrued on notes payable at 30 June.

Other data: $15 000 of notes payable are due for payment next year. (Ignore income tax for this question.)

Required

(a) Journalise the adjusting entries.
(b) Prepare T accounts for all accounts used in part (a). Enter the trial balance into the T accounts and post the adjusting entries.
(c) Prepare an adjusted trial balance.
(d) Prepare a fully classified statement of profit or loss and a calculation of retained earnings (refer figure 1.8, p. 21), and a classified statement of financial position at 30 June 2017.
(e) Explain why the statement of profit or loss is prepared for a period of time while the statement of financial position is prepared as at a particular date.

PSB4.7 Fixit Hardware Pty Ltd completed the following inventory transactions in the month of May. At the beginning of May, Fixit Hardware Pty Ltd's ledger showed Cash $2500 and Share Capital $2500.

Journalise, post, prepare fully classified statement of profit or loss, and calculate ratios.
(LO3,4,5)

May	2	Sold inventory on account for $2250, terms 2/7, n/30. The cost of the inventory sold was $1500.
	3	Purchased inventory on account from Depot Wholesale Supply for $3000, terms 2/7, n/30.
	5	Returned inventory and received credit from Depot Wholesale Supply for $100.
	9	Received amounts owing from customers invoiced on sales of $2250 on 2 May.
	10	Paid Depot Wholesale Supply the amount owing.
	11	Purchased supplies for cash $450.
	12	Purchased inventory for cash $1200.
	15	Returned goods and received a refund for poor-quality inventory from supplier on cash purchase $115.
	20	Purchased inventory from Harlow Distributors for $950, terms 2/7, n/30.
	21	Paid freight to We Deliver on 20 May purchase $125.
	24	Sold inventory for cash $3100. The cost of the inventory sold was $2170.
	25	Purchased inventory from Horicon Ltd for $500, terms 2/7, n/30.
	27	Paid Harlow Distributors the amount outstanding.
	29	Made refunds to cash customers for inventory sold for $50. The returned inventory had cost $35. The inventory returned was not faulty.
	31	Sold inventory on account for $800, terms n/30. The cost of the inventory sold was $560.

Fixit Hardware Pty Ltd's chart of accounts includes 100 Cash, 110 Accounts Receivable, 120 Inventory, 130 Supplies, 200 Accounts Payable, 300 Share Capital, 400 Sales, 405 Sales Returns and Allowances, 410 Discount Received, 500 Discount Allowed, 505 Cost of Sales, and 510 Freight Inwards.

Required

(a) Journalise the transactions using a perpetual inventory system.
(b) Post the transactions to T accounts. Be sure to enter the beginning Cash and Share Capital balances.
(c) Prepare a statement of profit or loss up to gross profit for the month of May.
(d) Calculate the profit margin and the gross profit ratio. (Assume operating expenses were $700 and ignore the effects of income tax for this question.)

Journalise GST transactions. (LO7)

PSB4.8 Nguyen Electronics is a wholesaler of electrical products. Jinli Nguyen supplies many retailers but Bing Lee and Retravision are his two largest clients. Jinli has completed an introductory accounting course and has prepared the following information required for the GST calculations and the report to the taxation authority for the quarter ending 30 June 2015.

Total sales (including GST)	$50 500
Total sales returns (including GST)	1 000
Total purchases (including GST)	20 400
Total purchase returns (including GST)	2 400

Jinli is unable to prepare the journal entries for GST transactions and has turned to you, as a public accountant, to assist him.

Required

(a) Journalise the sales and purchases transactions, as well as the payment of GST to the taxation authority, using the GST Paid and GST Collected accounts.
(b) Journalise the sales and purchases transactions, as well as the payment of GST to the taxation authority, using the GST Clearing account.
(c) Assuming total net sales for the quarter were $20 400 (including GST) and the total net purchases were $50 500 (including GST), journalise the sales and purchases transactions, as well as the payment of GST to the taxation authority, using the GST Paid and GST Collected accounts.
(d) Using the same information as in (c), journalise the sales and purchases transactions, as well as the payment of GST to the taxation authority, using the GST Clearing account.

BUILDING BUSINESS SKILLS

FINANCIAL REPORTING AND ANALYSIS

FINANCIAL REPORTING PROBLEM: *Domino's Pizza Enterprises Ltd*

BBS4.1 The financial statements for Domino's are presented in appendix A at the back of this book.

Required

Answer these questions using the consolidated statement of comprehensive income.

(a) What was the percentage change in revenue from sale of goods and in profit after tax from 2012 to 2013?

(b) What was the operating expenses to sales ratio in each year? Comment on any trend in this percentage.

COMPARATIVE ANALYSIS PROBLEM: *Nike vs. adidas Group*

BBS4.2 Refer to the 2013 financial statements of Nike (www.nikebiz.com). Select **Investors**, then **Annual Reports**. Also refer to the 2013 financial statements for adidas Group (www.adidas-group.com). Select **Investors** then **Financial Reports**. (Ignore the different currencies, € vs. US$ when calculating ratios.)

Required

(a) Based on the information contained in these financial statements, determine the following values for each entity:
   1. Profit margin ratio for 2013.
   2. Gross profit for 2013.
   3. Gross profit ratio for 2013.
   4. Operating profit after tax for 2013.
   5. Percentage change in operating profit after tax from the previous year to the current year.
   6. Operating expenses to sales ratio for 2013.

(b) What conclusions concerning the relative profitability of the two entities can be drawn from these data?

COMMUNITY AND SOCIAL PERSPECTIVE

BBS4.3 As the corporate community is increasingly aware of the impact of business activities on society and the environment, many entities are adopting strategies to counter such impact and contribute to the wider community. One such strategy is concerned with inventory management whereby companies donate excess, overstocked, obsolete or outdated inventories to charitable organisations that pass on the donated inventory to those in need.

Charity Link Australia is a charitable organisation that facilitates donated inventory to families in need. Overseas, Operation Give is a charity that organises donated inventory to individuals in Third World countries. Visit their web sites at www.charitylinkaustralia.org and www.operationgive.org.

Required

(a) Identify the benefits to businesses that make donations of excess inventory.

(b) Outline the procedures for making donations of excess inventory.

A GLOBAL FOCUS

BBS4.4 In this chapter we have calculated and compared a number of profitability ratios for two large Australian retailers — Nick Scali and Fantastic Holdings. This exercise involves comparing an Australian retailer with an international retailer. Wal-Mart is a huge retailer with stores all over America as well as in other countries (including Canada, China, Germany and the United Kingdom). You can visit Wal-Mart's (www.walmart.com) and Woolworths' (www.woolworthslimited.com.au) web sites if you wish to know more about them.

Below are basic financial data extracted from recent annual reports of Woolworths (in Australian dollars) and Wal-Mart (in US dollars). Even though their results are presented in different currencies, by using ratios we can make some basic comparisons.

	Woolworths (in millions)	Wal-Mart (in millions)
Sales	$ 58 517	$473 076
Gross profit	15 762	115 007
Operating expenses	12 825	93 688
Profit (after tax)	2 255	16 695
Total assets	22 250	204 751
Average total assets	21 916	203 928
Current assets	6 226	61 185
Current liabilities	6 866	69 345
Total liabilities	12 950	123 412

Required

Compare the two entities by answering the following:

(a) Calculate the gross profit ratio and operating expense to sales ratio for each of the entities, and discuss their relative abilities to control cost of sales and operating expenses.

(b) Calculate the return on assets ratio and profit margin ratio, and discuss their relative profitability.

(c) Calculate the current ratio and debt to total assets ratios for the two entities, and discuss their relative liquidity and solvency.

(d) What concerns might you have in relying on this comparison?

FINANCIAL ANALYSIS ON THE WEB

BBS4.5 ***Purpose:*** No financial decision maker should ever rely solely on the financial information reported in the annual report to make decisions. It is important to keep abreast of financial news. This activity demonstrates how to search for financial news on the Web.

Address: www.news.com.au/finance

Steps:

1. Type in Harvey Norman or Woolworths.
2. Select an article that sounds interesting to you and that would be relevant to an investor in these companies.

You could also try: www.smh.com.au or www.ninemsn.com.au. Company web sites often have press releases or Australian Securities Exchange information as well.

Required

(a) What was the source of the article (e.g. Reuters, ninemsn Pty Ltd, *Sydney Morning Herald*)?

(b) Pretend that you are a personal financial planner and that one of your clients owns shares in the company. Write a brief memo to your client summarising the article and explaining the implications of the article for your client's investment.

CRITICAL THINKING

GROUP DECISION CASE

BBS4.6 Three years ago Fiona Jones and her brother-in-law, Frank Woolley, opened Groove Music Store which sells musical instruments and sheet music. For the first

2 years, business was good, but the following summarised statement of profit or loss results for 2016 were disappointing:

GROOVE MUSIC STORE Statement of profit or loss for the year ended 30 June 2016		
Net sales		$700 000
Cost of sales		546 000
Gross profit		154 000
Operating expenses		
Selling expenses	$100 000	
Administrative expenses	20 000	
Financial expenses	5 000	125 000
Profit		$ 29 000

Fiona believes the problem lies in the relatively low gross profit ratio (gross profit divided by net sales) of 22%. Frank believes the problem is that operating expenses are too high. Fiona thinks the gross profit rate can be improved by making two changes: (1) increase average selling prices by 17% — this increase is expected to lower sales volume so that total sales will increase only 6%; (2) buy inventory in larger quantities to take advantage of all trade discounts — these changes are expected to increase the gross profit ratio by 3%. Fiona does not anticipate that these changes will have any effect on operating expenses.

Frank thinks expenses can be cut by making these two changes: (1) cut 2017 sales salaries of $60 000 in half and give sales personnel a commission of 2% of net sales; (2) reduce store deliveries to one day per week rather than twice a week — this change will reduce 2017 delivery expenses of $30 000 by 40%. Frank feels that these changes will not have any effect on net sales.

Fiona and Frank come to you for help in deciding the best way to improve profit.

Required

With the class divided into groups, answer the following:

(a) Prepare a summarised statement of profit or loss for 2017 assuming (1) Fiona's changes are implemented and (2) Frank's ideas are adopted.

(b) What is your recommendation to Fiona and Frank?

(c) Prepare a summarised statement of profit of loss for 2017 assuming both sets of proposed changes are made.

(d) Discuss the impact that other factors might have. For example, would increasing the quantity of inventory increase costs? Would a salary cut affect employee morale? Would decreased morale affect sales? Would decreased store deliveries decrease customer satisfaction? What other suggestions might be considered?

ETHICS CASE

BBS4.7 Sonya Packovski was hired as the assistant accountant of Delicacy Foods, a gourmet food business that has nine retail stores concentrated in one city. Among other things, the payment of all invoices is centralised in one of the departments Sonya manages. Her main responsibility is to maintain the business's high credit rating by paying all bills when due and to take advantage of all settlement discounts.

Adam Fox, the former assistant accountant, who has been promoted to accountant, is training Sonya in her new duties. He instructs Sonya that she is to continue the practice of preparing all cheques 'net of discount' and dating the cheques the last day of the discount period. 'But,' Adam continues, 'we always hold the cheques at least 4 days beyond the discount period before mailing them. That way we get another 4 days of interest on our money. Most of our suppliers need our business and don't complain. And, if they scream about our missing the discount period, we blame it on the mail room or the post office. We only lose one discount out of every hundred we take that way. I think everybody does it.'

Required

(a) What are the ethical considerations in this case?
(b) What stakeholders are harmed or benefited?
(c) Should Sonya continue the practice started by Adam? Does she have any choice?

Answers to self-study questions

1. a 2. a 3. c 4. c 5. b 6. c 7. b 8. d 9. a 10. c
11. c 12. a 13. a 14. b

CHAPTER 5

REPORTING AND ANALYSING INVENTORY

LEARNING OBJECTIVES

After studying this chapter, you should be able to:

1. Record purchases and sales of inventory under a periodic inventory system.
2. Determine cost of sales under a periodic inventory system.
3. Describe the steps in determining inventory quantities.
4. Identify the unique features of the statement of profit or loss for a merchandising business under a periodic inventory system.
5. Explain the basis of accounting for inventories and apply the inventory cost flow methods under a periodic inventory system.
6. Explain the financial statement effects of each of the inventory cost flow methods.
7. Explain the lower of cost and net realisable value basis of accounting for inventories.
8. Calculate and interpret inventory turnover.
9. Apply the inventory cost flow methods to perpetual inventory records.
10. Indicate the effects of inventory errors on the financial statements.
11. Record the closing entries for merchandising entities.

QUENCHING YOUR THIRST

When you're thirsty do you generally drink a bottle of water or do you prefer something a little more exciting like a soft drink, juice or sports drink? If you're meeting friends at a café or restaurant, do you order a coffee, beer or perhaps even an alcoholic spirit? Believe it or not, each and every one of these choices can be supplied by one company . . . can you guess which one? It is Coca-Cola Amatil. So this company not only provides us with the well-known and popular Coca-Cola drink, it also sells a wide variety of alternative drinks such as POWERADE and Mount Franklin water, and packed fruit and vegetables, including SPC baked beans and Goulburn Valley sliced peaches. Who would have guessed?

Coca-Cola Amatil (CCA) has a very long history in Australia, dating back to 1904 when it began its operations in the tobacco industry. In 1964 the company started its Soft Drinks, Snack Foods and Frozen Food Divisions under the name APD. At the same time it purchased a controlling interest in Coca-Cola Bottles (Perth) Pty Ltd and this was the company's first association with The Coca-Cola Company. The company was listed on the Australian Securities Exchange in 1970 and changed its name to Coca-Cola Amatil Limited in 1989 when The Coca-Cola Company became its major shareholder. More recently, it even moved into coffee when CCA purchased the business and assets of Grinders Coffee. CCAs head office is in Sydney and is one of Australia's 'Top 30' companies.

Today, CCA is one of the world's top five Coca-Cola bottlers and the largest non-alcoholic beverage company in the Asia–Pacific region. In 2013 the company reported an after-tax profit of $81 million from its operations in six countries, including Australia, New Zealand, Indonesia, Fiji, Samoa and Papua New Guinea.

As you can see from the opening paragraph, CCA has a diversified portfolio of products. You may recall from chapter 4 that these products are referred to as *inventory*. Inventories are the major source of revenue for companies like CCA. In its 2013 annual report, inventories held for resale amounted to $658 million and sales of non-alcoholic beverage products alone amounted to $4319 million. That's a lot of drinks!

In this chapter we look in more depth at how organisations like CCA account for the sale of their inventories and how they report their inventories in financial reports. We also explore how investors, creditors and managers can use the information provided in these reports to analyse inventories and make a variety of decisions. For example, we know that CCA sells both drinks and food products, but how do we know which

contribute most to after-tax profit? To answer this question, Coca-Cola Amatil reports separately the revenues and related cost of sales into two categories: Non-alcoholic Beverage Business; and Alcohol, Food and Services Business. In the 2013 annual report, the Non-alcoholic Beverage Business accounted for the greatest proportion of total revenues. However, if you wanted to know what proportion of the profit related to Coca-Cola Zero or SPC baked beans and spaghetti sales, you would need access to internal company reports as this level of detail isn't available in published financial statements.

All this talk of food, drinks and profits has made me thirsty, hungry and curious, so let's grab a drink and a snack, get comfortable and learn more about inventories.

Source: **Based on information from Coca-Cola Amatil's web site, and the 2013 annual report.**

On the World Wide Web
Coca-Cola Amatil Ltd:
www.ccamatil.com.au

In the previous chapter, we discussed accounting for inventory using a perpetual inventory system. In this chapter, we explain the periodic inventory system and methods used to calculate the cost of inventory on hand at the end of the reporting period. We conclude by illustrating methods for analysing inventory.

The content and organisation of this chapter are as follows.

REPORTING AND ANALYSING INVENTORY

Classifying inventory

Periodic inventory system
- Recording inventory transactions
- Recording purchases of inventory
- Recording sales of inventory
- Comparison of entries — perpetual vs. periodic
- Cost of sales
- Statement of profit or loss presentation

Inventory cost flow methods — periodic system
- Specific identification
- Cost flow assumptions
- Financial statement effects of cost flow methods
- Using inventory cost flow methods consistently

Valuing inventory at the lower of cost and net realisable value

Analysis of inventory
- Inventory turnover

Appendix 5A: Inventory cost flow methods — perpetual system
- First-in, first-out (FIFO)
- Last-in, first-out (LIFO)
- Average cost

Appendix 5B: Inventory errors
- Effects on profit
- Effects on assets and equity

Appendix 5C: Closing entries for merchandising entities
- Perpetual inventory method
- Periodic inventory method
- Worksheet

LEARNING OBJECTIVE 1

Record purchases and sales of inventory under a periodic inventory system.

CLASSIFYING INVENTORY

How a business classifies its inventory depends on whether the entity is a merchandiser like JB Hi-Fi or a manufacturer like Coca-Cola Amatil. In merchandising businesses, such as those described in chapter 4, inventory consists of many different items. For example, in a supermarket, canned goods, dairy products, meats and produce are just a few of the inventory items on hand. These items have two common characteristics: (1) they are owned by the entity, and (2) they are in a form ready for sale to customers in the ordinary course of business. Thus, only one inventory classification, *inventory*, is needed to describe the many different items that make up the total inventory.

In a manufacturing business, some inventory may not yet be ready for sale. As a result, inventory is usually classified into three categories: finished goods, work in process, and raw materials. Regardless of the classification, most inventories are reported under current assets on the statement of financial position. **Finished goods inventory** comprises manufactured items that are completed and ready for sale. **Work in process** is that portion of manufactured inventory that has been placed into the production process but is not yet complete. **Raw materials** are the basic materials that will be used in manufacturing but have not yet been placed into the production process. For example, Coca-Cola Amatil classifies beverages, food and equipment ready for sale as finished goods. Work in progress, spare parts (manufacturing and cold drink equipment) and fountain stock (postmix products) are classified as other inventories. Raw materials include items such as the various syrups used to make bottled and canned soft drinks.

Helpful hint

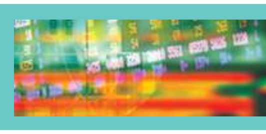
Recall that assets are future economic benefits that the entity controls as a result of a past transaction or event. For inventory, control is usually established by ownership.

Alternative terminology

Work in process can also be called *work in progress*.

By observing the levels and changes in the levels of these three inventory types, financial statement users can gain insight into management's production plans. For example, low levels of raw materials and high levels of finished goods suggest that management believes it has enough inventory on hand and production will be slowing down — perhaps in anticipation of a recession. On the other hand, high levels of raw materials and low levels of finished goods may indicate that management is planning to increase production.

The accounting concepts discussed in this chapter apply to the inventory classifications of both merchandising and manufacturing entities. Our focus here is on inventory for a merchandising entity. Inventories for manufacturing entities are explored further in chapter 13.



APPLICATION IN BUSINESS

Investor perspective

Inventory level is one of the many economic data that investors and financial analysts use to assess the health of the manufacturing sector. The Global Manufacturing Purchasing Manager Index (PMI) is compiled by JP Morgan and the Institute for Supply Management. The data for the index is collected through a monthly survey of 7500 purchasing executives in 29 countries in the manufacturing sector on five major indicators: new orders from customers, inventory levels, production, speed of supplier deliveries and the employment environment. Respondents can report better, same or worse conditions than previous months. A PMI index greater than 50 indicates that the economy is expanding while anything below 50 suggests that the economy is contracting.

The PMI report is an important indicator for the financial markets as it is considered a reliable reflection of factory production. The index is popular for detecting inflationary pressure as well as manufacturing economic activity, both of which investors pay close attention to. The PMI is not as strong as the Consumer Price Index (CPI) in detecting inflation, but because the data is released monthly it is a very timely measure of economic conditions.

Should the PMI report an unexpected change, it is usually followed by a quick reaction in the share markets. One especially key area of the report is growth in new orders, which predicts manufacturing activity in future months.

Source: Based on information from the Institute for Supply Management, www.ism.ws.

PERIODIC INVENTORY SYSTEM

As described in chapter 4, one of two basic systems of accounting for inventories may be used: (1) the perpetual inventory system or (2) the periodic inventory system. In chapter 4 we focused on the characteristics of the perpetual inventory system. In this chapter we discuss and illustrate the periodic inventory system. One key difference between the two systems is the point at which cost of sales is calculated. For a visual reminder of this difference, you may want to refer back to figure 4.3 (p. 224).

RECORDING INVENTORY TRANSACTIONS

In a **periodic inventory system**, revenues from the sale of inventory are recorded when sales are made, just as in a perpetual system. Unlike the perpetual system, however, no attempt is made on the date of sale to record the cost of the inventory sold. Instead, a physical inventory count is taken at the end of the period to determine (1) the quantity of the inventory then on hand and (2) the cost of sales during the period. Under a periodic system, purchases of inventory are recorded in the Purchases account rather than the inventory account. Also, in a periodic system, purchase returns and allowances, discounts received, and freight costs on purchases are recorded in separate accounts.

To illustrate the recording of inventory transactions under a periodic inventory system, we will use purchase/sale transactions between PW Audio Supply Ltd and Sauk Stereo, as illustrated for the perpetual inventory system in chapter 4.

RECORDING PURCHASES OF INVENTORY

On the basis of the sales invoice (figure 4.4, p. 225) and receipt of the inventory ordered from PW Audio Supply Ltd, Sauk Stereo records the $3800 purchase as follows:

A	=	L	+	E
		+3800		−3800

May	5	Purchases	3 800	
		Accounts payable		3 800
		(To record goods purchased on account, terms 2/7, n/30)		

Purchases is a temporary account whose normal balance is a debit. The **purchases account** is used to accumulate the cost of all inventory purchased for resale during the period.

Purchase returns and allowances

Because $300 of inventory received from PW Audio Supply Ltd is incorrect, Sauk Stereo returns the goods and prepares the entry below to recognise the return.

A	=	L	+	E
		−300		+300

May	8	Accounts payable	300	
		Purchase returns and allowances		300
		(To record return of incorrect goods purchased from PW Audio Supply Ltd)		

DECISION MAKING

Purchase returns and allowances is a contra purchases account whose normal balance is a credit. The **purchase returns and allowances account** is credited to record all returns and allowances rather than directly crediting the purchases account. This provides management with information on the magnitude of returns and allowances in one account. It is also important for management to keep track of goods being returned as it may require management to source goods from different suppliers if the return of goods is due to inferior quality.

Freight costs

When the purchaser directly incurs the freight costs, the account freight-in (or transportation-in) is debited. For example, if upon delivery of the goods on 5 May, Sauk pays We Deliver Freight Co. $150 for freight charges on its purchase from PW Audio Supply Ltd, the entry in Sauk's records is:

A	=	L	+	E
−150				−150

May	5	Freight-in	150	
		Cash		150
		(To record payment of freight on goods purchased)		

Like purchases, Freight-in is a temporary account whose normal balance is a debit. Freight-in is part of cost of goods purchased. The reason is that cost of goods purchased should include any freight charges necessary to bring the goods to the purchaser. Freight costs are not subject to a purchase discount. Purchase discounts apply on the invoice cost of the inventory.

Purchase discounts

On 12 May Sauk Stereo pays the balance due on account to PW Audio Supply Ltd, taking the 2% cash discount allowed by PW Audio Supply Ltd for payment within 7 days. The payment and discount are recorded by Sauk Stereo as follows:

A	=	L	+	E
−3430		−3500		+70

May	12	Accounts payable ($3800 − $300)	3 500	
		Cash		3 430
		Discount received ($3500 × 0.02)		70
		(To record payment to PW Audio Supply Ltd within the discount period)		

Discount received is a revenue account whose normal balance is a credit.

RECORDING SALES OF INVENTORY

The sale of $3800 of merchandise to Sauk Stereo on 5 May (sales invoice no. 731, figure 4.4, p. 225) is recorded by the seller, PW Audio Supply Ltd, as follows:

May	5	Accounts receivable	3 800	
		Sales		3 800
		(To record credit sales per invoice no. 731 to Sauk Stereo)		

A	=	L	+	E
+3800				+3800

Sales returns and allowances

To record the returned goods received from Sauk Stereo on 8 May, PW Audio Supply Ltd records the $300 sales return as follows:

May	8	Sales returns and allowances	300	
		Accounts receivable		300
		(To record return of goods from Sauk Stereo)		

A	=	L	+	E
−300				−300

Sales discounts

On 12 May, PW Audio Supply Ltd receives payment of $3430 on account from Sauk Stereo. PW Audio Supply Ltd honours the 2% cash discount and records the payment of Sauk's account receivable in full as follows:

May	12	Cash	3 430	
		Discount allowed ($3500 × 0.02)	70	
		Accounts receivable ($3800 − $300)		3 500
		(To record collection from Sauk Stereo within 2/7, n/30 discount period)		

A	=	L	+	E
+3430				−70
−3500				

COMPARISON OF ENTRIES — PERPETUAL VS. PERIODIC

The periodic inventory system entries above are shown in figure 5.1 next to those that were illustrated in chapter 4 (pp. 225–31) under the perpetual inventory system for both Sauk Stereo and PW Audio Supply Ltd.

Figure 5.1 Comparison of journal entries under perpetual and periodic inventory systems

ENTRIES IN SAUK STEREO'S RECORDS (PURCHASER)

Transaction		Perpetual inventory system			Periodic inventory system		
May 5	Purchase of inventory on credit.	Inventory	3 800		Purchases	3 800	
		Accounts payable		3 800	Accounts payable		3 800
May 5	Freight costs on purchases.	Freight-in/Inventory	150		Freight-in	150	
		Cash		150	Cash		150
May 8	Purchases returns and allowances.	Accounts payable	300		Accounts payable	300	
		Inventory		300	Purchase returns and allowances		300
May 12	Payment on account with a discount.	Accounts payable	3 500		Accounts payable	3 500	
		Cash		3 430	Cash		3 430
		Discount received		70	Discount received		70

(continued)

Figure 5.1 *(continued)*

ENTRIES IN PW AUDIO SUPPLY LTD'S RECORDS (SELLER)								
Transaction		**Perpetual inventory system**			**Periodic inventory system**			
May 5	Sale of inventory on credit.	Accounts receivable	3 800		Accounts receivable	3 800		
		Sales		3 800	Sales		3 800	
		Cost of sales	2 400		No entry for cost of sales			
		Inventory		2 400				
May 8	Return of inventory sold.	Sales returns and allowances	300		Sales returns and allowances	300		
		Accounts receivable		300	Accounts receivable		300	
		Inventory	140		No entry for cost of sales			
		Cost of sales		140				
May 12	Cash received on account with a discount.	Cash	3 430		Cash	3 430		
		Discount allowed	70		Discount allowed	70		
		Accounts receivable		3 500	Accounts receivable		3 500	

LEARNING OBJECTIVE 2

Determine cost of sales under a periodic inventory system.

COST OF SALES

Under a periodic inventory system, a running account of the changes in inventory is not recorded when either purchases or sales transactions occur. Neither the daily amount of inventory on hand nor the cost of sales is known. To determine the **cost of sales** under a periodic inventory system, it is necessary to (1) record purchases of inventory, (2) determine the cost of goods purchased, and (3) determine the cost of goods on hand at the beginning and end of the accounting period. The cost of goods on hand must be determined by (1) a physical inventory count and (2) an application of costs to the items counted in the inventory.

DETERMINING COST OF GOODS PURCHASED

Under a periodic inventory system, various accounts, such as purchases, freight-in, and purchase returns and allowances, are used to record the cost of goods purchased. (A perpetual system usually uses only one account, inventory, although in practice a freight-in account may be used.) These accounts, with their impact on cost of goods purchased, are listed in figure 5.2.

Item	Periodic account title	Debit or credit entry	Effect on cost of goods purchased
Invoice price	Purchases	Debit	Increase
Freight charges paid by purchaser	Freight-in	Debit	Increase
Purchase returns and allowances granted by seller	Purchase returns and allowances	Credit	Decrease

Figure 5.2 Accounts used to record purchases of inventory

To determine cost of goods purchased we begin with gross purchases. This amount is then adjusted for any returns of unwanted goods. The result is **net purchases**. Because freight charges are a necessary cost incurred to acquire inventory, freight-in is added to net purchases to arrive at **cost of goods purchased**. To summarise:

1. Purchase returns and allowances is subtracted from purchases to get *net purchases*.
2. Freight-in is added to net purchases to arrive at *cost of goods purchased*.

To illustrate, assume that PW Audio Supply Ltd shows these balances for the accounts above: purchases \$325 000; purchase returns and allowances \$17 200; and freight-in \$12 200. Net purchases and cost of goods purchased are \$307 800 and \$320 000, as calculated in figure 5.3.

	Purchases	$ 325 000
(1)	Less: Purchase returns and allowances	(17 200)
	Net purchases	**307 800**
(2)	Add: Freight-in	12 200
	Cost of goods purchased	**$320 000**

Figure 5.3 Calculation of net purchases and cost of goods purchased

All three of the accounts (purchases, purchase returns and allowances, and cost of sales) used in the periodic system are temporary accounts. They are used to determine cost of sales. Therefore, the balances in these accounts are reduced to nil at the end of each accounting period (i.e. annually). Cost of sales must be provided in the annual report. For example Coca-Cola Amatil reported cost of sales of $2843 million for 2013.

DETERMINING INVENTORY QUANTITIES

LEARNING OBJECTIVE 3

Describe the steps in determining inventory quantities.

Businesses that use a periodic inventory system do a physical inventory count to determine the inventory on hand at the end of the reporting period and to calculate cost of sales. Even businesses that use a perpetual inventory system do this. They do so to check the accuracy of the accounting records and to determine the amount of inventory shortage or shrinkage due to wasted raw materials, shoplifting or employee theft.

Determining inventory quantities involves two steps: (1) counting the physical inventory of goods on hand (stocktake) and (2) determining the ownership of goods.

Counting the physical inventory

Counting the physical inventory involves actually counting, weighing or measuring each type of inventory on hand. In many businesses, counting inventory is a formidable task. Companies such as Coca-Cola Amatil, Woolworths Ltd and Mitre 10 have thousands of different inventory items. An inventory count is generally more accurate when goods are not being sold or received during the counting. Consequently, merchandisers often perform the stocktake when the business is closed or when business is slow. Under a periodic inventory system, the stocktake is done at the end of the accounting period.

The quantity of each type of inventory is listed on inventory summary sheets. To ensure the accuracy of the summary sheets, the listing should be verified by a second employee or supervisor. Subsequently, unit costs will be applied to the quantities to determine a total cost of the inventory (which is the topic of later sections). An accurate inventory count is important to help companies provide accurate inventory and profit figures in the financial statements.

APPLICATION IN BUSINESS

Management perspective

Don't underestimate the significance of a few missing bottles of soft drink or bags of confectionery items to a retail business. Inventory shortfall, even of small quantities, over time can reveal bigger problems in terms of fraud and internal control weakness.

Take the cases of Woolworths and Myer. A Woolworths employee was found to have handed over soft drink and confectionery items to a customer at the company's Sunnybank store throughout 2009. In exchange, the employee received fuel gift cards, cartons of cigarettes and cash. The Brisbane District Court was told that the employee, who had worked at the store for 10 years, gave away about $2000 worth of stock each week, often helping to load the customer's car with the goods. The total amount stolen amounted to $96 000. The employee was found to have put cash in a store cash register and created false computer records at the store to cover his tracks. In October 2009 a stocktake uncovered issues in the soft drink and confectionery inventory levels but it was only in December that the employee made admissions to a loss prevention officer, which resulted in him losing his job. The man was found guilty of committing fraud as an employee and was jailed for 2.5 years.

Myer's reported in 2012 that there were about 220 staff members each year who stole goods directly out of its retail stores. The chief executive, Bernie Brookes, stated that staff placed the products in a bin during the day and later retrieved the goods out of the bin before going home, or simply placed the goods in their bags or wore the clothes out of the store.

Inventory record fraud is one of the most common types of occupational fraud, which is fraud committed by an employee on an employer in the course of their employment. Occupational fraud is more common and causes more financial loss to businesses than frauds committed by third parties. As employees continue to work at the business, they will generally try to hide frauds permanently, meaning that occupational fraud can be committed over an extended period of time, as in the case of the Woolworths employee. So it is important for businesses to implement strong internal control measures such as conducting periodic stocktakes.

Source: Based on information from A. Bentley 2010, 'Woolies manager jailed for giving away $100 000 worth of lollies, soft drinks', *Brisbane Times*, 5 August; and B. Speedy 2012, 'Shops steel themselves to combat shrinkage', *The Australian,* 28 March.

Determining ownership of goods

To determine ownership of goods, two questions must be answered: Do all of the goods included in the count belong to the entity? Does the entity own any goods that were not included in the count?

Goods in transit. A complication in determining ownership is **goods in transit** (on board a truck, train, ship or plane) at the end of the period. A business may have purchased goods that have not yet been received, or it may have sold goods that have not yet been delivered. To arrive at an accurate count, ownership of these goods must be determined.

Goods in transit should be included in the inventory of the business that has legal title to the goods. Legal title is determined by the terms of the sale, as shown in figure 5.4 and described in the text that follows.

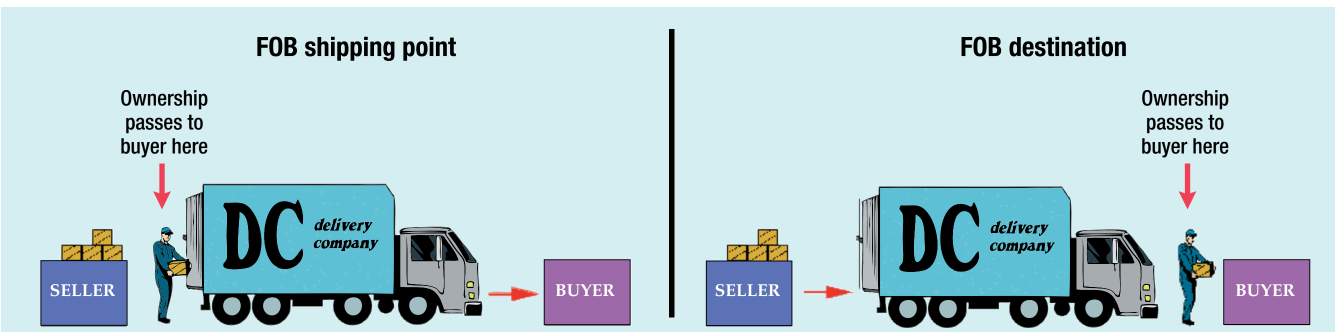


Figure 5.4 Terms of sale

1. When the terms are **FOB (free on board) shipping point**, ownership of the goods passes to the buyer when the delivery entity accepts the goods from the seller.
2. When the terms are **FOB destination**, ownership of the goods remains with the seller until the goods reach the buyer.

Alternative terminology

Other terms for consigned goods are *consignment stock* and *goods on consignment*.

Consigned goods. In some lines of business, it is customary to hold the goods of other parties and try to sell the goods for them for a fee, but without taking ownership of the goods. These are called **consigned goods**. For example, you might have a used car that you would like to sell. If you take the car to a dealer, the dealer might be willing to put the car in its car sales yard and charge you a commission if it is sold. But under this agreement the dealer would not take ownership of the car, which would still belong to you. Therefore, if an inventory count were taken, the car would not be included in the dealer's inventory. Many car, boat and antique dealers sell goods on consignment to keep their inventory costs down and to avoid the risk of purchasing an item that they won't be able to sell.

Alternative terminology

Another term for beginning inventory is *opening inventory*.

Calculating cost of sales

We have now reached the point where we can calculate cost of sales. Doing so involves two steps.

1. Add the cost of goods purchased to the cost of goods on hand at the beginning of the period (beginning inventory) to obtain the **cost of goods available for sale**.
2. Subtract the cost of goods on hand at the end of the period (ending inventory) from the cost of goods available for sale to arrive at the *cost of sales*.

For example, assume PW Audio Supply Ltd has beginning inventory of $36 000 and ending inventory of $40 000, and that the cost of goods purchased during the period is $320 000. The cost of goods available for sale and cost of sales can be calculated as shown in figure 5.5.

	Beginning inventory	$ 36 000
(1)	Add: Cost of goods purchased	320 000
	Cost of goods available for sale	**356 000**
(2)	Less: Ending inventory	(40 000)
	Cost of sales	**$316 000**

Figure 5.5 Calculation of cost of goods available for sale and cost of sales

STATEMENT OF PROFIT OR LOSS PRESENTATION

LEARNING OBJECTIVE 4

Identify the unique features of the statement of profit or loss for a merchandising business under a periodic inventory system.

The statement of profit or loss for a merchandising business is the same whether a periodic or perpetual inventory system is used, except for the cost of sales section. Under a periodic inventory system, the cost of sales section generally contains more detail. A statement of profit or loss for PW Audio Supply Ltd, using a periodic inventory system, is shown in figure 5.6.

The use of the periodic inventory system does not affect the content of the statement of financial position. Inventory is reported at the same amount in the current assets section under both the perpetual and periodic inventory systems.

In the remainder of this chapter we discuss additional issues related to inventory costing. To simplify our presentation, we assume a periodic inventory accounting system.

PW AUDIO SUPPLY LTD
Statement of profit or loss
for the year ended 30 June 2017

Sales revenue			
Gross sales revenue			$ 480 000
Less: Sales returns and allowances			(20 000)
Net sales			460 000
Cost of sales			
Inventory, 1 July 2016		**$ 36 000**	
Purchases	**$325 000**		
Less: Purchase returns and allowances	**(17 200)**		
Net purchases	**307 800**		
Add: Freight-in	**12 200**		
Cost of goods purchased		**320 000**	
Cost of goods available for sale		**356 000**	
Inventory, 30 June 2017		**(40 000)**	
Cost of sales			**(316 000)**
Gross profit			144 000
Other operating revenue			24 000
			168 000
Operating expenses			(125 000)
Profit before income tax			43 000
Less: Income tax expense			(12 900)
Profit after income tax			$ 30 100

Figure 5.6 Statement of profit or loss for a merchandising business using a periodic inventory

Helpful hint

The far right column identifies the major subdivisions of the statement of profit or loss. The middle column identifies the main items that make up cost of sales of $316 000. The first column explains cost of goods purchased of $320 000.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. Discuss the three steps in determining cost of sales in a periodic inventory system.
2. What accounts are used in determining the cost of goods purchased?
3. In what ways is a perpetual inventory system different from a periodic inventory system?

>> DO IT

Aussie Mac's accounting records show the following at year-end: freight-in $6100; sales $240 000; purchases $162 500; beginning inventory $18 000; ending inventory $20 000; sales returns and allowances $10 000; purchase returns $8600; and operating expenses $57 000. Calculate these amounts for Aussie Mac:

(a) Net sales.
(b) Cost of goods purchased.
(c) Cost of sales.
(d) Gross profit.
(e) Profit before tax.

REASONING: To calculate the required amounts, it is important to know the relationships in measuring profit for a merchandising business. For example, it is necessary to know the difference between sales and net sales, goods available for sale and cost of sales, and gross profit and profit.

SOLUTION:

(a) Net sales: Sales − Sales returns and allowances
$240 000 − $10 000 = $230 000
(b) Cost of goods purchased:
Purchases − Purchase returns + Freight-in
$162 500 − $8600 + $6100 = $160 000
(c) Cost of sales:
Beginning inventory + Cost of goods purchased − Ending inventory
$18 000 + $160 000 − $20 000 = $158 000
(d) Gross profit: Net sales − Cost of sales
$230 000 − $158 000 = $72 000
(e) Profit before income tax: Gross profit − Operating expenses
$72 000 − $57 000 = $15 000

LEARNING OBJECTIVE 5

Explain the basis of accounting for inventories and apply the inventory cost flow methods under a periodic inventory system.

INVENTORY COST FLOW METHODS — PERIODIC SYSTEM

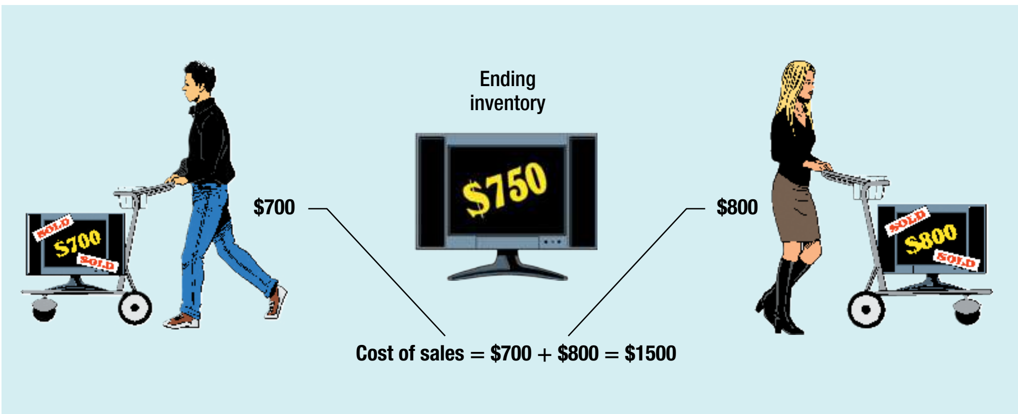
Purchases, purchase returns and allowances, and freight-in are all costs included in the cost of goods available for sale. Cost of goods available for sale must be allocated between cost of sales and ending inventory at the end of the accounting period. First, the costs assignable to the ending inventory are determined. Second, the cost of the ending inventory is subtracted from the cost of goods available for sale to determine the cost of sales. (Refer back to figure 5.5, p. 277, to see this calculation.)

Determining ending inventory can be complicated if the units on hand for a specific item of inventory have been purchased at different times. This is particularly so in periods of changing price levels. In the following sections we explore the effect of purchasing inventory at different prices. To illustrate, assume that Crivitz TV purchases three televisions at costs of $700, $750 and $800 and, during the year, two sets are sold at $1200 each. Ending inventory might be $700, $750 or $800, and corresponding cost of sales might be $1550 ($750 + $800), $1500 ($700 + $800), or $1450 ($700 + $750), depending on how Crivitz measures the cost flows of the inventory purchased and sold. In this section we discuss alternative inventory costing methods. To simplify our presentation we assume a periodic inventory system. Inventory costing methods are applied to the perpetual inventory system in appendix 5A.

SPECIFIC IDENTIFICATION

If we determine that the television in Crivitz's inventory is the one originally purchased for $750, then the ending inventory is $750 and cost of sales is $1500 ($700 + $800). If Crivitz can positively identify which particular units were sold and which are still in ending inventory, it can use the **specific identification method** of inventory costing (see figure 5.7). In this case ending inventory and cost of sales are easily and accurately determined.

Specific identification is possible when a business sells a limited variety of high-unit-cost items that can be identified clearly from the time of purchase to the time of sale. Examples of such businesses are motor vehicle dealerships (cars, trucks and vans), jewellery stores (diamond rings and gold necklaces), and antique shops (tables and cabinets).



Helpful hint

A major disadvantage of the specific identification method is that management may be able to manipulate profit by choosing to supply a good with a low or high unit cost, once the sale is made to a customer.

Figure 5.7 Specific identification method

But what if we cannot specifically identify particular inventory units? For example, supermarkets, newsagents and hardware stores sell thousands of relatively low-unit-cost items of inventory. These items are often indistinguishable from one another, making it impossible or impractical to track each item's cost. In that case, we must make assumptions, called *cost flow assumptions*, about which units were sold.

COST FLOW ASSUMPTIONS

Because specific identification is often impractical, other cost flow methods are used. These differ from specific identification in that they *assume* flows of costs that may be unrelated to the physical flow of goods. There are three assumed cost flow methods:

1. first-in, first-out (FIFO)
2. last-in, first-out (LIFO)
3. average cost.

There is no accounting requirement that the cost flow assumption be consistent with the physical movement of the goods. The selection of the appropriate cost flow method is made by management and depends on many factors including the type of inventory, the effect that each method has on the financial statements, accounting standards, income tax laws, cost and the information needs of management and financial statement users. Under the international accounting standard IAS 2/AASB 102 *Inventories*, some costing methods are acceptable and others are not. This standard applies in Australia and New Zealand as these countries, along with many other countries, have adopted international accounting standards. Specific identification, FIFO and average cost methods are acceptable, but the standards exclude the use of the LIFO method. The standards require organisations to use the same costing method for all inventories of a similar nature but permit different costing methods for inventories that have a different nature or use. For example, Coca-Cola Amatil uses the FIFO method and average cost method for its inventories — whichever is the most appropriate in each case.

DECISION MAKING

While use of the LIFO method is not permitted under Australian and New Zealand standards, it is permitted in the United States, as shown in an extract from the Financial Accounting Standards Board (FASB) General Standards:

> Cost for inventory purposes shall be determined under any one of several assumptions as to the flow of cost factors (such as first-in, first-out; average; and last-in, first-out); the major objective in selecting a method shall be to choose the one that most clearly reflects periodic income. (FASB Inventory — Section I78, paragraph 107.)

Given that we operate in a global economy, it is possible that you could work for a company with an Australian subsidiary, whose head office is in the United Sates and uses the LIFO inventory method. In this case, it would be helpful for you to understand the LIFO inventory method. You may also be interested in examining and/or comparing financial statements of international companies for investment purposes. Understanding how inventory figures can be affected by different inventory cost flows will assist your decision-making processes.

The FIFO, LIFO and average cost flow methods are illustrated using Dubbo Electronics which uses a periodic inventory system and has the information shown in figure 5.8 for its Astro condenser.

DUBBO ELECTRONICS
Astro condensers

Date	Explanation	Units	Unit cost	Total cost
Jan. 1	Beginning inventory	100	$10	$ 1 000
Apr. 15	Purchase	200	11	2 200
Aug. 24	Purchase	300	12	3 600
Nov. 27	Purchase	400	13	5 200
	Total	1 000		$12 000

Figure 5.8 Cost of goods available for sale

The business had a total of 1000 units available that it could have sold during the period. The total cost of these units was $12 000. A physical inventory at the end of the year determined that during the year 550 units were sold and 450 units were in inventory at 31 December. The question, then, is how to determine what costs should be allocated to the goods sold and to the ending inventory. The sum of the cost allocated to the units sold plus the cost of the units in inventory must add up to $12 000, the total cost of all goods available for sale.

First-in, first-out (FIFO)

The **FIFO method** assumes that the first goods purchased are the first to be sold. FIFO often parallels the actual physical flow of merchandise because it generally is good business practice to sell the oldest units first, especially with perishable goods. Under the FIFO method, therefore, the costs of the earliest goods purchased are the first to be recognised as cost of sales. (Note that this does not necessarily mean that the oldest units *are* sold first, but that the costs of the oldest units are recognised first. In a bin of picture hangers at the hardware store, for example, no one really knows, nor would it matter, which hangers are sold first.) The allocation of the cost of goods available for sale at Dubbo Electronics under FIFO is shown in figure 5.9.

Note that under FIFO, since it is assumed that the first goods purchased were the first goods sold, ending inventory is based on the costs of the most recent units purchased. That is, under FIFO, the cost of the ending inventory is obtained by taking the unit cost of the most recent purchase and working backwards until all units of inventory have been costed. In this example, the 450 units of ending inventory must be costed using the most recent costs. The last purchase was 400 units at $13 on 27 November. The remaining 50 units are allocated the cost of the second most recent purchase, $12, on 24 August. Next, cost of sales is calculated by subtracting the cost of the units not sold (ending inventory) from the cost of all goods available for sale.

COST OF GOODS AVAILABLE FOR SALE				
Date	**Explanation**	**Units**	**Unit cost**	**Total cost**
Jan. 1	Beginning inventory	100	$10	$ 1 000
Apr. 15	Purchase	200	11	2 200
Aug. 24	Purchase	300	12	3 600
Nov. 27	Purchase	400	13	5 200
	Total	1 000		**$12 000**

STEP 1: ENDING INVENTORY

Date	Units	Unit cost	Total cost
Nov. 27	400	$13	$ 5 200
Aug. 24	50	12	600
Total	450		**$5 800**

STEP 2: COST OF SALES

Cost of goods available for sale	$12 000
Less: Ending inventory	5 800
Cost of sales	**$ 6 200**

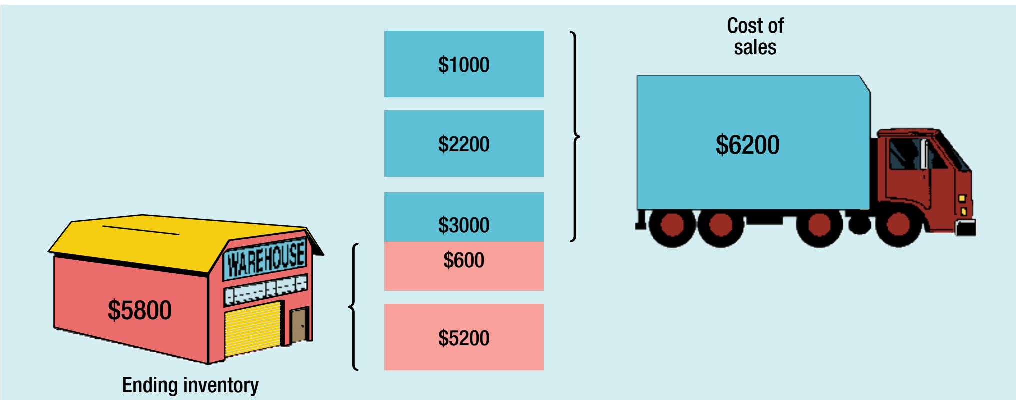


Figure 5.9 Allocation of costs — FIFO method

Helpful hint

Note the sequencing of the allocation: (1) calculate ending inventory and (2) determine cost of sales.

Figure 5.10 demonstrates that cost of sales can also be calculated by accounting for the 550 units sold using the costs of the first 550 units acquired. Note that of the 300 units purchased on 24 August, only 250 units are assumed sold. This agrees with our calculation of the cost of ending inventory, where 50 of these units were assumed unsold and thus included in ending inventory.

Date	Units	Unit cost	Total cost
Jan. 1	100	$10	$ 1 000
Apr. 15	200	11	2 200
Aug. 24	250	12	3 000
Total	550		**$6 200**

Figure 5.10 Proof of cost of sales

Last-in, first-out (LIFO)

The **LIFO method** assumes that the last goods purchased are the first to be sold. LIFO seldom coincides with the actual physical flow of inventory. (Exceptions include goods stored in piles, such as coal or hay, where goods are removed from the top of the pile as sold.) Under the LIFO method, the costs of the last goods purchased are the first to be recognised as cost of sales. The allocation of the cost of goods available for sale at Dubbo Electronics under LIFO is shown in figure 5.11 overleaf.

COST OF GOODS AVAILABLE FOR SALE				
Date	**Explanation**	**Units**	**Unit cost**	**Total cost**
Jan. 1	Beginning inventory	100	$10	$ 1 000
Apr. 15	Purchase	200	11	2 200
Aug. 24	Purchase	300	12	3 600
Nov. 27	Purchase	400	13	5 200
	Total	1 000		**$12 000**

STEP 1: ENDING INVENTORY

Date	Units	Unit cost	Total cost
Jan. 1	100	$10	$ 1 000
Apr. 15	200	11	2 200
Aug. 24	150	12	1 800
Total	450		**$5 000**

STEP 2: COST OF SALES

Cost of goods available for sale	$12 000
Less: Ending inventory	5 000
Cost of sales	**$7 000**

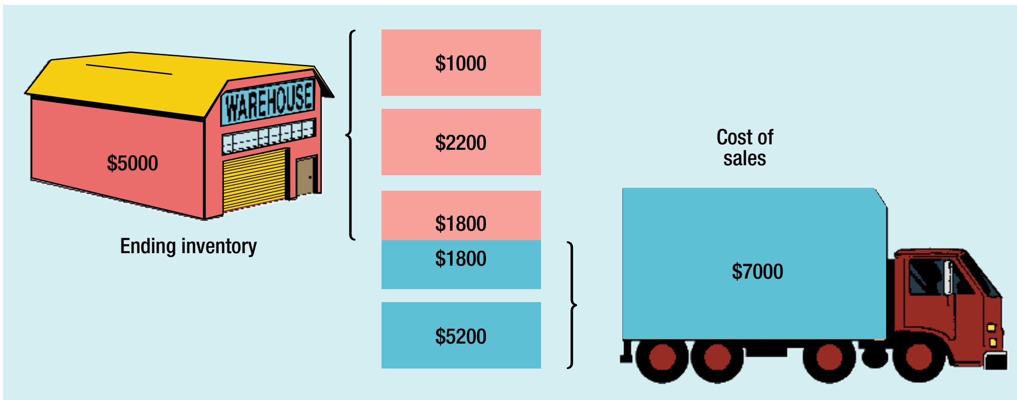


Figure 5.11 Allocation of costs — LIFO method

Helpful hint

In some cases, the 'unit' might be a litre of petrol or a kilogram of sand rather than a single item of inventory such as a car tyre or a fridge.

Under LIFO, since it is assumed that the first goods sold were those that were most recently purchased, ending inventory is based on the costs of the oldest units purchased. That is, under LIFO, the cost of the ending inventory is obtained by taking the unit cost of the earliest goods available for sale and working forward until all units of inventory have been costed. In this example, the costs of the earliest purchases are allocated to the 450 units of ending inventory. The first purchase was 100 units at $10 in the 1 January beginning inventory. Then 200 units were purchased at $11. The remaining 150 units needed cost $12 per unit (24 August purchase). Next, cost of sales is calculated by subtracting the cost of the unsold units (ending inventory) from the cost of all goods available for sale.

Figure 5.12 demonstrates that cost of sales can also be calculated by allocating the cost of the most recent purchases to the 550 units sold. Note that of the 300 units purchased on 24 August, only 150 units are assumed sold. This agrees with our calculation of the cost of ending inventory, where 150 of these units were assumed unsold and thus included in ending inventory.

Date	Units	Unit cost	Total cost
Nov. 27	400	$13	$ 5 200
Aug. 24	150	12	1 800
Total	550		**$7 000**

Figure 5.12 Proof of cost of sales

Under a periodic inventory system, which we are using here, all goods purchased during the period are assumed to be available for the first sale, regardless of the date of purchase. No attempt is made to compare the dates of sales with purchase dates, as is done when using the perpetual system. Hence, it is possible to allocate the cost of an item that has not yet been purchased at the time of the sale.

Average cost

The **average cost method** allocates the cost of goods available for sale on the basis of the **weighted average unit cost** incurred. The average cost method assumes that goods are similar in nature. The formula and a sample calculation of the weighted average unit cost are given in figure 5.13.

Cost of goods available for sale	÷	Total units available for sale	=	Weighted average unit cost
\$12 000	÷	1000	=	\$12.00

Figure 5.13 Formula for weighted average unit cost

The weighted average unit cost is then applied to the units on hand to determine the cost of the ending inventory. The allocation of the cost of goods available for sale at Dubbo Electronics using average cost is shown in figure 5.14.

COST OF GOODS AVAILABLE FOR SALE

Date	Explanation	Units	Unit cost	Total cost
Jan. 1	Beginning inventory	100	\$10	\$ 1 000
Apr. 15	Purchase	200	11	2 200
Aug. 24	Purchase	300	12	3 600
Nov. 27	Purchase	400	13	5 200
	Total	1 000		\$12 000

STEP 1: ENDING INVENTORY

\$12 000 ÷ 1000 = \$12.00

Units	Unit cost	Total cost
450	\$12.00	\$5 400

STEP 2: COST OF SALES

Cost of goods available for sale	\$12 000
Less: Ending inventory	5 400
Cost of sales	\$6 600

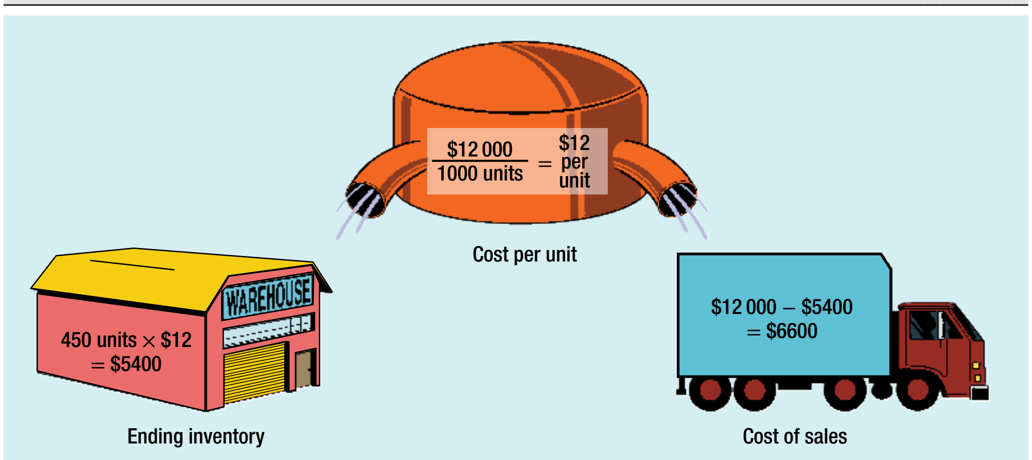


Figure 5.14 Allocation of costs — average cost method

We can verify the cost of sales under this method by multiplying the units sold by the weighted average unit cost (550 × \$12 = \$6600). Note that this method does not use the simple average of the unit costs. That average is \$11.50 (\$10 + \$11 + \$12 + \$13 = \$46; \$46 ÷ 4). The average cost method instead uses the average *weighted* by the quantities purchased at each unit cost.

APPLICATION IN BUSINESS

Management perspective

For retail businesses, determining the cost of inventory can be difficult where the inventory comprises a large number of items with high turnover and the cost of individual items is not readily available. In these circumstances, the **retail inventory method** is used. This method uses the current selling prices of inventories and *reduces* selling prices to cost by subtracting average mark-up ratios. Woolworths Ltd uses the retail inventory method to determine inventory costs. IAS 2/AASB 102 permits the use of the retail inventory method only when it results in an amount that reasonably approximates the lower of cost and net realisable value.

LEARNING OBJECTIVE 6

Explain the financial statement effects of each of the inventory cost flow methods.

FINANCIAL STATEMENT EFFECTS OF COST FLOW METHODS

Only two of the three assumed cost flow methods are acceptable in Australia and New Zealand. Fantastic Holdings Ltd and Domino's Pizza Enterprises Ltd, for example, use the FIFO method of inventory costing. Kathmandu, Coles and Woolworths use the average cost method for all or part of their inventory. Indeed, a business may use more than one cost flow method at the same time. For example, Country Road and Coca-Cola Amatil value their inventory by applying either FIFO or average cost to each particular class of inventory. Figure 5.15 shows the use of cost flow methods in major Australian businesses. It is evident that the use of inventory cost flow methods varies among businesses and it is important to note that the use of each of these methods has varying effects on:

1. the statement of profit or loss
2. the statement of financial position
3. taxation.

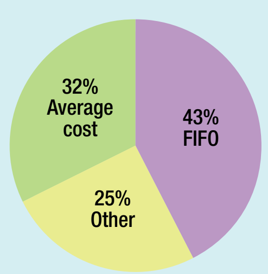


Figure 5.15 Use of cost flow methods in major Australian businesses

STATEMENT OF PROFIT OR LOSS EFFECTS

To understand why businesses might choose a particular cost flow method, let's examine the effects of the different cost flow assumptions on the financial statements of Dubbo Electronics. The statements of profit or loss in figure 5.16 assume that Dubbo Electronics sold its 550 units for \$11 500, had operating expenses of \$2000, and is subject to an income tax rate of 30%.

DECISION MAKING

DUBBO ELECTRONICS
Statements of profit or loss

	FIFO	LIFO	Average cost
Sales	\$ 11 500	\$ 11 500	\$ 11 500
Beginning inventory	1 000	1 000	1 000
Purchases	11 000	11 000	11 000
Cost of goods available for sale	12 000	12 000	12 000
Less: Ending inventory	**(5 800)**	**(5 000)**	**(5 400)**
Cost of sales	6 200	7 000	6 600
Gross profit	5 300	4 500	4 900
Less: Operating expenses	(2 000)	(2 000)	(2 000)
Profit before income tax	3 300	2 500	2 900
Less: Income tax expense (30%)	(990)	(750)	(870)
Profit after income tax	**\$ 2 310**	**\$ 1 750**	**\$ 2 030**

Figure 5.16 Comparative effects of cost flow methods

Although the cost of goods available for sale ($12 000) is the same under each of the three inventory cost flow methods, both the ending inventories and costs of sales are different. This difference is due to the unit costs that are allocated to cost of sales and to ending inventory. Each dollar of difference in ending inventory results in a corresponding dollar difference in profit before income tax. For Dubbo, an $800 difference exists between FIFO and LIFO cost of sales.

In periods of changing prices, the cost flow assumption can have a significant impact on profit and on evaluations based on profit. In most instances, prices are rising (inflation). In a period of inflation, FIFO produces a higher profit because the lower unit costs of the first units purchased are matched against revenues. In a period of rising prices (as is the case here for Dubbo), FIFO reports the highest profit ($2310) and LIFO the lowest ($1750); average cost falls in the middle ($2030). If prices are falling, the results from the use of FIFO and LIFO are reversed where FIFO will report the lowest profit and LIFO the highest. To management, higher profit is an advantage as it causes external users to view the business more favourably. In addition, if management bonuses are based on profit, FIFO will provide the basis for higher bonuses.

Some argue that the use of LIFO in a period of inflation enables an entity to avoid reporting paper profit or phantom profit. To illustrate, assume that Kralik Ltd buys 200 units of a product at $20 per unit on 10 January and 200 more on 31 December at $24 each. During the year, 200 units are sold at $30 each. The results under FIFO and LIFO are shown in figure 5.17.

Helpful hint

Managers of different businesses in the same industry may reach different conclusions as to the most appropriate inventory method.

	FIFO	LIFO
Sales (200 × $30)	$ 6 000	$ 6 000
Cost of sales	**4 000 (200 × $20)**	**4 800 (200 × $24)**
Gross profit	$ 2 000	$ 1 200

Figure 5.17 Statement of profit or loss effects compared

Under LIFO, Kralik Ltd has recovered the current replacement cost ($4800) of the units sold. Thus, the gross profit in economic terms is real. However, under FIFO, the entity has recovered only the 10 January cost ($4000). To replace the units sold, it must reinvest $800 (200 × $4) of the gross profit. Thus, $800 of the gross profit is said to be phantom or illusory. As a result, reported profit is also overstated in real terms.

STATEMENT OF FINANCIAL POSITION EFFECTS

A major advantage of the FIFO method is that, in a period of inflation, the costs allocated to ending inventory will approximate their current cost. For example, for Dubbo Electronics, 400 of the 450 units in the ending inventory are costed under FIFO at the higher 27 November unit cost of $13.

Conversely, a major shortcoming of the LIFO method is that, in a period of inflation, the costs allocated to ending inventory may be significantly understated in terms of current cost. This is true for Dubbo Electronics, where the cost of the ending inventory includes the $10 unit cost of the beginning inventory. The understatement becomes greater over prolonged periods of inflation if the inventory includes goods purchased several years earlier.

TAXATION EFFECTS

We have seen that both inventory on the statement of financial position and profit on the statement of profit or loss are higher when FIFO is used in a period of inflation. In the United States, many companies have switched to LIFO. The reason is that LIFO results in the lowest income taxes (because of lower profit) during times of rising prices. For example, at Dubbo Electronics, income tax would be $750 under LIFO, compared with $990 under FIFO. The tax saving of $240 makes more cash available for use in the business. Recall, however, that LIFO is not allowed in Australia or New Zealand.

INTERNATIONAL NOTE

In the United States, a tax rule, often referred to as the *LIFO conformity rule*, requires that if LIFO is used for tax purposes it must also be used for financial reporting purposes. This means that if a company chooses the LIFO method to reduce its tax expense, it will also have to report lower profit in its financial statements.

Helpful hint

As you learned in chapter 1, comparability is an important characteristic of accounting information.

USING INVENTORY COST FLOW METHODS CONSISTENTLY

Whatever cost flow method a business chooses, it should be used consistently from one accounting period to another. Consistent application enhances the comparability of financial statements over successive periods. In contrast, using the FIFO method one year and the average cost method the next year makes it difficult to compare the profits of the two years.

Although consistent application is preferred, it does not mean that a business may *never* change its method of inventory costing. When a business adopts a different method, the change and its effects on profit should be disclosed in the financial statements.

LEARNING OBJECTIVE 7

Explain the lower of cost and net realisable value basis of accounting for inventories.

VALUING INVENTORY AT THE LOWER OF COST AND NET REALISABLE VALUE

Cost is the main basis for recording and reporting most assets, including inventory. When the cost of inventory fluctuates, inventory costing methods can be used to determine inventory cost. However, when there has been a decrease in the selling price of inventory, in certain circumstances it is necessary to report inventory at an amount below its original cost. The decline in selling price may be due to a decrease in demand, increase in competition, or to obsolescence or damage.

The value of the inventory of businesses selling high-technology or fashion goods can drop very quickly due to changes in technology or changes in fashions. For example, suppose you are the owner of a retail store that sells computers. Imagine that during the last 12 months the selling price of the computers has dropped $500 per unit and the selling price is now below the original cost. At the end of your financial year, you have some of these computers in inventory. Do you think your inventory should be stated at cost, in accordance with historical cost measurement, or at its lower selling value?

As you probably reasoned, this situation requires a departure from the cost basis of accounting. When the selling value of inventory is lower than its cost, the inventory is written down to its net realisable value. This is done by debiting inventory write-down expense, crediting inventory, and reporting inventory at the **lower of cost and net realisable value (LCNRV)** in the period in which the decline in net realisable value occurs.

LCNRV is applied to the items in inventory after one of the cost flow methods (specific identification, FIFO, LIFO or average cost) has been used to determine cost. Under the LCNRV rule, net realisable value is not just the selling price. IAS 2/AASB 102 defines **net realisable value (NRV)** as the estimated selling price in the ordinary course of business *less*, where applicable, estimated further costs to be incurred in completing, marketing, selling and distributing to customers.

APPLICATION IN BUSINESS

Management perspective

Inventory management for entities that make and sell high-tech products is very complex because the product life cycle is so short. The entity wants to have enough inventory to meet demand but doesn't want too much because the introduction of a new product wipes out demand for the 'old' product.

Take Apple's iPod as an example. Since its launch in October 2001, there have been many models and generations of iPod. These range from Classic (six generations), Mini (two generations), Nano (seven generations), Shuffle (four generations) and Touch (five generations). So in less than 15 years, there have been five models and 24 generations of iPod, and that's just one product line out of the hundreds that Apple manages! As sales of its existing models boomed Apple was frequently faced with shortages so it started increasing its inventories. Then sales started to slow and inventories started to grow faster than desired. Apple's management has to be very careful in phasing out old models while new ones are being introduced. Otherwise, it would be left with mountains of old inventory.

Source: Based on information from Apple Inc.'s web site, www.apple.com.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What factors should be considered by management in selecting an inventory cost flow method?
2. What inventory cost flow method does Domino's use for its inventories? (*Hint:* You will need to examine the notes to the company's financial statements.) (The answer to this question is on p. 323.)
3. Which inventory cost flow method produces the highest profit in a period of rising prices?
4. When should inventory be reported at a value other than cost?

>> DO IT

The accounting records of U-Beaut Compute show the following data.

Beginning inventory	4000 units at $3
Purchases	6000 units at $4
Sales	5000 units at $12

Determine the cost of sales during the period under a periodic inventory system using (a) the FIFO method, (b) the LIFO method and (c) the average cost method.

REASONING: Because the units of inventory on hand and available for sale may have been purchased at different prices, a systematic method must be adopted to allocate the costs between the goods sold and the goods on hand (ending inventory).

SOLUTION:

(a) FIFO: (4000 @ $3) + (1000 @ $4) = $12 000 + $4000 = $16 000
(b) LIFO: 5000 @ $4 = $20 000
(c) Average cost: [(4000 @ $3) + (6000 @ $4)] ÷ 10 000
= ($12 000 + $24 000) ÷ 10 000
= $3.60 per unit; 5000 @ $3.60 = $18 000

ANALYSIS OF INVENTORY

LEARNING OBJECTIVE 8
Calculate and interpret inventory turnover.

For businesses that sell goods, managing inventory levels can be one of the most critical tasks. Having too much inventory on hand costs the business money in storage costs, interest cost (on funds tied up in inventory), and costs associated with the obsolescence of technical goods (e.g. computer chips) or shifts in fashion for products like clothes. So, for example, most retailers tend to hold higher inventory levels during November and December to provide better service to customers over the Christmas period. In this section we discuss some issues related to evaluating inventory levels.

INVENTORY TURNOVER

Inventory turnover is calculated as the cost of sales divided by average inventory. The cost of sales is used rather than sales, as the cost of sales and inventory are stated at cost. **Days in inventory** indicates the average number of days inventory is held by the entity. It is calculated as 365 days divided by inventory turnover. Both measures indicate how quickly an entity sells its goods, i.e. how many times the inventory 'turns over' (is sold) during the year. High inventory turnover or low days in inventory indicates the entity is tying up little of its funds in inventory as it has a minimal amount of inventory on hand at any one time. Although minimising the funds tied up in inventory is efficient, too high an inventory turnover may indicate that the entity is losing sales opportunities due to inventory shortages. Management should therefore monitor inventory turnover closely to achieve the optimal balance between too much and too little inventory held.

In chapter 1 we introduced ratio analysis using 2013 data from Nick Scali and Fantastic Holdings to illustrate how to calculate and interpret profitability, liquidity and solvency ratios. To continue our analysis and our understanding of these companies, figure 5.18 presents inventory turnover and days in inventory for those two entities, using data from their financial statements for 2013 and 2012.

$$\text{Inventory turnover} = \frac{\text{Cost of sales}}{\text{Average inventory}}$$

$$\text{Days in inventory} = \frac{365}{\text{Inventory turnover}}$$

($ in thousands)		2013	2012
Fantastic Holdings	Inventory turnover	$\frac{\$235\,882}{(\$74\,503 + \$75\,584)/2} = 3.14$ times	$\frac{\$231\,013}{(\$75\,584 + \$79\,316)/2} = 2.98$ times
	Days in inventory	$\frac{365 \text{ days}}{3.14} = 116$ days	$\frac{365 \text{ days}}{2.98} = 122$ days
Nick Scali	Inventory turnover	$\frac{\$49\,925}{(\$14\,569 + \$13\,649)/2} = 3.54$ times	$\frac{\$42\,833}{(\$13\,649 + \$12\,247)/2} = 3.31$ times
	Days in inventory	$\frac{365 \text{ days}}{3.54} = 103$ days	$\frac{365 \text{ days}}{3.31} = 110$ days

Figure 5.18 Inventory turnover and days in inventory

Amounts used to calculate average inventory are taken from the respective columns in the 2013 statement of financial position. Inventory at year-end for 2011 for Fantastic Holdings and Nick Scali respectively was $79 316 and $12 247 (in thousands). The amounts in the ratio calculations have been rounded to the nearest thousand.

The calculations in figure 5.18 show that Fantastic Holdings' inventory turnover improved from 2.98 times in 2012 to 3.14 times in 2013. Consequently, the average time an item of furniture spends on a Fantastic Holdings showroom floor or in the warehouse has shortened from 122 days in 2012 to 116 days in 2013.

More efficient management of inventory by Nick Scali led to lower levels of inventory held in proportion to sales. This made a significant improvement on its inventory turnover ratio which increased from 3.31 times in 2012 to 3.54 times in 2013, thereby reducing days in inventory from 110 days to 103 days, which is considerably faster than Fantastic Holdings.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

What is the purpose of calculating inventory turnover? What is the relationship between inventory turnover and average days in inventory?

DECISION MAKING

Using the decision-making toolkit below, managers and external users can evaluate the entity's ability to sell its inventory. The decision focuses on the length of time that inventory is held before it is sold. Using the cost of sales and inventory figures, two measures can be calculated. The inventory turnover measures the number of times per annum an entity sells its inventory. The days in inventory ratio converts the inventory turnover into days. A high inventory turnover or a low number of days inventory held both indicate that the entity is efficient in selling its inventory quickly. Slow moving inventory may be of concern to managers and potential investors as any increase in the costs associated with wastage and obsolescence may have an adverse effect on profitability.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
How long is an item held in inventory?	Cost of sales; beginning and ending inventory	$\text{Inventory turnover} = \frac{\text{Cost of sales}}{\text{Average inventory}}$ $\text{Days in inventory} = \frac{365 \text{ days}}{\text{Inventory turnover}}$	A higher inventory turnover ratio or lower average days in inventory suggests that the entity is efficient in managing and selling its inventory.

USING THE DECISION-MAKING TOOLKIT

CSR Ltd is a one of Australia's leading manufacturing companies, supplying building products, sugar and renewable energy. Figures for inventory from the 2014 annual report for CSR Ltd are shown below.

CSR LTD
Notes to the financial statements

Note 10. Inventories
The components of inventories are summarised at 31 March* as follows (in millions):

	2014	2013
Current		
Raw and process materials and stores	$ 84.2	$ 84.7
Work in progress	13.0	12.6
Finished goods	175.7	176.8
Land held for sale	53.5	40.9
Total current inventories	$326.4	$315.0

*Based on CSR Group figures. Only the current inventories are included.

In the note on the significant accounting policies on page 50 of the 2014 annual report for CSR Ltd, the section on inventories states:

> Inventories are valued at the lower of cost and net realisable value. The value of inventory is derived by the method most appropriate to each particular class of inventory. The major portion is valued on either a first-in-first-out basis or average cost basis.

Some additional facts are ($ millions):

	2014	2013
Current liabilities	$ 425.2	$ 409.5
Current assets	632.1	638.0
Cost of sales	1 235.2	1 229.6
Sales revenue	1 746.6	1 682.4

REQUIRED

Answer the following questions:
(a) Why does CSR Ltd report its inventory in four components?
(b) Why might CSR Ltd use more than one method to account for its inventory?
(c) Calculate each of the following ratios and analyse the changes from 2013 to 2014.
1. Inventory turnover and average days in inventory. (*Hint:* When calculating average inventory, use *only* the finished goods component of inventory. The finished goods inventory for 2012 was $183.6 million.)
2. Current ratio.
3. Gross profit ratio.

SOLUTION

(a) CSR Ltd is a manufacturer, so it purchases and produces raw materials and makes them into finished products. At the end of each period, it has some goods that have been started but are not yet complete, referred to as work in process. By reporting components of inventory, CSR reveals important information about its inventory position. For example, if amounts of raw materials have increased significantly compared with previous year, we might assume the entity is planning to step up production. On the other hand, if levels of finished goods have increased relative to last year and raw materials have declined, we might conclude that sales are slowing down — that the entity has too much inventory on hand and is cutting back production.

(b) Entities are free to choose different cost flow assumptions for different types of inventory. An entity might choose to use FIFO for a class of inventory (e.g. perishable item like sugar) and average cost for another (e.g. roof tiles) due to the different nature of the inventory.

(c)

Ratio		2014	2013
1. Inventory turnover	$= \dfrac{\text{Cost of sales}}{\text{Average inventory}}$	$\dfrac{\$1\,235.2}{(\$175.7 + \$176.8)/2}$ = 7.0 times	$\dfrac{\$1\,229.6}{(\$176.8 + \$183.6)/2}$ = 6.8 times
Days in inventory	$= \dfrac{\text{365 days}}{\text{Inventory turnover}}$	$\dfrac{\text{365 days}}{7.0}$ = 52 days	$\dfrac{\text{365 days}}{6.8}$ = 54 days

CSR Ltd's inventory turnover improved from 6.8 times in 2013 to 7.0 times in 2014. Consequently, the average time inventory was held by CSR decreased from 54 days in 2013 to 52 days in 2014. This was due to an increase in sales and lower levels of inventory held in 2014.

Ratio		2014	2013
2. Current ratio	$= \dfrac{\text{Current assets}}{\text{Current liabilities}}$	$\dfrac{\$632.1}{\$425.2}$ = 1.49	$\dfrac{\$638.0}{\$409.5}$ = 1.56

CSR Ltd's current ratio of 1.56 in 2013 indicates it had $1.56 in current assets to cover each dollar of current liabilities. The decrease in the current ratio to 1.49 in 2014 was attributed to a decrease in current assets and an increase in current liabilities. The overall liquidity of CSR has weakened slightly; however, these results are still within the acceptable range of 1:1 for most industries.

Ratio		2014	2013
3. Gross profit ratio	$= \dfrac{\text{Sales} - \text{Cost of sales}}{\text{Sales}}$	$\dfrac{\$1\,746.6 - \$1\,235.2}{\$1\,746.6}$ = 29%	$\dfrac{\$1\,682.4 - \$1\,229.6}{\$1\,682.4}$ = 27%

CSR's gross profit margin showed an increase from 27% in 2013 to 29% in 2014. This improvement was due to a 4% increase in sales revenue with only a marginal increase in the cost of sales. More efficient management of inventory resulted in lower levels of inventory held.

SUMMARY OF LEARNING OBJECTIVES

1 Record purchases and sales of inventory under a periodic inventory system.
In the records of the purchaser, entries are required for (a) cash and credit purchases, (b) purchase returns and allowances, (c) purchase discounts and (d) freight costs. In the records of the seller, entries are required for (a) cash and credit sales, (b) sales returns and allowances and (c) sales discounts.

2 Determine cost of sales under a periodic inventory system.
The steps in determining cost of sales are (a) recording the purchase of inventory, (b) determining the cost of goods purchased and (c) determining the cost of goods on hand at the beginning and end of the accounting period.

3 Describe the steps in determining inventory quantities.
The steps are (1) counting the physical inventory of goods on hand and (2) determining the status and quantity of goods in transit or on consignment.

4 Identify the unique features of the statement of profit or loss for a merchandising business under a periodic inventory system.
The statement of profit or loss for a merchandising business contains three features not found in a service business's statement of profit or loss: sales revenue, cost of sales, and a gross profit line. The cost of sales section generally shows more detail under a periodic than a perpetual inventory system by reporting beginning and ending inventories, net purchases and total goods available for sale.

5 Explain the basis of accounting for inventories and apply the inventory cost flow methods under a periodic inventory system.
The main basis of accounting for inventories is cost. Cost includes all expenditures necessary to acquire goods and place them in condition ready for sale. Cost of goods available for sale includes (a) cost of beginning inventory and (b) cost of goods purchased. The inventory cost flow

methods are: specific identification and three assumed cost flow methods — FIFO, LIFO and average cost.

6 Explain the financial statement effects of each of the inventory cost flow methods. The cost of goods available for sale may be allocated to cost of sales and ending inventory by specific identification or by a method based on an assumed cost flow. When prices are rising, the first-in, first-out (FIFO) method results in lower cost of sales and higher profit than the average cost and the last-in, first-out (LIFO) methods. The reverse is true when prices are falling. In the statement of financial position, FIFO results in an ending inventory that is closest to current purchase cost, whereas the inventory under LIFO is the furthest from current purchase cost.

7 Explain the lower of cost and net realisable value basis of accounting for inventories. The lower of cost and net realisable value (LCNRV) basis means that when the net realisable value of inventory is less than cost, the inventory should be reported at net realisable value. Under LCNRV, the loss is recognised in the period in which the decline in realisable value occurs.

8 Calculate and interpret inventory turnover. Inventory turnover is calculated as cost of sales divided by average inventory. It can be converted to average days in inventory by dividing 365 days by the inventory turnover. A higher turnover or lower average days in inventory suggests that management is efficient in managing and selling its inventory.

DECISION-MAKING TOOLKIT — A SUMMARY

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
How long is an item held in inventory?	Cost of sales; beginning and ending inventory	Inventory turnover $= \frac{\text{Cost of sales}}{\text{Average inventory}}$ Days in inventory $= \frac{\text{365 days}}{\text{Inventory turnover}}$	A higher inventory turnover or lower average days in inventory suggests that the entity is efficient in managing and selling its inventory.

APPENDIX 5A INVENTORY COST FLOW METHODS — PERPETUAL SYSTEM

LEARNING OBJECTIVE 9
Apply the inventory cost flow methods to perpetual inventory records.

Each of the inventory cost flow methods described in the chapter for a periodic inventory system may be used in a perpetual inventory system. To illustrate the application of the three assumed cost flow methods (FIFO, LIFO and average cost), we will use the data shown below in figure 5A.1 and in this chapter for Dubbo Electronics' Astro Condenser.

DUBBO ELECTRONICS
Astro condensers

Date	Explanation	Units	Unit cost	Total cost	Balance in units
Jan. 1	Beginning inventory	100	$10	$ 1 000	100
Apr. 15	Purchases	200	11	2 200	300
Aug. 24	Purchases	300	12	3 600	600
Sept. 10	Sale	550			50
Nov. 27	Purchases	400	13	5 200	450
				$12 000	

Figure 5A.1 Inventories — units and costs

FIRST-IN, FIRST-OUT (FIFO)

Under FIFO, the cost of the earliest purchases of goods *on hand before* each sale is charged to cost of sales. Therefore, the cost of sales on 10 September consists of the units in beginning inventory on 1 January and the units purchased on 15 April and 24 August. The inventory in a FIFO method perpetual system is shown in figure 5A.2 (overleaf).

Date	Purchases	Sales	Balance
Jan. 1			(100 @ $10) $1000
Apr. 15	(200 @ $11) $2200		(100 @ $10) (200 @ $11) $3200
Aug. 24	(300 @ $12) $3600		(100 @ $10) (200 @ $11) $6800 (300 @ $12)
Sept. 10		(100 @ $10) (200 @ $11) $6200 (250 @ $12)	(50 @ $12) $ 600
Nov. 27	(400 @ $13) $5200		(50 @ $12) (400 @ $13) $5800

Figure 5A.2 Perpetual system — FIFO

The ending inventory in this situation is $5800, and the cost of sales is $6200 [(100 @ $10) + (200 @ $11) + (250 @ $12)].

Regardless of the system (periodic or perpetual), the first costs in are the costs assigned to cost of sales. Recall that under a perpetual system, stock losses and shortages can be separately identified and recorded whereas under a periodic system, stock losses are included as part of cost of sales.

The results under FIFO in a perpetual system are the same as in a periodic system if there are no stock shortages/losses (see figure 5.9 on p. 281 where, similarly, the ending inventory is $5800 and cost of sales is $6200).

LAST-IN, FIRST-OUT (LIFO)

Under the LIFO method using a perpetual system, the costs of the most recent purchases before each sale are allocated to the units sold. Therefore, the cost of sales on 10 September consists of all the units from the 24 August and 15 April purchases and 50 of the units in beginning inventory. The ending inventory on a LIFO method is calculated in 5A.3.

Date	Purchases	Sales	Balance
Jan. 1			(100 @ $10) $1000
Apr. 15	(200 @ $11) $2200		(100 @ $10) (200 @ $11) $3200
Aug. 24	(300 @ $12) $3600		(100 @ $10) (200 @ $11) $6800 (300 @ $12)
Sept. 10		(300 @ $12) (200 @ $11) $6300 (50 @ $10)	(50 @ $10)
Nov. 27	(400 @ $13) $5200		(50 @ $10) (400 @ $13) $5700

Figure 5A.3 Perpetual system — LIFO

The use of LIFO in a perpetual system will usually produce cost allocations that differ from using LIFO in a periodic system. In a perpetual system, the latest units purchased *before each sale* are allocated to cost of sales. In contrast, in a periodic system, the latest units purchased *during the period* are allocated to cost of sales. Costs are allocated to goods sold, commencing with the most *recent* purchases and working backwards to the earlier purchases, irrespective of whether individual purchase transactions predate individual sales transactions. Thus, when a purchase is made after the last sale, the LIFO periodic system will apply costs from this purchase to the previous sale. See figure 5.12 (p. 282) where the proof shows the cost of the 400 units at $13 purchased on 27 November applied to the sale of 550 units on 10 September.

As shown above under the LIFO perpetual system, the costs of the 400 units at $13 purchased on 27 November are all applied to the ending inventory.

The ending inventory in this LIFO perpetual example is $5700 and cost of sales is $6300, as compared with the LIFO periodic example where the ending inventory is $5000 and cost of sales is $7000.

AVERAGE COST

The average cost method in a perpetual inventory system is called the **moving weighted average method**. Under this method a new weighted average unit cost is calculated after each purchase. The average cost is calculated by dividing the cost of goods available for sale by the units on hand. The average cost is then applied to (1) the units sold, to determine the cost of sales, and (2) the remaining units on hand, to determine the ending inventory amount. The application of the average cost method by Dubbo Electronics is shown in figure 5A.4.

Date	Purchases	Sales	Balance
Jan. 1			(100 @ $10) $1000
Apr. 15	(200 @ $11) $2200		(300 @ $10.67) $3200
Aug. 24	(300 @ $12) $3600		(600 @ $11.33) $6800
Sept. 10		(550 @ $11.33) $6233	(50 @ $11.33) $ 567
Nov. 27	(400 @ $13) $5200		(450 @ $12.82) $5767

Figure 5A.4 Perpetual system — average cost method

As indicated above, a new average is calculated each time a purchase is made. On 15 April, after 200 units are purchased for $2200, a total of 300 units costing $3200 ($1000 + $2200) are on hand. The average unit cost is $10.67 ($3200 ÷ 300). On 24 August, after 300 units are purchased for $3600, a total of 600 units costing $6800 ($1000 + $2200 + $3600) are on hand at an average cost per unit of $11.33 ($6800 ÷ 600). This unit cost of $11.33 is used in costing sales until another purchase is made, when a new unit cost is calculated. Accordingly, the unit cost of the 550 units sold on 10 September is $11.33, and the total cost of sales is $6233. On 27 November, following the purchase of 400 units for $5200, there are 450 units on hand costing $5767 ($567 + $5200) with a new average cost of $12.82 ($5767 ÷ 450).

This moving average cost under the perpetual inventory system should be compared with figure 5.14 (p. 283) showing the weighted average method under a periodic inventory system.

DEMONSTRATION PROBLEM FOR APPENDIX 5A

The Demonstration Problem on page 301 shows cost of sales calculations for the New Zealand Souvenir Shop Pty Ltd under a periodic inventory system. Here, we assume that the New Zealand Souvenir Shop Pty Ltd uses a perpetual inventory system and has the same inventory, purchases and sales data for the month of March as shown there:

Inventory, March 1	200 units @ $4.00	$ 800
Purchases		
March 10	500 units @ $4.50	2250
March 20	400 units @ $4.75	1900
March 30	300 units @ $5.00	1500
Sales		
March 15	500 units	
March 25	400 units	

The physical inventory count on 31 March shows 500 units on hand.

REQUIRED

Under a *perpetual inventory system*, determine the cost of inventory on hand at 31 March and the cost of sales for March under the (a) first-in, first-out (FIFO) method, (b) last-in, first-out (LIFO) method, and (c) average cost method.

SOLUTION TO DEMONSTRATION PROBLEM

The cost of goods available for sale is $6450:

Inventory	200 units @ $4.00	$ 800
Purchases		
March 10	500 units @ $4.50	2250
March 20	400 units @ $4.75	1900
March 30	300 units @ $5.00	1500
Total cost of goods available for sale	1400 units	$6450

Under a *perpetual inventory system*, the cost of sales under each cost flow method is as follows:

FIFO method

Date	Purchases	Sales	Balance
March 1			(200 @ $4.00) $ 800
March 10	(500 @ $4.50) $2250		(200 @ $4.00) (500 @ $4.50) $3050
March 15		(200 @ $4.00) (300 @ $4.50) $2150	(200 @ $4.50) $ 900
March 20	(400 @ $4.75) $1900		(200 @ $4.50) (400 @ $4.75) $2800
March 25		(200 @ $4.50) (200 @ $4.75) $1850	(200 @ $4.75) $ 950
March 30	(300 @ $5.00) $1500		(200 @ $4.75) (300 @ $5.00) $2450

Ending inventory $2450. Cost of sales: $6450 − $2450 = $4000
500 units 900 units

LIFO method

Date	Purchases	Sales	Balance
March 1			(200 @ $4.00) $ 800
March 10	(500 @ $4.50) $2250		(200 @ $4.00) (500 @ $4.50) $3050
March 15		(500 @ $4.50) $2250	(200 @ $4.00) $ 800
March 20	(400 @ $4.75) $1900		(200 @ $4.00) (400 @ $4.75) $2700
March 25		(400 @ $4.75) $1900	(200 @ $4.00) $ 800
March 30	(300 @ $5.00) $1500		(200 @ $4.00) (300 @ $5.00) $2300

Ending inventory $2300. Cost of sales: $6450 − $2300 = $4150
500 units 900 units

Moving average cost method

Date	Purchases	Sales	Balance
March 1			(200 @ $4.00) $ 800
March 10	(500 @ $4.50) $2250		(700 @ $4.357) $3050
March 15		(500 @ $4.357) $2179	(200 @ $4.357) $ 871
March 20	(400 @ $4.75) $1900		(600 @ $4.618) $2771
March 25		(400 @ $4.618) $1847	(200 @ $4.618) $ 924
March 30	(300 @ $5.00) $1500		(500 @ $4.848) $2424

Ending inventory $2424. Cost of sales: $6450 − $2424 = $4026
500 units 900 units

Problem-solving strategies

1. For FIFO, the first costs are allocated to cost of sales.
2. For LIFO, the most recent costs are allocated to cost of sales.
3. For average costs, use a weighted average for periodic and a moving weighted average for perpetual.
4. Remember, the costs allocated to ending inventory can be proved.
5. Total purchases are the same under all three cost flow methods.

Helpful hint

The physical number of units remains the same whichever inventory cost flow method is used. It is the inventory cost ($) that is different.

SUMMARY OF LEARNING OBJECTIVE FOR APPENDIX 5A

9 Apply the inventory cost flow methods to perpetual inventory records.
Under FIFO, the cost of the earliest goods on hand before each sale is charged to cost of sales. Under LIFO, the cost of the most recent purchases before sale is charged to cost of sales. Under the average cost method, a new average cost is calculated after each purchase.

APPENDIX 5B INVENTORY ERRORS

LEARNING OBJECTIVE 10
Indicate the effects of inventory errors on the financial statements.

Unfortunately, errors occasionally occur in accounting for inventory. In some cases, errors are caused by failure to count or price the inventory correctly. In other cases, errors occur because proper recognition is not given to the transfer of legal title to goods that are in transit. When errors occur, they affect both the statement of profit or loss and statement of financial position.

EFFECTS ON PROFIT

As you know, both the beginning and ending inventories appear in the statement of profit or loss. The ending inventory of one period automatically becomes the beginning inventory of the next period. Inventory errors affect the determination of cost of sales and profit in two periods.

The effects on cost of sales can be determined by entering incorrect data in the formula in figure 5B.1 and then substituting the correct data.

Beginning inventory + Cost of goods purchased − Ending inventory = Cost of sales

Figure 5B.1 Formula for cost of sales

If beginning inventory is understated, cost of sales will be understated. On the other hand, understating ending inventory will overstate cost of sales. The effects of inventory errors on the current year's statement of profit or loss are shown in figure 5B.2.

Inventory error	Cost of sales	Profit
Understate beginning inventory	Understated	Overstated
Overstate beginning inventory	Overstated	Understated
Understate ending inventory	Overstated	Understated
Overstate ending inventory	Understated	Overstated

Figure 5B.2 Effects of inventory errors on current year's statement of profit or loss

An error in the ending inventory of the current period will have a reverse effect on profit of the next accounting period. This is shown in figure 5B.3 (overleaf). Note that the understatement of ending inventory in 2015 results in an understatement of beginning inventory in 2016 and an overstatement of profit in 2016.

Over the two years, total profit is correct because the errors offset each other. Notice that total profit using incorrect data is \$35 000 (\$22 000 + \$13 000), which is the same as the total profit of \$35 000 (\$25 000 + \$10 000) using correct data. Also note in this example that an error in the beginning inventory does not result in a corresponding error in the ending inventory for that period. The correctness of the ending inventory depends entirely on the accuracy of taking and costing the inventory at the end of reporting period under the periodic inventory system.

SAMPLE COMPANY
Statement of profit or loss (condensed)

	2015				2016			
	Incorrect		Correct		Incorrect		Correct	
Sales		$80 000		$80 000		$90 000		$90 000
Beginning inventory	$ 20 000		$ 20 000		**$12 000**		**$15 000**	
Cost of goods purchased	40 000		40 000		68 000		68 000	
Cost of goods available for sale	60 000		60 000		80 000		83 000	
Ending inventory	**12 000**		**15 000**		23 000		23 000	
Cost of sales		48 000		45 000		57 000		60 000
Gross profit		32 000		35 000		33 000		30 000
Operating expenses		10 000		10 000		20 000		20 000
Profit		$22 000		$25 000		$13 000		$10 000

$(3000)
Profit
understated

$3000
Profit
overstated

The errors cancel. Thus the combined total profit for the 2-year period is correct, but profit in each period is incorrect.

Figure 5B.3 Effects of inventory errors on two years' statements of profit or loss

APPLICATION IN BUSINESS

International perspective

Inventory error sometimes occurs due to genuine mistakes. However, the valuation of inventory has sometimes been used deliberately by management to manipulate profit figures which can have very negative outcome for stakeholders. Take Harris Scarfe as an example. The department store retailer in South Australia had operated for 150 years before it entered voluntary receivership in April 2001, after authorities discovered irregularities in the company's financial records. Examination revealed that inventory levels were artificially inflated and assets were revalued well above market value. The chief financial officer was founded guilty of altering Harris Scarfe's accounts to inflate the company's profits and creating a false picture that the company was in good financial health, permitting it to trade when it was virtually insolvent. Not surprisingly, Harris Scarfe's suppliers, customers, employees and shareholders were shocked when the thriving business was suddenly faced with cash flow problems. Harris Scarfe was sold to a private consortium in 2001 with shareholders receiving little or no proceeds from the sale. The new owners rationalised and refurbished many of the stores from 2002 onwards which gave the business a new start.

Source: Based on information from 'MD denies lies at Harris Scarfe', *Australian Financial Review*, 8 August 2001; P. Leung & B. J. Cooper 2003, 'The mad hatter's corporate tea party', *Managerial Auditing Journal*, vol. 18, iss. 6/7, pp. 505–16; and information from www.harrisscarfe.com.au/about-us.

EFFECTS ON ASSETS AND EQUITY

The effect of ending inventory errors on the statement of financial position can be determined by using the basic accounting equation: Assets = Liabilities + Equity. Errors in the ending inventory have the effects shown in figure 5B.4.

Ending inventory error	Assets	Liabilities	Equity
Overstated	Overstated	No effect	Overstated
Understated	Understated	No effect	Understated

Figure 5B.4 Effects of ending inventory errors on the statement of financial position

The effect of an error in ending inventory on the subsequent period was shown in figure 5B.3. Recall that if the error is not discovered and corrected, the combined total profit for the two periods is correct. Thus, total equity (shareholders' equity) reported on the statement of financial position at the end of 2016 will also be correct.

SUMMARY OF LEARNING OBJECTIVE FOR APPENDIX 5B

10 Indicate the effects of inventory errors on the financial statements.
In the statement of profit or loss of the current year: (a) an error in beginning inventory will have the opposite effect on profit (overstatement of inventory results in understatement of profit and vice versa) and (b) an error in ending inventory will have a similar effect on profit (e.g. overstatement of inventory results in overstatement of profit). If ending inventory errors are not detected and corrected in the following period, their effect on profit for that period is reversed, and total profit for the two years will be correct. In the statement of financial position, ending inventory errors will have the same effect on total assets and total equity (shareholders' equity) and no effect on liabilities.

APPENDIX 5C CLOSING ENTRIES FOR MERCHANDISING ENTITIES

LEARNING OBJECTIVE 11
Record the closing entries for merchandising entities.

In chapter 3 we demonstrated the closing entries for a service entity. In this appendix we briefly explain the closing entries for merchandising entities by illustrating the journal entries for both the perpetual and periodic inventory methods.

PERPETUAL INVENTORY METHOD

You might recall that all temporary accounts (revenue, expense and drawings/dividends accounts) are closed to the profit or loss summary at the end of the period. If you cannot recall this process clearly please review the text on pages 180–1 before reading further. While some of the closing entries are the same for both types of entity, merchandising entities have extra accounts such as sales returns and allowances and cost of sales that need to be closed at the end of the period. Further, merchandising entities employing the perpetual method for recording inventory transactions have different accounts to entities employing the periodic method. The difference between the two methods is evident in the statements of profit or loss and closing entries shown in figure 5C.1.

Statement of profit or loss (extract) Perpetual inventory method	
Sales revenue	$85 000
Less: Sales returns and allowances	5 000
Net sales revenue	80 000
Less: Cost of sales	57 600
Gross profit	$22 400

Figure 5C.1 Perpetual inventory method

Under the perpetual inventory method, the various temporary credit and debit accounts are closed at the end of the period as illustrated below.

A	=	L	+	E
				−85 000
				+85 000

Dr Sales revenue	85 000	
Cr Profit or loss summary		85 000
(To close various credit accounts — sales revenue — to the profit or loss summary account)		

A	=	L	+	E
				−62 600
				+57 600
				+5 000

Dr Profit or loss summary	62 600	
Cr Cost of sales		57 600
Cr Sales returns and allowances		5 000
(To close various debit accounts — cost of sales and sales returns & allowances — to the profit or loss summary)		

Profit or loss summary

		Closing entry (various credit accounts)	85 000
Closing entry (various debit accounts)	62 600		

Balance = 22 400 (Gross profit)

PERIODIC INVENTORY METHOD

The closing process using the periodic method is not as simple as for the perpetual method, as there is no one cost of sales account that can be closed off to the profit or loss summary account. As shown in figure 5C.2, cost of sales is calculated using a number of different accounts including: beginning inventory *plus* purchases *plus* freight-in *minus* ending inventory *minus* purchase returns *equals* cost of sales.

Statement of profit or loss (extract)
Periodic inventory method

Sales revenue			$85 000
Less: Sales returns and allowances			5 000
Net sales revenue			80 000
Cost of sales:			
Cost of beginning inventory		14 000	
Add: Cost of purchases	60 000		
Freight-in	600		
	60 600		
Less: Purchases returns and allowances	1 000		
Cost of net purchases		59 600	
Cost of goods available for sale		73 600	
Less: Cost of ending inventory		16 000	
Cost of sales			57 600
Gross profit			$22 400

Figure 5C.2 Periodic inventory method

So in *essence*, the following accounts are closed off to the profit or loss summary.

Profit or loss summary

		Sales	85 000
Sales returns	5 000		
Beginning inventory	14 000		
Purchases	60 000	Purchase returns	1 000
Freight-in	600	Ending inventory	16 000

Balance = 22 400 (Gross profit)

However, the amounts are *not* entered individually in the profit or loss summary, but in total as shown in the closing general journal entries below.

Dr Profit or loss summary	79 600	
Cr Beginning inventory		14 000
Cr Sales returns and allowances		5 000
Cr Purchases		60 000
Cr Freight-in		600
(To close various debit accounts to the profit or loss summary)		

A	= L +	E
−14 000		−79 600
		+5 000
		+60 000
		+600

Dr Ending inventory	16 000	
Dr Sales	85 000	
Dr Purchase returns and allowances	1 000	
Cr Profit or loss summary		102 000
(To close various credit accounts to the profit or loss summary)		

A	= L +	E
+16 000		−85 000
		−1 000
		+102 000

Profit or loss summary			
Closing entry (various debit accounts)	79 600	Closing entry (various credit accounts)	102 000
Balance = 22 400 (Gross profit)			

After closing entries have been posted to the general ledger, balances in the various debit and credit accounts are zero and the balance in the profit or loss summary account represents the gross profit (i.e. the net effect of transferring all of the balances of these accounts to the profit or loss summary). The remaining temporary accounts such as interest income or rent expense must also be closed, as illustrated in chapter 3.

WORKSHEET

You may recall that we introduced the worksheet in the appendix to chapter 3. Please refer to pages 187–8 if you need to refresh your memory. Entering the closing entries on a worksheet before preparing journal entries can be helpful. To illustrate, we have entered the closing entries journalised above onto the worksheet (extract) in figure 5C.3.

Perpetual account	**Adjusted trial balance**		**Closing entries**		**Post closing trial balance**	
	Dr	**Cr**	**Dr**	**Cr**	**Dr**	**Cr**
Sales revenue		85 000	85 000			—
Cost of sales	57 600			57 600	—	
Sales returns and allowances	5 000			5 000	—	

Periodic account	**Adjusted trial balance**		**Closing entries**		**Post closing trial balance**	
	Dr	**Cr**	**Dr**	**Cr**	**Dr**	**Cr**
Sales revenue		85 000	85 000			—
Sales returns and allowances	5 000			5 000	—	
Inventory	14 000		16 000	14 000	16 000	
Purchases	60 000			60 000	—	
Freight-in	600			600	—	
Purchase returns and allowances		1 000	1 000			—

Figure 5C.3 Worksheet (extract) closing entries for merchandising organisations

It is important to observe that under the periodic system the inventory account is both credited and debited. The opening balance of Inventory is credited to clear this old balance and the closing balance is debited to ensure the correct closing inventory is recorded in the inventory general ledger account and then subsequently transferred to the financial statements.

SUMMARY OF LEARNING OBJECTIVE FOR APPENDIX 5C

11 Record the closing entries for merchandising entities.
One purpose of closing entries is to transfer the results of the operations for the year to retained earnings and render all temporary account balances zero. The closing entries for merchandising entities are similar to service entities; however, merchandising entities have extra accounts related to the sale of inventory, such as sales returns and allowances and cost of sales, that need to be closed at the end of the period.

GLOSSARY

Average cost method An inventory costing method that uses the weighted average unit cost to allocate the cost of goods available for sale to ending inventory and cost of sales (p. 283).

Consigned goods Goods held for sale by one party (the consignee) although ownership of the goods is retained by another party (the consignor) (p. 276).

Cost of goods available for sale The sum of the beginning inventory and the cost of goods purchased (p. 276).

Cost of goods purchased The sum of net purchases and freight-in (p. 274).

Cost of sales The total cost of inventory sold during the period. In a periodic inventory system it is determined by subtracting ending inventory from the cost of goods available for sale (p. 274).

Days in inventory Measure of the average number of days inventory is held; calculated as 365 divided by the inventory turnover (p. 287).

Finished goods inventory Manufactured items that are completed and ready for sale (p. 270).

First-in, first-out (FIFO) method An inventory costing method that assumes that the costs of the earliest goods purchased are the first to be recognised as cost of sales (p. 280).

FOB destination Freight terms indicating that the goods are placed free on board the carrier by the seller but the seller pays the freight cost; goods belong to the seller while in transit (p. 276).

FOB shipping point Freight terms indicating that the goods are placed free on board the carrier by the seller, but the buyer pays the freight cost; goods belong to the buyer while in transit (p. 276).

Goods in transit Goods moving between the buyer and the seller on board a truck, train, ship or plane (p. 276).

Inventory turnover A calculation that measures the number of times on average the inventory has been sold during the period; calculated by dividing cost of sales by the average inventory during the period (p. 287).

Last-in, first-out (LIFO) method An inventory costing method that assumes that the costs of the latest units purchased are the first to be allocated to cost of sales (p. 281).

Lower of cost and net realisable value (LCNRV) basis A basis whereby inventory is stated at the lower of cost and net realisable value (p. 286).

Moving weighted average method An inventory costing method used in a perpetual inventory system, where a moving weighted average unit cost is used to allocate the cost of goods available for sale to ending inventory and cost of sales (p. 293).

Net purchases Purchases less purchase returns and allowances (p. 274).

Net realisable value (NRV) IAS 2/AASB 102 defines net realisable value as the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale (p. 286).

Periodic inventory system An inventory system in which ending inventory and cost of sales are determined at the end of the period. Inventory on hand is determined by a physical count. Cost of sales is calculated at the end of the period by subtracting the ending inventory (costs are assigned to a physical count of items on hand) from the cost of goods available for sale (p. 271).

Purchase returns and allowances account Account used to accumulate the cost of all inventory returned to suppliers (p. 272).

Purchases account Account used to accumulate the cost of all inventory purchased for resale during the period (p. 272).

Raw materials Materials that will be used in production but have not yet been placed in production (p. 270).

Retail inventory method A method used to estimate the ending inventory value based on the relationship of cost to retail prices (p. 284).

Specific identification method An inventory costing method that uses actual physical flow of inventory to determine cost of sales; items still in inventory are specifically costed to arrive at the total cost of the ending inventory (p. 279).

Weighted average unit cost Average cost that is weighted by the number of units purchased at each unit cost (p. 283).

Work in process That portion of manufactured inventory that has begun the production process but is not yet complete (p. 270).

DEMONSTRATION PROBLEM

The New Zealand Souvenir Shop Pty Ltd has the following inventory, purchases and sales data for the month of March:

Inventory, March 1	200 units @ $4.00	$ 800
Purchases		
March 10	500 units @ $4.50	2250
March 20	400 units @ $4.75	1900
March 30	300 units @ $5.00	1500
Sales		
March 15	500 units	
March 25	400 units	

The physical inventory count on 31 March shows 500 units on hand.

REQUIRED

Under a *periodic inventory system*, determine the cost of inventory on hand at 31 March and the cost of sales for March under (a) the first-in, first-out (FIFO) method, (b) the last-in, first-out (LIFO) method, and (c) the average cost method.

SOLUTION TO DEMONSTRATION PROBLEM

The cost of goods available for sale is $6450:

Inventory	200 units @ $4.00	$ 800
Purchases		
March 10	500 units @ $4.50	2250
March 20	400 units @ $4.75	1900
March 30	300 units @ $5.00	1500
Total cost of goods available for sale	1400 units	$6450

(a) **FIFO method**

Ending inventory:

Date	Units	Unit cost	Total cost	
Mar. 30	300	$5.00	$ 1500	
Mar. 20	200	4.75	950	$2450
	500			
Cost of sales: $6450 − $2450 =			900 units	$4000

(b) **LIFO method**

Ending inventory:

Date	Units	Unit cost	Total cost	
Mar. 1	200	$4.00	$ 800	
Mar. 10	300	4.50	1350	$2150
	500			
Cost of sales: $6450 − $2150 =			900 units	$4300

(continued)

Problem-solving strategies

1. For FIFO, the latest costs are allocated to inventory.
2. For LIFO, the earliest costs are allocated to inventory.
3. For average costs, use a weighted average.
4. Remember, the costs allocated to cost of sales can be proved.
5. Total purchases are the same under all three cost flow methods.

Helpful hint

The physical number of units remains the same whichever inventory cost flow method is used. It is the inventory cost ($) that is different.

(c) **Average cost method**

Weighted average unit cost: $6450 ÷ 1400 = $4.607	
Ending inventory: 500 × $4.607 =	$2303.50
Cost of sales: $6450 − $2303.50 =	$4146.50
	900 units

SELF-STUDY QUESTIONS

Answers are at the end of the chapter.

(LO1) 1. When goods are purchased for resale by a business using a periodic inventory system:
(a) purchases on account are debited to Inventory.
(b) purchases on account are debited to Purchases.
(c) purchase returns are debited to Purchase Returns and Allowances.
(d) freight costs are debited to Purchases.

(LO2) 2. In determining cost of sales:
(a) purchase discounts are deducted from net purchases.
(b) freight-out is added to net purchases.
(c) purchase returns and allowances are deducted from net purchases.
(d) freight-in is added to net purchases.

(LO2) 3. If beginning inventory is $60 000, cost of goods purchased is $380 000, and ending inventory is $50 000, what is cost of sales?
(a) $390 000.
(b) $370 000.
(c) $330 000.
(d) $420 000.

(LO3) 4. Which of the following should not be included in the physical inventory of an entity?
(a) Goods held on consignment from another entity.
(b) Goods shipped on consignment to another entity.
(c) Goods in transit from another entity shipped FOB shipping point.
(d) All of the above should be included.

(LO5) 5. Lim Ltd has the following units and costs:

	Units	Unit cost
Inventory, 1 Jan.	8 000	$11
Purchase, 19 June	13 000	12
Purchase, 8 Nov.	5 000	13

If 9000 units are on hand at 31 December, what is the cost of the ending inventory under FIFO?
(a) $99 000.
(b) $108 000.
(c) $113 000.
(d) $117 000.

(LO5) 6. From the data in question 5, what is the cost of the ending inventory under LIFO?
(a) $113 000.
(b) $108 000.
(c) $99 000.
(d) $100 000.

(LO6) 7. In periods of rising prices, LIFO will produce:
(a) higher profit than FIFO.
(b) the same profit as FIFO.
(c) lower profit than FIFO.
(d) higher profit than average costing.

(LO6) 8. Considerations that affect the selection of an inventory costing method include:
(a) nature of the inventory (e.g. perishable or non-perishable).
(b) statement of financial position effects.
(c) statement of profit or loss effects.
(d) all of the above.

(LO7) 9. Which of the following events could result in the cost of an item of inventory being higher than its net realisable value?
(a) Inventory obsolescence.
(b) A fall in the demand for inventory.
(c) Water or fire damage to inventory.
(d) All of the above.

(LO8) 10. Which of these would cause inventory turnover to increase the most?
(a) Increasing the amount of inventory on hand.
(b) Keeping the amount of inventory on hand constant but increasing sales.
(c) Keeping the amount of inventory on hand constant but decreasing sales.
(d) Decreasing the amount of inventory on hand and increasing sales.

(LO9) 11. In a perpetual inventory system:
(a) LIFO cost of sales will be the same as in a periodic inventory system.
(b) average costs are based entirely on unit-cost simple averages.
(c) a new average is calculated under the average cost method after each sale.
(d) FIFO cost of sales will be the same as in a periodic inventory system.

(LO10) 12. Neville Pty Ltd's ending inventory is understated by $4000. The effects of this error on the current year's cost of sales and profit, respectively, are:
(a) understated and overstated.
(b) overstated and understated.
(c) overstated and overstated.
(d) understated and understated.

(LO10) 13. Firth Pty Ltd's ending inventory is overstated by $10 000. The effect on the current year's assets, liabilities and equity respectively, are:
(a) overstated, no effect and overstated.
(b) understated, no effect and overstated.
(c) overstated, no effect and understated.
(d) overstated, overstated and overstated.

(LO11) 14. Which of the following statements is true?
(a) Using a periodic method, the Cost of Sales account is closed to the profit or loss summary at the end of the accounting period with a credit to the Cost of Sales account.
(b) Using a perpetual method, the Cost of Sales account is closed to the profit or loss summary at the end of the accounting period with a credit to the Cost of Sales account.
(c) Using a periodic method, the Cost of Sales account is closed to the profit or loss summary at the end of the accounting period with a debit to the Cost of Sales account.
(d) Using a perpetual method, the Cost of Sales account is closed to the profit or loss summary at the end of the accounting period with a debit to the Cost of Sales account.

(LO11) 15. Using a periodic inventory system, Cost of Sales is calculated as follows:
(a) Beginning inventory + purchases + freight-in + purchase returns and allowances − ending inventory.
(b) Beginning inventory + purchases − freight-in − purchase returns and allowances − ending inventory.
(c) Beginning inventory – purchases + freight-in − purchase returns and allowances − ending inventory.
(d) Beginning inventory + purchases + freight-in − purchase returns and allowances − ending inventory.

QUESTIONS

1. Goods costing $1600 are purchased on account on 18 July with credit terms of 2/7, n/30. On 19 July a $100 credit memo is received from the supplier for damaged goods. Give the journal entry on 24 July to record payment of the balance due within the discount period assuming a periodic inventory system.
2. Assuming a periodic inventory system, identify the item designated by the letter X in the following:
(a) Purchases − X = Net purchases.
(b) Beginning inventory + X = Cost of goods available for sale.
(c) Cost of goods available for sale – Cost of Sales = X.
3. (a) Shields Ltd ships inventory to Francine Ltd on 30 June. The inventory reaches the buyer on 5 July. Indicate the terms of sale that will result in the goods being included in (1) Shields Ltd's 30 June inventory and (2) Francine Ltd's 30 June inventory.
(b) Under what circumstances should Shields Ltd include consigned goods in its inventory?
4. What is the main basis of accounting for inventories? What is the major objective in accounting for inventories?
5. 'The selection of an inventory cost flow method is a decision made by accountants.' Do you agree? Explain. Once a method has been selected, what accounting requirement applies?
6. Which assumed inventory cost flow method:
(a) usually parallels the actual physical flow of inventory?
(b) assumes that goods available for sale during an accounting period are similar in nature?
(c) assumes that the latest units purchased are the first to be sold?
7. In a period of decreasing prices, the inventory reported in Lee Ltd's statement of financial position is close to the current cost of the inventory, whereas Lam Ltd's inventory is considerably above its current cost. Identify the inventory cost flow method used by each entity.
8. Nancy Drews is studying for the next accounting examination. What should Nancy know about (a) departing from the cost basis of accounting for inventories and (b) the meaning of net realisable value in relation to accounting for inventories?
9. 'When perpetual inventory records are kept, the results under the FIFO and LIFO methods are the same as they would be in a periodic inventory system.' Do you agree? Explain.
10. Peta Ltd discovers in 2017 that its ending inventory at 30 June 2016 was $5000 understated. What effect will this error have on (a) 2016 profit, (b) 2017 profit, and (c) the combined profit for the 2 years?

BRIEF EXERCISES

Identify inventory systems and inventory cost flow methods. (LO1,5)

BE5.1 Suggest the most appropriate inventory system and inventory cost flow method for each of the following businesses and products:
(a) Textbook sales in the co-op bookshop.
(b) Petrol sales in the local petrol station.
(c) Antique mirror sales in an antique furniture shop.
(d) Bottled juice in a fruit bar.
(e) Necklace sales in a jewellery shop.

Calculate cost of sales and gross profit. (LO2)

BE5.2 Assume that Jess Ltd uses a periodic inventory system and has the following account balances: Beginning Inventory \$45 000, Ending Inventory \$67 500, Sales \$472 500, Purchases \$300 000, Purchase Returns \$14 250, and Freight-in \$12 000. Determine the amounts to be reported for cost of net purchases, cost of sales and gross profit.

Calculate ending inventory using FIFO and LIFO. (LO5)

BE5.3 In its first month of operations, Cushion Ltd made three purchases of inventory in the following sequence: (1) 300 units at \$12, (2) 400 units at \$14, and (3) 500 units at \$18. Assuming there are 400 units on hand, calculate the cost of the ending inventory under (a) the FIFO method and (b) the LIFO method. Cushion Ltd uses a periodic inventory system.

Determine the lower of cost and net realisable value basis of accounting for inventories. (LO7)

BE5.4 Olynda Garden Centre accumulates the following data at 30 June:

Inventory categories	Cost data	Net realisable value
Native trees	\$16 800	\$14 280
Potting mix	12 600	13 300
Garden statues	19 600	17 920

Calculate the lower of cost and net realisable value for Olynda's total inventory.

Calculate inventory turnover and days in inventory. (LO8)

BE5.5 At 30 June, the following information (in thousands) was available for sunglasses manufacturer, Che Eyewear Ltd: ending inventory \$53 322; beginning inventory \$39 300; cost of sales \$129 201; sales revenue \$347 901. Calculate inventory turnover and days in inventory for Che Eyewear Ltd.

Apply cost flow methods to perpetual records. (LO9)

BE5.6 Harrots Department Store uses a perpetual inventory system. Data for product E2–D2 include the following purchases:

Date	Number of units	Unit price
May 7	50	\$12
July 28	30	18

On 1 June Harrots sold 30 units, and on 27 August, 33 more units. Calculate the cost of sales using (1) FIFO, (2) LIFO and (3) average cost.

Determine correct financial statement amount. (LO10)

BE5.7 Williams Ltd reports profit of \$180 000 in 2015. However, ending inventory was understated by \$14 000. What is the correct profit for 2015? What effect, if any, will this error have on total assets as reported in the statement of financial position at 30 June 2015?

EXERCISES

Journalise purchase transactions. (LO1)

E5.1 This information relates to Peters Ltd.
1. On 5 April purchased inventory from D. Nicks Ltd for \$9000, terms 2/7, n/30, FOB shipping point.
2. On 6 April paid freight costs of \$450 on inventory purchased from D. Nicks Ltd.
3. On 7 April purchased equipment on account for \$13 000.
4. On 8 April returned damaged inventory to D. Nicks Ltd and was granted a \$1500 allowance.
5. On 9 April paid the amount due to D. Nicks Ltd in full.

Required
(a) Prepare the journal entries to record these transactions on the books of Peters Ltd using a periodic inventory system.
(b) Assume that Peters Ltd paid the balance due to D. Nicks Ltd on 4 May instead of 9 April. Prepare the journal entry to record this payment.

E5.2 The trial balance of Francine Pty Ltd at the end of its financial year, 30 June 2016, includes these accounts: Beginning Inventory $56 760; Purchases $469 920; Sales $627 000; Sales Returns and Allowances $9900; Freight-out $3300; Purchase Returns and Allowances $6600. The ending inventory is $85 800.

Prepare cost of sales section. (LO2)

Required

Prepare the cost of sales section of the statement of profit or loss for the year ending 30 June 2016.

E5.3 Below is a series of cost of sales sections for companies X, F, L, and S.

Prepare cost of sales section. (LO2)

	X	F	L	S
Beginning inventory	250	120	1 000	(j)
Purchases	1 500	1 080	(g)	43 590
Purchase returns and allowances	40	(d)	290	(k)
Net purchases	(a)	1 030	7 210	42 090
Freight-in	110	(e)	(h)	2 240
Cost of goods purchased	(b)	1 230	7 940	(l)
Cost of goods available for sale	1 820	1 350	(i)	49 530
Ending inventory	310	(f)	1 450	6 230
Cost of sales	(c)	1 230	7 490	43 300

Required

(a) Fill in the lettered blanks to complete the cost of sales sections.

(b) Explain the purpose of this exercise. (*Hint:* What is the main skill you have been developing?)

E5.4 Bank of Epping is considering giving Hooton Ltd a loan. Before doing so, the bank decides that further discussions with Hooton's accountant may be desirable. One area of particular concern is the inventory account, which has a year-end balance of $147 500. Discussions with the accountant reveal the following:

Determine the correct inventory amount. (LO3)

1. Hooton Ltd sold goods costing $17 500 to Moghul Ltd FOB shipping point on 28 June. The goods are not expected to arrive in India until 12 July. The goods were not included in the physical inventory because they were not in the warehouse.
2. The physical count of the inventory did not include goods costing $47 500 that were shipped to Hooton Ltd FOB destination on 27 June and were still in transit at year-end.
3. Hooton received goods costing $12 500 on 2 July. The goods were shipped FOB shipping point on 26 June by Cellar Ltd. The goods were not included in the physical count.
4. Hooton sold goods costing $20 000 to Sterling of Canada FOB destination on 30 June. The goods were received in Canada on 8 July. They were not included in Hooton's physical inventory.
5. Hooton received goods costing $22 000 on 2 July that were shipped FOB destination on 29 June. The shipment was a rush order that was supposed to arrive on 30 June. This purchase was included in the ending inventory of $147 500.
6. Goods costing $25 000 have been in inventory for more than 12 months and are unlikely to be sold.

Required

(a) Determine the correct inventory amount on 30 June.

(b) Why is it important for the Bank of Epping to determine the correct amount for inventory before granting a loan to Hooton Ltd?

E5.5 Presented here is information related to Djuric Ltd for the month of January 2016.

Prepare a statement of profit or loss. (LO4)

Freight-in	$ 14 300
Rent expense	
— Store space	14 300
— Office space	14 300
Freight-out	10 010
Salary expense	
— Sales	30 030
— Office	57 200

Insurance expense	17 160
Discount allowed	11 440
Purchases	286 000
Sales returns and allowances	18 590
Sales	446 160
Purchase returns and allowances	12 870

Beginning inventory was $60 060, and ending inventory was $90 090.

Required

Prepare a fully classified statement of profit or loss for Djuric Ltd.

Calculate inventory and cost of sales using FIFO and LIFO. (LO5)

E5.6 SurfsUp Ltd sells a snowboard, Xpert, that is popular with snowboard enthusiasts. Below is information relating to SurfsUp's purchases of Xpert snowboards during May. During the same month, 124 Xpert snowboards were sold. SurfsUp uses a periodic inventory system.

Date	Explanation	Units	Unit cost	Total cost
May 1	Inventory	26	$ 97	$ 2 522
12	Purchases	45	102	4 590
19	Purchases	28	104	2 912
26	Purchases	40	105	4 200
	Totals	139		$14 224

Required

(a) Calculate the ending inventory at 31 May using the FIFO and LIFO methods. Prove the amount allocated to cost of sales under each method.

(b) For both FIFO and LIFO, calculate the sum of ending inventory and cost of sales. What do you notice about the answers you found for each method?

Calculate inventory and cost of sales using FIFO, LIFO and average costs. (LO5)

E5.7 Fenning Pty Ltd reports the following for the month of June:

Date	Explanation	Units	Unit cost	Total cost
June 1	Inventory	200	$10	$2000
12	Purchases	300	12	3600
23	Purchases	500	14	7000
30	Inventory	180		

Required

(a) Calculate cost of the ending inventory and the cost of sales under (1) FIFO, (2) LIFO and (3) average cost.

(b) Which costing method gives the highest ending inventory and the highest cost of sales? Why?

(c) How do the average cost values for ending inventory and cost of sales compare with ending inventory and cost of sales for FIFO and LIFO?

(d) Explain why the average cost is not $12.

Calculate and explain the lower of cost and net realisable value basis of accounting for inventories. (LO7)

E5.8 The following data are available for Fashionista Hair Accessories Pty Ltd at 31 December:

	Cost	Net realisable value
Silk ribbons	$25 200	$21 420
Gold-plated hair clips	18 900	19 950
Crystal hair jewels	29 400	26 880

Required

(a) Calculate the lower of cost and net realisable value for Fashionista Hair Accessories total inventory.

(b) Why is it important to account for inventory using the lower of cost and net realisable value basis?

E5.9 The following information is available for BJ Electronics Ltd for 2015, 2016 and 2017.

Calculate inventory turnover, days in inventory and gross profit rate. (LO8)

(in millions)	2015	2016	2017
Beginning inventory	$ 1 051	$ 853	$ 732
Ending inventory	853	732	1 016
Cost of sales	8 452	8 525	9 330
Sales	20 337	20 917	22 348

Required

(a) Calculate the inventory turnover ratio, days in inventory, and gross profit ratio (from chapter 4) for BJ Electronics Ltd for 2015, 2016 and 2017.

(b) Comment on any trends.

E5.10 Information about SurfsUp Ltd is presented in E5.6. Additional data regarding SurfsUp's sales of Xpert snowboards are provided below. Assume that SurfsUp uses a perpetual inventory system.

Apply cost flow methods to perpetual records. (LO9)

Date		Units	Unit price	Total cost
May 5	Sale	12	$199	$ 2 388
16	Sale	50	199	9 950
29	Sale	62	209	12 958
	Totals	124		$25 296

Required

(a) Calculate ending inventory at 31 May using FIFO, LIFO and average cost.

(b) Compare ending inventory using a perpetual inventory system with ending inventory using a periodic inventory system (from E5.6).

(c) Which inventory cost flow method (FIFO, LIFO) gives the same ending inventory value under both periodic and perpetual? Which method gives different ending inventory values?

E5.11 Goddard Pty Ltd reported the following statement of profit or loss data for a 2-year period.

Prepare correct statements of profit or loss. (LO10)

	2015	2016
Sales	$420 000	$500 000
Beginning inventory	64 000	80 000
Cost of goods purchased	346 000	404 000
Cost of goods available for sale	410 000	484 000
Ending inventory	80 000	104 000
Cost of sales	330 000	380 000
Gross profit	$ 90 000	$120 000

Goddard Pty Ltd uses a periodic inventory system. The inventories at 1 July 2015 and 30 June 2016 are correct. However, the ending inventory at 30 June 2015 is overstated by $12 000.

Required

(a) Prepare correct statements of profit or loss data for the 2 years.

(b) What is the cumulative effect of the inventory error on total gross profit for the 2 years?

(c) Explain in a letter to the financial controller of Goddard Pty Ltd what has happened, i.e. the nature of the error and its effect on the financial statements.

E5.12 Statement of profit or loss data for Goddard Pty Ltd were provided for 2015 and 2016 in E5.11.

Journalise closing entries. (LO11)

Required

Using the 2016 data, prepare closing entries up to gross profit.

E5.13 Statement of profit or loss data for Goddard Pty Ltd were provided for 2015 and 2016 in E5.11.

Prepare closing entries on a worksheet. (LO11)

Required

Using the 2015 data, enter the closing entries up to gross profit on a worksheet.
(*Hint:* See page 299 for an example.)

PROBLEM SET A

Journalise, post and prepare trial balance and partial statement of profit or loss. (LO1,2,4)

PSA5.1 At the beginning of the current season on 1 October, the ledger of Eagle Ridge Golf Pty Ltd showed Cash \$5250; Inventory \$7350; and Share Capital \$12 600. The following transactions occurred during October 2015.

Oct.	5	Purchased golf bags, clubs and balls on account from Balata Ltd \$5460, FOB shipping point, terms 2/7, n/60.
	7	Paid freight on Balata Ltd purchases \$168.
	9	Received credit from Balata Ltd for inventory returned \$210.
	10	Sold inventory on account \$2520, terms n/30.
	12	Purchased golf shoes, sweaters and other accessories on account from Arrow Sportswear \$1386, terms 1/7, n/30.
	12	Paid Balata Ltd the amount owed.
	17	Received credit from Arrow Sportswear for inventory returned \$126.
	18	Paid Arrow Sportswear in full.
	20	Made sales on account \$1890, terms n/30.
	27	Granted credit to customers for clothing that did not fit \$63.
	30	Made cash sales \$1260.
	30	Received payments on account from customers \$2310.

The chart of accounts for Eagle Ridge Golf includes Cash, Accounts Receivable, Inventory, Accounts Payable, Share Capital, Sales, Sales Returns and Allowances, Purchases, Purchase Returns and Allowances, Discount Received, and Freight-in.

Required

(a) Journalise the October transactions using a periodic inventory system.
(b) Using T accounts, enter the beginning balances in the ledger accounts and post the October transactions.
(c) Prepare a trial balance as at 31 October 2015.
(d) Prepare closing entries, assuming inventory on hand at 31 October is \$8820.
(e) Prepare a statement of profit or loss up to gross profit.

Prepare a fully classified statement of profit or loss. (LO2,4)

PSA5.2 Pumpkin Patchwork Ltd is located in New Zealand. At the end of the entity's financial year on 30 November 2016, the following accounts appeared in its adjusted trial balance.

Accounts Payable	\$ 38 841
Accounts Receivable	15 147
Accumulated Depreciation—Office Equipment	21 648
Accumulated Depreciation—Store Equipment	45 980
Bank Charges	1 100
Cash	8 800
Depreciation Expense—Office Equipment	4 400
Depreciation Expense—Store Equipment	10 450
Freight-in	5 566
Freight-out	9 020
Share Capital	77 000
Retained Earnings	18 920
Dividends	13 200
Insurance Expense	9 900
Inventory	37 796
Loan Payable	50 600
Office Equipment	62 700
Prepaid Insurance	4 950
Purchases	693 000
Discount Received	7 700
Purchase Returns and Allowances	3 300
Rates and Taxes Expense	3 850
Rates and Taxes Payable	3 850
Rent Expense—Office Space	20 900

Salaries Expense—Office	154 000
Sales	1 056 000
Sales Commissions Expense	13 200
Sales Commissions Payable	8 800
Sales Returns and Allowances	11 000
Store Equipment	137 500
Electricity Expense	22 660

Additional facts:
1. Inventory at 30 November 2015 is $39 820.
2. Note that Pumpkin Patchwork Ltd uses a periodic inventory system.
3. Income tax rate is 28%.

Required

Prepare a fully classified statement of profit or loss for the year ended 30 November 2016.

Determine cost of sales and ending inventory using FIFO, LIFO, and average cost. (LO5,6)

PSA5.3 Modelmania Ltd sells model cars. At the beginning of March, Modelmania Ltd had in beginning inventory 90 model cars with a unit cost of $35. During March Modelmania Ltd made the following purchases of model cars.

March 5	210 @ $40	March 21	240 @ $50
March 13	330 @ $45	March 26	90 @ $55

During March, 810 units were sold. Modelmania Ltd uses a periodic inventory system.

Required

(a) Determine the cost of goods available for sale.
(b) Determine (1) the ending inventory and (2) the cost of sales under each of the assumed cost flow methods (FIFO, LIFO and average cost). Prove the accuracy of the cost of sales under the FIFO and LIFO methods.
(c) Which cost flow method results in (1) the highest inventory amount for the statement of financial position and (2) the highest cost of sales for the statement of profit or loss?

Calculate ending inventory, prepare statements of profit or loss, and analyse effects of accounting policy choices. (LO5,6)

PSA5.4 The management of Canterbury Ltd, a US-based company, is reassessing the appropriateness of its present inventory costing method, which is average cost. Management asks your help in determining the results of operations for 2016 if either the FIFO or the LIFO method had been used. For 2016 the accounting records show the following data.

Inventories		**Purchases and sales**	
Beginning (10 000 units)	$52 500	Total net sales (95 000 units)	$997 500
Ending (? units)		Total cost of goods purchased (120 000 units)	$753 000

Purchases were made quarterly as follows.

Quarter	Units	Unit cost	Total cost
1	40 000	$6.00	$240 000
2	60 000	6.30	378 000
3	20 000	6.75	135 000
4	0		0
	120 000		$753 000

Operating expenses were $180 000, and the company's income tax rate is 30%.

Required

(a) Prepare comparative condensed statements of profit or loss for 2016 under FIFO and LIFO. (Show calculations of ending inventory.)
(b) Answer the following questions for management:
   1. Which inventory cost flow method produces the most meaningful inventory amount for the statement of financial position? Why?
   2. Which inventory cost flow method produces the most meaningful profit? Why? (*Hint:* How much of the gross profit under FIFO is illusory in comparison with the gross profit under LIFO?)

3. Which inventory cost flow method is most likely to approximate the actual physical flow of the goods? Why?
4. How much more cash will be available for management under LIFO than under FIFO? Why?
5. Will gross profit under the average cost method be higher or lower than FIFO? Than LIFO? (*Note:* It is not necessary to quantify your answer.)

Calculate inventory turnover, days in inventory, and current ratio based on FIFO.
(LO8)

PSA5.5 This information is available for the European Division of World Building Products Ltd for 2015. World Building Products uses the FIFO inventory method.

(in millions)	**2015**
Beginning inventory	$ 31 465.20
Ending inventory	31 738.20
Current assets	115 343.80
Current liabilities	124 295.60
Cost of sales	306 729.80
Sales	365 125.80

Required

(a) Calculate inventory turnover, days in inventory, and current ratio for World Building Products for 2015.
(b) What do inventory turnover and days in inventory indicate?
(c) If an organisation has high inventory turnover or low days in inventory, is it considered a good or a bad sign? Explain your answer.

Determine ending inventory under a perpetual inventory system.
(LO9)

PSA5.6 Fontana Ltd began operations on 1 July. It uses a perpetual inventory system. During July the business had the following purchases and sales.

	Purchases		
Date	**Units**	**Unit cost**	**Sales units**
July 1	5	$ 95	
6			3
11	4	$106	
14			3
21	3	$112	
27			4

Required

(a) Determine the ending inventory under a perpetual inventory system using (1) FIFO, (2) average cost and (3) LIFO.
(b) Which costing method produces the highest cost allocation to ending inventory?

Journalise, post and prepare trial balance and partial statement of profit or loss.
(LO1,2,4)

PSA5.7 At the beginning of the current season, the ledger of Kids Sportstore Ltd showed Cash $5250; Inventory $3570; and Share Capital $8820. The following transactions were completed during October 2016.

Oct.	4	Purchased bats and balls from Robert & Co. $1974, FOB shipping point, terms 3/7, n/30.
	6	Paid freight on Robert & Co. purchase $84.
	8	Sold inventory to customers $1890, terms n/30.
	10	Received credit of $84 from Robert & Co. for a damaged bat that was returned.
	11	Purchased cricket shoes from Niki Sports for cash $1260.
	11	Paid Robert & Co. amount due.
	14	Purchased shirts and shorts from Cash's Sportswear $1050, FOB shipping point, terms 2/7, n/60.
	15	Received cash refund of $105 from Niki Sports for damaged inventory that was returned.
	17	Paid freight on Cash's Sportswear purchase $63.

Oct.	18	Sold inventory $1680, terms n/30.
	20	Received $1050 in cash from customers in settlement of their accounts.
	20	Paid Cash's Sportswear amount due.
	27	Granted credit of $63 for clothing that did not fit.
	30	Sold inventory to customers $1890, terms n/30.
	30	Customers paid amounts owing on accounts, $1050.

The chart of accounts for Kids Sportstore Ltd includes Cash, Accounts Receivable, Inventory, Accounts Payable, Share Capital, Sales, Sales Returns and Allowances, Purchases, Purchase Returns and Allowances, Discount Received, and Freight-in.

Required

(a) Journalise the October transactions using a periodic inventory system.
(b) Using T accounts, enter the beginning balances in the ledger accounts and post the October transactions.
(c) Prepare a trial balance as at 31 October 2016.
(d) Journalise the closing entries.
(e) Prepare a statement of profit or loss up to gross profit, assuming inventory on hand at 31 October is $3780.

PSA5.8 Fashionista Ltd is located near the Southworld Shopping Centre. At the end of the entity's financial year on 30 June 2017, the following accounts appeared in its adjusted trial balance.

Prepare a fully classified statement of profit or loss. (LO2,4)

Accounts Payable	$ 139 308
Accounts Receivable	78 468
Accumulated Depreciation—Building	81 900
Accumulated Depreciation—Equipment	66 924
Building	296 400
Cash	35 880
Depreciation Expense—Building	16 224
Depreciation Expense—Equipment	20 748
Equipment	171 600
Freight-in	8 736
Insurance Expense	11 232
Inventory	63 180
Mortgage Payable	124 800
Office Salaries Expense	49 920
Prepaid Insurance	3 744
Rates and Taxes Payable	7 488
Purchases	689 520
Discount Received	18 720
Purchase Returns and Allowances	9 984
Sales Salaries Expense	118 560
Sales	1 120 080
Sales Commissions Expense	22 620
Sales Commissions Payable	5 460
Sales Returns and Allowances	12 480
Share Capital	234 000
Retained Earnings	42 960
Dividends	43 680
Rates and Taxes Expense	10 608
Electricity Expense	17 160
Interest Expense	3 120

Additional facts:

1. Inventory on 30 June 2016 is $117 000.
2. Note that Fashionista Ltd uses a periodic system.
3. The income tax rate is 30%.

Required

(a) Prepare a fully classified statement of profit or loss for the year ended 30 June 2017.

(b) If you are not told that a particular company employs the periodic or the perpetual inventory method to account for its inventories, what accounts in the trial balance indicate which system is in use? Use the trial balance provided in this question as a starting point, and provide examples to support your discussion.

Determine cost of sales and ending inventory using FIFO, LIFO and average cost with analysis.
(LO5,6)

PSA5.9 Movieworld Ltd sells old movies on DVD. At the beginning of October, Movieworld had in beginning inventory 1100 DVDs with a unit cost of $10. During October, Movieworld made the following purchases of DVDs:

Oct. 3	3850 @ $12	Oct. 19	3300 @ $16
Oct. 9	4400 @ $14	Oct. 25	2200 @ $18

During October 12 100 units were sold. Movieworld uses a periodic inventory system.

Required

(a) Determine the cost of goods available for sale.

(b) Determine (1) the ending inventory and (2) the cost of sales under each of the assumed cost flow methods (FIFO, LIFO and average cost). Prove the accuracy of the cost of sales under the FIFO and LIFO methods.

(c) Which cost flow method results in (1) the highest inventory amount for the statement of financial position and (2) the highest cost of sales for the statement of profit or loss?

Calculate inventory turnover, days in inventory, and current ratio based on LIFO.
(LO8)

PSA5.10 Sweet Cookies Ltd in Thailand manufactures and sells a full line of equipment for baking cookies. Many of these systems are computer-controlled. This information is available for Sweet Cookies for 2015. Sweet Cookies uses the LIFO inventory cost flow method.

(in thousands)	**2015**
Beginning inventory (finished goods)	$139 851.60
Ending inventory (finished goods)	142 257.40
Current assets	187 663.00
Current liabilities	81 019.40
Cost of sales	328 942.60
Sales	450 970.80

Required

(a) Calculate inventory turnover, days in inventory and current ratio for Sweet Cookies Ltd.

(b) Choco Chip is an Australian-based manufacturer of equipment for baking cookies. Choco Chip has an inventory turnover of 5.4 times, days in inventory of 67.6 and a current ratio of 0.75:1. You are an investment adviser providing advice to a client interested in investing in these companies. Write a short report to highlight the differences between the companies in light of the information available in part (a) and (b) of this question.

Record closing entries for the periodic and perpetual inventory methods.
(LO11)

PSA5.11 The following statement of profit or loss extracts are from entities employing different inventory recording methods.

MICHAEL LTD
Statement of profit or loss (extract)
Perpetual inventory method

Sales revenue	$154 275
Less: Sales returns and allowances	9 075
Net sales revenue	145 200
Less: Cost of sales	104 544
Gross profit	$ 40 656

SONYA LTD Statement of profit or loss (extract) Periodic inventory method			
Sales revenue			$154 275
Less: Sales returns and allowances			9 075
Net sales revenue			145 200
Cost of sales:			
Cost of beginning inventory		25 410	
Add: Cost of purchases	108 900		
Freight inwards	1 089		
	109 989		
Less: Purchases returns and allowances	1 815		
Cost of net purchases		108 174	
Cost of goods available for sale		133 584	
Less: Cost of ending inventory		29 040	
Cost of sales			104 544
Gross profit			$ 40 656

Required

(a) Using the information above, prepare closing general journal entries for both the periodic and perpetual inventory systems.

(b) Post these entries to the appropriate general ledger accounts.

PSA5.12 On 1 September, Better Office Supplies had an inventory of 30 deluxe pocket calculators at a cost of $20 each. The business uses a perpetual inventory system and FIFO inventory cost flow method. During September, the following transactions occurred:

Journalise inventory entries under a perpetual inventory system with GST. (LO9)

Sept.	6	Purchased 80 calculators at $22 each from Digital Ltd for cash.
	9	Paid freight of $88 to We Deliver on calculators purchased from Digital Ltd.
	10	Returned two calculators to Digital Ltd for $44 credit because they did not meet specifications.
	12	Sold 26 calculators for $33 each to Reader Book Store, terms n/30.
	14	Grant credit of $33 to Reader Book Store for the return of one calculator that was not ordered.
	20	Sold 30 calculators for $33 each to Mega Ltd, terms n/30.

Required

Journalise the September transactions, assuming all businesses were registered for GST and the GST rate was 10%.

PROBLEM SET B

PSB5.1 At the beginning of the current season on 1 October, the ledger of Hancock's Pro Shop Pty Ltd showed Cash $5000; Inventory $7000; and Share Capital $12 000. The following transactions occurred during October 2015.

Journalise, post and prepare trial balance and partial statement of profit or loss. (LO1,2,4)

Oct.	5	Purchased golf bags, clubs and balls on account from Balata Ltd $5200, FOB shipping point, terms 2/7, n/60.
	7	Paid freight on Balata Ltd purchases $160.
	9	Received credit from Balata Ltd for inventory returned $200.
	10	Sold inventory on account $2400, terms n/30.
	12	Purchased golf shoes, sweaters and other accessories on account from Arrow Sportswear $1320, terms 1/7, n/30.

Oct.	12	Paid Balata Ltd the amount owed.
	17	Received credit from Arrow Sportswear for inventory returned $120.
	18	Paid Arrow Sportswear in full.
	20	Made sales on account $1800, terms n/30.
	27	Granted credit to customers for clothing that did not fit $60.
	30	Made cash sales $1200.
	30	Received payments on account from customers $2200.

The chart of accounts for the pro shop includes Cash, Accounts Receivable, Inventory, Accounts Payable, Share Capital, Sales, Sales Returns and Allowances, Purchases, Purchase Returns and Allowances, Discount Received, and Freight-in.

Required

(a) Journalise the October transactions using a periodic inventory system.
(b) Using T accounts, enter the beginning balances in the ledger accounts and post the October transactions.
(c) Prepare a trial balance as at 31 October 2015.
(d) Prepare a statement of profit or loss up to gross profit, assuming inventory on hand at 31 October is $8400.

Prepare a fully classified statement of profit or loss. (LO2,4)

PSB5.2 Bargains Department Store is located in Sydney. At the end of the entity's financial year on 30 November 2016, the following accounts appeared in its trial balance:

Accounts Payable	$ 52 965
Accounts Receivable	20 655
Accumulated Depreciation—Office Equipment	29 520
Accumulated Depreciation—Store Equipment	62 700
Bank Charges	1 500
Cash	12 000
Depreciation Expense—Office Equipment	6 000
Depreciation Expense—Store Equipment	14 250
Freight-in	7 590
Freight-out	12 300
Share Capital	105 000
Retained Profits	25 800
Dividends	18 000
Insurance Expense	13 500
Inventory	51 540
Loan Payable	69 000
Office Equipment	85 500
Prepaid Insurance	6 750
Purchases	945 000
Discount Received	10 500
Purchase Returns and Allowances	4 500
Rates and Taxes Expense	5 250
Rates and Taxes Payable	5 250
Rent Expense—Office Space	28 500
Salaries Expense—Office	210 000
Sales	1 440 000
Sales Commissions Expense	18 000
Sales Commissions Payable	12 000
Sales Returns and Allowances	15 000
Store Equipment	187 500
Electricity Expense	30 900

Additional facts:

1. Inventory at 30 November 2015 is $54 300.
2. Note that Bargains Department Store uses a periodic inventory system.
3. Income tax rate is 30%.

Required
Prepare a fully classified statement of profit or loss for the year ended 30 November 2016.

Determine cost of sales and ending inventory using FIFO, LIFO, and average cost. (LO5,6)

PSB5.3 Rye Sails sells model boats. At the beginning of March, Rye Sails had in beginning inventory 150 model boats with a unit cost of $35. During March Rye Sails made the following purchases of model boats.

March 5	350 @ $40	March 21	400 @ $50
March 13	550 @ $45	March 26	150 @ $55

During March, 1350 units were sold. Rye Sails uses a periodic inventory system.

Required
(a) Determine the cost of goods available for sale.
(b) Determine (1) the ending inventory and (2) the cost of sale under each of the assumed cost flow methods (FIFO, LIFO and average cost). Prove the accuracy of the cost of sale under the FIFO and LIFO methods.
(c) Explain which cost flow method results in (1) the highest inventory amount for the statement of financial position and (2) the highest cost of sale for the statement of profit or loss?

Calculate ending inventory, prepare statements of profit or loss and answer questions using FIFO and LIFO. (LO5,6)

PSB5.4 The management of Peoria Ltd, a US-based company, is reassessing the appropriateness of using its present inventory cost flow method, which is average cost. Management requests your help in determining the results of operations for 2016 if either the FIFO or the LIFO method had been used. For 2016 the accounting records show these data:

Inventories		**Purchases and sales**	
Beginning (15 000 units)	$34 000	Total net sales (225 000 units)	$865 000
Ending (? units)		Total cost of goods purchased (230 000 units)	$578 500

Purchases were made quarterly as follows:

Quarter	Units	Unit Cost	Total Cost
1	60 000	$2.30	$138 000
2	50 000	2.50	125 000
3	50 000	2.60	130 000
4	70 000	2.65	185 500
	230 000		$578 500

Operating expenses were $147 000, and the company's income tax rate is 32%.

Required
(a) Prepare comparative condensed statements of profit or loss for 2016 under FIFO and LIFO. (Show calculations of ending inventory.)
(b) Answer the following questions for management in business-letter form:
1. Which cost flow method (FIFO or LIFO) produces the more meaningful inventory amount for the statement of financial position? Why?
2. Which cost flow method (FIFO or LIFO) produces the more meaningful profit? Why?
3. Which cost flow method (FIFO or LIFO) is more likely to approximate the actual physical flow of goods? Why?
4. How much more cash will be available for management under LIFO than under FIFO? Why?
5. Will gross profit under the average cost method be higher or lower than FIFO? Than LIFO? (*Note:* It is not necessary to quantify your answer.)

Calculate inventory turnover, days in inventory, and current ratio based on FIFO.
(LO8)

PSB5.5 This information is available for the Automotive and Electronics Divisions of Prestige Motors Ltd for 2015. Prestige Motors uses the FIFO inventory method.

(in millions)	**2015**
Beginning inventory	$ 36 306
Ending inventory	36 621
Current assets	133 089
Current liabilities	143 418
Cost of sales	353 919
Sales	421 299

Required

(a) Calculate inventory turnover, days in inventory, and current ratio for Prestige Motors Ltd for 2015.

(b) If a company has a low inventory turnover or high days in inventory, is it considered to be a good or bad sign for the entity's shareholders? Explain your answer.

Determine ending inventory under a perpetual inventory system.
(LO9)

PSB5.6 Watson Pty Ltd began operations on 1 July. It uses a perpetual inventory system. During July the business had the following purchases and sales:

	Purchases		
Date	**Units**	**Unit cost**	**Sales units**
July 1	5	$ 90	
6			3
11	4	$ 99	
14			3
21	3	$106	
27			4

Required

(a) Determine the ending inventory under a perpetual inventory system using (1) FIFO, (2) average cost and (3) LIFO.

(b) Which costing method produces the highest cost allocation to ending inventory?

Journalise, post and prepare trial balance and partial statement of profit or loss.
(LO1,2,4)

PSB5.7 At the beginning of the current season, the ledger of Mill Park Tennis Shop Pty Ltd showed Cash $5000; Inventory $3400; and Share Capital $8400. The following transactions were completed during October 2016.

Oct.	4	Purchased racquets and balls from Robert & Co. $1880, FOB shipping point, terms 3/7, n/30.
	6	Paid freight on Robert & Co. purchase $80.
	8	Sold inventory to members $1800, terms n/30.
	10	Received credit of $80 from Robert & Co. for a damaged racquet that was returned.
	11	Purchased tennis shoes from Niki Sports for cash $1200.
	11	Paid Robert & Co. amount due.
	14	Purchased tennis shirts and shorts from Cash's Sportswear $1000, FOB shipping point, terms 2/7, n/60.
	15	Received cash refund of $100 from Niki Sports for damaged inventory that was returned.
	17	Paid freight on Cash's Sportswear purchase $60.
	18	Sold inventory $1600, terms n/30.
	20	Received $1000 in cash from customers in settlement of their accounts.
	20	Paid Cash's Sportswear amount due.
	27	Granted credit of $60 for tennis clothing that did not fit.
	30	Sold inventory to customers $1800, terms n/30.
	30	Customers paid amounts owing on accounts, $1000.

The chart of accounts for the tennis shop includes Cash, Accounts Receivable, Inventory, Accounts Payable, Share Capital, Sales, Sales Returns and Allowances, Purchases, Purchase Returns and Allowances, Discount Received, and Freight-in.

Required
(a) Journalise the October transactions using a periodic inventory system.
(b) Using T accounts, enter the beginning balances in the ledger accounts and post the October transactions.
(c) Prepare a trial balance as at 31 October 2016.
(d) Journalise the closing entries.
(e) Prepare a statement of profit or loss up to gross profit, assuming inventory on hand at 31 October is $3600.

Prepare a fully classified statement of profit or loss. (LO2,4)

PSB5.8 Westfields Ltd is located near the St Ives Village Shopping Centre. At the end of Westfields Ltd's financial year on 30 June 2017, the following accounts appeared in its adjusted trial balance.

Accounts Payable	$ 98 230
Accounts Receivable	55 330
Accumulated Depreciation—Building	57 750
Accumulated Depreciation—Equipment	47 190
Building	209 000
Cash	25 300
Depreciation Expense—Building	11 440
Depreciation Expense—Equipment	14 630
Equipment	121 000
Freight-in	6 160
Insurance Expense	7 920
Inventory	82 500
Mortgage Payable	88 000
Office Salaries Expense	35 200
Prepaid Insurance	2 640
Rates and Taxes Payable	5 280
Purchases	486 200
Discount Received	13 200
Purchase Returns and Allowances	7 040
Sales Salaries Expense	83 600
Sales	789 800
Sales Commissions Expense	15 950
Sales Commissions Payable	3 850
Sales Returns and Allowances	8 800
Share Capital	165 000
Retained Profits	30 360
Dividends	30 800
Rates and Taxes Expense	7 480
Electricity Expense	12 100
Interest Expense	2 200

Additional facts:
1. Inventory on 30 June 2016 is $44 550.
2. Note that Westfields Ltd uses a periodic system.
3. The income tax rate is 30%.

Required
Prepare a fully classified statement of profit or loss for the year ended 30 June 2017.

Determine cost of sales and ending inventory using FIFO, LIFO and average cost with analysis. (LO5,6)

PSB5.9 Movies Abound Pty Ltd sells DVDs of the performing artist Edwin Drood. At the beginning of October, Movies Abound had in beginning inventory 1000 Drood DVDs with a unit cost of $10. During October, Movies Abound made the following purchases of Drood DVDs.

Oct. 3	3500 @ $12	Oct. 19	3000 @ $16
Oct. 9	4000 @ $14	Oct. 25	2000 @ $18

During October 11 000 units were sold. Movies Abound uses a periodic inventory system.

Required

(a) Determine the cost of goods available for sale.
(b) Determine (1) the ending inventory and (2) the cost of sales under each of the assumed cost flow methods (FIFO, LIFO and average cost). Prove the accuracy of the cost of sales under the FIFO and LIFO methods.
(c) Which cost flow method results in (1) the highest inventory amount for the statement of financial position and (2) the highest cost of sales for the statement of profit or loss?

Calculate inventory turnover, days in inventory, and current ratio based on LIFO.
(LO8)

PSB5.10 Plant Food Ltd in Auckland manufactures and sells a full line of equipment that is used to apply fertiliser. Many of these systems are computer-controlled. This information is available for Make-it-Grow for 2015. Plant Food uses the LIFO inventory cost flow method.

(in thousands)	**2015**
Beginning inventory (finished goods)	$ 99 894
Ending inventory (finished goods)	101 751
Current assets	134 045
Current liabilities	57 871
Cost of sales	234 959
Sales	322 122

Required

(a) Calculate inventory turnover, days in inventory and current ratio for Plant Food Ltd.
(b) Green Thumb Ltd is an Australian-based manufacturer of equipment that is used to apply fertiliser. Green Thumb has an inventory turnover of 8.5 times, days in inventory of 42.9 and a current ratio of 0.8:1. You are an investment adviser providing advice to a client interested in investing in these companies. Write a short report to highlight the differences between the companies in light of the information available in parts (a) and (b) of this question.

Record closing entries for the periodic and perpetual inventory methods.
(LO11)

PSB5.11 The following statement of profit or loss extracts are from entities employing different inventory recording methods.

MASTRILLI LTD
Statement of profit or loss (extract)
Perpetual inventory method

Sales revenue	$46 750
Less: Sales returns and allowances	2 750
Net sales revenue	44 000
Less: Cost of sales	31 680
Gross profit	$12 320

ERRICA LTD
Statement of profit or loss (extract)
Periodic inventory method

Sales revenue			$46 750
Less: Sales returns and allowances			2 750
Net sales revenue			44 000
Cost of sales:			
Cost of beginning inventory		7 700	
Add: Cost of purchases	33 000		
Freight inwards	330		
	33 330		
Less: Purchases returns and allowances	550		
Cost of net purchases		32 780	
Cost of goods available for sale		40 480	
Less: Cost of ending inventory		8 800	
Cost of sales			31 680
Gross profit			$12 320

Required

(a) Using the information provided, prepare closing general journal entries for both the periodic and perpetual inventory systems.

(b) Post these entries to the appropriate general ledger accounts.

PSB5.12 On 1 September Petrocelli Office Supplies had an inventory of 45 USB at a cost of $30 each. The business uses a perpetual inventory system and FIFO inventory cost flow method. During September, the following transactions occurred.

Journalise inventory entries under a perpetual inventory system with GST.
(LO9)

Sept.	6	Purchased 120 USB at $32 each from Storetek Ltd for cash.
	9	Paid freight of $132 to Speedy Delivery Ltd on USB purchased from Storetek Ltd.
	10	Returned two USB to Storetek Ltd for $64 credit because they did not meet specifications.
	12	Sold 39 USB for $43 each to Sunny Store, terms n/30.
	14	Grant credit of $43 to Sunny Store for the return of one USB that was not ordered.
	20	Sold 45 calculators for $43 each to Martins Ltd, terms n/30.

Required

Journalise the September transactions, assuming all businesses were registered for GST and the GST rate was 10%.

BUILDING BUSINESS SKILLS

FINANCIAL REPORTING AND ANALYSIS

FINANCIAL REPORTING PROBLEM: *Domino's Pizza Enterprises Ltd*

BBS5.1 The notes that accompany an entity's financial statements provide informative details that would clutter the amounts and descriptions presented in the statements. Refer to the financial statements of Domino's and the accompanying notes to the financial statements in the appendix at the back of the book. Use consolidated data.

Required

Answer the following questions. (Give the amounts in thousands of dollars, as shown in the consolidated figures in the financial statements in the annual report.)

(a) What did Domino's report for the amount of inventories in its consolidated statement of financial position as at 4 July 2013?

(b) Calculate the dollar amount of change and the percentage change in inventories between 2012 and 2013. Calculate inventory as a percentage of current assets for 2013.

COMPARATIVE ANALYSIS PROBLEM: *Coca-Cola Amatil Ltd vs. PepsiCo Inc.*

BBS5.2 The following data are from recent financial statements of Coca-Cola Amatil and PepsiCo.

	Coca-Cola Amatil (A$ in millions)	PepsiCo (US$ in millions)
Cost of sales	2 843	31 243
Finished goods inventory, start of the year	345	1 533
Finished goods inventory, end of the year	347	1 509

Required

(a) Based on the information in the financial statements, calculate these values for each entity:
1. Inventory turnover.
2. Days in inventory.

(b) What conclusions concerning the management of the inventory can be drawn from these data?

A GLOBAL FOCUS AND INTERPRETING FINANCIAL STATEMENTS

BBS5.3 Nike and the adidas Group compete toe-to-toe in the sport shoe and sport apparel business. For both companies, inventory is a significant portion of total assets. The following information was taken from each entity's latest financial statements and notes to those financial statements. Note that Nike's year-end is 31 May and adidas Group's is 31 December.

NIKE, INC.
Notes to the financial statements

Inventory valuation (extract). Inventories are stated at lower of cost or market and valued on a first-in, first-out ('FIFO') or moving average cost basis. Inventory costs primarily consist of product cost from our suppliers, as well as freight, import duties, taxes, insurance and logistics and other handling fees.

Other information for Nike (in US$ millions):

	31 May 2013	31 May 2012
Inventory	3 434	3 222
Cost of sales	14 279	13 183

ADIDAS GROUP
Notes to the financial statements

Inventory valuation (extract). Merchandise and finished goods are valued at the lower of cost or net realisable value, which is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale. Costs are determined using a standard valuation method: the 'average cost method'. Costs of finished goods include cost of raw materials, direct labour and the components of the manufacturing overheads which can reasonably be attributed. The net realisable value allowances are computed consistently throughout the Group based on the age and expected future sales of the items on hand.

Inventory	2013 (euros in millions)	2012 (euros in millions)
Finished goods and merchandise on hand	1 803	1 637
Goods in transit	800	817
Raw materials	30	26
Work in progress	1	6
Total	2 634	2 486

Other information for adidas Group (euros in millions):

	31 December	
	2013	2012
Inventory	2 634	2 486
Cost of sales	7 352	7 780

Required

Answer each of these questions on how these two entities manage inventory:

(a) What challenges of inventory management might Nike and adidas Group face in the international sport apparel industry?
(b) What inventory cost flow assumptions does each entity use?
(c) adidas Group provides more detail regarding the nature of its inventory (e.g. raw materials, work in progress and finished goods) than does Nike. How might this additional information be useful in evaluating adidas Group?
(d) Calculate and interpret inventory turnover and days in inventory for each company for the latest year using the figures for total inventory.

FINANCIAL ANALYSIS ON THE WEB

BBS5.4 ***Purpose:*** Use an entity's annual report to identify the inventory method used and analyse the effects on the statement of profit or loss and statement of financial position.
Address: www.jbhifi.com.au

Steps:

1. Scroll down to the bottom of JB Hi-Fi's home page, in the bottom right-hand corner of the page, choose **Corporate**.
2. Choose **Financial and Annual Reports**.
3. Use the 2013 annual report (financial statements and notes to the financial statements) to answer the questions below.

Required

Answer the following questions:

(a) At JB Hi-Fi's year-end, what was the inventory on the statement of financial position? What was the cost of sales for the year?
(b) Refer to note 1. How is inventory valued?

(c) What proportion of total assets was made up of inventory?
(d) Calculate inventory turnover and days in inventory for 2013. How does this compare with Fantastic Holdings and Nick Scali on page 288?

CRITICAL THINKING

GROUP DECISION CASE

BBS5.5 ChemCo International Ltd manufactures specialty chemicals, vehicle airbags and salt. Recently, its specialty chemicals business was reorganised, and three manufacturing plants were closed. Profits were generally high, however, mostly because of an improved product mix. The vehicle airbag business did very well, with sales more than 30% higher than the previous year. However, towards the end of the year, questions were being raised about the safety of airbags, and this put the future of this business in some jeopardy. The salt business had dramatically increased volume as a result of the increased demand for ice-control salt arising from an unusually severe winter in the Snowy Mountains. However, as ice-control salt has a low profit margin, profits increased only modestly.

The current assets portion of ChemCo International's statement of financial position for the year ended 30 June 2016 is shown below.

CHEMCO INTERNATIONAL LTD
Statement of financial position (partial)
as at 30 June 2016
(in millions)

Current assets		
Cash and cash equivalents		$ 138.0
Accounts receivable	$479.2	468.6
Less: Allowance for doubtful debts	10.8	
Inventories		381.0
Other current assets		125.4
Total current assets		$1 113.0

Assume that the following transactions occurred during June and July 2016.

1. Office supplies were shipped to ChemCo by Office Max, FOB destination. The goods were shipped on 29 June and received on 30 June.
2. ChemCo purchased specialty plastic from Uniroyal Technology for use in airbag manufacture. The goods were shipped FOB shipping point on 1 July, and were received by ChemCo on 4 July.
3. Ford Motor Company purchased 10 000 airbags to be used in the manufacture of new cars. These were shipped FOB shipping point on 30 June, and were received by Ford on 2 July.
4. Bassett Furniture shipped office furniture to ChemCo, FOB destination, on 29 June. The goods were received on 3 July.
5. Inland Specialty Chemical shipped chemicals that ChemCo uses in the manufacture of airbags and other items. The goods were sent FOB shipping point on 29 June, and were received on 1 July.
6. ChemCo purchased new cars for its executives from GMH. The cars were shipped FOB destination on 19 June, and were received on 2 July.
7. ChemCo shipped salt to the Snowy Mountains Municipal Council, FOB destination. The shipment arrived in the Snowy Mountains on 2 July.
8. ChemCo purchased steel to be used in expanding its manufacturing plant. The steel arrived on 6 July, shipped FOB shipping point.

Required

With the class divided into groups, answer the following:

(a) Which items would be owned by ChemCo International Ltd as of 30 June 2016?

(b) Identify which transactions involve ChemCo's inventory account as of 30 June 2016 and which affect it after 30 June 2016.

COMMUNICATION ACTIVITY (J, CT)

BBS5.6 You are the accountant of City Jeans Ltd. Su Lee, the managing director, recently mentioned to you that she found an error in the 2015 financial statements which she believes has corrected itself. She determined, in discussions with the purchasing department, that 2015 ending inventory was overstated by $1 million. Su says that the 2016 ending inventory is correct, and she assumes that 2016 profit is correct. Su says to you, 'What happened has happened — there's no point in worrying about it any more.'

Required

You conclude that Su is incorrect. Write a brief, tactful memo, clarifying the situation.

Answers to self-study questions

1. b 2. d 3 a 4. a 5. c 6. d 7. c 8. d 9. d 10. d
11. d 12. b 13. a 14. b 15. d

Answer to Review It question 2, p. 287

The company uses first-in, first-out cost flow methods for inventories (see Note 3.13).

CHAPTER 6

ACCOUNTING INFORMATION SYSTEMS

LEARNING OBJECTIVES

After studying this chapter, you should be able to:

1 Identify the basic principles of accounting information systems.

2 Explain the major phases in the development of an accounting system.

3 Define internal control.

4 Appreciate management's responsibility in relation to internal control.

5 Identify the principles and limitations of internal control.

6 Understand the accounting processes underlying the generation of financial statements.

7 Describe the sales and receivables cycle and the purchases and payments cycle.

8 Apply internal control principles to the sales and receivables cycle and purchases and payments cycle for transforming data.

9 Describe the nature and purpose of control accounts and subsidiary ledgers.

10 Explain how special journals are used in recording transactions.

11 Understand the basic features of computerised accounting systems including an introduction to MYOB.

12 Appreciate the role and use of non-integrated systems.

13 Identify the advantages and disadvantages of computerised accounting systems.

14 Record transactions for sales, purchases, cash receipts and cash payments in special journals.

15 Understand how multi-column special journals are posted.

TECHNOLOGY CAPTURING ACCOUNTING INFORMATION

When you think about it, it's quite amazing that large businesses, which have hundreds or even thousands of employees, customers and suppliers, can all somehow come together and make it work! As you can imagine, running a business effectively and efficiently takes planning and coordinating and that requires a lot of information. Companies, like Domino's, Nick Scali and Fantastic Holdings and even relatively small businesses, require sophisticated accounting systems to enable efficient and dependable processing of numerous transactions and to provide useful information for decision making. So, basically, successful businesses require both people and information systems to work well together.

Businesses are made up of people who work in various departments, such as marketing, production, administration and human resources. All of these departments need to interact to make the business work. The marketing department has to look after the promotion and selling of the company's products and services. The administration department needs to take care of the accounting records, paying creditors, collecting money from customers and paying employees. The production department needs to make sure there are products ready for sale. The human resources department manages the recruitment, working conditions training, development, remuneration, and occupational health and safety of the employees of the business.

To fulfil their roles in the business, every employee in every department requires some information. There are many subsystems in an organisation that provide the information they need. In terms of accounting information, many businesses in Australia and New Zealand would use accounting software systems such as MYOB, Quicken, Xero or an in-house developed system. Let's take a closer look at MYOB.

MYOB Australia Ltd commenced business in 1991 and is now one of Australia's largest providers of business management solutions. It has a suite of more than fifty products and services that can be accessed on your desktop or as a cloud-based solution. The products and services offered include accounting software packages, payroll, point of sale, customer

relationship management (CRM), job management and professional tax solutions.

MYOB invests more than $35 million annually in research and development to continually improve its product and service offerings to business. Over the past few years it has concentrated on developing and enhancing its cloud-based products, with the introduction of AccountRight Live. This means businesses can manage their business affairs anywhere and anytime, and allows business owners to concentrate on what they do best, i.e. running their business. Another of MYOB's accounting packages, MYOB AccountRight Plus, is discussed later in the chapter. This accounting software package is able to be used on a desktop or as a cloud-based product. Two in three Australian businesses use accounting software with around 60% of businesses using one of the MYOB products.

Source: Based on information from the MYOB web site, www.myob.com.au.

On the World Wide Web
MYOB Australia Ltd:
www.myob.com.au

PREVIEW OF CHAPTER 6

A reliable accounting information system is a necessity for any business. Whether a manual or computerised system is used in maintaining accounting records, certain principles and procedures apply. In order to introduce basic accounting procedures, the exercises and illustrations given in previous chapters have been limited to manually operated accounting systems. However, large entities like McDonald's and even smaller businesses require more sophisticated accounting systems. The purpose of this chapter is to explain and illustrate accounting information systems used to enable efficient and dependable processing of numerous transactions into useful information for decision making. The chapter begins by explaining some basic concepts of accounting information systems and the importance of having good internal controls within such a system. It is important to have good internal controls so that the accounting information derived from the accounting system is reliable. We will explain how transactions are transformed into financial data and explain some refinements to manual accounting systems. In the latter part of the chapter we take a look at the impact of computers on accounting information systems.

The content and organisation of this chapter are as follows.

ACCOUNTING INFORMATION SYSTEMS

Basic concepts of accounting information systems
- Principles of accounting information systems
- Developing an accounting system

Internal control systems
- Internal control
- Management's responsibility for internal control
- Principles of internal control
- Limitations of internal control
- Internal control and forensic accounting

Transformation of financial data
- Accounting processes underlying the generation of financial statements
- Sales and receivables, and purchases and payments cycles illustrated
- Internal control principles applied to the sales and receivables and purchases and payments cycles

Control accounts, subsidiary ledgers and special journals
- Control accounts and subsidiary ledgers illustrated
- Advantages of subsidiary ledgers
- Special journals

Computerised accounting information systems
- Basic features of computerised systems
- Advantages and disadvantages of computerised systems

Appendix: sales journals
- Cash receipts journal
- Purchases journal
- Cash payments journal
- Effects of special journals on the general journal

LEARNING OBJECTIVE 1

Identify the basic principles of accounting information systems.

BASIC CONCEPTS OF ACCOUNTING INFORMATION SYSTEMS

Recall that the system that collects and processes transaction data and disseminates financial information to interested parties is known as the accounting information system. It includes each of the steps in the accounting cycle that you have studied in earlier chapters. It also includes the documents that provide evidence of the transactions and events, and the records, trial balances, worksheets and financial statements that result. An accounting information system may be either manual or computerised.

You might be wondering, 'Why cover manual accounting systems if the business world uses computerised systems?' First, small businesses still abound and most of them begin operations with manual accounting systems and convert to computerised systems as the business grows. Second, to understand how computerised accounting systems operate, you need to understand how manual accounting systems work.

In this chapter, we explore the basic concepts that underlie accounting information systems, which from here on we will often simply refer to as accounting systems.

PRINCIPLES OF ACCOUNTING INFORMATION SYSTEMS

Efficient and effective accounting information systems are based on certain basic principles. These principles are: (1) cost-effectiveness, (2) usefulness and (3) flexibility, as described in figure 6.1. If the accounting system is cost-effective, provides useful output, and has the flexibility to meet future needs, it can contribute to both individual and organisational goals.

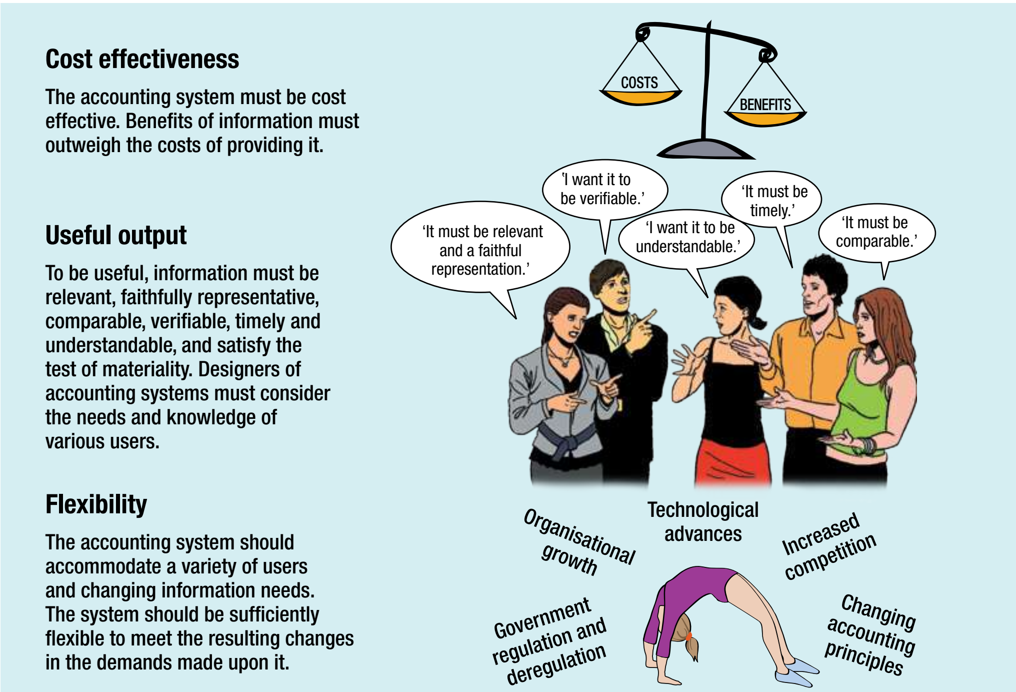


Figure 6.1 Principles of an efficient and effective accounting information system

DEVELOPING AN ACCOUNTING SYSTEM

LEARNING OBJECTIVE 2
Explain the major phases in the development of an accounting system.

Accounting systems, which are used by many Australian businesses, do not just happen. Good accounting systems are carefully planned, designed, installed, managed and refined. Within all businesses, senior executives such as the finance director will continually review and modify the accounting system in use to improve its usability and to streamline business processes as the business environment changes. Generally, an accounting system is developed in the following four phases.

1. *Analysis.* The starting point is to determine the information needs of internal and external users. The system analyst then identifies the sources of the needed information and the records and procedures for collecting and reporting the data. If an existing system is being analysed, its strengths and weaknesses must be identified.
2. *Design.* A new system must be built from the ground up — forms and documents designed, methods and procedures selected, job descriptions prepared, controls integrated, reports formatted, and equipment selected. Redesigning an existing system may involve only minor changes or a complete overhaul.
3. *Implementation.* Implementation of new or revised systems requires that documents, procedures and processing equipment be installed and made operational. Also, personnel must be trained and closely supervised throughout a start-up period.
4. *Follow-up.* After the system is up and running, it must be monitored for weaknesses or breakdowns. Also, its effectiveness must be compared with design and organisational objectives. Changes in design or implementation may be necessary.

Figure 6.2 highlights the relationship of these four phases in the life cycle of the accounting system.

These phases represent the life cycle of an accounting system. They suggest that few systems remain the same forever. As experience and knowledge are obtained, and as technological and organisational changes occur, the accounting system may also have to grow and change.

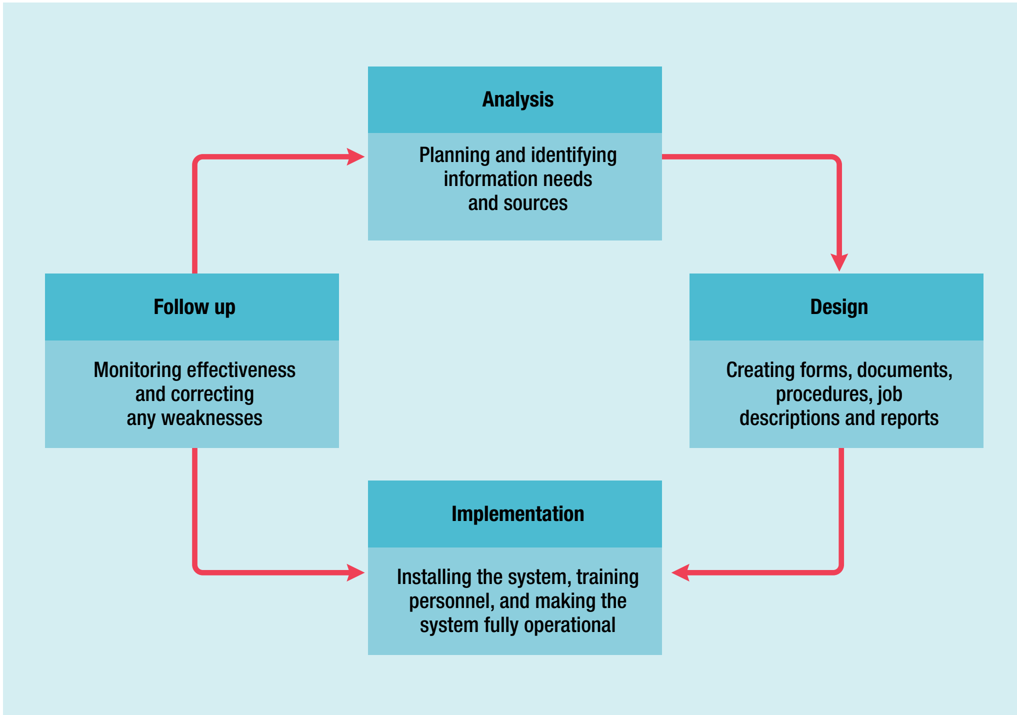


Figure 6.2 Phases in the development of an accounting system

An accounting system must have adequate controls built into it, including mechanisms which will protect and safeguard the assets of the business and ensure that the information provided by the system is faithfully represented, relevant and timely so that it meets the decision-making needs of both management and external users. This is what is referred to as a system of internal control and is discussed in the next section.

LEARNING OBJECTIVE 3

Define internal control.

INTERNAL CONTROL SYSTEMS

One of the primary functions of those who are managing and running the business is to ensure that the assets of the business are used as efficiently as possible and that they are always protected. Assets include, for example, inventory and equipment, which are physical assets, and data and information, which are collected in and disseminated from the accounting information system. In a sole trader business, the owner will often be involved in running the business and therefore will have adequate controls in place. However, as the business becomes larger the owner may have to rely on others to help manage and control the operations of the business, which will mean putting in place systems to assist in ensuring assets are used efficiently and that they are protected. This means that management will need to implement a risk management system. Risk management involves identifying and putting in place processes that will lessen the risks faced by the business. Internal control is an essential part of risk management, i.e. the policies adopted to reduce the likelihood or severity of potential losses. Failure to maintain an adequate system of internal control can be considered as negligence on the part of management.

INTERNAL CONTROL

Internal control consists of all the processes used by management and staff to provide effective and efficient operations, and compliance with laws, regulations and internal policies. It incorporates policies adopted by a business to:

- safeguard its assets from employee theft, robbery and unauthorised use
- enhance the completeness, accuracy and reliability of its accounting records by reducing the risk of errors (unintentional mistakes) and irregularities (intentional mistakes and misrepresentations) in the accounting process, and permit the timely preparation of financial information.

There are two aspects of internal control: (1) administrative controls and (2) accounting controls. Administrative controls are those which provide operational efficiency and adherence to policies and procedures which have been prepared by the management of the business. For example, documents that identify purchasing and sales procedures, or policies that are required to be followed when hiring employees.

Accounting controls are the methods and procedures used to protect assets and to ensure that the accounting records are reliable, such as procedures for ensuring transactions are recorded as necessary and ensuring that the record keeping for assets is kept separate from those who have physical custody of the assets.

Before we consider the principles of internal control systems that are required to protect assets and enhance the reliability of accounting records, let us briefly consider management's responsibility in relation to internal control.

MANAGEMENT'S RESPONSIBILITY FOR INTERNAL CONTROL

LEARNING OBJECTIVE 4
Appreciate management's responsibility in relation to internal control.

Large businesses, such as companies, are managed and run by senior employees, such as the Chief Executive Officer, Chief Financial Officer and other senior managers. These senior employees, known collectively as management, act on behalf of the owners of the business. Companies also have a board of directors that is made up of elected members who jointly oversee the activities of the company. One of the key roles of the board of directors is to establish objectives for the organisation. Management is then responsible for developing policies and practices that align with the organisation's objectives which are then ratified by the board of directors. These broad policies and practices form part of the environment that companies operate in, and they should reflect the overall attitude of the senior executives, directors and owners of the company. The board of directors is independent of management with the members of the board delegating responsibility to management and charged with the responsibility of regularly assessing how management adheres to these objectives.

The framework of rules, relationships, systems and processes within and by which authority is exercised and controlled within corporations is known as **corporate governance**.* Corporate governance, therefore, is the system by which entities are directed or controlled, managed and administered. It includes every aspect of management from action plans and internal controls to performance measurement and corporate disclosure. It influences how the objectives of the company are set and achieved, how risk is monitored and assessed and how performance of the company is optimised. Governance is largely about the decision-making process of the entity, ensuring that the goals and hence the decisions made by management are aligned with those of the shareholders. The board of directors plays a key role in effective corporate governance as the board is ultimately responsible for making sure that management carries out the policies and procedures as previously set. Better quality accounting information can be provided to shareholders if entities adopt good corporate governance principles.

In recent years, corporate governance practices have increasingly focused on identifying and managing business risk, and internal control is considered an important element

*Justice Owen in the HIH Royal Commission, *The Failure of HIH Insurance Volume 1: A corporate collapse and its lessons*, Commonwealth of Australia, April 2003, p. xxxiv.

of a good corporate governance structure. In response to corporate failures, such as HIH and One.Tel, the Australian Securities Exchange (ASX) Corporate Governance Council issued guidelines in 2003 called *Principles of Good Corporate Governance and Best Practice Recommendations*. The second edition of the guidelines, *Corporate Governance Principles and Recommendations 2nd Edition*, was released in August 2007, and amendments to this edition were released in June 2010. The third edition of the guidelines, *Corporate Governance Principles and Recommendations (Third Edition)* was released in March 2014. The guidelines contain eight principles of good corporate governance. Among these principles is 'Principle 7: Recognise and manage risk'. Recognising and managing risk is a crucial part of the role of the board of directors and management of the company.** To enable the board and management to put in place good risk management practices, the company must have an appropriate risk management framework and needs to manage that risk on an ongoing basis through periodic reviews.

As previously noted, the board delegates the running of the business to management, including responsibility for internal control, but the board needs to regularly monitor what management are doing. To assist the board in its monitoring and oversight, the board creates a number of committees, namely an audit committee and a risk committee. The audit committee is responsible for the oversight of financial reporting and disclosure and the committee also assesses management processes that support the preparation of the external reports. Further, the audit committee assesses the performance and independence of the external auditors and is responsible for maintaining communication with both the external and internal auditors. **Internal auditors** are employees of the business who evaluate on a continuous basis the effectiveness of the system of internal control. They periodically review the activities of departments and individuals to determine whether prescribed internal controls are being followed.

Creation of a risk committee is one of the recommendations in Principle 7 of the *Corporate Governance Principles and Recommendations (Third Edition)*, and is the committee created to oversee and manage the risks that organisations face.

The ASX believes that good corporate governance promotes investor confidence, so complying with these principles is good for investors.

LEARNING OBJECTIVE 5

Identify the principles and limitations of internal control.

PRINCIPLES OF INTERNAL CONTROL

To safeguard assets and enhance the accuracy and reliability of its accounting records, a business follows internal control principles. The specific control measures used vary with the size and nature of the business and with management's control philosophy. However, the five principles listed in figure 6.3 apply to most businesses. Each principle is explained in the following sections.

ESTABLISHMENT OF RESPONSIBILITY

Two essential characteristics of internal control are the assignment of responsibility to specific individuals and the appointment of supervisors to monitor compliance with procedures. Control is most effective when only one person is responsible for a given task. If two or more individuals share the same responsibility and something goes wrong, it will be very difficult to determine who is at fault and therefore difficult to take corrective action to ensure that the problem does not occur again.

When assigning responsibility to individuals, management should ensure that employees are appropriately qualified or trained. Some responsibilities require licences, e.g. truck drivers must hold the class of licence for the truck they are to drive. Some companies invest a lot of money training staff. For example, Domino's Pizza Enterprises Ltd has developed a Safe Delivery Program as well as initiating a staff training program called Domino's Pizza College. Establishing responsibility includes the authorisation and approval of transactions. For example, establishing an account for a new customer ordinarily requires a credit worthiness check and approval from the credit department.

**ASX Corporate Governance Council 2014, *Corporate Governance Principles and Recommendations (Third Edition)*, www.asx.com.au.

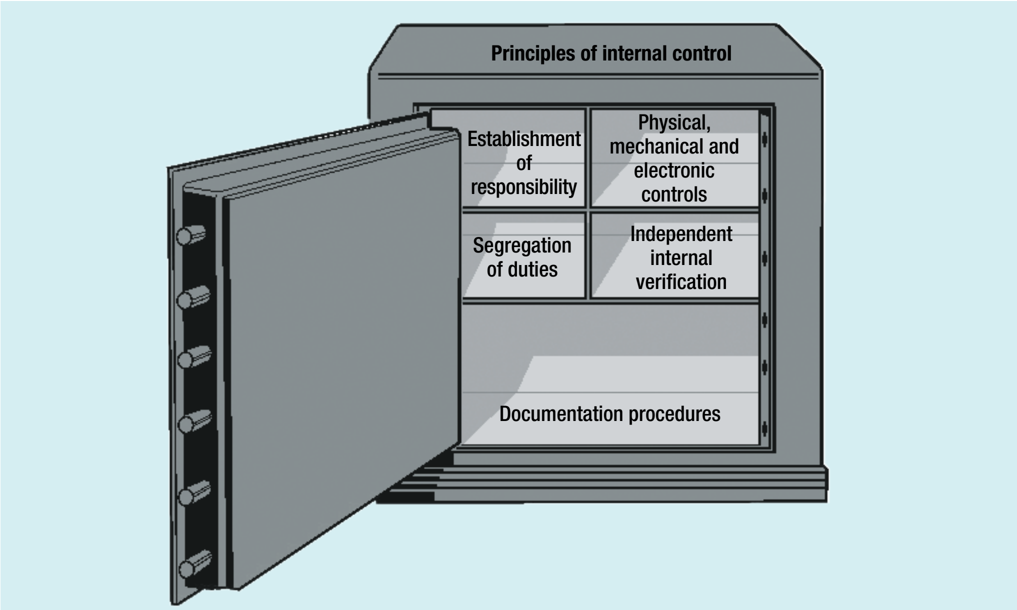


Figure 6.3 Principles of internal control

SEGREGATION OF DUTIES

Segregation of duties is indispensable in a system of internal control. There are two common applications of this principle:

- The responsibility for related activities should be assigned to different individuals.
- The responsibility for keeping the records for an asset should be separate from the physical custody of that asset. This is an example of an accounting control.

The rationale for segregation of duties is that the work of one employee should, without a duplication of effort, provide a reliable basis for checking the work of another employee.

Related activities

Related activities should be assigned to different people in both the purchasing and selling areas. When one person is responsible for all of the related activities, the potential for errors and irregularities is increased. *Related purchasing activities* include ordering goods, receiving goods and paying (or authorising payment) for goods. In purchasing, for example, orders could be placed with friends or with suppliers who give bribes, such as cash, gifts or other personal benefits to purchasing officers. In addition, payment might be authorised without a careful review of the invoice or, even worse, fictitious invoices might be approved for payment. One large Australian entity suffered losses because it was paying for goods delivered directly to employees' homes. When the responsibilities for ordering, receiving and paying are assigned to different individuals, the risk of such abuses is minimised.

Similarly, *related sales activities* should be assigned to different individuals. Related sales activities include making a sale, dispatching (or delivering) the goods to the customer, invoicing the customer, and receiving payment from the customer. When one person is responsible for these related sales transactions, a salesperson could make sales at unauthorised prices to increase sales commissions, a shipping clerk could ship goods to himself, or a sales clerk could understate the amount invoiced and received for sales made to friends and relatives. These abuses are less likely to occur when salespeople make the sale, dispatch (warehousing) department employees send the goods on the basis of the delivery docket, and other employees prepare the sales invoice after comparing the delivery docket with the report of goods dispatched. With computerised systems, the dispatch department employees send goods on the basis of electronic records of goods ordered, and staff preparing the sales invoice rely on electronic records of goods delivered. The amount that the customer is invoiced may be calculated by a computer, based on assigned sales price for each product as is the case at most supermarket checkouts.

Accountability for assets

If accounting is to provide a valid basis of accountability for an asset, the accountant (as record keeper) should have neither physical custody of the asset nor access to it. Moreover, the custodian of the asset should not maintain or have access to the accounting records. An asset is not likely to be converted to personal use if one employee maintains the record of the asset that should be on hand and a different employee has physical custody of the asset. The separation of accounting responsibility from the custody of assets is especially important for cash and inventories because these assets are very vulnerable to unauthorised use or misappropriation.

DOCUMENTATION PROCEDURES

Documents provide evidence that transactions and events have occurred. For example, the delivery document (also referred to as a picking slip) indicates that the goods have been shipped, and the sales invoice indicates that the customer has been invoiced for the goods. By adding signatures (or initials) to the documents, the people responsible for the transaction or event can be identified.

Procedures should be established for documents. First, whenever possible, documents should be prenumbered (e.g. cheques, sales invoices and cash receipts) and all documents should be accounted for. Prenumbering helps to prevent a transaction from being recorded more than once or, conversely, to prevent the transactions from not being recorded. It facilitates an audit trail, i.e. evidence of transactions and how they are recorded. Second, documents that are source documents for accounting entries should be promptly forwarded to the accounting department to help ensure timely recording of the transaction and event. Computers can produce prenumbered documents, record them and create an audit trail. For example, an audit trail may indicate that a customer's order has been received, which goods have been sent, and how much the customer has been invoiced, because related transactions can easily be identified by the use of prenumbered documents. A computer report can also identify unprocessed documents. This control measure contributes directly to the accuracy, reliability and timeliness of the accounting records.

In some computerised systems, multiple copies of documents are not used. Instead, an order or job is created and employees responsible for each function enter information on completion of each task. For example, a warehouse employee may enter data to confirm dispatch of goods. Control is maintained by electronically limiting access with passwords.

PHYSICAL, MECHANICAL AND ELECTRONIC CONTROLS

Use of physical, mechanical and electronic controls is essential. Physical controls such as safes and locked cabinets relate mainly to the safeguarding of assets. Mechanical and electronic controls safeguard assets and enhance the accuracy and reliability of the accounting records. Examples of these controls are shown in figure 6.4.

A crucial consideration in programming computerised systems is building in controls that limit unauthorised or unintentional tampering. Several books and films have been produced with computer system tampering as a major theme. Most programmers would agree that tamper-proofing and debugging programs are the most difficult and time-consuming phases of their jobs. Program controls built into the computer prevent intentional or unintentional errors or unauthorised access. To prevent unauthorised access, the computer system may require that passwords be entered. Once access has been allowed, other program controls identify data having a value higher or lower than a predetermined amount (limit checks), validate calculations (maths checks), and detect improper processing order (sequence checks). For example, the MYOB accounting package does not allow a journal entry to be posted unless debits equal credits.

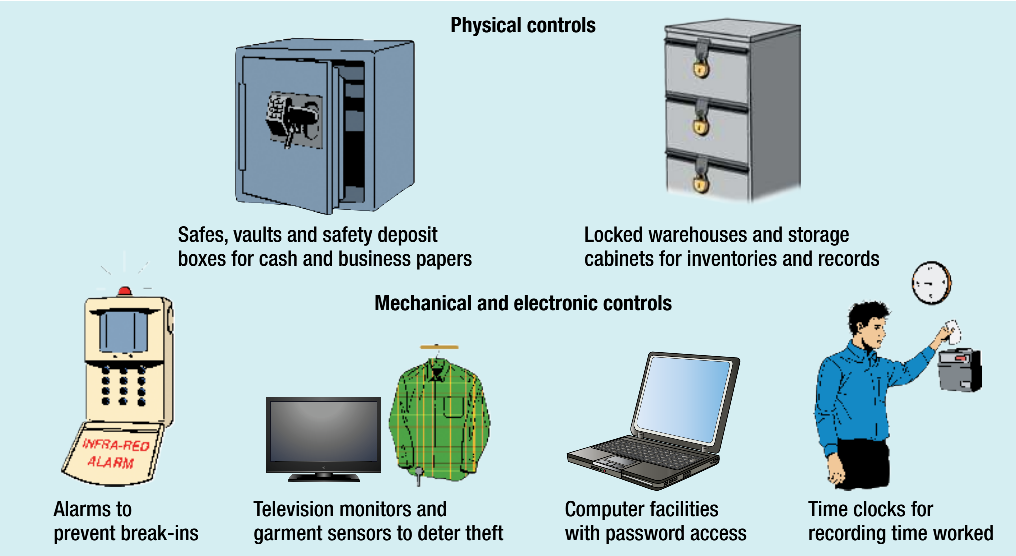


Figure 6.4 Physical, mechanical and electronic controls

APPLICATION IN BUSINESS

E-business perspective

Cloud accounting offers organisations the tools to prepare, publish and automatically exchange financial reports online. With cloud accounting, accounting software is executed using web browsers, and accounting data is securely stored and processed on the servers of cloud accounting providers. This offers flexibility of accessing data ubiquitously. As traditional practices of capturing financial data in small- and medium-sized enterprises (SMEs) can be onerous, industry experts warn that Australian small business owners are forgoing business growth and significant cost-saving opportunities by not adopting cloud accounting. For example, many small business owners enter receipts into their accounting systems at the end of the month which indicates that information used to make decisions is usually generated late after expenses have been incurred. With cloud accounting business owners can enter expenses data immediately through a variety of devices including smart phones, tables and traditional computers and assess purchase and investment decisions more frequently. Additionally, using cloud accounting reduces the need for software and hardware upgrades which results in high cost savings for small businesses. MYOB's AccountRight Live is an example of an application that caters for small to medium business accounting needs, allowing them to pay only for software features they need to use. MYOB's AccountRight Live facilitates cloud accounting by offering accounting including inventory payroll either on a local PC or on the cloud via the internet. Accounts can, as a result, be accessed live and reports generated flexibly as required.

Source: Based on information from A. Fisher, '7 benefits of cloud accounting systems . . .', *Barrington accountants and advisors*, 30 April 2013, www.barringtonpractice.com.au; BDO Australia web site, 'Small business owners miss opportunities for growth in the cloud', 2013, www.bdo.com.au; and S. Macpherson, 'Early AccountRight Live review pit features versus slow speed', *Box Free IT*, 7 January 2013, boxfreeit.com.au.

INDEPENDENT INTERNAL VERIFICATION

Most systems of internal control provide for independent internal verification. This principle involves the review, comparison and reconciliation of data prepared by employees. There are four common forms of internal verification:

- checking procedures facilitated by segregation of duties, such as the employee who receives inventory into the warehousing (receiving) department ensures that the amount of inventory actually received is the same amount as recorded by another employee on the purchase order
- monitoring by the employee's supervisor, such as a shop manager observing that the shop assistants do not remove inventory for their own personal use
- verification by an internal auditor
- rotation of duties.

Larger businesses would normally use all four forms of internal verification.

In large businesses, independent internal verification is assigned to internal auditors. Recall internal auditors are employees of the business who evaluate on a continuous basis the effectiveness of the system of internal control. They periodically review the activities of departments and individuals to determine whether prescribed internal controls are being followed. This review is often performed on a surprise basis.

Rotation of duties, i.e. regularly reassigning staff from one task to another has many advantages, e.g. it makes it difficult for employees to permanently conceal any improper actions, and allows staff to be trained in a number of different jobs to prevent boredom and to cover for employees who are ill.

Independent internal verification is especially useful in comparing recorded accountability with existing assets. Three measures are recommended to obtain maximum benefit from independent internal verification.

- The verification should be made both routinely and on a surprise basis.
- The verification should be done by an employee who is independent of the personnel responsible for the information.
- Discrepancies and exceptions should be reported to a management level that can take appropriate corrective action.

As discussed above, management of many types of business entities need to have adequate internal control processes in order to safeguard the assets of the business and to enhance the completeness and accuracy of the accounting records. Using the decision-making toolkit below, external users and managers of the business can evaluate whether the financial statements prepared by the entity are supported by adequate internal controls. External users such as shareholders, potential investors and lenders rely on the accounting records when making decisions about providing resources to the business. Shareholders and potential investors need reliable information when making decisions about whether to continue to invest in the business. External users can place greater reliance on the financial statements if the auditor stated in the auditor's report that the financial statements are a true and fair representation of the entity's operations. Reviewing the auditor's report, therefore, is an important step in the decision-making process for shareholders. Shareholders and potential investors would also scan the financial press regularly for any articles that might suggest there has been a misappropriation of assets through theft or irregularities as this may indicate that the internal control processes within the business entity are lacking. Internal reports from the internal auditors are an important source of information for senior management of the business as they may highlight the need for improvement in all or one of the internal control measures. If the auditor's report indicates that internal control processes are found wanting or reports in the financial papers regarding misappropriation of assets are a common occurrence, then external users need to review the financial statements with caution when using the financial statements to make resource allocation decisions.

DECISION MAKING

The application of internal control to cash, an asset which is the most susceptible to misappropriation, is discussed in chapter 7.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Are the business's financial statements supported by adequate internal controls?	Auditor's report, articles in financial press (external parties); reports on asset losses from theft, errors, customer complaints (internal parties)	The required measures of internal control are to (1) establish responsibility, (2) segregate duties, (3) document procedures, (4) use physical or automated controls, and (5) use independent internal verification.	If any indication is given that these or other controls are lacking, the financial statements should be used with caution.

LIMITATIONS OF INTERNAL CONTROL

A system of internal control is generally designed to provide reasonable assurance that assets are properly safeguarded and that the accounting records are reliable. The concept of reasonable assurance rests on the premise that the costs of establishing control procedures should not exceed their expected benefit. To illustrate, consider shoplifting losses in retail stores. Such losses could be completely eliminated by having a security guard assigned to each customer entering the store. Store managers have concluded, however, that the negative effects of this procedure cannot be justified. Instead, stores have attempted to 'control' shoplifting losses by less costly procedures such as (1) posting signs saying, 'We reserve the right to inspect all bags' and 'Shoplifters will be prosecuted', (2) using hidden TV cameras and store detectives to monitor customer activity, and (3) using sensor equipment at exits, such as tags, to detect goods not paid for.

The human element is an important factor in every system of internal control. A good system can become ineffective as a result of employee fatigue, carelessness or indifference. For example, a receiving clerk in the warehousing department may not bother to count goods received from a supplier or may just 'fudge' the counts. Occasionally, two or more individuals may work together to get around prescribed controls. Such collusion can significantly impair the effectiveness of a system because it eliminates the protection anticipated from segregation of duties. If a supervisor and a receiving clerk collaborate to understate receipt of inventory, the system of internal control may be subverted (at least in the short run). No system of internal control is perfect.

The size of the business may impose limitations on internal control. In a small business, for example, it may be difficult to apply the principles of segregation of duties and some forms of independent internal verification because of the small number of employees. Small businesses rely more on supervision of employees.

It has been suggested that the most important and inexpensive measure any business can take to reduce employee theft and fraud is to conduct thorough background checks before employing people. Here are two tips: (1) check to see whether job applicants actually hold the qualifications they list; and (2) never use the telephone numbers for previous employers given on the reference sheet; always look them up yourself as you could be speaking to a relative or friend rather than a previous employer.

APPLICATION IN BUSINESS

Management perspective

Weak internal controls can bring down a business, as the case of the white goods and electrical retailer Clive Peeters showed. In 2009, the company lost almost the equivalent of a year's earnings after one employee stole more than $20 million from the company's bank account. Sonya Causer, the payroll manager, admitted to falsifying payroll records and transferring cash to her bank account to buy 44 properties, cars and some $17 000 worth of jewellery over her 18 months with the company. As a senior member of the finance team in the company's Melbourne head office, Ms Causer was a signatory to the company's bank account. Seizing a loophole in the company's internet banking account with National Australia Bank, she made unauthorised transfers to her own account to go on a property buying spree. While Ms Causer was found guilty and repaid some of the cash, with crippling debt, the company collapsed and was placed under voluntary administration in May 2010.

Source: Based on information from E. Greenblat, 'Not so easy for Clive Peeters', *The Sydney Morning Herald*, 4 May 2010; V. Carson & L. Battersby, 'Employee admits stealing $20m', *The Sydney Morning Herald*, 12 August 2009, www.smh.com.au.

INTERNAL CONTROL AND FORENSIC ACCOUNTING

Internal control is an integral part of risk management and, as the previous section demonstrates, weaknesses in internal controls can have adverse consequence for business in terms of damage to profitability and reputation. Business is increasingly faced with challenges posed by fraudsters both within and external to organisations. Corporate fraud varies in shape and size, ranging from small-scale stealing to computer fraud committed by organised crime syndicates. A specialised strand of accounting service, called forensic accounting, has developed over the past decade in response to the growing complexity of the business environment and the increasing number of business-related investigations.

Forensic accounting is about the application of accounting knowledge and skills to issues arising in the context of civil and criminal litigations and investigation.* More specifically, forensic accounting integrates accounting, auditing and investigative skills to provide accounting analysis in litigation support, dispute analysis, litigation services and expert witness services.

So what does a forensic accountant do, you may ask? Some of the common forensic investigation areas include:

- transaction reconstruction and measurement
- asset identification and valuation
- falsifications and manipulations of accounts
- bankruptcy and insolvency
- divorce and family law
- recovering proceeds of crime.

In addition to forensic investigation, forensic accounting is also concerned with more proactive risk reduction roles such as fraud prevention and management. This may include fraud awareness training for employees, managers and directors. Forensic accountants often perform fraud risk assessment and assist business in developing fraud control strategies. Further, forensic accountants are often advisers to audit committees, risk committees and governance committees for larger organisations.**

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What basic principles are followed in designing and developing an effective accounting information system?
2. What are the major phases in the development of an accounting information system?
3. Define internal control. What are the two main objectives of internal control?
4. Identify and describe the principles of internal control.
5. What are the limitations of internal control?
6. What are some of the tasks of forensic accountants?

>> DO IT

Li Song owns a small retail store. Li wants to establish good internal control procedures but is confused about the difference between segregation of duties and independent internal verification. Explain the differences to Li.

REASONING: In order to help Li, you need to thoroughly understand each principle. From this knowledge, you should be able to explain the differences between the two principles.

SOLUTION: Segregation of duties pertains to the assignment of responsibility so that (1) related activities are assigned to different people, thus enabling the work of one employee to serve to confirm the accuracy of the work of another employee and (2) the custody of assets is separated from the records that keep track of the assets. Segregation of duties occurs daily in using assets and in executing and recording transactions. In contrast, independent internal verification involves reviewing, comparing and reconciling data prepared by one or several employees. Independent internal verification occurs after the fact, as in a supervisor ensuring inventory is counted regularly to ensure that the amount of inventory on hand matches the data held in the accounting records.

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*Institute of Chartered Accountants, www.charteredaccountants.com.au.

**D. Larry Crumbley 2008, *Journal of Forensic Accounting: Auditing, Fraud, and Risk*, vol. IX, www.rtedwards.com/journals/JFA.

TRANSFORMATION OF FINANCIAL DATA

LEARNING OBJECTIVE 6

Understand the accounting processes underlying the generation of financial statements.

This chapter has emphasised the importance of reliable accounting records and how good internal controls help to achieve reliability. We will now consider how data from transactions is transformed into financial data through the use of an accounting system. As part of this discussion we will also consider two major cycles, i.e. the sales and receivables, and purchases and payments cycles. We will then apply the principles of internal control to these cycles.

ACCOUNTING PROCESSES UNDERLYING THE GENERATION OF FINANCIAL STATEMENTS

Recall that the system that collects and processes transaction data and disseminates financial information to interested parties is known as the accounting information system. An accounting information system has three phases: input, processing and output. The input refers to source documents such as sales invoices, purchase invoices, cheque butts and bank deposit slips. The source documents are used to record transactions as they occur into the journals. The journal serves as the chronological record of the transactions because transactions are entered into the journal in date order. In previous chapters we discussed the general journal as the journal where transactions are recorded. However, we need to recognise that most businesses will have several types of repetitive transactions, such as sales, purchases, receipts and payments of cash. The journal entries for these similar transactions will be essentially the same. The accounting system can therefore be enhanced to be more streamlined and efficient through the reduction of the amount of duplication when recording in the general journal with the introduction and use of special journals, which are discussed later in the chapter. These journals are then posted to the general ledger periodically, which is the processing phase. Recall, the general ledger is made up of assets, liabilities, equity, income and expense accounts. The output of the system is the generation of the financial statements, which are prepared from the data in the general ledger. As discussed in chapter 1, the four financial statements that are prepared from the accounting data include:

1. The *statement of profit or loss*, which presents the income and expenses and resulting profit or loss for a specified period of time.
2. The *statement of changes in equity*, which summarises the changes in equity for a specific period of time.
3. The *statement of financial position*, which reports the assets, liabilities and equity at a specific date.
4. The *statement of cash flows*, which summarises information about the cash inflows (receipts) and outflows (payments) for a specific period of time.

Accompanying the financial statements are explanatory notes and supporting schedules. The financial statements and the notes are provided to external users such as shareholders, creditors and customers for decision-making purposes.

In the conversion of input to output, data are transformed into information that is useful to an external user. For example, each time a sale is made an invoice is generated which is then used as the source document for entry into the accounting system, and then summarised and totalled to be reported as sales information in the form of revenue in the statement of profit or loss. The transformation of data into useful information in an accounting system occurs as we move through the accounting cycle as shown in figure 6.5.

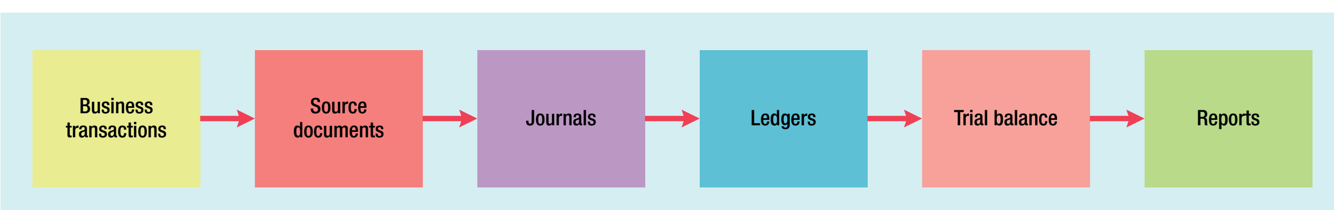


Figure 6.5 The transformation of accounting data to accounting information

The number of transactions for small businesses would be low so a manual accounting system would be used to record the transactions and then generate the financial statements. As the number of transactions increases, owners of the business may need to decide whether to continue with a manual accounting system or move to a computerised accounting system. Owners of the business would decide to use a computerised accounting system instead of a manual system where the number of transactions increases substantially. In these situations, the decision to move to a computerised system would be more efficient and more cost effective. It would be more cost effective as it will reduce the time taken to record transactions and possibly lead to a reduction of errors. This would therefore give the owners more confidence in the final reports prepared. It is important to realise that the design, structure and operation of both manual and computerised accounting systems are essentially the same. So an understanding of the manual accounting system is necessary in order to operate a computerised accounting system effectively. Computerised accounting systems are discussed later in the chapter.

LEARNING OBJECTIVE 7

Describe the sales and receivables cycle and the purchases and payments cycle.

SALES AND RECEIVABLES, AND PURCHASES AND PAYMENTS CYCLES ILLUSTRATED

The sales and receivables cycle, also known as the revenue cycle, provides a flow of how sales are made and recorded within an organisation. As we know, a sales transaction can be a cash sale or a credit sale. A cash sale creates a sales invoice that initiates the recording of the sale transaction through the journal, which is then posted to the general ledger with a debit to the bank account and a corresponding credit to the sales account. Many goods have a barcode on their packaging. When this barcode is scanned for a sale transaction, the scanning process will automatically reduce the respective amount of inventory on hand so that the system keeps a running record of the quantities of item of inventory on hand. As we know many sales transactions are sales on credit. And often, for example, the sale may be made online. Figure 6.6 is a simplified diagram of the sales and receivables cycle.

Alternative terminology

Inventory is also known as *stock*.

A sales order from the customer will initiate the cycle. A sales order can be received electronically, i.e. either via email or online. Alternatively, a sales order can be phoned through to the business by the customer. The sales department will prepare an internal sales order which lists the inventory that has been ordered by the customer. The internal sales order is the internal record that initiates the process. The internal sales order is also known as the picking slip. The picking slip is then sent to the warehousing department. The warehousing department is the section of the business that controls the inventory held by the organisation. The warehousing department will check that inventory is available to meet the customer demand, and then personnel within this department will fill the order by preparing a delivery docket and packing the inventory for delivery to the customer as per the picking slip. For example, assume a customer has ordered five heart rate monitors, this would be listed on the picking slip. The warehousing department would fill this order by packing five heart rate monitors which would then be delivered to the customer. Once the inventory has been dispatched the inventory records will be updated to reflect the removal of inventory from the warehouse. A copy of the delivery docket is sent to the accounting department who will then generate a sales invoice which will be sent to the customer. The generation of the sales invoice will result in the recording of the sale in the accounting system of a debit to the accounts receivable account and a credit to the sales account.

The preceding paragraph has explained the process as though it were a manual process. Many large organisations have fully integrated systems, i.e. every step in the process would be automatic and computer generated. In an integrated system the sales order would be received online which will initiate the process in the computerised system. Once initiated, a picking slip would be automatically generated and the computerised system would automatically determine if the order can be filled, i.e. that the inventory ordered is available to be dispatched. A delivery docket would be automatically generated once the inventory has been picked and electronic sign-off would occur which would then generate the sales invoice.

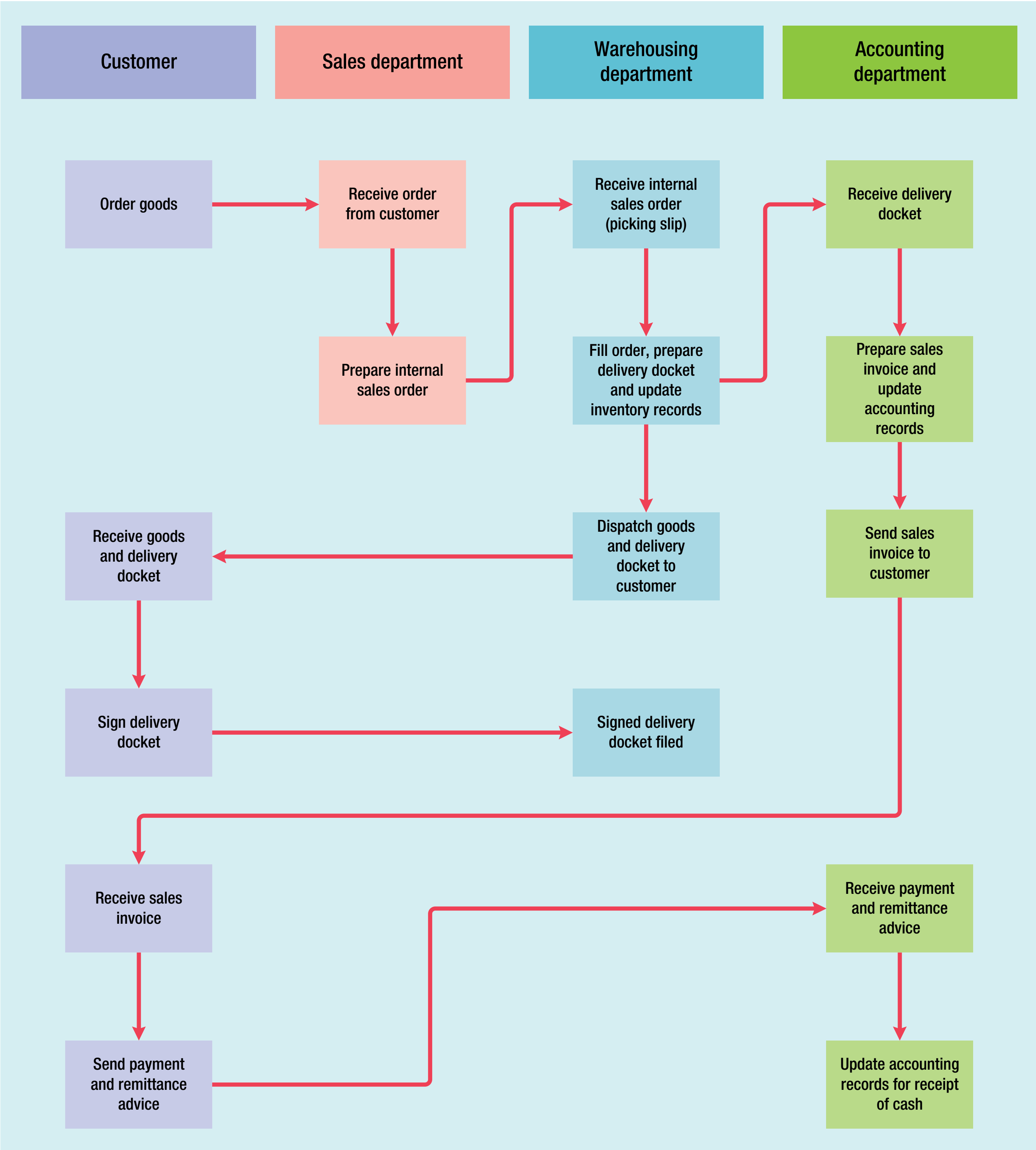


Figure 6.6 Sales and receivables cycle

Depending on the geographical location of the customer and the delivery schedule, the goods could be received on the same day dispatched, or if the customer is located a long distance away from the business, the goods will be received some time later. When the customer receives the goods the customer will check what they have received matches what they ordered and that the goods are in good condition. The customer will then sign the delivery docket as proof of delivery. On receipt of the signed delivery docket the warehouse will file it away for completeness.

Payment from the customer will be sent for the goods according to the credit terms that have been arranged previously between the business and the customer. The setting of credit terms is discussed in more detail in chapter 7. However, at this point, you should note that there would be a time lag between the sales order, delivery of the goods and the receipt of cash from the customer. This time lag is due to the credit terms. Briefly, before a sales order is filled it is common practice for the accounting department to carry out a credit check on new customers to ensure that the risk of non-payment for goods is minimised. Existing customers who have already had their credit checks will usually have their orders filled automatically. The responsibility for credit checks rests with the accounting department, who will review each customer separately taking into account their past history in terms of sales and receipts of cash. Once the cash is received from the customer, the transaction will be entered into the journal and posted to the general ledger resulting in a reduction in accounts receivable through a credit to this account and a corresponding debit to the cash account.

Figure 6.7 displays the purchases and payments cycle, which provides the flow of how purchases of inventory and payments for inventory are made within organisations.

The warehousing department within an organisation is responsible for ensuring that there is enough inventory on hand to meet sales demands. This department will have a number of measures in place to assist them in determining when items of inventory need to be replenished or added to. A computerised system will advise when the item of inventory has reached a point where it needs to be re-ordered — this is known as the re-order point. The re-order point is determined and set by the business through a review of prior sales for each item of inventory. Once it has been identified that inventory levels for a particular item of inventory are low, the warehouse clerk in the warehousing department will complete a purchase requisition to order the inventory that needs to be replaced or added to. The purchase requisition will list the quantity and the item of inventory that is being re-ordered and therefore re-purchased. This requisition will be signed off by a supervisor before the order is forwarded on to the purchasing department. The purchasing department will ensure that all details are complete with regard to the inventory being ordered and will prepare a purchase order. This purchase order will then be sent to the supplier. There will usually be additional copies of the purchase order — one for each of the following departments: the accounting department and the warehousing department. Once the purchase order has been sent to the supplier, a copy of this is sent to the accounting department so that it can be used to check against the goods received note (discussed below) and the supplier invoice when received.

Once the supplier receives the purchase order, the supplier will fill the purchase order and dispatch the goods ordered to the business. A delivery docket will be attached to the boxed goods. The supplier will also send an invoice to the business so that payment can be made by the business once the goods are received and checked.

The warehousing department will receive the goods accompanied by the delivery docket. The warehouse clerk will ensure that the goods received match both the delivery docket and the purchase order exactly. The clerk will also check that the goods received are in good condition. Once the clerk confirms that the goods match the purchase order, the clerk will complete a goods received note which will be forwarded to the accounting department. The delivery docket will also be signed to reflect the goods have been received and this signed copy will be forwarded to the supplier. Also at this point, the inventory will be added to the shelves in the warehouse and the inventory levels will be updated.

On receipt of the supplier's invoice, the accounting department will check that the details on the purchase order, the goods received note and the supplier's invoice are all the same. As the goods and the supplier's invoice have been received by the business the accounting system will be updated which will result in a debit to the inventory account and a credit to the accounts payable account.

Prior to making payment to the supplier the accounting department will check the payment terms that have been arranged previously between the two businesses and will authorise payment. Once the payment is made to the supplier, the accounts payable account will be debited and the bank account will be credited. There will be a time lag between the time the goods are ordered, received and paid for. This time lag is due to the credit terms that the business has arranged with the supplier of the goods.

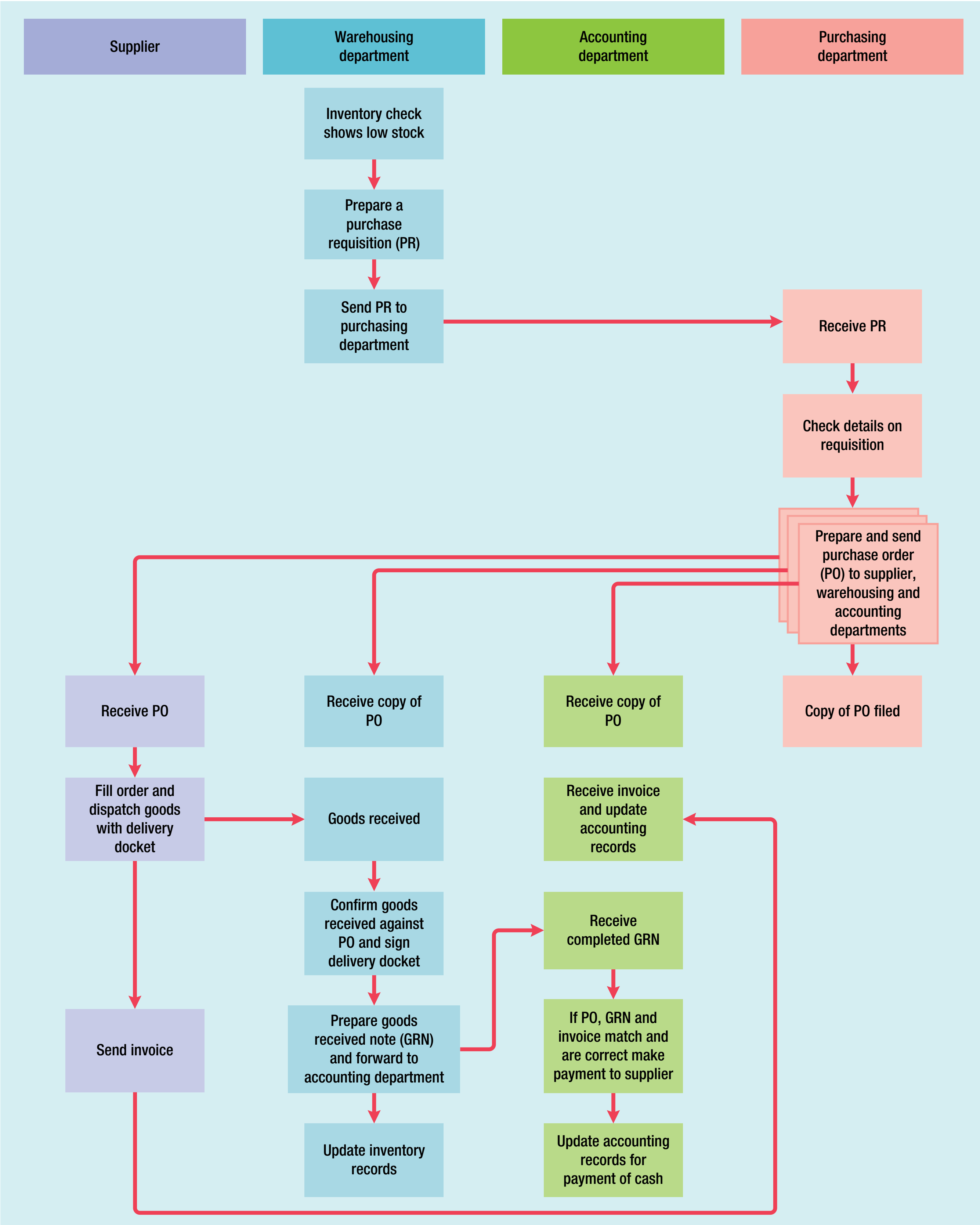


Figure 6.7 Purchases and payments cycle

APPLICATION IN BUSINESS

E-business perspective

The preceding paragraphs in relation to the purchases and payments cycle have explained the purchasing process as though it were a manual process. Many large organisations have fully integrated inventory systems where many of the steps are automatically generated. For example, in an integrated system when the inventory has reached its minimum level it would automatically set in train the process of ordering the goods for replenishment. In fact, advancements in information technology in recent years have enabled businesses to integrate inventory-ordering systems with sophisticated supply chain management systems. In some inventory systems regular suppliers of specific items would have access to the purchasing entity's inventory database via the internet so that the supplier can monitor and replenish their customers' inventory levels automatically.

Now that we have reviewed the respective cycles for purchases of inventory and sales of inventory, let us consider some internal control principles that business may apply with regard to these respective cycles.

LEARNING OBJECTIVE 8

Apply internal control principles to the sales and receivables cycle and purchases and payments cycle for transforming data.

INTERNAL CONTROL PRINCIPLES APPLIED TO THE SALES AND RECEIVABLES AND PURCHASES AND PAYMENTS CYCLES

Recall the principles of internal control include establishment of responsibility for staff; segregation of duties; documentation procedures; physical, mechanical and internal controls; and independent internal verification. Let us now apply these principles firstly to the sales and receivables cycle and then to the purchases and payments cycle.

SALES AND RECEIVABLES CYCLE

It is important to note that each person involved in the cycle within each of the respective departments needs to be authorised to carry out their task and is appropriately qualified to do so. For example, the warehouse clerk needs to have the authority to fill the customer order and update the inventory records.

Similarly, in executing a sales transaction, the entity needs to assign responsibility for the sale to various personnel within the different departments as shown in figure 6.6. Recall, this is known as segregation of duties. Remember, the sale is made by a salesperson, while filling and dispatching the sales order is carried out by a warehouse clerk, while other staff within the accounting department will send the invoice to the customer. Within the accounting department it will also be necessary to ensure that the same staff member does not process the cash received and also update the customer record. By having the various personnel involved with the sales transaction it ensures that there is independent verification at each step of the transaction. The segregation of duties will ensure that fictitious sales are not created or that the salesperson does not make a sale at unauthorised prices, and that a warehouse clerk in the warehousing department does not send the goods to himself or herself. Also, segregation of duties within the accounting department will ensure that cash is not misappropriated.

Also note in figure 6.6 that when the warehouse clerk fills the sales order he or she will sign the picking slip to confirm that the amount of goods dispatched matches the goods on the sales order — this is an example of a documentation procedure. This will ensure that the person responsible for the shipment of goods can be identified.

A business will ensure that its inventory records can only be accessed by authorised personnel with password access. Often businesses will also have alarm systems in place to safeguard their inventory.

Let us now turn to the purchases and payments cycle.

PURCHASES AND PAYMENTS CYCLE

Recall the establishment of responsibility is an important internal control principle. This is also true for the purchases and payments cycle. The warehouse clerk needs to have the required skills and experience to initiate the purchases cycle, as this staff member needs to have an appreciation of when the inventory levels are low requiring the replenishment of the inventory. In a computerised system the warehouse clerk would need to be experienced in checking that the system is re-ordering inventory when inventory levels are low. The warehouse clerk also needs to have the authority to check the goods received against the purchase order and complete a goods received note and ensure inventory levels are updated on receipt of the goods.

Also in the purchases and payments cycle, related activities need to be assigned to different personnel. When one person is responsible for all the related activities, the potential for errors or irregularities increases. Related purchasing activities include ordering goods, receiving of goods and paying for goods. Referring to figure 6.7 (p. 341), goods are ordered by a purchasing clerk within the purchasing department, the warehouse clerk within the warehousing department is then responsible for receiving the goods and ensuring that the received goods match the order placed against the delivery docket (an example of independent verification). An accounting staff member is then responsible for paying the supplier for the goods. Note that the accounting department does not have physical custody of the goods nor access to the goods. Goods are kept in the warehousing department and the accounting records are in the accounting department. This is an important internal control to safeguard the inventory. Note that within this cycle there is also a requirement for the warehouse clerk to complete and sign the goods received note before it is sent to the accounting department to confirm the receipt of goods, an example of a documented procedure.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. Explain how financial data is transformed into financial statements.
2. Describe the sales and receivables cycle.
3. Describe the purchases and payments cycle.

In earlier chapters, we illustrated basic accounting procedures by recording each transaction with one entry in the general journal and later posting the debit and credit from the general journal to the appropriate general ledger accounts. While this accounting system as illustrated in the first five chapters is satisfactory in a business where the volume of transactions is extremely low, as noted earlier most businesses will have several types of repetitive transactions, such as sales, purchases, receipts and payments of cash. The journal entries for these similar transactions will be essentially the same, such that the accounting system will be enhanced with the introduction of special journals. The accounting system will also find it necessary to add additional ledgers and journals to the accounting system to record transaction data efficiently.

CONTROL ACCOUNTS, SUBSIDIARY LEDGERS AND SPECIAL JOURNALS

LEARNING OBJECTIVE 9

Describe the nature and purpose of control accounts and subsidiary ledgers.

The discussion in previous chapters was limited to only one ledger, the general ledger. A more efficient and effective way for businesses to process a large number of transactions is to use control accounts and subsidiary ledgers. For example, Sell-A-Lot Ltd is a wholesaler in Chatswood that sells cheap imported CDs and DVDs on credit to music stores (including Sanity, Fish Records and HMV) in the Sydney metropolitan area. It has a customer base of around 100 stores. If the entity recorded all its credit sales and cash receipts in one accounts receivable general ledger account it would be very difficult to determine how much inventory each customer has purchased, which customers have paid their accounts and which customers have unpaid balances at any point in time. The one general ledger account would not provide sufficient detail to easily answer these questions. One solution to this problem is to have individual general ledger accounts for each customer. However, this too would be inappropriate as large entities like Coca-Cola Amatil may have thousands of customers and the general ledger and trial balance would become huge and unmanageable. It may also be useful to know the aggregate amount of all accounts receivable. This situation is further compounded by the fact that other accounts such as accounts payable, plant and equipment and inventory also comprise many items on which separate information may be required.

Instead of using a single general ledger account, most businesses use subsidiary ledgers to keep track of individual balances. A **subsidiary ledger** is a group of accounts with a common characteristic (e.g. all accounts receivable). The subsidiary ledger frees the general ledger from the details of individual balances.

Alternative terminology

The accounts receivable subsidiary ledger can also be called the *debtors' subsidiary ledger*. The accounts payable subsidiary ledger can also be called the *creditors' subsidiary ledger*.

Two common subsidiary ledgers are:

1. the **accounts receivable** (or **customers'**) **subsidiary ledger**, which collects transaction data of individual customers
2. the **accounts payable** (or **suppliers'**) **subsidiary ledger**, which collects transaction data of individual creditors.

In each of these subsidiary ledgers, individual accounts are usually arranged in alphabetical order or by customer or creditor account number.

The detailed data from a subsidiary ledger are summarised in a general ledger account. For example, the detailed data from the accounts receivable subsidiary ledger are summarised in accounts receivable in the general ledger. The general ledger account that summarises subsidiary ledger data is called a **control account**. An overview of the relationship of subsidiary ledgers to the general ledger is shown in figure 6.8. The general ledger control accounts and subsidiary ledger accounts are shown in green. Note that cash and share capital in this illustration are not control accounts because there are no subsidiary ledger accounts related to these accounts.

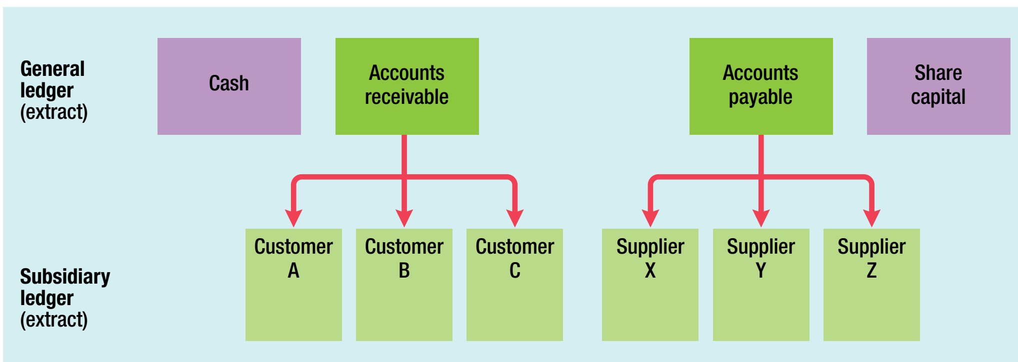


Figure 6.8 Relationship of general ledger and subsidiary ledgers

It is important to understand that the subsidiary ledger is *outside* the general ledger and is not used in extracting the trial balance. If the trial balance included *both* the summarised balances from a general ledger control account as well as the detailed balances from the corresponding subsidiary ledger it would be double counting (note that the control account provides the same information as the subsidiary ledger in summary).

Each general ledger control account balance must equal the composite balance of the individual accounts in the related subsidiary ledger at the end of an accounting period. This provides an element of control within the system and facilitates accuracy in account balances. For example, the balance in the accounts payable general ledger in figure 6.8 must equal the total of the subsidiary balances of suppliers X + Y + Z.

CONTROL ACCOUNTS AND SUBSIDIARY LEDGERS ILLUSTRATED

An example of a control account and subsidiary ledger for Larson Ltd is provided in figure 6.9. (The explanation column in these accounts is not shown in this and subsequent illustrations due to space considerations.)

ACCOUNTS RECEIVABLE SUBSIDIARY LEDGER

Aaron Ltd

Date	Ref.	Debit	Credit	Balance
2016				
Jan. 1				2 000Dr
10		6 000		8 000Dr
19			1 000	7 000Dr

Branden Ltd

Date	Ref.	Debit	Credit	Balance
2016				
Jan. 12		3 000		3 000Dr
21			3 000	—

Caron Ltd

Date	Ref.	Debit	Credit	Balance
2016				
Jan. 1				3 000Dr
20		3 000		6 000Dr
29			3 000	3 000Dr

GENERAL LEDGER

Accounts receivable No. 112

Date	Ref.	Debit	Credit	Balance
2016				
Jan. 1				5 000Dr
31		12 000		17 000Dr
31			7 000	10 000Dr

The subsidiary ledger is separate from the general ledger.

The accounts receivable account in the general ledger is a control account.

Schedule of accounts receivable as at 31 January 2016

Aaron Ltd	$ 7 000
Branden Ltd	—
Caron Ltd	3 000
	$ 10 000*

*The total agrees with the balance in the control account.

Figure 6.9 Relationship between a control account and the subsidiary ledger

Alternative terminology

The Posting Reference column can be abbreviated as Post ref., as illustrated in chapter 2, or Ref. as illustrated here. The accounts receivable account in the general ledger can also be called *Accounts Receivable Control*.

Helpful hint

The schedule of accounts receivable is a list of all balances in the subsidiary ledger. The total can be compared with the total in the control account.

The example is based on 1 January balances of $2000 for Aaron Ltd and $3000 for Caron Ltd and the transactions listed in figure 6.10.

Credit sales

Jan. 10	Aaron Ltd	$ 6 000
12	Branden Ltd	3 000
20	Caron Ltd	3 000
		$12 000

Collections on account

Jan. 19	Aaron Ltd	$1 000
21	Branden Ltd	3 000
29	Caron Ltd	3 000
		$7 000

Figure 6.10 Sales and collection transactions

The opening balance of $5000 on 1 January in the accounts receivable control account is the total of the opening balances in the accounts receivable subsidiary ledger ($2000 Aaron Ltd and $3000 Caron Ltd).

The total debits ($12 000) and credits ($7000) in the accounts receivable control account in the general ledger are reconcilable to the detailed debits and credits in the subsidiary accounts. Also, the 31 January balance of $10 000 in the control account agrees with the total of the balances in the individual accounts (Aaron Ltd $7000 + Branden Ltd $0 + Caron Ltd $3000) in the subsidiary ledger and the schedule of accounts receivable. A **schedule of accounts receivable** is a list of all accounts and their balances in the subsidiary ledger for accounts receivable at a particular date (see figure 6.9). Similarly, a **schedule of accounts payable** is a list of all accounts and their balances in the subsidiary ledger for accounts payable at a particular date.

As shown, postings are made monthly to the control accounts in the general ledger. This practice allows monthly financial statements to be prepared. Postings to the individual accounts in the subsidiary ledger are made daily. Daily posting ensures that account information is current. This enables the business to monitor credit limits, invoice customers, and answer enquiries from customers about their account balances. Using the decision-making toolkit overleaf managers can evaluate whether the recording of transactions for customers and suppliers have resulted in accurate balances in the respective ledger accounts. Managers within the business will check at the end of every month that the balance in the general ledger control accounts equals the total of the individual balances in the subsidiary ledgers for both accounts receivable and accounts payable. This function is carried out by management in order to ensure that entries have been entered correctly in both ledgers. This provides an element of control to the process of entering transactions. It also provides verification that the

DECISION MAKING

balances of the control accounts that are carried through to the trial balance are correct. If the balance in the general ledger control account and the corresponding subsidiary ledger schedule are not the same, then it indicates that an error in recording has occurred. If this is the case, then the error must be identified and a correcting entry needs to be actioned.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Does the balance in the general ledger control account equal the total of the individual balances in the subsidiary ledger?	General ledger control account (e.g. accounts receivable) and corresponding subsidiary ledger (e.g. subsidiary ledger for accounts receivable)	Balance in the general ledger control account (e.g. accounts receivable) and a schedule of the corresponding subsidiary ledger (e.g. schedule of accounts receivable)	Compare the balance in the general ledger control account with the total of the corresponding subsidiary ledger schedule. A discrepancy indicates an error in the accounting records. The error must be identified and corrected.

ADVANTAGES OF SUBSIDIARY LEDGERS

Subsidiary ledgers have several advantages.

1. They show transactions affecting one customer or one creditor in a single account, thus providing up-to-date information on specific account balances.
2. They free the general ledger of excessive details. As a result, a trial balance of the general ledger does not contain vast numbers of individual account balances.
3. They provide effective control through the periodic comparison of the total of the schedule of the subsidiary ledger with the balance in the corresponding control account.
4. They make possible a segregation of duties in posting. One employee can post to the general ledger while someone else posts to the subsidiary ledgers.

APPLICATION IN BUSINESS

Management perspective

DECISION MAKING

An efficient and effective accounting information system is a critical part of a business. Early detection of overdue customer accounts prompting action to collect outstanding debts can be achieved with a well-functioning accounts receivable subsystem. The timely collection of accounts receivable is a significant factor for entity success. MYOB provides detailed records of customers in the accounts receivable subsidiary ledger. A variety of reports can be generated to enable management to monitor whether customer accounts are being paid on time, and if not, to take prompt action to collect outstanding amounts. Monitoring cash flows is vital in any business. Ensuring outstanding accounts are paid on time is a critical part of maintaining adequate cash inflows and enables a business to have sufficient cash to meet payments as they fall due and to continue to grow a successful business.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What is a subsidiary ledger, and what purpose does it serve?
2. Explain the relationship between a control account in the general ledger and its corresponding subsidiary ledger.

>> DO IT

Presented opposite is information related to Sims Ltd for its first month of operations. Determine the balances that appear in the accounts payable subsidiary ledger. What accounts payable control balance appears in the general ledger at the end of January?

Credit purchases				Cash paid		
Jan. 5	Devon Ltd	$11 000		Jan. 9	Devon Ltd	$7 000
11	Shelby Pty Ltd	7 000		14	Shelby Pty Ltd	2 000
22	Taylor Ltd	15 000		27	Taylor Ltd	9 000

PROBLEM-SOLVING STRATEGIES:

- To determine the balances that appear in the accounts payable subsidiary ledger, subtract cash paid from credit purchases. (Note that there are no opening balances as it is the first month of operations for Sims Ltd.)
- To determine the accounts payable control balance in the general ledger, sum the individual balances.

SOLUTION: Subsidiary ledger balances: Devon Ltd $4000 ($11 000 − $7000); Shelby Pty Ltd $5000 ($7000 − $2000); Taylor Ltd $6000 ($15 000 − $9000). General ledger accounts payable balance: $15 000 ($33 000 credit purchases less $18 000 cash paid).

SPECIAL JOURNALS

LEARNING OBJECTIVE 10

Explain how special journals are used in recording transactions.

So far you have learned to journalise transactions in a two-column general journal and post each entry to the general ledger. This procedure is satisfactory in only the very smallest businesses and is inappropriate for entities such as JB Hi-Fi Ltd and Fantastic Holdings which process thousands of transactions each month. To expedite journalising and posting, most businesses use special journals in addition to the general journal.

A **special journal** is used to record similar types of transactions. Examples would be all sales of inventory on account, or all cash receipts. What special journals a business uses depends largely on the types of transactions that occur frequently. Most merchandising businesses use the journals shown in figure 6.11 to record transactions daily.

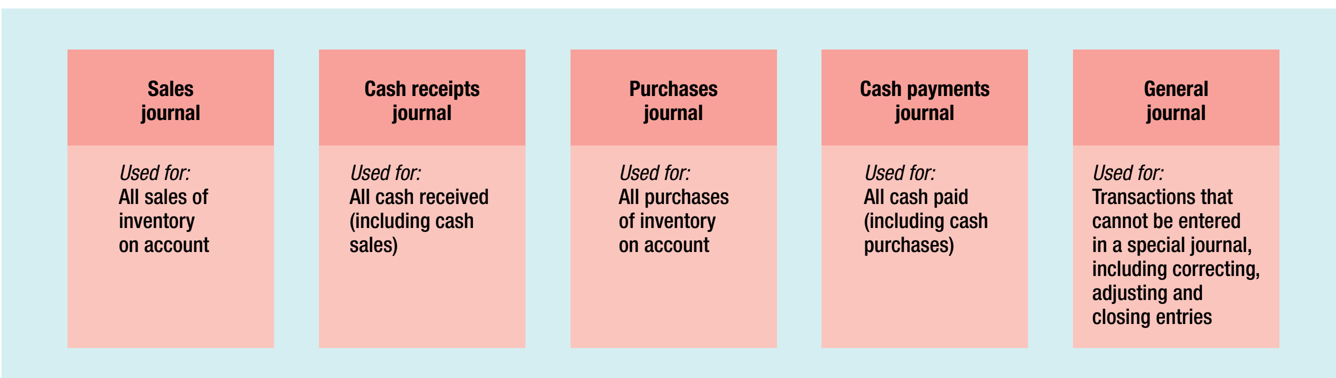


Figure 6.11 Use of special journals and the general journal

The sales journal is used to record sales of inventory on account, i.e. on credit. All receipts of cash are recorded in the cash receipts journal, including cash sales and collections of accounts receivable. All purchases of inventory on account, i.e. on credit, are recorded in the purchases journal. All payments of cash are entered in the cash payments journal. Further discussion on each of the special journals is provided in the appendix to this chapter. A general journal is used to record transactions that cannot be entered in one of the special journals.

You might like to familiarise yourself with the form of each of these special journals by taking a quick look at the appendix to this chapter. You will notice that each special journal will have a number of columns such as a column to record the date of the transaction, a posting reference column (which is used when posting to the ledger) and an account credited column which is the column where you record information about the transaction, e.g. the customer name if the transaction is a sales transaction or the receipt of money from the customer. Within each special journal you will have separate columns to record amounts for similar transactions. For example, in the sales journal in the appendix to this chapter (see page 358) you will have a column to record the sales amount to the customer at its selling price (accounts receivable/sales) and a column to record the cost price of the sale to cost of sales/inventory accounts as Karns Wholesale Supply uses the perpetual inventory system.

Each daily transaction is recorded in the respective journal as a one line entry. For example, if the transaction is the receipt of cash from a customer, then this entry would be journalised in the cash receipts journal in one entry with the amount of cash received in the cash column and in the accounts receivable column. It is important to realise that the general debit and credit rules used to record transactions as discussed in previous chapters still applies. Every journal entry must have at least one debit and one credit entry, so the need for equality of debits and credits remain. As noted, examples of each special journal and illustrations of journalising for each special journal is further explained in the appendix to this chapter.

If a transaction cannot be recorded in a special journal, it is recorded in the general journal. For example, if you had special journals for only the four types of transactions shown in figure 6.11, purchase returns and allowances would be recorded in the general journal as would sales returns and allowances. A further example of a transaction entered in the general journal is for the purchase of a fixed asset such as equipment on credit. Similarly, correcting, adjusting and closing entries are recorded in the general journal. Other types of special journals may sometimes be used in some situations. For example, when sales returns and allowances are frequent, special journals may be used to record these transactions.

We will now summarise the posting process for special journals. A detailed discussion of the posting process for each of the special journals as identified in figure 6.11 (p. 347) can be found in the appendix to this chapter.

Posting the special journals

When posting from the special journals, column totals are posted at the end of each month to the corresponding general ledger account as noted in the column heading. Account numbers are entered below the column totals to show that they have been posted to the general ledger. This holds true for all columns except for the other accounts column which is found in the cash receipts and cash payments journals. The other accounts column is used for transactions that do not fit into other specified columns within the respective journal. Therefore, the other accounts column will include entries for different types of transactions, e.g. in the cash receipts journal columns will usually exist for credit entries to accounts receivable, sales, and other accounts. If, for example, the transaction being entered into this journal is for the contribution of capital, then the amount will be credited in the other accounts column. The individual amounts comprising the other accounts total are posted separately to the general ledger accounts specified in the account credited column. The symbol (x) is inserted below the total of the other accounts column to indicate that the total amount has not been posted.

Sales transactions from the sales journal are posted daily to the individual accounts receivable account in the subsidiary ledger. The column total of this journal is posted to the general ledger, accounts receivable control account, at the end of each month and when posted the account numbers are entered below the column totals to show that they have been posted.

Receipts of cash from customers will be recorded in the cash receipts journal and this column will be posted in total at the end of the month to the accounts receivable control account in the general ledger and the individual amounts are posted daily to the subsidiary ledger accounts.

Posting purchase transactions from the purchases journal and corresponding payments of cash to suppliers in the cash payments journal is posted daily to the individual accounts payable account in the subsidiary ledger, and as a total amount to the control account in the general ledger at the end of each month.

A tick (✓) (or the appropriate subsidiary ledger account number for the customer or the supplier) is inserted in the posting reference (Ref.) column to indicate that the daily posting to the customer's (or supplier's) account has been made.

In both the subsidiary ledger and the general ledger accounts, a reference to the journal and the corresponding page number is written in the reference column of the ledger, for example, CR1 indicates that the posting came from page 1 of the cash receipts journal.

You might like to refer to the appendix to this chapter for a detailed illustration of posting from each of the respective special journals.

Advantages of special journals

Special journals permit greater segregation of duties because several people can record entries in different journals at the same time. For example, one employee may journalise all cash receipts, and another may journalise all credit sales. Also, the use of special journals reduces the time needed to complete the posting process as totals for each column in the special journals is posted to the general ledger at the end of each month. Each transaction is recorded on a single line and narrations are not required as transactions within the journals, e.g. the sales journal and the purchases journal are of the same type, i.e. sales and purchases respectively.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What types of special journals are used to record transactions? Why are special journals used?
2. Explain how special journals are posted.
3. The use of special journals has several advantages. Discuss this statement.

>> DO IT

Chiara Accessories Ltd uses special journals and a general journal. Identify the journal in which each of the following transactions is recorded.

(a) Purchased equipment on account.
(b) Purchased inventory on account.
(c) Paid utility expense in cash.
(d) Sold inventory on account.
(e) Received cash from a customer.
(f) Closing rent expense to the profit or loss summary account.

REASONING: In order to assist the owner of Chiara Accessories Ltd firstly ensure you understand the four special journals and that you thoroughly understand the kind of transactions that are recorded in each of the special journals.

SOLUTION:

General journal.
Purchases journal.
Cash payments journal.
Sales journal.
Cash receipts journal.
General journal.

LEARNING OBJECTIVE 11

Understand the basic features of computerised accounting systems including an introduction to MYOB.

LEARNING OBJECTIVE 12

Appreciate the role and use of non-integrated systems.

COMPUTERISED ACCOUNTING INFORMATION SYSTEMS

A manual accounting system is sufficient for a small business with a limited number of transactions, although most businesses are at least partially computerised due to the popularity of computers and their affordability. Businesses may choose to employ 'off-the-shelf' accounting packages like MYOB or develop their own customised information subsystems that can require ongoing refinements and upgrades to improve usability and streamline business processes.

Companies such as Domino's Pizza Enterprises Ltd and JB Hi-Fi Ltd have large volumes of transactions to process and need computers to increase the accuracy and speed of data processing. In addition to the huge volumes of sales and purchases recorded, these companies are required to make various payments to and on behalf of their employees for salaries, personal income tax and superannuation. To be able to account for all of these different transactions, large companies employ highly sophisticated computerised accounting information systems and subsystems. For example, transactions for employee salaries can be made using a specialised payroll subsystem. Other small businesses which have fewer transactions and fewer employees can use accounting software like MYOB to process their transactions. Supermarkets such as Coles and Woolworths sell thousands of items each day and the use of computer technology and product code scanners allows these entities to update inventories and sales efficiently. Different businesses employ a variety of computerised accounting systems to satisfy their information recording and reporting needs. While these systems can vary in terms of cost and their level of sophistication, the basic features of computerised systems are outlined below.

BASIC FEATURES OF COMPUTERISED SYSTEMS

The model underlying all computer accounting packages is based on the underlying framework of a manual double-entry accounting system. In a **manual accounting system**, each of the steps in the accounting cycle is performed by hand. For example, each accounting transaction is entered manually in the journal; each is posted manually to the ledger. Other manual calculations must be made to obtain ledger account balances and to prepare a trial balance and financial statements.

In a computerised accounting system, there are programs for performing the steps in the accounting cycle, such as journalising, posting, and preparing a trial balance and accounting reports.

The system of special journals, control accounts and subsidiary ledgers used in a manual accounting system is also evident in computerised accounting systems. Most computerised systems today are **integrated accounting systems**. Integrated systems are made up of subsystems commonly referred to as *modules*, examples of which include general ledger, inventory, non-current assets, accounts receivable and payable, and payroll modules. In a fully integrated accounting system, when data are entered into one module the computer automatically updates the information in other relevant modules. For example, when a purchase is made, the computer automatically updates the accounts payable and inventory accounts in the general ledger module. Accounting reports such as the statement of financial position and the statement of profit or loss are also automatically updated. Examples of integrated accounting systems are the many accounting software programs that are offered by MYOB Australia Ltd. We will provide a brief introduction to one of these packages — MYOB AccountRight Plus. This package includes the general ledger, inventory, non-current assets, accounts receivable and payable and the payroll package. This accounting software program is suitable for different types and sizes of business.

MYOB AccountRight Plus

DECISION MAKING

Before using the MYOB AccountRight Plus software the business needs to be set up and created. This involves entering the business name, address, Australian business number (ABN), and the type of business, e.g. whether it is a retail or merchandising business or a service business. Managers of the business need to decide and select whether their business is a retail or service business as the chart of accounts for each type of business will be different. Once the business details are entered the chart of accounts is created. MYOB AccountRight Plus can provide a predetermined list of accounts, or you can enter your own accounts as required by your particular business. The choice of a predetermined list or specific accounts for your business is important. Having the correct chart of accounts for the type of business will ensure that useful accounting information is provided from the computerised system which will suit the decision-making needs for both external and internal users. Access to the various accounting functions is gained via a number of command centres. A command centre is available for accounts, banking, sales, time billing, purchases, payroll, inventory and card file. The card file is the database that contains information about customers, suppliers, employees and inventory which is then accessed by any of the other command centres. Figure 6.12 shows an example of the Sales Command Centre.

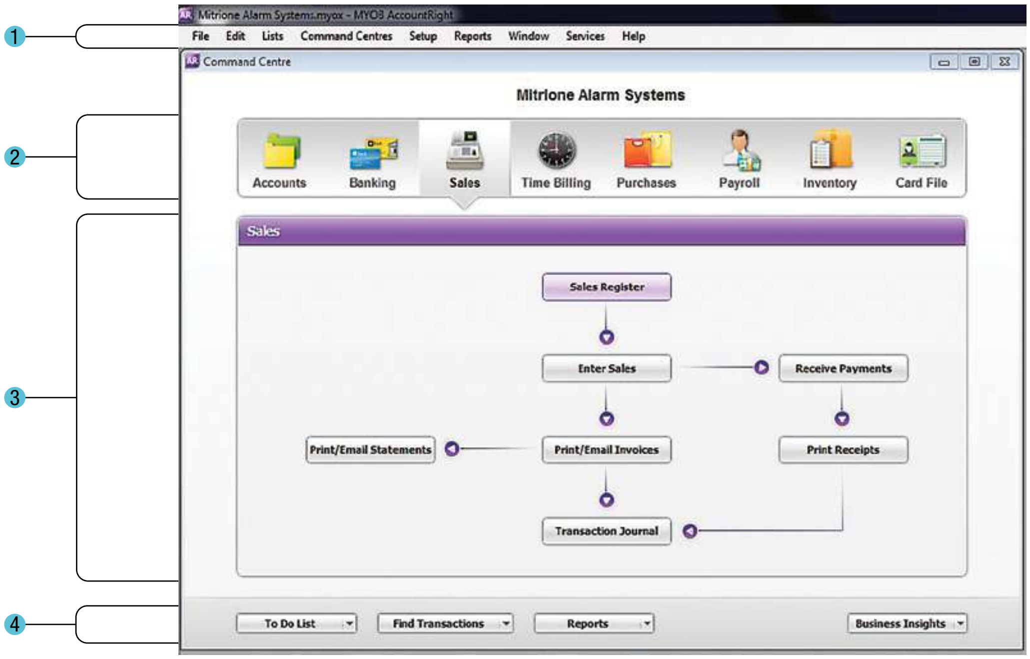


Figure 6.12 MYOB AccountRight Plus Sales Command Centre Screen

The Sales Command Centre has the following parts, which will allow you to enter accounting data.

1. Main menu bar. This menu bar has drop-down lists, which allow you to access all the functions within MYOB, including the command centres. Some additional actions/commands can be accessed via this main menu bar.
2. Command centre icons. Clicking on any one of these command centre icons will give you access to the accounting functions available under that command centre that appear as text-based flowcharts, as described in 3.
3. Flowchart. The flowchart, which differs from the command centre, provides text-based icons that, when selected, provide access to commands and actions relevant to that command centre. Figure 6.12 is the sales command centre flowchart, which allows you to enter sales, create invoices and statements which can be emailed or printed for your customer, receive payments from your customers, print receipts or post journals related to sales.
4. Quick access toolbar. Clicking on the down-arrow for each of these alternatives provides a drop-down list of options which gives you quick access to other useful functions such as reminders, account information, commonly used reports and analysis of operations, which provide information required for everyday operations and control of the business.

To illustrate how data is entered for a sale and receipt of cash from the customer, let us assume that we have a sale for Mitrione Alarm Systems of an alarm siren to the value of $320 to Alarms-R-Us. The sales invoice will be created via the Sales Command Centre, which is accessed by clicking on the Enter Sales icon. A blank invoice screen will appear which will then be completed with the relevant details. MYOB will allow you to create the customer while processing the transaction, as shown in figure 6.13 (overleaf). This screen will create the sales invoice which can then be printed or emailed directly to the customer. Clicking on the Record button on the bottom right of the screen will post the invoice details to the ledger accounts. Therefore, the entries made in the general ledger would be to debit the accounts receivable control account for $320, a credit to the sales account for $320. In the accounts receivable subsidiary ledger, the account of Alarms-R-Us will be debited for $320.

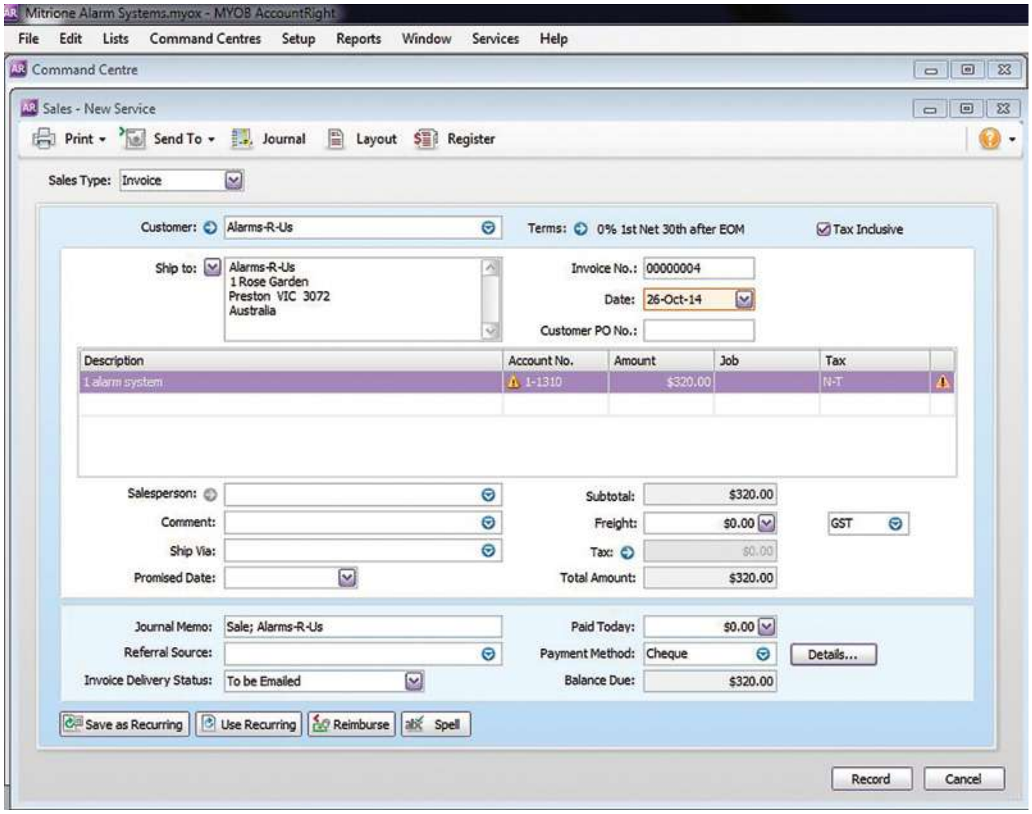


Figure 6.13 MYOB AccountRight Plus completed invoice screen

When the account is settled by the customer, the receipt of money is entered by clicking the Receive Payments icon in the Sales Command Centre, which leads to the screen shown in figure 6.14 (opposite). Clicking on the Record button on the bottom right of the screen will post the receipt of cash to the ledger accounts, resulting in a debit entry to the cash account and a credit entry to the accounts receivable control account in the general ledger. In the accounts receivable subsidiary ledger, the account of Alarms-R-Us will be credited for $320.

The procedures for recording other types of accounting transactions (e.g. purchases of goods, cash payments and general journal entries) are similar to those illustrated.

There are many computerised accounting systems available on the market. Examples of the best-known packages include Sage ACCPAC, Attaché, MYOB, QuickBooks, Xero, and Sybiz. These accounting systems offer computer packages with various subsystems covering all the accounting functions. Most accounting software providers also sell a range of subpackages consisting of various modules that can be purchased separately to suit the needs of the particular business. For example, a business providing only services would not require an inventory subsystem, whereas a business selling goods would find an inventory module useful in recording and managing inventories. Thus, integrated accounting packages and various modules can be purchased based on the nature of the business (service, manufacturing or merchandising), its size (small, medium or large) and the number of employees.

DECISION MAKING

Some computerised accounting systems are cloud-based systems which can be accessed anywhere, anytime, either on a PC, Mac, tablet or phone. An example of this is the Xero accounting package and MYOB AccountRight Live. Where packages can be run on a desktop or as a cloud-based system, management need to decide which access they wish to have and would base their decision on considerations such as accessibility (anywhere, anytime would be available if it was a cloud-based solution) and risk.

As we know an accounting information system is concerned with financial data and accounting transactions. For example, a sale will be captured by the accounting system through the accounting software package resulting in a debit to accounts receivable and a credit to sales. However, other potentially useful non-financial information about the sale, e.g. the time of day the sale was made, could also be important. Such information can be gathered in an enterprise resource planning (ERP) system. An ERP system integrates all aspects of a company's operations with the accounting information system. It collects, processes and stores data in a centralised database and shares up-to-date information across business processes so that business activities can be coordinated. It is an effective means of capturing data and providing information to managers so that they can assess the company. SAP is an example of an ERP system, and is a leading provider of enterprise business applications which allows businesses to manage operations and customer relations. SAP products are available for small and large businesses.

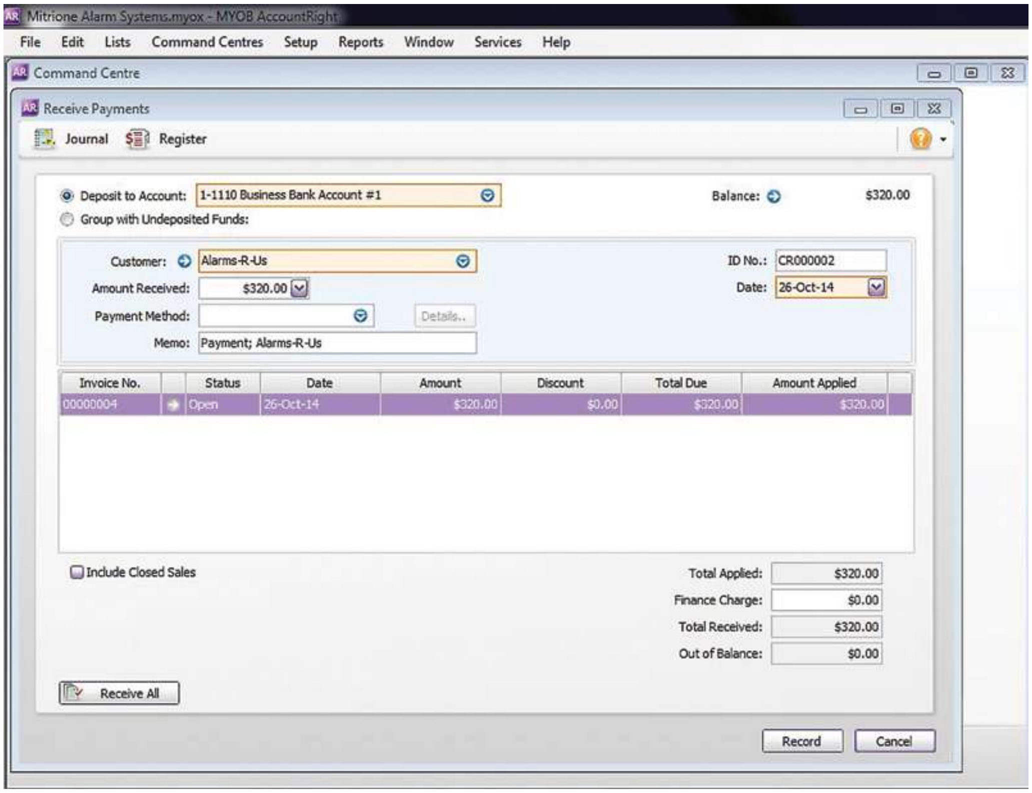


Figure 6.14 MYOB AccountRight Plus completed receipt payments screen

Recall that not all businesses run fully-integrated accounting systems. This means that data from reports produced in one subsystem need to be entered into other subsystems either manually or with data export/import processes. In addition to computerised accounting packages like MYOB companies will also use other subsystems such as Excel spreadsheets. Electronic spreadsheets, such as an Excel spreadsheet, can be an important part of the accounting function in some businesses. For example, spreadsheets can be used to develop business budgets, monitor inventory movements and calculate depreciation on fixed assets. A spreadsheet is a powerful tool, as rows and columns of data can be added, deleted or changed. The use of spreadsheets for budgets allows the accountant to experiment with the budget by applying and testing 'what if?' questions by changing one number of one formula in the spreadsheet. This will save hours of manual calculations.

ADVANTAGES AND DISADVANTAGES OF COMPUTERISED SYSTEMS

LEARNING OBJECTIVE 13

Identify the advantages and disadvantages of computerised accounting systems.

Computerised accounting systems offer many advantages, but it is important to recognise that there are also problems associated with their use.

ADVANTAGES

The main advantages of computerised accounting systems are the ability to process numerous transactions quickly, the built-in automatic posting of transactions, error reduction, a fast response time, and flexible and fast report production. Fast processing speed allows thousands of transactions to be processed quickly. Posting is performed automatically and so it is virtually error-free. This means that up-to-date information is available to answer day-to-day queries such as customer account balances and inventory levels. However, adequate procedures should be in place to ensure that input errors do not occur or, if they do, that they can be detected. Manual systems are much more susceptible to human error than are computerised systems.

Computerised accounting systems can be programmed to produce automatically various accounting documents such as invoices, and a wide range of specialised reports in addition to the statement of profit or loss and statement of financial position. Computerised reports are much more sophisticated and flexible than reports produced in a manual system. For example, computerised systems can produce reports of sales by geographical region, expenses by department or purchases from major suppliers for a certain period. The wide variety of reports provides owners and managers with the information needed to make decisions. In the past, high cost and sophistication of computerised accounting systems put them out of reach of small business owners. However, the cost of hardware and software has fallen considerably, and the availability of user-friendly accounting packages like MYOB and QuickBooks has resulted in increased use of computerised accounting systems by all businesses.

DISADVANTAGES

As we have seen from the discussion above and on the previous page, computerised accounting systems have many advantages over manual accounting systems. However, some of the advantages outlined may not be achieved if the hardware and software are inappropriate, incompatible or faulty. Furthermore, employees need to be able to operate the system, and people lacking the skills could cause problems in the system or not make full use of the system's capabilities.

All computerised systems need good back-up mechanisms to ensure that important data are not lost during power failures or system crashes. Computer viruses and computer hackers can also have devastating effects on data, and highly skilled computer programmers can manipulate computerised accounting systems to commit fraud or embezzlement. Even though computerised accounting systems have many advantages and benefits, it is important to be aware of the potential problems associated with their use.

APPLICATION IN BUSINESS

E-business perspective

Many businesses market and sell their products on the World Wide Web. E-commerce is about using the internet to order and pay for products or services online. Have you purchased anything on the internet . . . maybe you have used eBay? Accounting software companies have recognised the tremendous opportunities that result from making the accounting system an integral part of a comprehensive e-business package. E-commerce can be considered a subset of e-business. E-business covers the full range of business activities that can be assisted using the internet, including financial, distribution, purchasing and manufacturing applications. Making accounting systems an integral part of an e-business package helps companies save time and eliminates potential errors in data re-entry. If systems are not integrated, the information generated by one system will need to be rekeyed or imported into different systems. This not only dramatically increases costs, but can also result in different and outdated information between systems.

Using the decision-making toolkit on p. 346 and the applied example opposite, managers can compare the balance of the accounts receivable and the accounts payable control accounts with the respective subsidiary ledger schedules as at 30 June 2017. This comparison will highlight if there are discrepancies between both control accounts and subsidiary ledger schedules and identify where the errors have occurred. This will then allow for errors to be corrected which will result in new balances.

USING THE DECISION-MAKING TOOLKIT

The accounts receivable control and accounts payable control accounts and subsidiary ledgers for Aussie Roo Ltd are given below.

GENERAL LEDGER

Accounts receivable control **No. 112**

Date	Ref.	Debit	Credit	Balance
2017				
June 1				5 000Dr
30	S1	6 000		11 000Dr
30	CR12		7 000	4 000Dr

Accounts payable control **No. 212**

Date	Ref.	Debit	Credit	Balance
2017				
June 1				6 000Cr
30	P12		8 000	14 000Cr
30	CP12	5 000		9 000Cr

ACCOUNTS RECEIVABLE SUBSIDIARY LEDGER

Segal Ltd **No. 112-1**

Date	Ref.	Debit	Credit	Balance
2017				
June 1				3 000Dr
5	S1	2 000		5 000Dr
	CR12		5 000	—

Bongo Pty Ltd **No. 112-2**

Date	Ref.	Debit	Credit	Balance
2017				
June 1				1 000Dr
15	CR12		1 000	—
23	S1	2 000		2 000Dr

Jetson & Sons Ltd **No. 112-3**

Date	Ref.	Debit	Credit	Balance
2017				
June 1				1 000Dr
5	S1	1 000		2 000Dr
	CR12		1 000	1 000Dr

ACCOUNTS PAYABLE SUBSIDIARY LEDGER

Crisco Ltd **No. 212-1**

Date	Ref.	Debit	Credit	Balance
2017				
June 1				3 000Cr
10	P12		5 000	8 000Cr
23	CP12	3 000		5 000Cr

Cooloo Ltd **No. 212-3**

Date	Ref.	Debit	Credit	Balance
2017				
June 1				1 000Cr
3	P12		2 000	3 000Cr

Petre Pty Ltd **No. 212-2**

Date	Ref.	Debit	Credit	Balance
2017				
June 1				2 000Cr
9	CP12	2 000		—
30	P12		2 000	2 000Cr

There are two errors in the ledgers, one in the accounts receivable subsidiary ledger and the other in the accounts payable control account.

REQUIRED

(a) Prepare a schedule of accounts receivable and a schedule of accounts payable as at 30 June 2017. Compare the total of each schedule with the balance in the corresponding control account.

(b) Explain how each error may have occurred.

SOLUTION

(a)

Schedule of accounts receivable
as at 30 June 2017

112-1	Segal Ltd	$ —
112-2	Bongo Pty Ltd	2 000
112-3	Jetson & Sons Ltd	1 000
	Total	$3 000

The balance of $3000 in the subsidiary ledger does not agree with the $4000 total in the accounts receivable control account.

Schedule of accounts payable
as at 30 June 2017

212-1	Crisco Ltd	$ 5 000
212-2	Petre Pty Ltd	2 000
212-3	Cooloo Ltd	3 000
	Total	$10 000

The balance of $10 000 in the subsidiary ledger does not agree with the $9000 total in the accounts payable control account.

(b) The discrepancy between the accounts receivable control account and subsidiary ledger appears to be due to a credit sale *not* posted to the subsidiary ledger. Credit sales totalling $6000 were debited to the accounts receivable control account but only $5000 was debited to the accounts receivable subsidiary ledger. The sales journal should be reviewed to determine which customer's account should be debited. Alternatively, the error may be in the addition of the sales journal. If the sales journal total should have been $5000 instead of $6000, the accounts receivable control account and the sales account would be overstated by $1000 as a result of the addition error. We can tell that the error is not in the posting of cash receipts because the amount credited to accounts receivable control is equal to the sum of the amounts credited to the accounts receivable subsidiary ledgers.

The discrepancy between the accounts payable control account and subsidiary ledger appears to be due to an error in totalling the purchases journal or an error in posting to the accounts payable control account. Credit purchases totalling $9000 were credited to the accounts payable subsidiary ledger but only $8000 was credited to the control account. To correct this error, the total of the purchases journal should be checked and the correct total posted to the general ledger. Alternatively, the error may have been caused by incorrect posting to the subsidiary ledger. If the subsidiary ledger is incorrect, it should be corrected and a new balance calculated.

SUMMARY OF LEARNING OBJECTIVES

1 Identify the basic principles of accounting information systems.
The basic principles in developing an accounting information system are cost effectiveness, useful output and flexibility.

2 Explain the major phases in the development of an accounting system.
The major phases in the development of an accounting system are analysis, design, implementation and follow-up.

3 Define internal control.
The plan of organisation and all the related methods and measures adopted within a business to safeguard its assets and enhance the accuracy and reliability of its accounting records.

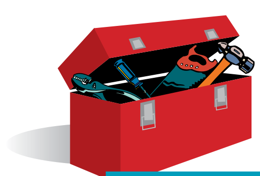
4 Appreciate management's responsibility in relation to internal control.
Senior management of companies, on behalf of shareholders, are responsible for developing policies and practices which align with the company's overall objectives. Good risk management practices, including a system of internal control, are one of the responsibilities of management in order to ensure that the business is being run as efficiently and effectively as possible.

5 Identify the principles and limitations of internal control.
The principles of internal control are the establishment of responsibility; segregation of duties; documentation procedures; physical, mechanical and electronic controls; and independent internal verification, including rotation of duties. The limitations of internal control are the costs of measures required by the entity to safeguard its assets and ensure accounting records are reliable; impact of human fatigue, carelessness or indifference; possibility of collusion amongst two or more members of staff; and the size of the business, i.e. if a business is too small it may not be able to implement the measures required.

6 Understand the accounting processes underlying the generation of financial statements.
An accounting information system has three phases: input, processing and output. These phases transform data into information that is useful for decision-making by external users. Source documents are the input to the accounting system which allows for the transactions to be recorded in the journals. Posting from the journals to the general ledger and the subsidiary ledgers is the processing phase. The output of the accounting system is the financial statements.

7 Describe the sales and receivables cycle and the purchases and payments cycle.
The sales and receivables cycle provides a flow of how sales are made and recorded, and the purchases and payments cycle provides a flow of how purchases and payments of inventory are made within an organisation.

8 Apply internal control principles to the sales and receivables cycle and purchases and payments cycle for transforming data.
Establishment of responsibility; segregation of duties; documentation procedures; physical, mechanical and electronic controls; and independent internal verification are important principles of internal control in relation to the sales and receivables cycle and the purchases and payments cycle.



9 Describe the nature and purpose of control accounts and subsidiary ledgers.
A subsidiary ledger is a group of accounts with a common characteristic. It facilitates the recording process by freeing the general ledger control account from details of individual balances.

10 Explain how special journals are used in recording transactions.
A special journal is used to group similar types of transactions. In a special journal, generally only one line is used to record a complete transaction.

11 Understand the basic features of computerised accounting systems including an introduction to MYOB.
Manual and computerised accounting systems are essentially the same in terms of design, structure and operation — they are both based on double-entry accounting. Most computerised systems are integrated accounting systems. MYOB, a well-known package, is an integrated accounting system with subsystems or modules, so that when data is entered into one of the modules it automatically updates the information in other relevant modules and the accounting reports. Computerised systems allow for efficient and dependable processing of numerous transactions and provide instant and flexible reports.

12 Appreciate the role and use of non-integrated systems.
Not all businesses run fully integrated accounting systems. For example, Excel spreadsheets may be used by businesses for budgeting purposes. A non-integrated system means that data from reports produced in one subsystem needs to be entered either manually or as an import/export process to other subsystems.

13 Identify the advantages and disadvantages of computerised accounting systems.
Advantages include the ability to process numerous transactions quickly, automatic posting of transactions, error reduction, fast response time, and flexible and fast report production. Disadvantages include software and hardware incompatibilities, higher staff training costs as employees need to be trained to use computerised systems, effects of power failures and viruses on accounting data, and the increasing incidence of hacking, computer fraud and computer viruses.

DECISION-MAKING TOOLKIT — A SUMMARY

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Are the business's financial statements supported by adequate internal controls?	Auditor's report, articles in financial press (external parties); reports on asset losses from theft, errors, customer complaints (internal parties)	The required measures of internal control are to (1) establish responsibility, (2) segregate duties, (3) document procedures, (4) use physical or automated controls, and (5) use independent internal verification.	If any indication is given that these or other controls are lacking, the financial statements should be used with caution.

Does the balance in the general ledger control account equal the total of the individual balances in the subsidiary ledger?	General ledger control account (e.g. accounts receivable) and corresponding subsidiary ledger (e.g. subsidiary ledger for accounts receivable)	Balance in the general ledger control account (e.g. accounts receivable) and a schedule of the corresponding subsidiary ledger (e.g. schedule of accounts receivable)	Compare the balance in the general ledger control account with the total of the corresponding subsidiary ledger schedule. A discrepancy indicates an error in the accounting records. The error must be identified and corrected.

APPENDIX 6

LEARNING OBJECTIVE 14

Record transactions for sales, purchases, cash receipts and cash payments in special journals.

SALES JOURNAL

The general journal described in earlier chapters can be used to record all types of transactions — sales, sales returns, purchases, purchase returns, cash receipts and cash payments. However, recording these transactions in the general journal requires that each debit and credit recorded must be posted to the ledger accounts individually, which will require a large amount of posting time and may increase the risk of errors being recorded. Each transaction will also need its own narration adding more time to the recording of the transaction. It also means you cannot have segregation of duties as only one person at a time can record the effects of transactions and post debits and credits to the ledger. To avoid these limitations, similar transactions are recorded in special journals. The common special journals used by a retail business, i.e. the sales journal, purchases journal, cash receipts journal and cash payments journal, are now illustrated in more detail.

The **sales journal** is used to record sales of inventory on account. Cash sales of inventory are entered in the cash receipts journal. Credit sales of assets other than inventory are entered in the general journal. Although most products and services attract GST, the effects of GST are not illustrated in this chapter. GST was covered in the appendix to chapter 4.

Helpful hint

Postings are also made daily to individual ledger accounts in the inventory subsidiary ledger to maintain a perpetual inventory system.

Journalising credit sales

Karns Wholesale Supply uses a perpetual inventory system. Under this system, each entry in the sales journal results in one entry at selling price and another entry at cost. The entry *at selling price* is a debit to accounts receivable (a control account) and a credit of equal amount to Sales. The entry *at cost* is a debit to cost of sales and a credit of equal amount to inventory (a control account). A sales journal with two amount columns can show on only one line a sales transaction at both selling price and cost. The two-column sales journal of Karns Wholesale Supply is shown in figure 6A.1, using assumed credit sales transactions (for sales invoice nos. 101–107).

Karns Wholesale Supply
SALES JOURNAL **S1**

Date	Account debited	Invoice no.	Ref.	Accounts receivable Dr Sales Cr	Cost of sales Dr Inventory Cr
2016					
May 3	Abbot Sisters Ltd	101		10 600	6 360
7	Babson Ltd	102		11 350	7 370
14	Carson Ltd	103		7 800	5 070
19	Deli Ltd	104		9 300	6 510
21	Abbot Sisters Ltd	105		15 400	10 780
24	Deli Ltd	106		21 210	15 900
27	Babson Ltd	107		14 570	10 200
				90 230	62 190

Figure 6A.1 Journalising the sales journal — perpetual inventory system

It is important to understand that, even though the number of journals used to record business transactions has changed (from one general journal to many special journals), the general debit and credit rules used to record transactions in previous chapters still apply. Every journal entry must have at least one debit and one credit entry, so the need for the equality of debits and credits remains.

Let's illustrate this point by using the 3 May transaction in figure 6A.1. If we were to record the general journal entry for a credit sale to Abbot Sisters Ltd for $10 600 with a cost of sales of $6360, it would look like this:

May	3	Dr Accounts receivable	10 600	
		Cr Sales		10 600
		Dr Cost of sales	6 360	
		Cr Inventory		6 360

A	=	L	+	E
+10 600				+10 600

A	=	L	+	E
−6 360				−6 360

As the amount to be debited and credited is the *same* for the first two lines of the journal entry and the amount to be debited and credited is the *same* for the last two lines of the journal entry, we can use two columns to record the whole journal entry and still have the same effect. This is illustrated in figure 6A.1 (p. 358), where the second-last column is used to record the first two lines of the journal entry (Dr accounts receivable and Cr sales) and the last column is used to record the last two lines of the journal entry (Dr cost of sales and Cr inventory).

The posting reference (Ref.) column is not used in journalising. It is used in posting the sales journal, as explained in the next section. Also, note that, unlike the general journal, an explanation is not required for each entry in a special journal as the title of the special journal explains the transaction. Finally, note that each invoice is prenumbered to ensure that all invoices are journalised.

Helpful hint

When recording sales in the journal, check that you have entered all sales invoice numbers in consecutive order to ensure that all transactions have been entered.

Posting the sales journal

Postings from the sales journal are made daily to the individual accounts receivable in the subsidiary ledger. Posting to the general ledger is made monthly. Figure 6A.2 (overleaf) shows both the daily and monthly postings.

A tick (✓) is inserted in the posting reference (Ref.) column to indicate that the daily posting to the customer's account has been made. A tick (✓) is used in this illustration because the subsidiary ledger accounts are not numbered. When subsidiary ledger accounts are numbered the account number can be recorded in the posting reference column to indicate that the amount has been posted and to which subsidiary ledger account it has been posted. At the end of the month, the column totals of the sales journal are posted to the general ledger. Here, the column totals are a debit of $90 230 to accounts receivable (account no. 112), a credit of $90 230 to sales (account no. 401), a debit of $62 190 to cost of sales (account no. 505), and a credit of $62 190 to inventory (account no. 120). Recording the account numbers below the column total indicates that the postings have been made and provides a reference for easy identification of the account. In both the general ledger and subsidiary ledger accounts, the reference (Ref.) **S1** indicates that the posting came from page 1 of the Sales Journal.

Checking the ledgers

The next step is to check the ledgers. To do so, we must determine two things: (1) the total of the general ledger debit balances must equal the total of the general ledger credit balances; (2) the sum of the subsidiary ledger balances must equal the balance in the control account in the general ledger. The check of the postings from the sales journal to the general and subsidiary ledger is shown in figure 6A.3 (overleaf).

Advantages of the sales journal

The use of a special journal to record sales on account has a number of advantages. First, the one-line entry for each sales transaction saves time. In the sales journal, it is not necessary to write out the four account names for each transaction. Second, only totals, rather than individual entries, are posted to the general ledger. This saves posting time and reduces the possibilities of errors in posting. Finally, a segregation of duties can be achieved, because one person can take responsibility for the sales journal, while someone else takes responsibility for the general journal or any of the other special journals (purchases, cash receipts or cash payments).

Karns Wholesale Supply
SALES JOURNAL S1

Date	Account debited	Invoice no.	Ref.	Accounts receivable Dr Sales Cr	Cost of sales Dr Inventory Cr
2016					
May 3	Abbot Sisters Ltd	101	✓	10 600	6 360
7	Babson Ltd	102	✓	11 350	7 370
14	Carson Ltd	103	✓	7 800	5 070
19	Deli Ltd	104	✓	9 300	6 510
21	Abbot Sisters Ltd	105	✓	15 400	10 780
24	Deli Ltd	106	✓	21 210	15 900
27	Babson Ltd	107	✓	14 570	10 200
				90 230	62 190
				(112)/(401)	(505)/(120)

Totals are posted at the end of the month to the *general* ledger.

Individual amounts are posted daily to the *subsidiary* ledger.

ACCOUNTS RECEIVABLE SUBSIDIARY LEDGER

Abbot Sisters Ltd

Date	Ref.	Debit	Credit	Balance
2016				
May 3	S1	10 600		10 600Dr
21	S1	15 400		26 000Dr

Babson Ltd

Date	Ref.	Debit	Credit	Balance
2016				
May 7	S1	11 350		11 350Dr
27	S1	14 570		25 920Dr

Carson Ltd

Date	Ref.	Debit	Credit	Balance
2016				
May 14	S1	7 800		7 800Dr

Deli Ltd

Date	Ref.	Debit	Credit	Balance
2016				
May 19	S1	9 300		9 300Dr
24	S1	21 210		30 510Dr

GENERAL LEDGER

Accounts receivable No. 112

Date	Ref.	Debit	Credit	Balance
2016				
May 31	S1	90 230		90 230Dr

Inventory No. 120

Date	Ref.	Debit	Credit	Balance
2016				
May 31	S1		62 190	62 190Cr*

Sales No. 401

Date	Ref.	Debit	Credit	Balance
2016				
May 31	S1		90 230	90 230Cr

Cost of sales No. 505

Date	Ref.	Debit	Credit	Balance
2016				
May 31	S1	62 190		62 190Dr

The subsidiary ledger is separate from the general ledger.

The accounts receivable account in the general ledger is a control account.

*The normal balance for inventory is a debit. But, because of the sequence in which we have posted the special journals, with the sales journals first, the credits to inventory are posted before the debits. This posting sequence explains the credit balance in inventory which exists only until the other journals are posted.

Figure 6A.2 Posting the sales journal

Postings to general ledger

General ledger

	Credits
Inventory	$ 62 190
Sales	90 230
	$ 152 420
	Debits
Accounts receivable	$ 90 230
Cost of sales	62 190
	$ 152 420

Debit postings to the accounts receivable subsidiary ledger

Subsidiary ledger

Abbot Sisters Ltd	$ 26 000
Babson Ltd	25 920
Carson Ltd	7 800
Deli Ltd	30 510
	$ 90 230

Figure 6A.3 Checking the equality of the postings from the sales journal

APPLICATION IN BUSINESS

International perspective

Whether a business operates locally or internationally will have an impact on the nature of the information needed to run the business and the demands placed on the accounting information system. Currently, when Australian based companies make online sales to overseas customers, they do not charge GST whereas sales to local customers attract GST. The accounting information system must be able to accumulate information on both local and overseas sales in order to calculate the correct amount of GST for each period. Some of the largest Australian retailers, including Myer, Harvey Norman and Target, launched an advertising campaign saying that the Australian tax laws offer overseas-based online companies an unfair competitive advantage. This is because goods costing less than $1000 bought online are exempt from GST and so it is often cheaper for Australians to buy online from overseas companies. Australian based businesses are concerned that if the government doesn't change the tax laws many people will lose their jobs in the retail and manufacturing sectors.

Source: Based on information from ABC news web site, www.abc.net.au/news.

CASH RECEIPTS JOURNAL

LEARNING OBJECTIVE 15

Understand how multi-column special journals are posted.

All receipts of cash are recorded in the **cash receipts journal**. The most common types of cash receipts are cash sales of inventory and collections of accounts receivable. Many other possibilities exist, such as receipt of money from bank loans, rent revenue, interest revenue, dividend revenue and cash proceeds from disposal of equipment. A one- or two-column cash receipts journal would not have space enough for all possible cash receipt transactions. Therefore, a multiple-column cash receipts journal is used.

Generally, a cash receipts journal includes the following columns: debit columns for cash and discount allowed; and credit columns for accounts receivable, sales, and other accounts. The other accounts category is used when the cash receipt does not involve a cash sale or a collection of accounts receivable. Under a perpetual inventory system, each sales entry is accompanied by another entry that debits cost of sales and credits inventory for the cost of the inventory sold. This entry may be recorded separately. A six-column cash receipts journal is shown in figure 6A.4 (p. 363).

Additional credit columns may be used if they significantly reduce postings to a specific account. To illustrate, assume that two entities, Company A and Company B, sublet part of their office space. This means that they rent part of their office space to other businesses. Company A sublets office space to a number of different businesses, and Company B rents a part of its office space to only one business. If Company A used a manual accounting system, a significant saving in posting would result from using a separate credit column for rent revenue rather than using the other accounts credit column. In contrast, if Company B used a manual system, with only one rent collection a month a separate column for rent revenue would not be as useful.

Helpful hint

Subletting is when one party, who is a lessee, rents out the leased premises to another party.

JOURNALISING CASH RECEIPTS TRANSACTIONS

To illustrate the journalising of cash receipts transactions, we will continue with the May transactions of Karns Wholesale Supply. Collections from customers relate to the entries recorded in the sales journal in figure 6A.1 (p. 358). The entries in the cash receipts journal are based on the cash receipts as follows.

May	1	D.A. Karns makes an investment of $5000 in the business.
	7	Cash sales of inventory total $1900 (cost $1240).
	10	A cheque for $10 388 is received from Abbot Sisters Ltd in payment of invoice no. 101 for $10 600 less a 2% discount.
	12	Cash sales of inventory total $2600 (cost $1690).
	17	A cheque for $11 123 is received from Babson Ltd in payment of invoice no. 102 for $11 350 less a 2% discount.

May	22	Cash is received upon taking a bank loan for $6000.
	23	A cheque for $7644 is received from Carson Ltd for invoice no. 103 for $7800 less a 2% discount.
	28	A cheque for $9114 is received from Deli Ltd for invoice no. 104 for $9300 less a 2% discount.

Helpful hint

When is an account name entered in the 'Account credited' column of the cash receipts journal?
Answer: A *subsidiary ledger* name is entered there whenever the entry involves a collection of accounts receivable. A *general ledger* account name is entered there whenever the entry involves an account that is not the subject of a special column (and an amount must be entered in the other accounts column). No account name is entered there if neither applies.

Further information about the columns in the cash receipts journal (see figure 6A.4, opposite) is given below.

Debit columns

1. *Cash.* The amount of cash actually received in each transaction is entered in this column. The column total indicates the total cash receipts for the month.
2. *Discount Allowed.* Karns includes a discount allowed column in its cash receipts journal. By doing so, it is not necessary to enter sales discount items in the general journal. As a result, the collection of an account receivable within the discount period is expressed on one line in the appropriate columns of the cash receipts journal.

Credit columns

3. *Accounts Receivable.* The accounts receivable column is used to record cash collections on account. The amount entered here is the amount to be credited to the individual customer's account.
4. *Sales.* The sales column records all cash sales of inventory. Cash sales of other assets (equipment, for example) are not reported in this column.
5. *Other Accounts.* The other accounts column is used whenever the credit is other than to accounts receivable or sales. For example, in the first entry, $5000 is entered as a credit to D.A. Karns, Capital. This column is often referred to as the *sundry accounts column*.

Debit and credit column

6. *Cost of Sales and Inventory.* This column records debits to cost of sales and credits to inventory.

In a multicolumn journal, generally only one line is needed for each entry. Debit and credit amounts for each line must be equal. For example, when the collection from Abbot Sisters Ltd on 10 May is journalised, the two debit entries to discount allowed and cash equal the credit entry to accounts receivable. Note also that the 'Account credited' column is used to identify both general ledger and subsidiary ledger account names. General ledger accounts are illustrated in the 1 May and 22 May entries. A subsidiary account is illustrated in the 10 May entry for the collection from Abbot Sisters Ltd.

When the journalising of a multicolumn journal has been completed, the amount columns are totalled, and the totals are compared to check the equality of debits and credits. The check of the equality of Karns's cash receipts journal is shown in figure 6A.5 (p. 364).

Totalling the columns of a journal and checking the equality of the debit and credit totals is called *cross-footing* a journal.

Karns Wholesale Supply
CASH RECEIPTS JOURNAL

CR1

Date	Account credited	Ref.	Cash Dr	Discount allowed Dr	Accounts receivable Cr	Sales Cr	Other accounts Cr	Cost of sales Dr Inventory Cr
2016								
May 1	D. A. Karns, Capital	301	5 000				5 000	
7			1 900			1 900		1 240
10	Abbot Sisters Ltd	✓	10 388	212	10 600			
12			2 600			2 600		1 690
17	Babson Ltd	✓	11 123	227	11 350			
22	Bank Loan	200	6 000				6 000	
23	Carson Ltd	✓	7 644	156	7 800			
28	Deli Ltd	✓	9 114	186	9 300			
			53 769	781	39 050	4 500	11 000	2 930
			(101)	(504)	(112)	(401)	(x)	(505)/(120)

Individual amounts are posted daily to the *subsidiary* ledger.

Totals are posted at the end of the month to the *general* ledger.

ACCOUNTS RECEIVABLE SUBSIDIARY LEDGER

Abbot Sisters Ltd

Date	Ref.	Debit	Credit	Balance
2016				
May 3	S1	10 600		10 600Dr
10	CR1		10 600	—
21	S1	15 400		15 400Dr

Babson Ltd

Date	Ref.	Debit	Credit	Balance
2016				
May 7	S1	11 350		11 350Dr
17	CR1		11 350	—
27	S1	14 570		14 570Dr

Carson Ltd

Date	Ref.	Debit	Credit	Balance
2016				
May 14	S1	7 800		7 800Dr
23	CR1		7 800	—

Deli Ltd

Date	Ref.	Debit	Credit	Balance
2016				
May 19	S1	9 300		9 300Dr
24	S1	21 210		30 510Dr
28	CR1		9 300	21 210Dr

The subsidiary ledger is separate from the general ledger.

The accounts receivable account in the general ledger is a control account.

GENERAL LEDGER

Cash No. 101

Date	Ref.	Debit	Credit	Balance
2016				
May 31	CR1	53 769		53 769Dr

Accounts receivable No. 112

Date	Ref.	Debit	Credit	Balance
2016				
May 31	S1	90 230		90 230Dr
31	CR1		39 050	51 180Dr

Inventory No. 120

Date	Ref.	Debit	Credit	Balance
2016				
May 31	S1		62 190	62 190Cr
31	CR1		2 930	65 120Cr

Bank loan No. 200

Date	Ref.	Debit	Credit	Balance
2016				
May 31	CR1		6 000	6 000Cr

D. A. Karns, Capital No. 301

Date	Ref.	Debit	Credit	Balance
2016				
May 31	CR1		5 000	5 000Cr

Sales No. 401

Date	Ref.	Debit	Credit	Balance
2016				
May 31	S1		90 230	90 230Cr
31	CR1		4 500	94 730Cr

Discount allowed No. 504

Date	Ref.	Debit	Credit	Balance
2016				
May 31	CR1	781		781Dr

Cost of sales No. 505

Date	Ref.	Debit	Credit	Balance
2016				
May 31	S1	62 190		62 190Dr
31	CR1	2 930		65 120Dr

Figure 6A.4 Journalising and posting the cash receipts journal

Debits	
Cash	$ 53 769
Discount allowed	781
Cost of sales	2 930
	$ 57 480

Credits	
Accounts receivable	$ 39 050
Sales	4 500
Other accounts	11 000
Inventory	2 930
	$ 57 480

Figure 6A.5 Checking the equality of the debit and credit totals in the cash receipts journal (cross-footing)

POSTING THE CASH RECEIPTS JOURNAL

Posting a multicolumn journal involves the following steps.

1. All column *totals* except for the other accounts total are posted once at the end of the month to the account(s) specified in the column heading (such as cash or accounts receivable). Account numbers are entered below the column totals to show that they have been posted. Cash is posted to account no. 101, accounts receivable to account no. 112, inventory to account no. 120, sales to account no. 401, discount allowed to account no. 504, and cost of sales to account no. 505.
2. The individual amounts comprising the other accounts total are posted separately to the general ledger accounts specified in the 'Account credited' column. See, for example, the credit posting to D.A. Karns, Capital. The total amount of this column is not posted. The symbol (x) is inserted below the total of this column to indicate that the *total amount* has not been posted.
3. The individual amounts in a column, posted in total to a control account (accounts receivable, in this case), are posted daily to the subsidiary ledger account specified in the 'Account credited' column. See, for example, the credit posting of $10 600 to Abbot Sisters Ltd.

In both the subsidiary ledger and the general ledger accounts, the reference **CR1** indicates that the posting came from page 1 of the cash receipts journal.

Checking the ledgers

After the posting of the cash receipts journal is completed, it is necessary to check the ledgers. As shown in figure 6A.6, the general ledger totals are in agreement. Also, the sum of the subsidiary ledger balances equals the control account balance.

Schedule of accounts receivable	
Abbot Sisters Ltd	$ 15 400
Babson Ltd	14 570
Deli Ltd	21 210
	$ 51 180

General ledger	
Debits	
Cash	$ 53 769
Accounts receivable	51 180
Discount allowed	781
Cost of sales	65 120
	$ 170 850
Credits	
Bank loan	$ 6 000
D. A. Karns, Capital	5 000
Sales	94 730
Inventory	65 120
	$ 170 850

Figure 6A.6 Checking the ledgers after posting the sales and the cash receipts journals

PURCHASES JOURNAL

All purchases of inventory on account are recorded in the **purchases journal**. Each entry in this journal results in a debit to inventory or purchases (depending on whether a perpetual or periodic inventory system is used) and a credit to accounts payable. When a single-column purchases journal is used (as in figure 6A.7), other types of purchases on account and cash purchases cannot be journalised in it. For example, credit purchases of equipment or supplies must be recorded in the general journal. Likewise, all cash purchases are entered in the cash payments journal. As illustrated later, where credit purchases for items other than inventory are numerous, the purchases journal is often expanded to a multicolumn format. The purchases journal for Karns Wholesale Supply is shown in figure 6A.7.

Helpful hint

Recall that if a business uses the perpetual inventory system, inventory is debited for purchases of inventory. If a business uses a periodic system, purchases is debited for purchases of inventory.

Karns Wholesale Supply
PURCHASES JOURNAL P1

Date	Account credited	Terms	Ref.	Inventory Dr Accounts payable Cr
2016				
May 6	Jasper Manufacturing Ltd	2/10, n/30	✓	11 000
10	Eaton and Howe Ltd	3/10, n/30	✓	7 200
14	Fabor and Son Ltd	1/10, n/30	✓	6 900
19	Jasper Manufacturing Ltd	2/10, n/30	✓	17 500
26	Fabor and Son Ltd	1/10, n/30	✓	8 700
29	Eaton and Howe Ltd	3/10, n/30	✓	12 600
				63 900
				(120)/(201)

Individual amounts are posted daily to the *subsidiary* ledger.

Totals are posted at the end of the month to the *general* ledger.

ACCOUNTS PAYABLE SUBSIDIARY LEDGER

Eaton and Howe Ltd

Date	Ref.	Debit	Credit	Balance
2016				
May 10	P1		7 200	7 200Cr
29	P1		12 600	19 800Cr

Fabor and Son Ltd

Date	Ref.	Debit	Credit	Balance
2016				
May 14	P1		6 900	6 900Cr
26	P1		8 700	15 600Cr

Jasper Manufacturing Ltd

Date	Ref.	Debit	Credit	Balance
2016				
May 6	P1		11 000	11 000Cr
19	P1		17 500	28 500Cr

GENERAL LEDGER

Inventory No. 120

Date	Ref.	Debit	Credit	Balance
2016				
May 31	S1		62 190	62 190Cr
31	CR1		2 930	65 120Cr
31	P1	63 900		1 220Cr*

Accounts payable No. 201

Date	Ref.	Debit	Credit	Balance
2016				
May 31	P1		63 900	63 900Cr

The subsidiary ledger is separate from the general ledger.

The accounts payable account in the general ledger is a control account.

*The normal balance for inventory is a debit. But, because of the sequence in which we have posted the special journals, with the sales and cash receipts journals first, the credits to Inventory are posted before the debits. Once the purchases and cash payments journals are posted, the balance in the Inventory account will be a debit.

Figure 6A.7 Journalising and posting the purchases journal

Helpful hint

A single-column purchases journal is not added to check the equality of debits and credits as the total will be posted once as a debit and then as a credit in the general ledger. However, it is a good idea to add the total *twice* before posting to ensure the total posted is, in fact, correct.

Alternative terminology

The accounts payable account in the general ledger can also be called the *Accounts Payable Control* account.

Journalising credit purchases of inventory

Entries in the purchases journal are made from suppliers' invoices. The journalising procedure is similar to that used for the sales journal. In contrast to the sales journal, the purchases journal may not have an invoice number column because invoices received from different suppliers will not be in numerical sequence. To ensure that all purchase invoices are recorded, some entities consecutively number each invoice upon receipt and then use an internal document number column in the purchases journal.

The entries for Karns Wholesale Supply are based on the assumed credit purchases shown in figure 6A.8.

Figure 6A.8 Credit purchases transactions

Date	Supplier	Amount
May 6	Jasper Manufacturing Ltd	$11 000
10	Eaton and Howe Ltd	7 200
14	Fabor and Son Ltd	6 900
19	Jasper Manufacturing Ltd	17 500
26	Fabor and Son Ltd	8 700
29	Eaton and Howe Ltd	12 600

Posting the purchases journal

Helpful hint

Postings to subsidiary ledger accounts are done daily because it is often necessary to know a current balance for the subsidiary accounts.

The procedures for posting the purchases journal are similar to those for the sales journal. In this case, postings are made daily to the accounts payable subsidiary ledger and monthly to inventory and accounts payable in the general ledger. In both the subsidiary and general ledgers, **P1** is used in the reference column to show that the postings are from page 1 of the purchases journal.

The check on the equality of the postings from the purchases journal to both ledgers is shown in figure 6A.9.

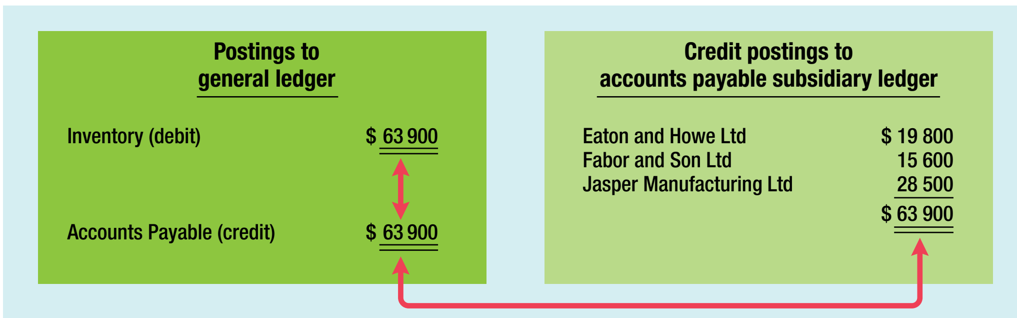


Figure 6A.9 Checking the equality of the purchases journal

Expanding the purchases journal

Helpful hint

A multicolumn purchases journal must be added and cross-footed to check the equality of debits and credits.

Some businesses expand the purchases journal to include all types of purchases on account. Instead of one column for inventory and accounts payable, they use a multi-column format. The multicolumn format usually includes a credit column for accounts payable and debit columns for purchases of inventory, office supplies and store supplies, and for other accounts. Figure 6A.10 is an example of a multicolumn purchases journal for Hangover Ltd. The posting procedures are similar to those illustrated earlier for posting the cash receipts journal.

Figure 6A.10 Multicolumn purchases journal

Hangover Ltd
PURCHASES JOURNAL **P1**

Date	Account credited	Ref.	Accounts payable Cr	Inventory Dr	Office supplies Dr	Store supplies Dr	Other accounts Dr: Account	Ref.	Amount
2016									
June 1	Signe Audio	✓	2 000		2 000				
3	Wright Ltd	✓	1 500	1 500					
5	Orange Tree Ltd	✓	2 600				Equipment	157	2 600
30	Sue's Business Forms	✓	800			800			
			56 600	43 000	7 500	1 200			4 900

CASH PAYMENTS JOURNAL

All payments are entered in a **cash payments journal**. Businesses make most of their payments by cheque. Payments made in currency (notes and coins) are usually small in amount. The recording of small currency payments, called petty cash payments, is discussed in the appendix to chapter 7. Entries are made from prenumbered cheques. Because cash payments are made for various purposes, the cash payments journal has multiple columns. A four-column journal is shown in figure 6A.11.

Alternative terminology

The cash payments journal is sometimes called the *cash disbursements journal*.

Journalising cash payments transactions

The procedures for journalising transactions in this journal are similar to those described earlier for the cash receipts journal. Each transaction is entered on one line, and for each line there must be equal debit and credit amounts. The entries in the cash payments journal in figure 6A.11 are based on the following transactions for Karns Wholesale Supply.

May	1	Cheque no. 101 for $1200 issued for the annual premium on a fire insurance policy.
	3	Cheque no. 102 for $100 issued in payment of freight when terms were FOB shipping point.
	8	Cheque no. 103 for $4400 issued for the purchase of inventory.
	10	Cheque no. 104 for $10 780 sent to Jasper Manufacturing Ltd in payment of 6 May invoice for $11 000 less a 2% discount.
	19	Cheque no. 105 for $6984 mailed to Eaton and Howe Ltd in payment of 10 May invoice for $7200 less a 3% discount.
	23	Cheque no. 106 for $6831 sent to Fabor and Son Ltd in payment of 14 May invoice for $6900 less a 1% discount.
	28	Cheque no. 107 for $17 150 sent to Jasper Manufacturing Ltd in payment of 19 May invoice for $17 500 less a 2% discount.
	30	Cheque no. 108 for $500 issued to D.A. Karns as a cash withdrawal for personal use.

Note that whenever an amount is entered in the other accounts column, a specific general ledger account must be identified in the 'Account debited' column. The entries for cheque numbers 101, 102 and 103 illustrate this situation. Similarly, a subsidiary account must be identified in the 'Account debited' column whenever an amount is entered in the accounts payable column. See, for example, the entry for cheque no. 104.

After the cash payments have been entered in the journal, the columns are totalled. The totals are then balanced to check the equality of debits and credits.

Posting the cash payments journal

The procedures for posting the cash payments journal are similar to those for the cash receipts journal. The amounts recorded in the accounts payable column are posted individually on a daily basis to the subsidiary ledger and in total at the end of the month to the control account. Inventory and cash are posted only in total at the end of the month. Transactions in the other accounts column are posted individually to the appropriate general ledger account(s) at the end of the month. No totals are posted for this column.

The posting of the cash payments journal is shown in figure 6A.11 (overleaf). Note that the symbol **CP1** is used as the posting reference to show that the postings are from page 1 of the cash payments journal. After postings are completed, the equality of the debit and credit balances in the general ledger should be determined. In addition, the control account balances should agree with the subsidiary ledger total balance. The agreement of these balances is shown in figure 6A.12 (p. 369).

Karns Wholesale Supply
CASH PAYMENTS JOURNAL

CP1

Date	Ch. no.	Account debited	Ref.	Other accounts Dr	Accounts payable Dr	Discount received Cr	Cash Cr
2016							
May 1	101	Prepaid Insurance	130	1 200			1 200
3	102	Inventory	120	100			100
8	103	Inventory	120	4 400			4 400
10	104	Jasper Manufacturing Ltd	✓		11 000	220	10 780
19	105	Eaton and Howe Ltd	✓		7 200	216	6 984
23	106	Fabor and Son Ltd	✓		6 900	69	6 831
28	107	Jasper Manufacturing Ltd	✓		17 500	350	17 150
30	108	D. A. Karns, Drawings	306	500			500
				6 200	42 600	855	47 945
				(x)	(201)	(405)	(101)

Individual amounts are posted daily to the *subsidiary* ledger.

Totals are posted at the end of the month to the *general* ledger.

ACCOUNTS PAYABLE SUBSIDIARY LEDGER

Eaton and Howe Ltd

Date	Ref.	Debit	Credit	Balance
2016				
May 10	P1		7 200	7 200Cr
19	CP1	7 200		—
29	P1		12 600	12 600Cr

Fabor and Son Ltd

Date	Ref.	Debit	Credit	Balance
2016				
May 14	P1		6 900	6 900Cr
23	CP1	6 900		—
26	P1		8 700	8 700Cr

Jasper Manufacturing Ltd

Date	Ref.	Debit	Credit	Balance
2016				
May 6	P1		11 000	11 000Cr
10	CP1	11 000		—
19	P1		17 500	17 500Cr
28	CPI	17 500		—

GENERAL LEDGER

Cash No. 101

Date	Ref.	Debit	Credit	Balance
2016				
May 31	CR1	53 769		53 769Dr
31	CP1		47 945	5 824Dr

Inventory No. 120

Date	Ref.	Debit	Credit	Balance
2016				
May 31	CP1	100		100Dr
31	CP1	4 400		4 500Dr
31	S1		62 190	57 690Cr
31	CR1		2 930	60 620Cr
31	P1	63 900		3 280Dr

Prepaid insurance No. 130

Date	Ref.	Debit	Credit	Balance
2016				
May 31	CP1	1 200		1 200Dr

Accounts payable No. 201

Date	Ref.	Debit	Credit	Balance
2016				
May 31	P1		63 900	63 900Cr
31	CP1	42 600		21 300Cr

D. A. Karns, Drawings No. 306

Date	Ref.	Debit	Credit	Balance
2016				
May 31	CP1	500		500Dr

Discount received No. 405

Date	Ref.	Debit	Credit	Balance
2016				
May 31	CP1		855	855Cr

The subsidiary ledger is separate from the general ledger.

The accounts payable account in the general ledger is a control account.

Figure 6A.11 Journalising and posting the cash payments journal

Schedule of accounts payable	
Eaton and Howe Ltd	$12 600
Fabor and Son Ltd	8 700
	$21 300

General ledger	
Debits	
Cash	$ 5 824
Accounts receivable	51 180
Inventory	3 280
Prepaid insurance	1 200
D. A. Karns, Drawings	500
Discount allowed	781
Cost of sales	65 120
	$ 127 885
Credits	
Bank loan	$ 6 000
Accounts payable	21 300
D. A. Karns, Capital	5 000
Sales	94 730
Discount received	855
	$ 127 885

Figure 6A.12 Checking the ledgers after postings from the sales, cash receipts, purchases, and cash payments journals

APPLICATION IN BUSINESS

International perspective

Operating in the international business environment brings many complexities to the recording of cash receipts and payments. Some companies purchase their raw materials overseas and sell their products all over the world. This often requires them to account for transactions with multiple foreign currencies, e.g. the euro, US dollar, Taiwan dollar or British pound, both on the buying side (for purchasing stock) and on the selling side (for selling stock). To illustrate, the sale of a product to a US customer could be invoiced and received in US dollars. This product may require the purchase of raw materials and other inputs for production from overseas countries and necessitate payments in multiple currencies, e.g. euros and Taiwan dollars. Recording receipts and payments in multiple foreign currencies is complex. Currencies often need to be converted using sophisticated accounting systems into Australian dollars to determine profit.

EFFECTS OF SPECIAL JOURNALS ON GENERAL JOURNAL

Special journals for sales, purchases and cash substantially reduce the number of entries that are made in the general journal. Only transactions that cannot be entered in a special journal are recorded in the general journal. For example, the general journal may be used to record such transactions as granting of credit to a customer for a sales return or allowance, obtaining credit from a supplier for purchases returned, and purchase of equipment on credit. Also, correcting, adjusting and closing entries are made in the general journal.

The general journal has columns for date, account name and explanation, posting reference, and debit and credit amounts. When control and subsidiary accounts are not involved, the procedures for journalising and posting of transactions are the same as those described in earlier chapters. When control and subsidiary accounts are involved, two changes from the earlier procedures are required:

1. In *journalising*, both the control and the subsidiary accounts must be identified.
2. In *posting*, there must be a dual posting — once to the control account and once to the subsidiary account.

To illustrate, assume that on 31 May Karns Wholesale Supply returns $500 of inventory for credit to Fabor and Son Ltd. The entry in the general journal and the posting of the entry are shown in figure 6A.13 (overleaf). Note that if cash is received instead of credit granted on this return, then the transaction is recorded in the cash receipts journal.

Observe in the journal that two accounts are indicated for the debit, and two postings ('201/✓') are indicated in the reference column. One amount is posted to the control account (at the end of the month) and the other to the creditor's account in the subsidiary ledger (daily).

Karns Wholesale Supply
GENERAL JOURNAL **G1**

Date	Account name (narration)	Ref.	Debit	Credit
2016				
May 31	Accounts payable—Fabor and Son Ltd	201/✓	500	
	Inventory	120		500
	(Received credit for returned goods)			

Individual amounts are posted daily to the *subsidiary* ledger.

Individual amounts are posted at the end of the month to the *general* ledger.

ACCOUNTS PAYABLE SUBSIDIARY LEDGER

Fabor and Son Ltd

Date	Ref.	Debit	Credit	Balance
2016				
May 14	P1		6 900	6 900Cr
23	CP1	6 900		—
26	P1		8 700	8 700Cr
31	**G1**	500		**8 200Cr**

GENERAL LEDGER

Inventory **No. 120**

Date	Ref.	Debit	Credit	Balance
2016				
May 3	CP1	100		100Dr
8	CP1	4 400		4 500Dr
31	S1		62 190	57 690Cr
31	CR1		2 930	60 620Cr
31	P1	63 900		3 280Dr
31	**G1**		500	**2 780Dr**

Accounts payable **No. 201**

Date	Ref.	Debit	Credit	Balance
2016				
May 31	P1		63 900	63 900Cr
31	CP1	42 600		21 300Cr
31	**G1**	500		**20 800Cr**

Figure 6A.13 Journalising and posting the general journal

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. Explain how transactions recorded in the sales journal and the cash receipts journal are posted.
2. Indicate the types of transactions that are recorded in the general journal when special journals are used.

SUMMARY OF LEARNING OBJECTIVES FOR APPENDIX 6A

14 Record transactions for sales, purchases, cash receipts and cash payments in special journals.
Similar repetitive transactions such as sales, purchases, receipts and payments of cash are recorded in the respective special journals.

15 Understand how multi-column special journals are posted.
In posting a multicolumn journal:

(a) All column totals except for the other accounts column are posted once at the end of the month to the account name specified in the column heading.
(b) The total of the other accounts column is not posted. Instead, the individual amounts comprising the total are posted separately to the general ledger accounts specified in the account credited column.
(c) The individual amounts in a column posted in total to a control account are posted daily to the subsidiary ledger accounts specified in the account credited column.

GLOSSARY

Accounts payable (suppliers') subsidiary ledger A subsidiary ledger that contains accounts of individual creditors (p. 344).

Accounts receivable (customers') subsidiary ledger A subsidiary ledger that contains individual customer accounts (p. 344).

Cash payments journal A special journal used to record all cash payments (p. 367).

Cash receipts journal A special journal used to record all cash received (p. 361).

Control account An account in the general ledger that is supported by the detail of a subsidiary ledger (p. 344).

Corporate governance The system in which entities are directed or controlled, managed and administered (p. 329).

Forensic accounting The application of accounting knowledge and skills to issues arising in the context of civil and criminal litigations and investigation (p. 336).

Integrated accounting system A computerised accounting package consisting of several modules which perform different accounting functions (e.g. payroll). Once an entry is made in one module, all other relevant modules are updated (p. 350).

Internal auditors Employees of the business who evaluate on a continuous basis the effectiveness of the business's system of internal control (p. 330).

Internal control The plan of organisation and all the related methods and measures adopted within a business to safeguard its assets and enhance the accuracy and reliability of its accounting records (p. 329).

Manual accounting system A system in which each of the steps in the accounting cycle is performed by hand (p. 350).

Purchases journal A special journal used to record all purchases of inventory on account (p. 365).

Sales journal A special journal used to record all sales of inventory on account (p. 358).

Schedule of accounts payable A list of all accounts and their balances in the accounts payable subsidiary ledger at a particular date (p. 345).

Schedule of accounts receivable A list of all accounts and their balances in the accounts receivable subsidiary ledger at a particular date (p. 345).

Special journal A journal that is used to record similar types of transactions, such as all credit sales (p. 347).

Subsidiary ledger A group of accounts with a common characteristic, the total of which should equal the balance in the related general ledger control account (p. 344).

DEMONSTRATION PROBLEM

Dion Designs uses a six-column cash receipts journal with the following columns: cash (Dr), discount allowed (Dr), accounts receivable (Cr), sales (Cr), other accounts (Cr), and cost of sales (Dr) and inventory (Cr). Cash receipts transactions for the month of July 2018 are as follows.

July	3	Cash sales total $5800 (cost $3480).
	4	A cheque for $6370 is received from Arena Ltd in payment of an invoice dated 29 June for $6500, terms 2/7, n/30.
	9	An additional investment of $5000 in cash is made in the business by Debbie Dion, the owner.
	10	Cash sales total $12 519 (cost $7511).
	12	A cheque for $7275 is received from Eliot Ltd in payment of a $7500 invoice dated 10 July, terms 3/7, n/30.
	15	A customer paid a deposit of $700 cash for goods to be delivered in August.
	20	Cash sales total $15 472 (cost $9283).
	22	A cheque for $5880 is received from Beck Pty Ltd in payment of $6000 invoice dated 13 July, terms 2/10, n/30.
	29	Cash sales total $17 660 (cost $10 596).
	31	Cash of $200 is received for interest earned for July.

REQUIRED

(a) Journalise the transactions in the cash receipts journal.
(b) Contrast the posting of the accounts receivable and other accounts columns.

SOLUTION TO DEMONSTRATION PROBLEM

(a)

Dion Designs
CASH RECEIPTS JOURNAL **CR12**

Date	Account credited	Post ref.	Cash Dr	Discount allowed Dr	Accounts receivable Cr	Sales Cr	Other accounts Cr	Cost of sales Dr Inventory Cr
2018								
July 3			5 800			5 800		3 480
4	Arena Ltd		6 370	130	6 500			
9	Dion, Capital		5 000				5 000	
10			12 519			12 519		7 511
12	Eliot Ltd		7 275	225	7 500			
15	Revenue Recd in Adv.		700				700	
20			15 472			15 472		9 283
22	Beck Pty Ltd		5 880	120	6 000			
29			17 660			17 660		10 596
31	Interest revenue		200				200	
			76 876	475	20 000	51 451	5 900	30 870

(b) The total of the accounts receivable column is posted as a credit to the accounts receivable account in the general ledger. The individual amounts are credited to the accounts receivable subsidiary ledger accounts identified in the 'Account credited' column.

The amounts in the other accounts column are only posted individually. They are credited to the account names identified in the 'Account credited' column.

SELF-STUDY QUESTIONS *Answers are at the end of the chapter.*

(LO1) 1. The basic principles of an accounting information system include all of the following *except:*
(a) cost-effectiveness.
(b) flexibility.
(c) useful output.
(d) periodicity.

(LO1) 2. To be useful, accounting information must be:
(a) understandable.
(b) relevant.
(c) timely.
(d) all of the above.

(LO2) 3. Which of the following is *not* a major phase in the development of an accounting information system?
(a) Design.
(b) Responsiveness.
(c) Implementation.
(d) Follow-up.

(LO2) 4. In developing an accounting information system, which of the following could be considered to be part of the implementation phase?
(a) Determine the information needs of the external and internal users.
(b) Design forms and documents.
(c) Install equipment and make it operational.
(d) Monitor for weaknesses and breakdowns.

(LO3) 5. Internal control is used in a business to enhance the accuracy and reliability of its accounting records and to:
(a) safeguard its assets.
(b) prevent mistakes.
(c) produce correct financial statements.
(d) ensure the business never makes a loss.

(LO5) 6. The principles of internal control do *not* include:
(a) establishment of responsibility.
(b) documentation procedures.
(c) external auditors.
(d) independent internal verification.

(LO6) 7. Which of the following is the correct sequence in transforming transactions into financial statements:
(a) Ledgers, journals, trial balance, financial statements.
(b) Journals, ledgers, trial balance, financial statements.
(c) Journals, trial balance, ledgers, financial statements.
(d) Ledgers, trial balance, journals, financial statements.

(LO9) 8. Which of the following is *incorrect* concerning subsidiary ledgers?
(a) The purchases ledger is a common subsidiary ledger for creditor accounts.
(b) The accounts receivable subsidiary ledger is a subsidiary ledger for customer accounts.
(c) A subsidiary ledger is a group of accounts with a common characteristic.
(d) An advantage of the subsidiary ledger is that it permits a division of labour in posting.

(LO9) 9. Which of the following is *not* an advantage of subsidiary ledgers?
(a) They allow a segregation of duties in posting.
(b) They result in too much detail in the general ledger.
(c) They can provide all details relating to one customer in one account.
(d) None of the above.

(LO10) 10. When special journals are used:
(a) all purchase transactions are recorded in the purchases journal.
(b) all cash received, except from cash sales, is recorded in the cash receipts journal.
(c) all payments are recorded in the cash payments journal.
(d) a general journal is not necessary.

(LO10) 11. Postings from the purchases journal to the subsidiary ledger are generally made:
(a) yearly.
(b) monthly.
(c) weekly.
(d) daily.

(LO11) 12. Which of the following is *correct* in relation to computerised accounting systems?
(a) They are based on the framework of a manual accounting system.
(b) Accounting transactions are entered automatically but posted manually.
(c) There is no need for control accounts and subsidiary ledgers.
(d) Manual calculations must be made to generate account balances.

(LO13) 13. Which of the following are advantages of computerised accounting systems?
(a) Ability to process numerous transactions quickly.
(b) Built-in automatic posting of transactions.
(c) Error reduction.
(d) All of the above.

(LO13) 14. Which of the following are *not* disadvantages of computerised accounting systems?
(a) Incompatible hardware and software.
(b) Computer viruses and hackers.
(c) Error reduction.
(d) Loss of data due to power failure.

(LO14) 15. A cash receipts journal is used for:

	Credit sales	**Cash sales**	**Discount allowed**
(a)	no	yes	yes
(b)	yes	no	yes
(c)	yes	no	no
(d)	yes	yes	no

(LO14) 16. Which statement is *incorrect* regarding the general journal?
(a) Only transactions that cannot be entered in a special journal are recorded in the general journal.
(b) Transactions are initially posted in the general journal.
(c) The general journal may be used to record closing entries.
(d) Correcting and adjusting entries are made in the general journal.

(LO14) 17. Which of the following statements is correct?
(a) The Discount Allowed column is included in the cash receipts journal.
(b) The purchases journal records all purchases of inventory whether for cash or on account.
(c) The cash receipts journal records credit sales.
(d) Inventory returned by the buyer is recorded by the seller in the purchases journal.

(LO15) 18. Which of the following is *incorrect* concerning the posting of the cash receipts journal?
(a) The total of the Other Accounts column is not posted.
(b) All column totals except the total for the Other Accounts column are posted once at the end of the month to the account name(s) specified in the column heading.
(c) The totals of all columns are posted daily to the accounts specified in the column heading.
(d) The individual amounts in a column posted in total to a control account are posted daily to the subsidiary ledger account specified in the 'Account credited' column.

QUESTIONS

1. (a) What is an accounting information system?
   (b) An accounting information system applies only to a manual system.' Do you agree? Explain.
2. Generally, an accounting system is developed in phases. Identify and explain each of the phases.
3. What is meant by corporate governance?
4. 'Corporate governance does not apply to small business.' Do you agree? Explain.
5. Explain the role of an internal auditor.
6. Internal control is concerned only with enhancing the accuracy of the accounting records. Do you agree? Explain.
7. Identify the process of how accounting data is transformed into financial statements.
8. Describe the internal control principles applicable to the sales and receivables cycle and the purchases and payments cycle.
9. What are the advantages of using subsidiary ledgers?
10. (a) When are postings normally made to (1) the subsidiary ledgers and (2) the general ledger control accounts?
    (b) Describe the relationship between a control account and a subsidiary ledger.
11. A $500 purchase of merchandise on account from Julia Ltd was properly recorded in the purchases journal. When posted, however, the amount recorded in the subsidiary ledger was $50. How might this error be discovered?
12. Give some examples of appropriate general journal transactions for an organisation using special journals.
13. Identify and explain the four specific journals discussed in the appendix to the chapter. List an advantage of using each of these journals rather than using only a general journal.
14. The Cash and the Accounts Receivable columns in the cash receipts journal were incorrectly added by $4000 at the end of the month.
    (a) Will the customers' ledger agree with the Accounts Receivable Control account?
    (b) Assuming no other errors, will the trial balance totals be equal?
15. In what journal would the following transactions be recorded? (Assume that a two-column sales journal and a single-column purchases journal are used.)
    (a) Recording of depreciation expense for the year.
    (b) Credit given to a customer for inventory purchased on credit and returned.
    (c) Sales of inventory for cash.
    (d) Sales of inventory on account.
    (e) Collection of cash on account from a customer.
    (f) Purchase of office supplies on account.
16. Give an example of a transaction in the general journal that causes an entry to be posted twice (i.e. to two accounts), one in the general ledger, the other in the subsidiary ledger. Does this affect the debit/credit equality of the general ledger?

BRIEF EXERCISES

Identify basic principles of accounting information system development.
(LO1)

BE6.1 Indicate whether each of the following statements is true or false.
(a) When designing an accounting system, we need to think about the needs and knowledge of both the top management and various other users.
(b) When the environment changes as a result of technological advances, increased competition or government regulation, an accounting system does not have to be sufficiently flexible to meet the changes in order to save money.
(c) In developing an accounting system, cost is relevant. The system must be cost-effective. That is, the benefits obtained from the information disseminated must outweigh the cost of providing it.

Identify major phases in accounting system development.
(LO2)

BE6.2 The development of an accounting system involves four phases: analysis, design, implementation and follow-up. Identify the statement that best describes each of these four phases.
(a) Determining internal and external information needs, identifying information sources and the needs for controls, and studying alternatives.
(b) Evaluation and monitoring of effectiveness and efficiency, correction of weaknesses, implementation and design.
(c) Creation of forms and documents, selection of procedures, and preparation of job descriptions.
(d) Implementing new or revised documents, procedures, reports and processing equipment; hiring and training personnel through a start-up or transition period.

BE6.3 Several of the internal control procedures of Cumin Ltd are listed below. Identify the principles of internal control that are being followed in each case.

Identify the principles and limitations of internal control. (LO5,8)

(a) Employees who have physical control of assets do not have access to the accounting records.
(b) Each month the assets on hand are compared with the accounting records by an internal auditor.
(c) A prenumbered delivery docket is prepared for each shipment of goods to customers.

BE6.4 Identify in which ledger (general or subsidiary) each of the following accounts is shown.

Identify subsidiary ledger accounts. (LO9)

(a) Rent Expense.
(b) Accounts Receivable — Melbourne Pty Ltd.
(c) Bank Loan.
(d) Accounts Payable — Sydney Pty Ltd.

BE6.5 Identify the journal in which each of the following transactions is recorded.

Identify special journals. (LO10,14)

(a) Cash sales.
(b) Owner withdrawal of cash.
(c) Cash purchase of land.
(d) Credit sales.
(e) Purchase of inventory on account.
(f) Receipt of cash for services performed.

BE6.6 Indicate whether each of the following debits and credits is included in the cash receipts journal. (Use 'Yes' or 'No' to answer this question.)

Identify entries to cash receipts journal. (LO14)

(a) Debit to Sales.
(b) Credit to Inventory.
(c) Credit to Accounts Receivable.
(d) Debit to Accounts Payable.

BE6.7 Computer Components Ltd uses a multicolumn cash receipts journal. Indicate which column(s) is/are posted only in total, only daily, or both in total and daily.

Indicate postings to cash receipts journal. (LO10,15)

(a) Accounts Receivable.
(b) Discount Allowed.
(c) Cash.
(d) Other Accounts.

BE6.8 Identify the special journal(s) in which the following column headings appear.

Identify transactions for special journals. (LO10,14)

(a) Discount Allowed Dr.
(b) Accounts Receivable Cr.
(c) Cash Dr.
(d) Sales Cr.
(e) Inventory Dr.

EXERCISES

E6.1 Rotundo's Pizza operates strictly on a takeaway basis. Customers pick up their orders at a counter where a clerk exchanges the pizza for cash. At the counter, the customer can see other employees making the pizzas and the large ovens in which the pizzas are baked.

Identify the principles and limitations of internal control. (LO5,8)

Required

Identify the five principles of internal control and give an example of each principle that you might observe when picking up your pizza. (*Note:* It may not be possible to observe all the principles.)

E6.2 Caterpilla Tractors buys wheels from Wheels R Us in order to complete the manufacture of its tractors. The Mina brothers work for Caterpilla Tractors. Sam works in the purchasing department while Peter works in the accounting department. The business is starting out and has a system in place such that the purchasing department also receives the wheels when they are delivered to the business. Sam orders the wheels from his best friends business, Wheels R Us. The order for the parts is processed through the accounting system by Sam and Peter pays Wheels R Us once notified by Sam that the wheels have been received.

Identify the principles and limitations of internal control. (LO5,8)

Required

Identify which of the five principles of internal control you feel is lacking in the aforementioned scenario. (*Note:* It may not be possible to observe all the principles.)

Determine control account balances, and explain posting of special journals.
(LO9,10,15)

E6.3 Tessa Ltd uses both special journals and a general journal as described in this chapter. On 30 June, after all monthly postings had been completed, the Accounts Receivable Control account in the general ledger had a debit balance of $200 000; the Accounts Payable Control account had a credit balance of $45 000.

The July transactions recorded in the special journals are summarised below. No entries affecting accounts receivable and accounts payable were recorded in the general journal for July.

Sales journal	Total sales $125 150
Purchases journal	Total purchases $27 180
Cash receipts journal	Accounts Receivable column total $63 500
Cash payments journal	Accounts Payable column total $23 750

Required

(a) What is the balance of the Accounts Receivable Control account after the monthly postings on 31 July?

(b) What is the balance of the Accounts Payable Control account after the monthly postings on 31 July?

(c) To what account(s) is the column total of $125 150 in the sales journal posted?

(d) To what account(s) is the Accounts Receivable column total of $63 500 in the cash receipts journal posted?

Post various journals to control and subsidiary accounts.
(LO9,10,15)

E6.4 On 1 September the balance of the Accounts Receivable Control account in the general ledger of Teone Ltd was $5 980. The customers' subsidiary ledger contained account balances as follows: Edmonds $1220, Lee $1320, Roemer $1030, Schulz $2410, Henry $0. At the end of September the various journals contained the following information.

Sales journal: Sales to Schulz $400; to Edmonds $675; to Henry $515; to Roemer $550.

Cash receipts journal: Cash received from Roemer $655; from Schulz $1150; from Henry $205; from Lee $900; from Edmonds $620.

General journal: An allowance is granted to Schulz $110.

Required

(a) Set up control and subsidiary ledger accounts and enter the beginning balances. Do not construct the journals.

(b) Post the various journals. Post the items as individual items or as totals, whichever would be the appropriate procedure. (No discount was given for early payment.)

(c) Prepare a list of customers and check that the control account balance agrees with a schedule of accounts in the subsidiary ledger at 30 September 2016.

(d) Why is it important to ensure that the balance in the control account agrees with the schedule of accounts receivable?

Record transactions in sales and purchases journal.
(LO9,10,14)

E6.5 Duckstein Ltd uses special journals and a general journal. The following transactions occurred during September 2017.

Sept.	2	Sold inventory on account to R. Crow, invoice no. 101 for $960, terms n/30. The cost of the inventory sold was $600.
	10	Purchased inventory on credit from L. Dayne $1200, terms 2/7, n/30.
	12	Purchased office equipment on account from B. Piazza $13 000.
	21	Sold inventory on account to Buffy Ltd, invoice no. 102 for $1600, terms 2/14, n/30. The cost of the inventory sold was $960.
	25	Purchased inventory on account from F. Sage $1800, terms n/30.
	27	Sold inventory to Harold Ltd for $1400 cash. The cost of the inventory sold was $840.

Required

(a) Draw up a sales journal (see figure 6A.3, p. 360) and a single-column purchase journal (see figure 6A.7, p. 365). (Use page 1 for each journal.)

(b) Record the transaction(s) for September that should be journalised in the sales journal and the purchases journal.

(c) What is the advantage of having a multicolumn purchases journal as opposed to a single-column purchases journal?

E6.6 Vanessa Bosnat uses special journals and a general journal. The following transactions occurred during May 2016.

Record transactions in cash receipts and cash payments journal.
(LO9,10,14)

May	1	V. Bosnat invested $30 000 cash in the business.
	2	Sold inventory to J. Simon for $12 000 cash. The cost of the inventory sold was $8400.
	3	Purchased inventory for $18 000 from L.M. Farr using cheque no. 101.
	14	Paid salary to S. Little $1400 by issuing cheque no. 102.
	16	Sold inventory on account to B. Jones for $1800, terms n/30. The cost of the inventory sold was $1260.
	22	A cheque for $18 000 is received from R. Dusto in full for invoice 101; no discount given.

Required

(a) Draw up a multicolumn cash receipts journal (see figure 6A.4, p. 363) and a multicolumn cash payments journal (see figure 6A.11, p. 368). (Use page 1 for each journal.)

(b) Record the transaction(s) for May that should be journalised in the cash receipts journal and cash payments journal.

E6.7 Jamies Hardware uses the columnar cash journals illustrated in the book. In April, the following selected cash transactions occurred.

Explain journalising in cash journals.
(LO10,14)

1. Gave a refund to a customer for the return of damaged goods.
2. Received payment from a customer. The payment was received within the discount period and the customer received a 3% discount.
3. Purchased inventory for cash.
4. Paid a creditor within the discount period and received 3% discount.
5. Received collection from customer after the discount period had expired.
6. Paid freight on inventory purchased.
7. Paid cash for office equipment.
8. Received cash refund from supplier for inventory returned.
9. Withdrew cash for personal use of owner.
10. Made cash sales.

Required

Indicate (a) the journal and (b) the columns in the journal that should be used in recording each transaction.

E6.8 Opera House Ltd has the following selected transactions during March.

Journalise transactions in general journal and post.
(LO10,14,15)

Mar.	2	Purchased equipment costing $6000 from Harbour Ltd on account.
	5	Received credit note for $300 from Boat & Co. for inventory damaged in shipment to Opera House Ltd.
	7	Issued a credit note for $400 to Luna Ltd for inventory the customer returned. The returned inventory had a cost of $260.

Opera House Ltd uses a single-column purchases journal, a sales journal, the multicolumn cash journals used in this book, and a general journal.

Required

(a) Journalise the transactions in the general journal.

(b) As the accountant, prepare a brief memo to the managing director of Opera House Ltd, Mr Peterson, to explain all postings to the control and subsidiary accounts.

Indicate journalising in special journals.
(LO10)

E6.9 Below are some typical transactions incurred by Rotunda Printworks.

1. Payment of creditors on account.
2. Return of inventory sold for credit.
3. Collection from customers for amounts owing on account.
4. Sale of land for cash.
5. Sale of inventory on credit.
6. Sale of inventory for cash.
7. Received credit for inventory originally purchased on credit.
8. Discount allowed for early payment by customer.
9. Payment of employee wages.
10. Profit or Loss Summary closed to capital account.
11. Depreciation on building.
12. Purchase of office supplies for cash.
13. Purchase of inventory on account.

Required

For each transaction, indicate whether it would normally be recorded in a cash receipts journal, cash payments journal, sales journal, single-column purchases journal, or a general journal.

Explain posting to control account and subsidiary ledger.
(LO9)

E6.10 The general ledger of Frenchy Ltd contained the following Accounts Payable Control account (in T-account form). Also shown is the related subsidiary ledger.

GENERAL LEDGER

Accounts Payable Control

Feb. 15	General journal	1 400	Feb. 1	Balance	26 025
28	?	?	5	General journal	265
			11	General journal	550
28	Ending balance	9 840	28	Purchases	13 900
		40 740			40 740
			Mar. 1	Balance	9 840

ACCOUNTS PAYABLE SUBSIDIARY LEDGER

Sealy

	Mar. 1 Bal. 4 600

Wang

	Mar. 1 Bal. ?

Gates

	Mar. 1 Bal. 2 000

Required

(a) Indicate the missing posting reference and amount in the control account, and the missing ending balance in the subsidiary ledger.
(b) Indicate the amounts in the control account that were also posted to the subsidiary accounts.

Prepare purchases and general journals.
(LO10,14)

E6.11 Selected accounts from the ledgers of Peterson Ltd at 31 July showed the following.

GENERAL LEDGER

Store Equipment — No. 153

Date	Explanation	Ref.	Debit	Credit	Balance
July 1		G11	1 800		1 800

Accounts Payable — No. 201

Date	Explanation	Ref.	Debit	Credit	Balance
July 1		G11		1 800	1 800
15		G11		200	2 000
18		G11	50		1 950
25		G11	100		1 850
31		P10		4 200	6 050

Inventory — No. 120

Date	Explanation	Ref.	Debit	Credit	Balance
July 15		G11	200		200
18		G11		50	150
25		G11		100	50
31		P10	4 200		4 250

ACCOUNTS PAYABLE SUBSIDIARY LEDGER

Alou Equipment Ltd

Date	Explanation	Ref.	Debit	Credit	Balance
July 1		G11		1 800	1 800

Dunlap Pty Ltd

Date	Explanation	Ref.	Debit	Credit	Balance
July 14		P10		550	550
25		G11	100		450

Benton Ltd

Date	Explanation	Ref.	Debit	Credit	Balance
July 3		P10		1 000	1 000
20		P10		350	1 350

Emerick Ltd

Date	Explanation	Ref.	Debit	Credit	Balance
July 12		P10		250	250
21		P10		300	550

Comerica Materials

Date	Explanation	Ref.	Debit	Credit	Balance
July 17		P10		700	700
18		G11	50		650
29		P10		1 050	1 700

Galant Transit

Date	Explanation	Ref.	Debit	Credit	Balance
July 15		G11		200	200

Required

(a) From the data prepare the single-column purchases journal for July.
(b) From the data prepare the general journal entries for July.
(c) What are the advantages of using specialised journals? Are there any circumstances where it would be better not to use specialised journals?

Determine correct posting amount to control account. (LO9,15)

E6.12 Musac Hi Fi Ltd uses both special journals and a general journal as described in this chapter. Musac Hi Fi Ltd also posts customers' accounts in the accounts receivable subsidiary ledger. The postings for the most recent month are included in the subsidiary T accounts below.

Viola Ltd

Bal.	204	150
	120	

Cellos Pty Ltd

Bal.	90	90
	174	

Harps Ltd

Bal.	0	87
	87	

Pianos & Co.

Bal.	72	72
	141	
	102	

Required

Determine the correct amount of the end-of-month posting from the sales journal to the Accounts Receivable Control account.

Determine control account balances, and explain posting of special journals. (LO9,10,15)

E6.13 Ruby Ltd uses both special journals and a general journal as described in this chapter. On 30 June, after all monthly postings had been completed, the Accounts Receivable Control account in the general ledger had a debit balance of $300 000; the Accounts Payable Control account had a credit balance of $67 500. The December transactions recorded in the special journals are summarised below. No entries affecting accounts receivable and accounts payable were recorded in the general journal for December.

Sales journal	Total sales	$187 725
Purchases journal	Total purchases	$ 40 770
Cash receipts journal	Accounts Receivable column total	$ 95 250
Cash payments journal	Accounts Payable column total	$ 35 625

Required

(a) What is the balance of the Accounts Receivable Control account after the monthly postings on 31 December?
(b) What is the balance of the Accounts Payable Control account after the monthly postings on 31 December?

(c) To what account(s) is the column total of $187 725 in the sales journal posted?
(d) To what account(s) is the Accounts Receivable column total of $95 250 in the cash receipts journal posted?
(e) What is the purpose of preparing a schedule of accounts receivable?

Explain posting to control account and subsidiary ledger. (LO9,10,15)

E6.14 The general ledger of Bing Ltd contained the following Accounts Receivable Control account (in T-account form). Also shown is the related subsidiary ledger.

GENERAL LEDGER

Accounts Receivable Control

Feb. 1	Balance	28 628	Feb. 15	Cash	15 000
18	Sales	15 290	11	General journal	896
28	?	?			
			28	Ending balance	33 022
		48 918			48 918
Mar. 1	Balance	33 022			

ACCOUNTS RECEIVABLE SUBSIDIARY LEDGER

Ding

Mar. 1	Bal.	15 060	

Ring

Mar. 1	Bal.	?	

King

Mar. 1	Bal.	12 200	

Required

(a) Indicate the missing cross-reference and the amount in the control account, and the missing opening balance in the subsidiary ledger.
(b) Indicate the amounts in the control account that were also posted to the subsidiary accounts during February.

Determine correct posting amount to control account. (LO9,10,15)

E6.15 Building Blocks Pty Ltd uses both special journals and a general journal to record transactions. Building blocks also posts creditors' accounts in the accounts payable subsidiary ledger. The postings for the most recent month are included in the subsidiary T accounts below.

Cement for U Ltd

300	Bal.	408
		240

Brick-a-Brack Pty Ltd

180	Bal.	180
		348

Building Materials Ltd

174	Bal.	0
		174

Ladders Pty Ltd

144	Bal.	144
		228
		204

Required

(a) Determine the correct amount of the end-of-month posting from the purchases journal to the Accounts Payable Control account.
(b) Assume that Building Blocks has one creditor only and does not expect there to be any other creditors in the future. Would there be any advantage to Building Blocks setting up an accounts payable subsidiary ledger?

PROBLEM SET A

Journalise transactions in cash receipts journal; post to control account and subsidiary ledger. (LO9,10,14,15)

PSA6.1 Computer Supplies Ltd chart of accounts includes the following selected accounts.

101	Cash	401	Sales
112	Accounts Receivable	414	Discount Allowed
120	Inventory	505	Cost of Sales
301	Selma Wiggle, Capital		

On 1 April the accounts receivable ledger of Computer Supplies Ltd showed the following balances: East PC Ltd $4650, Office Supplies Ltd $3600, PC West Ltd $8700, and Computers for U Ltd $5100. The April transactions involving the receipt of cash were as follows.

Apr.	1	The owner, Selma Wiggle, invested additional cash in the business $18 000.
	4	Received cheque for payment of account from Computer for U Ltd less 2% cash discount.
	5	Received cheque for $1860 in payment of invoice no. 307 from PC West Ltd.
	8	Made cash sales of inventory totalling $21 736. The cost of the inventory sold was $13 040.
	10	Received cheque for $2400 in payment of invoice no. 309 from East PC Ltd.
	11	Received cash refund from a supplier for damaged inventory returned $1650.
	23	Received cheque for $4500 in payment of invoice no. 310 from PC West Ltd.
	29	Received cheque for payment of account from Office Supplies Ltd.

Required

(a) Journalise the transactions above in a six-column cash receipts journal with columns for Cash Dr, Discount Allowed Dr, Accounts Receivable Cr, Sales Cr, Other Accounts Cr, and Cost of Sales Dr/Inventory Cr. Total and cross-foot the journal.
(b) Enter the beginning balances in the Accounts Receivable Control and subsidiary accounts, and post the April transactions to these accounts.
(c) Check that the control account and subsidiary account balances agree.

Journalise transactions in cash payments journal; post to control account and subsidiary ledgers. (LO9,10,14,15)

PSA6.2 Antique Jewels Pty Ltd's chart of accounts includes the following selected accounts.

101	Cash	201	Accounts Payable
120	Inventory	306	Amy Amethyst, Drawings
130	Prepaid Insurance	405	Discount Received
157	Equipment	505	Cost of Sales

On 1 October the accounts payable ledger of Antique Jewels Pty Ltd showed the following balances: Diamond Factory Ltd $3740, Precious Stones Ltd $5500, Rubys R Us Ltd $3080, and Angus and Bandicoot $11 100. The October transactions involving the payment of cash were as follows.

Oct.	1	Purchased inventory, cheque no. 63, $1540.
	3	Purchased equipment, cheque no. 64, $1760.
	5	Paid Diamond Factory Ltd balance due of $3740, less 2% discount, cheque no. 65, $3665.
	10	Purchased inventory, cheque no. 66, $4950.
	15	Paid Rubys R Us Ltd balance due of $3080, cheque no. 67.
	16	Amy Amethyst, the owner, pays her personal insurance premium of $880, cheque no. 68.
	19	Paid Precious Stones Ltd for invoice no. 610, $3080 less 2% cash discount, cheque no. 69, $3018.
	29	Paid Angus and Bandicoot in full for invoice no. 264, $5720, cheque no. 70.

Required

(a) Journalise the transactions above in a five-column cash payments journal with columns for Other Accounts Dr, Accounts Payable Dr, Inventory Cr, Discount Received Cr, and Cash Cr. Total and cross-foot the journal.
(b) Insert the beginning balances in the Accounts Payable Control and subsidiary accounts, and post the October transactions to these accounts.
(c) Check that the control account and the subsidiary account balances agree.

(d) Amy Liu, the managing director of the Antique Jewels Pty Ltd, recently found out that its major supplier, Angus and Bandicoot, supplied them with stolen diamonds. The information is not public knowledge and Valentine's Day, when a large amount of stock is sold, is approaching. Discuss what actions Amy could take and the social and financial implications of her actions for the company.

Journalise transactions in multicolumn purchases journal; post to the general and subsidiary ledgers. (LO9,10,14,15)

PSA6.3 The chart of accounts of Raquets 'R' Us Ltd includes the following selected accounts.

112	Accounts Receivable	401	Sales
120	Inventory	412	Sales Returns and Allowances
126	Supplies	505	Cost of Sales
157	Equipment	610	Advertising Expense
201	Accounts Payable		

In July the following selected transactions were completed. All purchases and sales were on account. The cost of all inventory sold was 70% of the sales price.

July	1	Purchased inventory from Tennis Australia Ltd $8800.
	2	Received invoice for freight inwards from Johnson Shipping on Tennis Australia purchase $550.
	3	Made sales to Squash Club Ltd $1980, and to Teeny Tennis Ltd $2200.
	5	Purchased inventory from Grant and Sons $5500.
	8	Received credit on inventory returned to Grant and Sons $550.
	13	Purchased store supplies from Raquet Supplies $990.
	15	Purchased inventory from Tennis Australia Ltd $3960 and from Lepa Ltd $3190.
	16	Made sales to Martin Ltd $3795 and to Teeny Tennis Ltd $1507.
	18	Received invoice for advertising from Dennisen Advertisements $594.
	21	Sales were made to Squash Club Ltd $341 and to Randee Ltd $3080.
	22	Granted allowance to Squash Club Ltd for inventory damaged in shipment $55.
	24	Purchased inventory from Grant and Sons $3960.
	26	Purchased equipment from Raquet Supplies $330.
	28	Received an invoice for freight from Johnson Shipping on Grant purchase of 24 July, $462.
	30	Sales were made to Martin Ltd $4290.

Required

(a) Journalise the transactions above in a purchases journal, a sales journal and a general journal. The purchases journal should have the following column headings: Date, Account Credited (Debited), Post Ref., Other Accounts Dr, and Inventory Dr/Accounts Payable Cr.

(b) Post to both the general and subsidiary ledger accounts. (Assume that all accounts have nil opening balances.)

(c) Check that the control and subsidiary accounts balances agree.

Journalise transactions in special journals. (LO9,10,14,15)

PSA6.4 Selected accounts from the chart of accounts of Bouncing Balls Ltd are shown below and opposite.

101	Cash	401	Sales
112	Accounts Receivable	412	Sales Returns and Allowances
120	Inventory	416	Discount Received
126	Supplies	505	Cost of Sales
157	Equipment	716	Discount Allowed
201	Accounts Payable	726	Salaries Expense
202	Sundry Accounts Payable		

The cost of all inventory sold was 60% of the sales price. During January, Bouncing Balls Ltd completed the following transactions.

Jan.	3	Purchased inventory on account from Ball Supplies Ltd $15 000.
	4	Purchased supplies for cash $120.
	4	Sold inventory on account to Toys 4 U $10 875, invoice no. 371, terms 1/7, n/30.
	5	Returned $450 worth of damaged goods to Ball Supplies Ltd.
	6	Made cash sales for the week totalling $4725.
	8	Purchased inventory on account from Balls Ltd $6750.
	9	Sold inventory on account to Mays Ltd $8700, invoice no. 372, terms 1/7, n/30.
	11	Purchased inventory on account from Hoble $5550.
	13	Paid Ball Supplies Ltd on account less a 2% discount.
	13	Made cash sales for the week totalling $8010.
	14	Received payment from Mays Ltd for invoice no. 372.
	15	Paid fortnightly salaries of $21 450 to employees.
	17	Received payment from Toys 4 U for invoice no. 371.
	17	Sold inventory on account to Kids Time Ltd $1800, invoice no. 373, terms 1/10, n/30.
	19	Purchased equipment on account from Johnson Ltd $8250.
	20	Cash sales for the week totalled $4800.
	20	Paid in full Balls Ltd on account less a 2% discount.
	23	Purchased inventory on account from Ball Supplies Ltd $11 700.
	24	Purchased inventory on account from Levine $7035.
	27	Made cash sales for the week totalling $5595.
	30	Received payment from Kids Time Ltd for invoice no. 373.
	31	Paid fortnightly salaries of $19 800 to employees.
	31	Sold inventory on account to Toys 4 U $13 995, invoice no. 374, terms 1/7, n/30.

Bouncing Balls Ltd uses the following journals.

1. Sales journal.
2. Single-column purchases journal.
3. Cash receipts journal with columns for Cash Dr, Discount Allowed Dr, Accounts Receivable Cr, Sales Cr, Other Accounts Cr, and Cost of Sales Dr/Inventory Cr.
4. Cash payments journal with columns for Other Accounts Dr, Accounts Payable Dr, Inventory Cr, Discount Received Cr and Cash Cr.
5. General journal.

Required

Using the selected accounts provided:

(a) Record the January transactions in the appropriate journal noted.
(b) Total and cross-foot all special journals.
(c) Show how postings would be made by placing ledger account numbers and ticks (✓) as needed in the journals. (Actual posting to ledger accounts is not required.)
(d) Explain the purpose of cross-footing special journals.

PSA6.5 Presented below are the purchases and cash payments journals for Mill Park Heights Bikes for its first month of operations.

Journalise in sales and cash receipts journals; post; prepare a trial balance; check control with subsidiary; prepare adjusting entries; prepare an adjusted trial balance. (LO9,10,14,15)

PURCHASES JOURNAL			**P14**
Date	Account credited	Post ref.	Inventory Dr Accounts Payable Cr
July 4	Dixon's Bikes		4 080
5	Bike Supplies Ltd		4 500
11	R. Gamble		2 352
13	M. Hill		9 180
20	D. Jacob		5 280
			25 392

CASH PAYMENTS JOURNAL						CP16
Date	Account debited	Post ref.	Other Accounts Dr	Accounts Payable Dr	Discount Received Cr	Cash Cr
July 4	Store Supplies		360			360
10	Bike Supplies Ltd			4 500	45	4 455
11	Prepaid Rent		3 600			3 600
15	Dixon's Bikes			4 080		4 080
19	R. Williams, Drawings		1 500			1 500
21	M. Hill			9 180	92	9 088
			5 460	17 760	137	23 083

In addition, the following transactions have not been journalised for July. The cost of all inventory sold was 65% of the sales price.

July	1	The owner, R. Williams, invests $48 000 in cash.
	6	Sell inventory on account to Toy World Ltd $3240 terms 1/7, n/30.
	7	Make cash sales totalling $2400.
	8	Sell inventory on account to Biker Ltd $2160, terms 1/7, n/30.
	10	Sell inventory on account to L. Lemansky $2940, terms 1/14, n/30.
	13	Receive payment from Biker Ltd.
	16	Receive payment from L. Lemansky.
	20	Receive payment from Toy World Ltd.
	21	Sell inventory on account to S. Kane $2400, terms 1/7, n/30.
	29	Returned damaged goods to Dixon's Bikes and received cash refund of $270.

Required

(a) Open the following accounts in the general ledger.

101	Cash	306	R. Williams, Drawings
112	Accounts Receivable	401	Sales
120	Inventory	405	Discount Received
127	Store Supplies	505	Cost of Sales
131	Prepaid Rent	614	Discount Allowed
201	Accounts Payable	631	Supplies Expense
301	R. Williams, Capital	729	Rent Expense

(b) Journalise the transactions that have not been journalised in the sales journal (S15), the cash receipts journal (CR16) (see figure 6A.4, p. 363), and the general journal (G5). (*Note:* Round all figures to nearest whole dollar.)

(c) Post to the accounts receivable and accounts payable subsidiary ledgers. Follow the sequence of transactions as shown in the problem.

(d) Post the individual entries and totals to the general ledger.

(e) Prepare an unadjusted trial balance as at 31 July 2017.

(f) Determine whether the subsidiary ledgers agree with the control accounts in the general ledger.

(g) The following adjustments at the end of July are necessary:
1. A count of supplies indicates that $84 is still on hand.
2. Recognise rent expense for July, $300.

Prepare the necessary entries in the general journal. Post the entries to the general ledger.

(h) Prepare an adjusted trial balance as at 31 July 2017.

(i) Assume your trial balance does not balance. List some of the steps you could take to discover the error(s).

PSA6.6 The post-closing trial balance for Party Shop Ltd is as follows.

Journalise in special journals; post; prepare a trial balance. (LO9,10,14,15)

PARTY SHOP LTD
Post-closing trial balance
as at 31 December 2016

	Debit	Credit
Cash	$21 500	
Accounts Receivable	8 250	
Commissions Receivable	23 250	
Inventory	12 250	
Equipment	3 975	
Accumulated Depreciation—Equipment		$ 2 250
Accounts Payable		22 250
B. Beatle, Capital		44 725
	$69 225	$69 225

The subsidiary ledgers contain the following information: (1) Accounts Receivable—Party Time Ltd $1500, Celebrations Pty Ltd $4000, S. Devine $2750; (2) Accounts Payable—Toys 4 U $5250, R. Grilson $9250, D. Harms $7750. The cost of all inventory sold was 65% of the sales price.

The transactions for January 2017 are as follows.

Jan.	5	Sell inventory to W. Wong $2750, terms 2/7, n/30.
	5	Purchase inventory from S. Warren $1500, terms 2/7, n/30.
	7	Receive a cheque from S. Devine $1750.
	11	Pay freight inwards on inventory purchased $250.
	12	Pay rent of $1000 for January.
	12	Receive payment from W. Wong for amount due.
	14	Issue a credit note to acknowledge receipt of damaged inventory of $350 returned by Party Time Ltd.
	15	Send D. Harms a cheque for $7500 in payment of account, discount $250.
	17	Purchase inventory from D. Lapeska $750, terms 2/7, n/30.
	18	Pay sales salaries of $1250 and office salaries $500.
	20	Send R. Grilson a cheque for $9250 in payment of account payable.
	23	Total cash sales amount to $5000.
	24	Sell inventory on account to Celebrations Pty Ltd $3850, terms 1/7, n/30.
	27	Send S. Warren a cheque for $475.
	29	Receive $23 250 of the commissions revenue receivable at 31 December 2016.
	30	Return inventory of $250 to D. Lapeska for credit.

Required

(a) Open general and subsidiary ledger accounts for the following:

101	Cash	405	Commissions Revenue
112	Accounts Receivable	412	Sales Returns and Allowances
115	Commissions Receivable	415	Discount Received
120	Inventory	505	Cost of Sales
157	Equipment	506	Freight Inwards
158	Accumulated Depreciation—Equipment	714	Discount Allowed
		726	Sales Salaries Expense
201	Accounts Payable	727	Office Salaries Expense
301	B. Beatle, Capital	729	Rent Expense
401	Sales	750	Inventory Write-down Expense

(b) Record the January transactions in a sales journal, a single-column purchases journal, a cash receipts journal (see figure 6A.4, p. 363), a cash payments journal (see figure 6A.11, p. 368) and a general journal.

(c) Post the appropriate amounts to the general ledger.

(d) Prepare a trial balance as at 31 January 2017.
(e) Determine whether the subsidiary ledgers agree with the corresponding control accounts in the general ledger.

Journalise transactions in cash receipts journal; post to control account and subsidiary ledger. (LO9,10,14,15)

PSA6.7 Wyatt Sports' chart of accounts includes the following selected accounts.

101	Cash	401	Sales
112	Accounts Receivable	505	Cost of Sales
120	Inventory	614	Discount Allowed
301	J. Wyatt, Capital		

On 1 June the accounts receivable ledger of Wyatt Sports showed the following balances: Block & Son $1750, Field Ltd $950, Green Bros. $800, and Mastin Pty Ltd $500. The June transactions involving the receipt of cash were as follows.

June	1	The owner, J. Wyatt, invested additional cash in the business $5000.
	3	Received cheque from Mastin Pty Ltd less 2% cash discount.
	6	Received cheque from Field Ltd less 2% cash discount.
	7	Made cash sales of inventory totalling $3068. The cost of the inventory sold was $2045.
	9	Received cheque from Block & Son less 2% cash discount.
	11	Received cash refund from a supplier for damaged inventory $100.
	15	Made cash sales of inventory totalling $2625. The cost of the inventory sold was $1750.
	20	Received cheque in full from Green Bros. $800.

Required

(a) Journalise the transactions above in a six-column cash receipts journal with columns for Cash Dr, Discount Allowed Dr, Accounts Receivable Cr, Sales Cr, Other Accounts Cr, and Cost of Sales Dr/Inventory Cr. Total and cross-foot the journal.
(b) Insert the opening balances in the Accounts Receivable Control and subsidiary accounts, and post the June transactions to these accounts.
(c) Determine whether the control account and subsidiary account balances agree.

Journalise in special journals; post; prepare a trial balance; check control with subsidiary; prepare adjusting entries; prepare an adjusted trial balance. (LO9,10,14,15)

PSA6.8 Presented below are the sales and cash receipts journals for Clover Hill for its first month of operations.

SALES JOURNAL **S1**

Date	Account debited	Post ref.	Accounts Receivable Dr Sales Cr	Cost of Sales Dr Inventory Cr
Feb. 3	D. Adams		8 250	5 445
9	P. Babcock		9 750	6 435
12	D. Chambers		12 000	7 920
26	K. Dawson		9 000	5 940
			39 000	25 740

CASH RECEIPTS JOURNAL **CR1**

Date	Account credited	Post ref.	Cash Dr	Discount Allowed Dr	Accounts Receivable Cr	Sales Cr	Other Accounts Cr	Cost of Sales Dr Inventory Cr
Feb. 1	J. Hill, Capital		45 000				45 000	
2			9 750			9 750		6 435
13	D. Adams		8 167	83	8 250			
18	Inventory		225				225	
26	P. Babcock		9 750		9 750			
			72 892	83	18 000	9 750	45 225	6 435

In addition, the following transactions have not been journalised for February 2016.

Feb.	6	Purchased inventory on account from S. Healy for $6000, terms 1/7, n/30.
	9	Purchased inventory on account from L. Held for $45 000, terms 1/10, n/30.
	9	Paid cash of $1500 for purchase of supplies.
	12	Paid $5940 to S. Healy in payment of $6000 invoice, less 1% discount.
	15	Purchased equipment for $12000 cash.
	16	Purchased inventory on account from R. Landly $3600, terms 2/7, n/30.
	17	Paid $44 550 to L. Held in payment of $45 000 invoice, less 1% discount.
	20	Withdrew cash of $1650 from business for personal use.
	21	Purchased inventory on account from J. Able for $9750, terms 1/7, n/30.
	28	Paid $3600 to R. Landly in payment of $3600 invoice.

Required

(a) Open the following accounts in the general ledger.

101	Cash	306	J. Hill, Drawings
112	Accounts Receivable	401	Sales
120	Inventory	405	Discount Received
126	Supplies	505	Cost of Sales
157	Equipment	614	Discount Allowed
158	Accumulated Depreciation—Equipment	631	Supplies Expense
201	Accounts Payable	711	Depreciation Expense
301	J. Hill, Capital		

(b) Journalise the transactions that have not been journalised in a one-column purchases journal and the cash payments journal (see figure 6A.11, p. 368).
(c) Post to the accounts receivable and accounts payable subsidiary ledgers. Follow the sequence of transactions as shown in the problem.
(d) Post the individual entries and totals to the general ledger.
(e) Prepare a trial balance as at 28 February 2016.
(f) Determine that the subsidiary ledgers agree with the control accounts in the general ledger.
(g) The following adjustments at the end of February are necessary:
1. A count of supplies indicates that $450 is still on hand.
2. Depreciation on equipment for February is $300.

Prepare the adjusting entries and then post the adjusting entries to the general ledger.
(h) Prepare an adjusted trial balance as at 28 February 2016.

Journalise transactions in cash receipts journal; post to control account and subsidiary ledger.
(LO9,10,14,15)

PSA6.9 Lacquer Nail Supplies chart of accounts includes the following selected accounts.

101	Cash	201	Accounts Payable
120	Inventory	306	P. Pinky, Drawing
130	Prepaid Insurance	405	Discount Received
157	Equipment		

On 1 November the accounts payable ledger of Lacquer Nail Supplies showed the following balances: Cotton Balls Ltd $4500, Nail Polish Professionals $2350,

Plastic Nails Pty Ltd $1000, and Creams and Oils R Us $1900. The November transactions involving the payment of cash were as follows.

Nov.	1	Purchased inventory, cheque no. 11, $900.
	3	Purchased store equipment, cheque no. 12, $1700.
	5	Paid Creams and Oils R Us balance due of $1900, less 1%, cheque no. 13, $1881.
	11	Purchased inventory, cheque no. 14, $2000.
	15	Paid Plastic Nails Pty Ltd balance due of $1000, less 3% discount, cheque no. 15, $970.
	16	V. Pinky, the owner, withdrew $500 cash for own use, cheque no. 16.
	19	Paid Nail Polish Professionals in full for invoice no. 1245, $1300 less 2% discount, cheque no. 17, $1274.
	25	Paid premium due on one-year insurance policy, cheque no. 18, $3000.
	30	Paid Cotton Balls Ltd in full for invoice no. 832, $2500, cheque no. 19.

Required

(a) Journalise the transactions above in a five-column cash payments journal with columns for Date, Cheque Number, Amount Debited (Credited), Post Reference, Other Accounts Dr, Accounts Payable Dr, Inventory Cr, Discount Received Cr and Cash Cr. Total and cross-foot the journal.

(b) Enter the beginning balances in the Accounts Payable Control and subsidiary accounts, and post the November transactions to these accounts.

(c) Agree the control account and the subsidiary account balances.

Journalise transactions in multicolumn purchases journal; post to the general and subsidiary ledgers.
(LO9,10,14,15)

PSA6.10 The chart of accounts of Fancy Footware Ltd includes the following selected accounts.

112	Accounts Receivable	401	Sales
120	Inventory	412	Sales Returns and Allowances
126	Supplies	505	Cost of Sales
157	Equipment	506	Freight Inwards
201	Accounts Payable	610	Advertising Expense

In July the following selected transactions were completed. All purchases and sales were on account. The cost of all inventory sold was 70% of the sales price.

July	1	Purchased inventory from Little Feet Ltd $9600.
	2	Received invoice for freight inwards from Quick Shipping on Little Feet purchase $600.
	3	Made sales to Pete's Shoes Ltd, $2160, and to Teeny Feet Ltd $2400.
	5	Purchased inventory from Grant and Sons $6000.
	8	Received credit on inventory returned to Grant and Sons $600.
	13	Purchased store supplies from Shoe Supplies $1080.
	15	Purchased inventory from Little Feet Ltd $4320 and from Lepa Ltd $3480.
	16	Made sales to Martin's Spartans Ltd $4140 and to Teeny Feet Ltd $648.
	18	Received invoice for advertising from Shoe Advertisements Pty Ltd $372.
	21	Sales were made to Pete's Shoes Ltd $310 and to Sandles Ltd $3360.
	22	Granted allowance to Pete's Shoes Ltd for inventory damaged in shipment $60.
	24	Purchased inventory from Grant and Sons $4320.
	26	Purchased equipment from Shoe Supplies $360.
	28	Received an invoice for freight from Quick Shipping on Grant purchase of 24 July, $504.
	30	Sales were made to Martin's Spartans Ltd $4680.

Required

(a) Journalise these transactions in a purchases journal, a sales journal and a general journal. The purchases journal should have the following column headings: Date, Account Credited (Debited), Post Ref, Other Accounts Dr, and Inventory Dr/Accounts Payable Cr.
(b) Post to both the general and subsidiary ledger accounts. (Assume that all accounts have nil opening balances.)
(c) Check that the control and subsidiary accounts balances agree.
(d) Explain the advantages and disadvantages of computerised accounting systems or manual accounting systems.

PROBLEM SET B

Journalise transactions in cash payments journal; post to the general and subsidiary ledgers. (LO9,10,14,15)

PSB6.1 South Morange Hardware's chart of accounts includes the following selected accounts:

101	Cash	201	Accounts Payable
120	Inventory	306	V. Morange, Drawing
130	Prepaid Insurance	405	Discount Received
157	Equipment		

On 1 November the accounts payable ledger of South Morange's Hardware showed the following balances: R. Huff $2250, G. Paul $1175, R. Snyder $500, and Wald Bros $950. The November transactions involving the payment of cash were as follows.

Nov.	1	Purchased inventory, cheque no. 11, $450.
	3	Purchased store equipment, cheque no. 12, $850.
	5	Paid Wald Bros balance due of $950, less 1%, cheque no. 13, $941.
	11	Purchased inventory, cheque no. 14, $1000.
	15	Paid R. Snyder balance due of $500, less 3% discount, cheque no. 15, $485.
	16	V. Morange, the owner, withdrew $250 cash for own use, cheque no. 16.
	19	Paid G. Paul in full for invoice no. 1245, $650 less 2% discount, cheque no. 17, $637.
	25	Paid premium due on one-year insurance policy, cheque no. 18, $1500.
	30	Paid R. Huff in full for invoice no. 832, $1250, cheque no. 19.

Required

(a) Journalise the transactions above in a five-column cash payments journal with columns for Date, Cheque Number, Amount Debited (Credited), Post Reference, Other Accounts Dr, Accounts Payable Dr, Inventory Cr, Discount Received Cr and Cash Cr. Total and cross-foot the journal.
(b) Enter the beginning balances in the Accounts Payable Control and subsidiary accounts, and post the November transactions to these accounts.
(c) Agree the control account and the subsidiary account balances.
(d) R. Snyder, a good friend of Mr Dodgy, the purchasing officer for South Morange's Hardware, has offered Mr Dodgy a fully paid overseas holiday if South Morange's Hardware increase their purchases from R. Snyder by 100% in the next financial year. How would you advise Mr Dodgy?

Journalise transactions in multi-column purchases journal; post to the general and subsidiary ledgers. (LO9,10,14,15)

PSB6.2 The chart of accounts of Victoria Ltd includes the following selected accounts.

112	Accounts Receivable	401	Sales
120	Inventory	412	Sales Returns and Allowances
126	Supplies	505	Cost of Sales
157	Equipment	510	Freight Inwards
201	Accounts Payable	610	Advertising Expense

In May the following selected transactions were completed. All purchases and sales were on account except as indicated. The cost of all inventory sold was 70% of the sales price.

May	2	Purchased inventory from Vons Ltd $10 450.
	3	Received invoice for freight from The Freight People on Vons purchase $440.
	5	Sales were made to Penner Ltd $1925, Hend Ltd $2970, and Nelles Ltd $1650.
	8	Purchased inventory from Golden Ltd $8800 and Dorn Ltd $9570.
	10	Received credit on inventory returned to Dorn Ltd $550.
	15	Purchased supplies from Engle Supply $990.
	16	Purchased inventory from Vons Ltd $4950, and Golden Ltd $6600.
	17	Returned supplies to Engle Supply, receiving credit note for $110. (*Hint:* Credit Supplies.)
	18	Received invoice for freight on 16 May purchases from The Freight People $550.
	20	Returned inventory to Vons Ltd receiving credit note for $330.
	23	Made sales to Hend Ltd $2640 and to Nelles Ltd $2420.
	25	Received invoice for advertising from Ball Advertising $990.
	26	Granted allowance to Nelles Ltd for inventory damaged in shipment $220.
	28	Purchased equipment from Engle Supply $275.

Required

(a) Journalise the transactions above in a purchases journal, a sales journal, and a general journal. The purchases journal should have the following column headings: Date, Accounts Credited (Debited), Post Ref, Other Accounts Dr, and Inventory Dr/Accounts Payable Cr.

(b) Post to both the general and subsidiary ledger accounts. (Assume that all accounts have nil beginning balances.)

(c) Agree the control account and subsidiary ledger balances.

Journalise transactions in special journals.
(LO9,10,14,15)

PSB6.3 Selected accounts from the chart of accounts of Allegra Pty Ltd are shown below.

101	Cash	201	Accounts Payable
112	Accounts Receivable	401	Sales
120	Inventory	405	Discount Received
126	Supplies	505	Cost of Sales
140	Land	610	Advertising Expense
145	Buildings	614	Discount Allowed

The cost of all inventory sold was 60% of the sales price. During October, Allegra Pty Ltd completed the following transactions.

Oct.	2	Purchased inventory on account from Mason Ltd $9250.
	4	Sold inventory on account to Parker Ltd $4500. Invoice no. 204, terms 2/7, n/30.
	5	Purchased supplies for cash $40.
	7	Made cash sales for the week totalling $4580.
	9	Paid in full the amount owed to Mason Ltd less a 2% discount.
	10	Purchased inventory on account from Quinn Ltd $2100.
	10	Received payment from Parker Ltd for invoice no. 204.
	13	Returned $125 worth of damaged goods to Quinn Ltd.
	14	Made cash sales for the week totalling $4090.
	16	Sold a parcel of land for $54 000 cash, the land's book value.
	17	Sold inventory on account to L. Boyton Ltd $2675, invoice no. 205, terms 2/7, n/30.
	18	Purchased inventory for cash $1065.

Oct.	21	Made cash sales for the week totalling $4235.
	23	Paid in full the amount owed Quinn Ltd for the goods kept (no discount).
	25	Purchased supplies on account from Frey Ltd $130.
	25	Sold inventory on account to Green Ltd $2610, invoice no. 206, terms 2/7, n/30.
	25	Received payment from L. Boyton Ltd for invoice no. 205.
	26	Purchased for cash a small parcel of land and a building on the land to use as a storage facility. The total cost of $70 000 was allocated $42 000 to the land and $28 000 to the building.
	27	Purchased inventory on account from Schmid Ltd $4250.
	28	Made cash sales for the week totalling $4270.
	30	Purchased inventory on account from Mason Ltd $7000.
	30	Paid advertising for the month from the *Herald* $200.
	30	Sold inventory on account to L. Boyton Ltd $2300, invoice no. 207, terms 2/7, n/30.

Allegra Pty Ltd uses the following journals:
1. Sales journal.
2. Single-column purchases journal.
3. Cash receipts journal with columns for Cash Dr, Discount Allowed Dr, Accounts Receivable Cr, Sales Cr, Other Accounts Cr, and Cost of Sales Dr/Inventory Cr.
4. Cash payments journal with columns for Other Accounts Dr, Accounts Payable Dr, Inventory Cr, Discount Received Cr and Cash Cr.
5. General journal.

Required

Using the selected accounts provided:

(a) Record the October transaction in the appropriate journals.
(b) Total and cross-foot all special journals.
(c) Show how postings would be made by placing ledger account numbers and ticks (✓) as needed in the journals. (Actual posting to ledger accounts is not required.)
(d) Explain why it is helpful to place ledger account numbers and ticks (✓) in the journals.

Journalise transactions in cash receipts journal; post to control account and subsidiary ledger. (LO9,10,14,15)

PSB6.4 Illuminate Lighting's chart of accounts includes the following selected accounts:

101	Cash	401	Sales
112	Accounts Receivable	414	Discount Allowed
120	Inventory	505	Cost of Sales
301	F. Francis, Capital		

On 1 April the accounts receivable ledger of Illuminate Lighting showed the following balances: Horn $3100, Harris $2400, North Ltd $5800, and Smith $3400. The April transactions involving the receipt of cash were as follows.

Apr.	1	The owner, F. Francis, invested additional cash in the business $12 000.
	4	Received cheque for payment of account from Smith less 2% cash discount.
	5	Received cheque for $1240 in payment of invoice no. 307 from North Ltd.
	8	Made cash sales of inventory totalling $14 490. The cost of the inventory sold was $8694.
	10	Received cheque for $1600 in payment of invoice no. 309 from Horn.
	11	Received cash refund from a supplier for damaged inventory $1100.
	23	Received cheque for $3000 in payment of invoice no. 310 from North Ltd.
	29	Received cheque for payment of account from Harris.

Required

(a) Journalise the transactions provided in a six-column cash receipts journal with columns for Cash Dr, Discount Allowed Dr, Accounts Receivable Cr, Sales Cr, Other Accounts Cr, and Cost of Sales Dr/Inventory Cr. Total and cross-foot the journal.

(b) Enter the beginning balances in the Accounts Receivable Control and subsidiary accounts, and post the April transactions to these accounts.

(c) Check that the control account and subsidiary account balances agree.

(d) What are the advantages and disadvantages of settlement discounts?

Journalise transactions in cash payments journal; post to control account and subsidiary ledgers. (LO9,10,14,15)

PSB6.5 Findon Pty Ltd's chart of accounts includes the following selected accounts:

101	Cash	201	Accounts Payable
120	Inventory	306	L. Findon, Drawings
130	Prepaid Insurance	405	Discount Received
157	Equipment	505	Cost of Sales

On 1 October the accounts payable ledger of Findon Pty Ltd showed the following balances: Hester Ltd $6800, Milos Ltd $10 000, Tario Ltd $5 600, and Pagan and Sons $14 800. The October transactions involving the payment of cash were as follows:

Oct.	1	Purchased inventory, cheque no. 63, $2800.
	3	Purchased equipment, cheque no. 64, $3200.
	5	Paid Hester Ltd balance due of $6800, less 2% discount, cheque no. 65, $6664.
	10	Purchased inventory, cheque no. 66, $9000.
	15	Paid Tario Ltd balance due of $5600, cheque no. 67.
	16	L. Findon, the owner, pays her personal insurance premium of $1600, cheque no. 68.
	19	Paid Milos Ltd for invoice no. 610, $5600 less 2% cash discount, cheque no. 69, $5488.
	29	Paid Pagan and Sons in full for invoice no. 264, $10 400, cheque no. 70.

Required

(a) Journalise the transactions above in a five-column cash payments journal with columns for Other Accounts Dr, Accounts Payable Dr, Inventory Cr, Discount Received Cr, and Cash Cr. Total and cross-foot the journal.

(b) Insert the beginning balances in the Accounts Payable Control and subsidiary accounts, and post the October transactions to these accounts.

(c) Check that the control account and the subsidiary account balances agree.

Journalise transactions in special journals. (LO9,10,14,15)

PSB6.6 Selected accounts from the chart of accounts of Ruby Ltd are shown below.

101	Cash	401	Sales
112	Accounts Receivable	412	Sales Returns and Allowances
120	Inventory	416	Discount Received
126	Supplies	505	Cost of Sales
157	Equipment	716	Discount Allowed
201	Accounts Payable	726	Salaries Expense

The cost of all inventory sold was 60% of the sales price. During January, Ruby Ltd completed the following transactions.

Jan.	3	Purchased inventory on account from Bell Bros. $11 000.
	4	Purchased supplies for cash $88.
	4	Sold inventory on account to Gilbert $7975, invoice no. 371, terms 1/7, n/30.
	5	Returned $330 worth of damaged goods to Bell Bros.
	6	Made cash sales for the week totalling $3465.
	8	Purchased inventory on account from Law Ltd $4950.
	9	Sold inventory on account to Mays Ltd $6380, invoice no. 372, terms 1/7, n/30.

Jan.	11	Purchased inventory on account from Hoble $4070.
	13	Paid Bell Bros on account less a 2% discount.
	13	Made cash sales for the week totalling $5874.
	14	Received payment from Mays Ltd for invoice no. 372.
	15	Paid fortnightly salaries of $15 730 to employees.
	17	Received payment from Gilbert for invoice no. 371.
	17	Sold inventory on account to Amber Ltd $1320, invoice no. 373, terms 1/7, n/30.
	19	Purchased equipment on account from Johnson Ltd $6050.
	20	Cash sales for the week totalled $3520.
	20	Paid in full Law Ltd on account less a 2% discount.
	23	Purchased inventory on account from Bell Bros $8580.
	24	Purchased inventory on account from Levine $5160.
	27	Made cash sales for the week totalling $4103.
	30	Received payment from Amber Ltd for invoice no. 373.
	31	Paid fortnightly salaries of $14 520 to employees.
	31	Sold inventory on account to Gilbert $10 265, invoice no. 374, terms 1/7, n/30.

Ruby Ltd uses the following journals:

1. Sales journal.
2. Single-column purchases journal.
3. Cash receipts journal with columns for Cash Dr, Discount Allowed Dr, Accounts Receivable Cr, Sales Cr, Other Accounts Cr, and Cost of Sales Dr/Inventory Cr.
4. Cash payments journal with columns for Other Accounts Dr, Accounts Payable Dr, Inventory Cr, Discount Received Cr, and Cash Cr.
5. General journal.

Required

Using the selected accounts provided:

(a) Record the January transactions in the appropriate journal.
(b) Total and cross-foot all special journals.
(c) Show how postings would be made by placing ledger account numbers and ticks (✓) as needed in the journals. (Actual posting to ledger accounts is not required.)

PSB6.7 The post-closing trial balance for Camperdown Carpets is as follows.

Journalise in special journals; post; prepare a trial balance. (LO9,10,14,15)

CAMPERDOWN CARPETS
Post-closing trial balance
as at 31 December 2016

	Debit	Credit
Cash	$ 41 500	
Accounts Receivable	15 000	
Commissions Receivable	45 000	
Inventory	23 000	
Equipment	6 450	
Accumulated Depreciation—Equipment		$ 1 500
Accounts Payable		43 000
S. Alomar, Capital		86 450
	$130 950	$130 950

The subsidiary ledgers contain the following information: (1) Accounts Receivable—R. Barton $2500, B. Cole $7500, S. Devine $5000; (2) Accounts Payable—S. Field $10 000, R. Grilson $18 000, D. Harms $15 000. The cost of all inventory sold was 65% of the sales price.

The transactions for January 2017 are as follows.

Jan.	5	Sell inventory to B. Senton $4000, terms 2/7, n/30.
	5	Purchase inventory from S. Warren $2500, terms 2/7, n/30.
	7	Receive a cheque from S. Devine $3500.
	11	Pay freight on inventory purchased $300.
	12	Pay rent of $1000 for January.
	12	Receive payment from B. Senton for amount due.
	14	Issue a credit note to acknowledge receipt of damaged inventory of $700 returned by R. Barton.
	15	Send D. Harms a cheque for $14 850 in payment of account, discount $150.
	17	Purchase inventory from D. Lapeska $1600, terms 2/7, n/30.
	18	Pay sales salaries of $2800 and office salaries $1500.
	20	Send R. Grilson a cheque for $18 000 in payment of account payable.
	23	Total cash sales amount to $8600.
	24	Sell inventory on account to B. Cole $7700, terms 1/7, n/30.
	27	Send S. Warren a cheque for $950.
	29	Receive $40 000 of the commissions revenue receivable at 31 December 2016.
	30	Return inventory of $500 to D. Lapeska for credit.

Required

(a) Open general and subsidiary ledger accounts for the following:

101	Cash	412	Sales Returns and Allowances
112	Accounts Receivable	415	Discount Received
115	Commissions Receivable	505	Cost of Sales
120	Inventory	506	Freight Inwards
157	Equipment	714	Discount Allowed
158	Accumulated Depreciation—Equipment	726	Sales Salaries Expense
201	Accounts Payable	727	Office Salaries Expense
301	S. Alomar, Capital	729	Rent Expense
401	Sales	750	Inventory Write-down Expense
405	Commissions Revenue		

(b) Record the January transactions in a sales journal, a single-column purchases journal, a cash receipts journal (see figure 6A.4, p. 363), a cash payments journal (see figure 6A.11, p. 368) and a general journal.
(c) Post the appropriate amounts to the general ledger.
(d) Prepare a trial balance as at 31 January 2017.
(e) Determine whether the subsidiary ledgers agree with the corresponding control accounts in the general ledger.

Journalise in sales and cash receipts journals; post; prepare a trial balance; check control with subsidiary; prepare adjusting entries; prepare an adjusted trial balance. (LO9,10,14,15)

PSB6.8 Presented below and opposite are the purchases and cash payments journals for Collins Bikes for its first month of operations.

PURCHASES JOURNAL **P14**

Date	Account credited	Post ref.	Inventory Dr Accounts Payable Cr
July 4	J. Dixon		6 800
5	W. Engel		7 500
11	R. Gamble		3 920
13	M. Hill		15 300
20	D. Jacob		8 800
			42 320

CASH PAYMENTS JOURNAL						CP16
Date	Account debited	Post ref.	Other Accounts Dr	Accounts Payable Dr	Discount Received Cr	Cash Cr
July 4	Store Supplies		600			600
10	W. Engel			7 500	75	7 425
11	Prepaid Rent		6 000			6 000
15	J. Dixon			6 800		6 800
19	Collins, Drawings		2 500			2 500
21	M. Hill			15 300	153	15 147
			9 100	29 600	228	38 472

In addition, the following transactions have not been journalised for July. The cost of all inventory sold was 65% of the sales price.

July	1	The owner, R. Collins, invests $80 000 in cash.
	6	Sell inventory on account to Hardy Ltd $5400 terms 1/7, n/30.
	7	Make cash sales totalling $4000.
	8	Sell inventory on account to D. Wasburn $3600, terms 1/7, n/30.
	10	Sell inventory on account to L. Lemansky $4900, terms 1/14, n/30.
	13	Receive payment from D. Wasburn.
	16	Receive payment from L. Lemansky.
	20	Receive payment from Hardy Ltd.
	21	Sell inventory on account to S. Kane $4000, terms 1/7, n/30.
	29	Returned damaged goods to J. Dixon and received cash refund of $450.

Required

(a) Open the following accounts in the general ledger:

101	Cash	306	Collins, Drawings
112	Accounts Receivable	401	Sales
120	Inventory	405	Discount Received
127	Store Supplies	505	Cost of Sales
131	Prepaid Rent	614	Discount Allowed
201	Accounts Payable	631	Supplies Expense
301	Collins, Capital	729	Rent Expense

(b) Journalise the transactions that have not been journalised in the sales journal, the cash receipts journal (see figure 6A.4, p. 363) and the general journal.

(c) Post to the accounts receivable and accounts payable subsidiary ledgers. Follow the sequence of transactions as shown in the problem.

(d) Post the individual entries and totals to the general ledger.

(e) Prepare a trial balance as at 31 July 2016.

(f) Determine whether the subsidiary ledgers agree with the control accounts in the general ledger.

(g) The following adjustments at the end of July are necessary:
1. A count of supplies indicates that $140 is still on hand.
2. Recognise rent expense for July, $500.
   Prepare the necessary entries in the general journal. Post the entries to the general ledger.

(h) Prepare an adjusted trial balance as at 31 July 2016.

(i) Part (g) required the journal entries for two adjustments. What is the purpose of adjusting entries? What are the implications of not completing adjusting entries?

Journalise transactions in cash receipts journal; post to control account and subsidiary ledger. (LO9,10,14,15)

PSB6.9 Beachcombers Supplies Pty Ltd chart of accounts includes the following selected accounts.

101	Cash	401	Sales
112	Accounts Receivable	414	Discount Allowed
120	Inventory	505	Cost of Sales
301	Beach Boy, Capital		

On 1 April the accounts receivable ledger of Beachcombers' Supplies showed the following balances: Board Barn Ltd $2325, I'm Board Ltd $1800, Sand Wedge Ltd $4350 and Wet Suits Gallore Pty Ltd $2550. The April transactions involving the receipt of cash were as follows.

Apr.	1	The owner, Beach Boy, invested additional cash in the business $9000.
	4	Received cheque for payment of account from Wet Suits Gallore Pty Ltd less 2% cash discount.
	5	Received cheque for $930 in payment of invoice no. 307 from Sand Wedge Ltd.
	8	Made cash sales of inventory totalling $10 868. The cost of the inventory sold was $6520.
	10	Received cheque for $1200 in payment of invoice no. 309 from Board Barn Ltd.
	11	Received cash refund from a supplier for damaged inventory returned $825.
	23	Received cheque for $2250 in payment of invoice no. 310 from Sand Wedge Ltd.
	29	Received cheque for payment of account from I'm Board Ltd.

Required

(a) Journalise the transactions above in a six-column cash receipts journal with columns for Cash Dr, Discount Allowed Dr, Accounts Receivable Cr, Sales Cr, Other Accounts Cr, and Cost of Sales Dr/Inventory Cr. Total and cross-foot the journal.

(b) Enter the beginning balances in the Accounts Receivable Control and subsidiary accounts, and post the April transactions to these accounts.

(c) Check that the control account and subsidiary account balances agree.

Journalise transactions in multicolumn purchases journal; post to the general and subsidiary ledgers. (LO9,10,14,15)

PSB6.10 The chart of accounts of Richards Ltd includes the following selected accounts.

112	Accounts Receivable	401	Sales
120	Inventory	412	Sales Returns and Allowances
126	Supplies	505	Cost of Sales
157	Equipment	510	Freight Inwards
201	Accounts Payable	610	Advertising Expense

In December the following selected transactions were completed. All purchases and sales were on account except as indicated. The cost of all inventory sold was 70% of the sales price.

Dec.	2	Purchased inventory from Celtic Ltd $14 250.
	3	Received invoice for freight from Fast Delivery on Celtic purchase $600.
	5	Sales were made to Wang Ltd $2625, Singh Ltd $4050, and Smith Ltd $2250.
	8	Purchased inventory from Ripping Ltd $12 000 and Lamb Ltd $13 050.
	10	Received credit on inventory returned to Lamb Ltd $750.
	15	Purchased supplies from Office Supply $1350.
	16	Purchased inventory from Celtic Ltd $6750, and Ripping Ltd $9000.

Dec. 17 Returned supplies to Office Supply, receiving credit note for $150.
18 Received invoice for freight on 16 December for purchases from Celtic Ltd, $600.
20 Returned inventory to Celtic Ltd, receiving credit note for $450.
23 Made sales to Singh Ltd, $1200, and to Smith Ltd $3300.
25 Received invoice for advertising from Striking Advertising $1350.
26 Granted allowance to Smith Ltd for inventory damaged in shipment $300.
28 Purchased equipment from Office Supply $375.

Required

(a) Journalise the transactions above in a purchases journal, a sales journal and a general journal. The purchases journal should have the following column headings: Date, Accounts Credited (Debited), Post Ref, Other Accounts Dr and Inventory Dr/Accounts Payable Cr.

(b) Post to both the general and subsidiary ledger accounts. (Assume that all accounts have nil beginning balances.)

(c) Agree the control account and subsidiary ledger balances.

(d) Explain the advantages and disadvantages of computerised accounting systems over manual accounting systems.

COMPREHENSIVE PROBLEM: CHAPTERS 3 TO 6

Greta's Furniture Pty Ltd has the following opening account balances in its general and subsidiary ledgers on 1 January. All accounts have normal debit and credit balances.

GENERAL LEDGER

No.	Account name	1 January opening balance
101	Cash	$ 64 350
112	Accounts Receivable	23 400
115	Commissions Receivable	70 200
120	Inventory	32 400
125	Office Supplies	1 800
130	Prepaid Insurance	3 600
157	Equipment	11 610
158	Accumulated Depreciation	2 700
201	Accounts Payable	63 000
301	P. Greta, Capital	141 660

ACCOUNTS RECEIVABLE SUBSIDIARY LEDGER

Customer	1 January opening balance
Couch City	$ 2 700
Table Tops Ltd	13 500
Lowell Chairs	7 200

ACCOUNTS PAYABLE SUBSIDIARY LEDGER

Creditor	1 January opening balance
Lee Importers	$16 200
Ikeah	27 000
Nordin Office Furniture	19 800

Jan. 3 Sell inventory on credit to The Furniture Warehouse $5580, invoice no. 510, and Beautiful Homes Ltd $3240, invoice no. 511.
5 Purchase inventory from Walden & Co. $5400 and D. Landell $3960.
7 Receive cheques for $7200 from Lowell Chairs and $3600 from Table Tops Ltd. Discount allowed $72 and $36, respectively.
8 Pay freight on inventory purchased $324.

Jan.	9	Send cheques to Lee Importers for $16 200 and Nordin Office Furniture for $19 800. Discount received $162 and $297 respectively.
	9	Issue credit note for $540 to Beautiful Homes Ltd for inventory returned (goods were not damaged and were returned to inventory).
	10	Summary cash sales total $27 900.
	11	Sell inventory on credit to Couch City for $2340, invoice no. 512, and to Lowell Chairs $1620, invoice no. 513.
	12	Pay rent of $1800 for January.
	13	Receive payment in full from The Furniture Warehouse and Beautiful Homes Ltd.
	15	Withdraw $1440 cash by P. Greta for personal use.
	16	Purchase inventory from Nordin Office Furniture for $27 000, from Lee Importers for $25 560, and from Walden & Co. for $2700.
	17	Pay $720 cash for office supplies.
	18	Return $360 of inventory to Lee Importers and receive credit.
	20	Summary cash sales total $31 500.
	21	Send cheque to Ikeah in payment of balance due.
	21	Receive payment in full from Lowell Chairs, discount allowed $162.
	22	Sell inventory on credit to The Furniture Warehouse for $3060, invoice no. 514, and to Couch City for $1440, invoice no. 515.
	23	Send cheques to Nordin Office Furniture and Lee Importers in full payment.
	25	Sell inventory on credit to Table Tops Ltd for $6300, invoice no. 516, and to Beautiful Homes Ltd for $10 980, invoice no. 517.
	27	Purchase inventory from Nordin Office Furniture for $26 100, from D. Landell for $2160, and from Walden & Co. for $5040.
	28	Pay $360 cash for office supplies.
	31	Summary cash sales total $38 340.
	31	Pay sales salaries of $7740 and office salaries of $4680.
	31	Received $70 200 commission revenue owing at the end of December 2017.

The chart of accounts includes the following accounts: 306 P. Greta Drawings, 350 Profit or Loss Summary, 401 Sales, 412 Sales Returns and Allowances, 415 Discount Received, 417 Commissions Revenue, 510 Purchases, 512 Purchases Returns and Allowances, 516 Freight Inwards, 627 Sales Salaries Expense, 711 Depreciation Expense, 722 Insurance Expense, 725 Discount Allowed, 727 Office Salaries Expense, 728 Office Supplies Expense and 729 Rent Expense.

Required

(a) Record the January transactions in the appropriate journal: sales, purchases, cash receipts, cash payments and general.

(b) Post the journals to the general and subsidiary ledgers. New accounts should be added and numbered in an orderly fashion as needed.

(c) Prepare a trial balance as at 31 January 2018 using a worksheet. Complete the worksheet using the following additional information.

1. Office supplies at 31 January total $900.
2. Insurance cover expires on 31 October 2018.
3. Annual depreciation on the equipment is $2700.
4. Commissions revenue of $39 600 has accrued during January.
5. Inventory at 31 January is $28 800.

(d) Prepare a fully classified statement of profit or loss for January and a classified statement of financial position at the end of January.

(e) Prepare and post the adjusting and closing entries.

(f) Prepare a post-closing trial balance, and determine whether the subsidiary ledgers agree with the control accounts in the general ledger.

FINANCIAL REPORTING AND ANALYSIS

FINANCIAL REPORTING PROBLEM: *Domino's Pizza Enterprises Ltd*

BBS6.1 The 2013 annual report of Domino's is presented in appendix A at the back of this book. Information about which control accounts, subsidiary ledgers and special journals the entity uses is not disclosed in the financial statements. However, by looking at the nature of the entity's activities and the types of accounts used, you can infer which subsystems it might use.

Required

(a) Look at the annual report and, from the information disclosed, list the control accounts, subsidiary ledgers and special journals that you think Domino's might use. Explain why you believe they might use each of these.
(b) List the advantages and disadvantages for Domino's in using control accounts, subsidiary ledgers and special journals.
(c) Review the Corporate Governance section of the annual report. Using the ASX *Corporate Governance Principles and Recommendations (Third Edition)*, discuss whether Domino's corporate governance statement meets the ASX guidelines.

FINANCIAL REPORTING PROBLEM — MANUAL MINI PRACTICE SET

BBS6.2 (The working papers that accompany this question are available within the course management system that accompanies the text.)

Baycity Music Shop uses both an accounts receivable and an accounts payable subsidiary ledger. Balances related to both the general ledger and the subsidiary ledger for Baycity Music Shop are indicated in the working papers. Presented below are a series of transactions for Baycity's Music Shop for the month of January. Credit sales terms are 2/7, n/30. The cost of all inventory sold was 60% of the sales price.

Jan.	3	Purchase inventory from Guitar World $4200 and Drums R Us $3080, terms n/30.
	6	Sell inventory on credit to J. Hendrix $4480, invoice no. 510, and to N. Jones $2520, invoice no. 511.
	7	Receive cheques from S. Levin $5600 and B. Jiminez $2800 after discount period has lapsed.
	8	Pay freight on inventory purchased $252.
	9	Send cheques to Microphones Ltd for $12 600 less 2% cash discount, and to Aging Violins for $15 400 less 1% cash discount.
	9	Issue credit note for $420 to N. Jones for inventory returned. The goods were *not* damaged and are returned to inventory.
	10	Cash sales total $21 700.
	11	Sell inventory on credit to R. Danforth $1820, invoice no. 512, and to S. Levin $1260, invoice no. 513.
	12	Pay rent of $1400 for January.
	12	Receive payment in full from J. Hendrix and N. Jones less cash discounts.
	15	Withdraw $1120 cash by Peter Dawes, the owner of Baycity's Music Shop, for personal use.
	15	Borrowed $14 000 from the bank.
	16	Receive payment from S. Levin less cash discount.
	17	Purchase inventory from Aging Violins $22 400, terms 1/7, n/30; Microphones Ltd $19 880, terms 2/7, n/30; and Guitar World $2100, terms n/30.
	17	Pay $560 cash for office supplies.
	18	Return $280 of inventory to Microphones Ltd and receive credit note.
	20	Cash sales total $24 500.
	21	Send cheque to R. Manual in payment of balance due.

Jan. 22 Sell inventory on credit to J. Hendrix $3780, invoice no. 514, and to R. Danforth $1120, invoice no. 515.
23 Send cheques to Aging Violins and Microphones Ltd less cash discounts.
25 Sell inventory on credit to B. Jiminez $4900, invoice no. 516, and to N. Jones $8540, invoice no. 517.
27 Purchase inventory from Aging Violins $20 300, terms 1/7, n/30; Drums R Us $1680, terms n/30; and Guitar World $6720, terms n/30.
28 Pay $280 cash for office supplies.
31 Cash sales total $29 820.
31 Pay sales salaries $6020 and office salaries $3640.
31 Received a deposit $500 from N. Jones for a custom-made guitar to be delivered in February.

Required

(a) Record the January transactions in a sales journal, a single-column purchases journal, a cash receipts journal as shown in figure 6A.4 (p. 363), a cash payments journal as shown in figure 6A.11 (p. 368), and a two-column general journal.
(b) Post the journals to the subsidiary and general ledgers.
(c) Prepare a trial balance as at 31 January 2017, in the trial balance columns of the worksheet. Complete the worksheet using the following additional information:
1. Office supplies at 31 January total $700.
2. Insurance coverage expires on 31 October 2017.
3. Annual depreciation on the equipment is $1500.
4. Interest of $840 has accrued on the bank loan.
(d) Prepare a fully classified statement of profit or loss for January, a statement of changes in equity (refer to figure 1.9, p. 22) at the end of January, and a classified statement of financial position at the end of January.
(e) Prepare and post the adjusting and closing entries.
(f) Prepare a post-closing trial balance, and determine whether the subsidiary ledgers agree with the control accounts in the general ledger.

COMPUTERISED ACCOUNTING PROGRAMS — AN INTRODUCTION

BBS6.3 There are many businesses that sell computerised accounting software packages such as MYOB and QuickBooks. Many businesses provide detailed product information on the web page and some will even allow potential customers to try the software before purchasing it. If you would like to try using a computerised accounting system you can go to the MYOB web page www.myob.com.au/products/accounting/ and the QuickBooks web page http://quickbooks.intuit.com/ to learn about and try the software.

CRITICAL THINKING

GROUP DECISION CASE

BBS6.4 Ling & Jessop is a retail outlet for antique books that provides a book repair service and also sells rare music manuscripts. Ling & Jessop is operated by Cam Ling and Tim Jessop. Mildred Mildew is a repair specialist who works for Ling & Jessop on a fixed salary. Revenues are generated through the sale of antique books (approximately 75% of total revenues), rare manuscripts (10%) and the repair of old books brought to the store (15%). Book sales are made on both a credit and cash basis. Customers receive prenumbered sales invoices. Credit terms are always net/30 days. All manuscript sales and repair work are cash only.

Inventory is purchased on account from various antique book and manuscript dealers. Virtually all suppliers offer cash discounts for prompt payment, and it is company policy to take all discounts. Most cash payments are made by cheque. Cheques are most frequently issued to suppliers, to transport companies for freight on inventory purchases, and to newspapers, radio and TV stations for advertising. All invoices for advertising are paid as received. Cam and Tim each make a monthly drawing in cash for personal living expenses. The salaried repairwoman is paid fortnightly.

Ling & Jessop currently has a manual accounting system. Cam Ling is concerned about the inefficiencies in journalising and posting transactions with the manual system. Two additional bookkeepers were employed a month ago, but the inefficiencies have continued at an even higher rate. However, Tim is old-fashioned and refuses to install an electronic accounting system.

Required

With the class divided into groups, answer the following.

(a) Identify the special journals that Ling & Jessop should have in its manual system. List the column headings appropriate for each of the special journals.

(b) What control and subsidiary accounts should be included in Ling & Jessop's manual system? Why?

(c) Explain why the additional personnel did not help.

(d) What changes should be made to improve the efficiency of the accounting system?

COMMUNICATION ACTIVITY

BBS6.5 CRM stands for customer relationship management. As customers are at the centre of business success, it is essential for companies to understand and satisfy customer needs.

Your friend, Marlene Jones, is going to start a computer dating business and wants you to prepare a report on CRM using the Web as a research tool. You will be paid $5000 and your friend would like you to include answers to the following questions in your report.

(a) What is CRM?

(b) What technologies can be used in CRM?

(c) What are the goals of CRM?

(d) What are the benefits of CRM?

ETHICS CASE

BBS6.6 Tyler Products Ltd operates three divisions, each with its own manufacturing factories and marketing/sales force. The corporate headquarters and central accounting office are in Sydney, and the factories are in Moorebank, Smithfield and Tempe, all within 50 kilometres of Sydney. Corporate management treats each division as an independent profit centre and encourages competition among them. They each have similar but different product lines. As a competitive incentive, bonuses are awarded each year to the employees of the fastest growing and most profitable division.

Don Henke is the manager of Tyler's centralised computer accounting operation that records the sales transactions and maintains the accounts receivable for all three divisions. Don came up in the accounting ranks from the Tempe division where his wife, several relatives, and many friends still work.

As sales documents are entered into the computer, the originating division is identified by code. Most sales documents (95%) are coded, but some (5%) are not coded or are coded incorrectly. As the manager, Don has instructed the data entry staff to assign the Tempe code to all uncoded and incorrectly coded sales documents. This is done, he says, 'in order to expedite processing and to keep the computer files current since they are updated daily'. All receivables and cash collections for all three divisions are handled by Tyler as one subsidiary accounts receivable ledger.

Required

(a) Who are the stakeholders in this situation?

(b) What are the ethical issues in this case?

(c) How might the system be improved to prevent this situation?

RESEARCH CASE

BBS6.7 In the 2014 annual report for Domino's Pizza Enterprises Ltd, Don Meij, the chief executive officer/managing director of Domino's, stated at the end of his report:

> **Future Developments**
> In Australia and New Zealand, the focus will be to continue to increase and leverage our digital capabilities and maximize online sales. In conjunction with this, the Company is also targeting record new organic store openings across metro and regional markets. The Company has recently developed a next generation store image, which will keep our stores relevant to customers. The key area of differentiation for the upcoming year is the development of the Pizza Mogul system. Coupled with 'Cheaper Everyday $4.95' pricing, the expectation is that customer counts will continue to grow.
>
> In Japan, the key areas of focus in FY15 will be the continuation of new store rollouts, including the expansion of our recently created 'Can Do! Partners' franchisee financing program and increasing our presence across a range of immature markets. Stores will also continue to be relocated to higher profile sites in a bid to increase the growth in carry out sales. A new HTML5 web site will be launched in November 2014.

Required

Using the internet as a research tool, access multiple types of information available that indicate whether or not Don Meij has been successful in achieving the goals listed in the 2014 annual report. As a start, you can search the company's web site at www.dominos.com.au then select 'Domino's Corporate' and/or 'investors' and/or 'media' where you will find company reports, presentations and media releases that will assist you in answering these questions. Please reference your information sources appropriately by including the:

- document name
- web address
- date accessed.

You might also like to keep a hard or soft copy of the data you access as information that is currently available may not be available at a later date when the site is updated.

SUSTAINABILITY

BBS6.8 Jewels, Jewels and More Jewels Ltd is one of the largest sellers of diamonds in Australia. It has more than 50 stores nationwide and sells on the internet as well. This morning, Jane Peterson, one of the senior managers of Jewels, Jewels and More Jewels Ltd, read an article in the press accusing Big Diamond Factory, one of its major suppliers, of having acquired 'blood diamonds'. Blood diamonds are also called conflict diamonds because they are mined in war-torn African countries by the rebels to fund their efforts. The rebels are known to abuse human rights by murdering and enslaving the local populations to mine the diamonds. Jane can't believe it and calls you into her office to prepare a report for all senior staff.

Required

(a) Explain the concept Corporate Social Responsibility (CSR).
(b) Discuss in detail, the impact this information could have on Jewels, Jewels and More Jewels Ltd.
(c) What could the management of Jewels, Jewels and More Jewels Ltd do to avoid negative consequences?

Answers to self-study questions

1. d 2. d 3. b 4. c 5. a 6. c 7. b 8. a 9. b 10. c
11. d 12. a 13. d 14. c 15. a 16. b 17. a 18. c

CHAPTER 7

REPORTING AND ANALYSING CASH AND RECEIVABLES

LEARNING OBJECTIVES

After studying this chapter, you should be able to:

1. Identify the effect of business transactions on cash.
2. Describe electronic banking processes.
3. Explain the application of internal control principles for handling cash.
4. Prepare a bank reconciliation.
5. Discuss the basic principles of cash management.
6. Assess the adequacy of cash.
7. Identify the different types of receivables.
8. Describe how to value receivables.
9. Describe how receivables are reported in financial statements.
10. Analyse and manage receivables.
11. Explain the operation of a petty cash fund.

KEEPING THE GOODNESS OF LIFE FLOWING

Low fat, no fat, skim, trim, smarter white, full cream . . . What is your preferred choice of milk? As you drink your favourite coffee in the morning, have you ever wondered about the process from which every drop of goodness is derived?

If you live in New Zealand, there is a high chance that the milk in your coffee is produced by Fonterra. In 2013, the company produced 22 billion litres of milk — imagine how many cows it took to produce that much milk! Not only does the company process 90% of New Zealand's milk, it was also ranked as the leading global milk processor by the International Farm Comparison Network. The company generates more than 25% of New Zealand's annual export earnings — in excess of NZ$18 billion in 2013. It's responsible for more than one-third of international dairy trade. With its impressive production and sales record, it's no wonder Fonterra is one of the top four dairy companies in the world by turnover. So what path did Fonterra take to achieve the success it enjoys today?

Fonterra's story can be dated back to 1814 when the first cattle imported by early European settlers arrived in New Zealand. The first dairy cooperative was created in Otago in 1871 — the first of more than 400 co-ops to be established throughout New Zealand. Refrigeration in 1882 opened new markets to the country's agricultural industry and, as a result, substantial trade to the United Kingdom developed. Many different kinds of dairy products exported to a range of markets since the early 1970s have changed the landscape of the industry, which eventually included major consolidation. In 2001, Fonterra was formed from the merger of the two largest cooperatives, New Zealand Dairy Group and Kiwi Co-operative Dairies, together with the New Zealand Dairy Board, which had been the marketing and export agent for all the cooperatives. Today, the company is 100% owned and controlled by nearly 16 000 dairy farmers, representing the interests of about 95% of New Zealand's dairy farmers. Besides milk, Fonterra also produces a wide range of dairy products including cheese, butter, yoghurt, ice-cream and snacks for customers in more than 140 countries. It also markets popular brands such as Anchor, Bega, Mainland, Tip Top and Western Star.

Running a dairy farm, be it a family farm with 30 cows or a partnership with 3000 cows, requires efficient use of cash and working capital. In addition to the initial outlay of cash to buy the herd of cows and milking equipment, cash is needed to pay for a range of everyday expenses, including the feed, fertilisers, fees for the vet and wages for workers on the farm. While some farms may sell a small portion of their milk product for cash in farmers markets, the receipts from Fonterra for the milk it collected make up the main source of their cash inflows.

To keep its farmers/shareholders happy and capable of supplying quality milk, Fonterra needs to pay them on time and on a 'right' price. The return to the dairy farmers involves complex calculations based on an estimate of the highest price an efficient competitor could pay for the milk and still make an adequate return. The actual payout

to the farmers is based on the actual revenue and actual costs, plus a value-added component and changes in the fair value of the shares. For its customers across the globe, Fonterra needs to assess their credibility so as to ensure that cash is collected on time and bad debt is kept to an acceptable low level.

So how much cash should Fonterra keep, what measures can it use to safeguard its working capital and manage its growing business without compromising the potential return to its farmers–shareholders? In this chapter, we look at how organisations like Fonterra account for and manage cash and receivables. We also explore how investors, suppliers and managers can use the information provided in these reports to analyse the most liquid asset of a company to make informed business decisions.

Source: **Adapted from information on Fonterra Co-operative Group Limited's web site and the 2014 annual report.**

On the World Wide Web
Fonterra Co-operative Group Limited: www.fonterra.com

PREVIEW OF CHAPTER 7

Cash is the lifeblood of any business. It is typically the most common asset with which all entities begin and is the basis for measuring and accounting for all business transactions. As cash is the most liquid asset and can be easily transferred from one person to another, large and small businesses alike must therefore guard it carefully. Managers must know both how to use cash efficiently and how to protect it.

Another current asset closely associated with cash is accounts receivable. Increasingly, many business transactions are conducted on a credit basis. Manufacturers, wholesalers, retailers and service organisations regularly extend credit to buyers of their goods and services as a means of increasing sales. A common feature of all receivables is that they are generally regarded as highly liquid assets that are expected to be collected and converted into cash in the short term. There are possibilities that some debtors may not make payment on time and some may not pay at all due to insolvency or bankruptcy. As such, it is important that business owners and managers have the tools to analyse and manage credit risk.

In this chapter you will learn ways to reduce the risk of theft of cash, how to report cash and receivables in the financial statements, and how to manage these assets through the course of the entity's operating cycle. The content and organisation of the chapter are as follows.

REPORTING AND ANALYSING CASH AND RECEIVABLES

Cash and credit transactions
- Business transactions and cash
- Credit and electronic banking

Safeguarding and managing cash
- Internal control over cash
- Bank reconciliation
- Managing and monitoring cash
- Cash budget
- Assessing cash adequacy

Recording and reporting receivables
- Accounting for receivables
- Analysing and managing receivables

Appendix: Operation of the petty cash fund
- Establishing the fund
- Making payments from petty cash
- Replenishing the fund

LEARNING OBJECTIVE 1
Identify the effect of business transactions on cash.

CASH AND CREDIT TRANSACTIONS

Cash is an essential part of a business's assets. Broadly, for accounting purpose, **cash** includes cash on hand (i.e. coin and paper money held), cash at bank (i.e. a cheque account) and cash equivalents, which are highly liquid investments (i.e. quickly converted to cash), such as bank overdrafts, deposits on the money market and 90-day bank acceptance bills. Credit card and electronic banking has become increasingly important for settling transactions in the past decade. As such, cash also consists of duplicates of credit card and electronic funds transfer at point of sale (EFTPOS) sales that a bank or financial institution will normally accept as a deposit to an account.

BUSINESS TRANSACTIONS AND CASH

Many transactions have implications on an entity's cash flows in that almost every business transaction eventually results in an inflow or outflow of cash. Let's analyse the cash effect through a business cycle. Consider, for example, you are planning to start a mobile coffee kiosk business while you are studying at university. You will need to carefully consider the cash flow requirements in your business plan. For instance, how much cash you need to inject in the business (cash inflow) to invest in buying assets such as the coffee machine and the van (cash outflow). If you have limited cash available to contribute in the business, you may need to borrow funds from your parents or friends or even from a bank (cash inflow). During the normal course of operation, the business needs to purchase supplies such as coffee beans and cups either by cash purchase or purchase on account (cash outflow). Of course, every cup of coffee it sells brings in cash to the business (cash inflow). In a few years' time when you complete your degree, you may decide to sell the business as you want to travel the world. At that stage of the business lifecycle, there is cash inflow from selling the business assets. As you wind up the business, returning the capital to you or repaying the loan to the lenders represent the final cash outflow.

DECISION MAKING

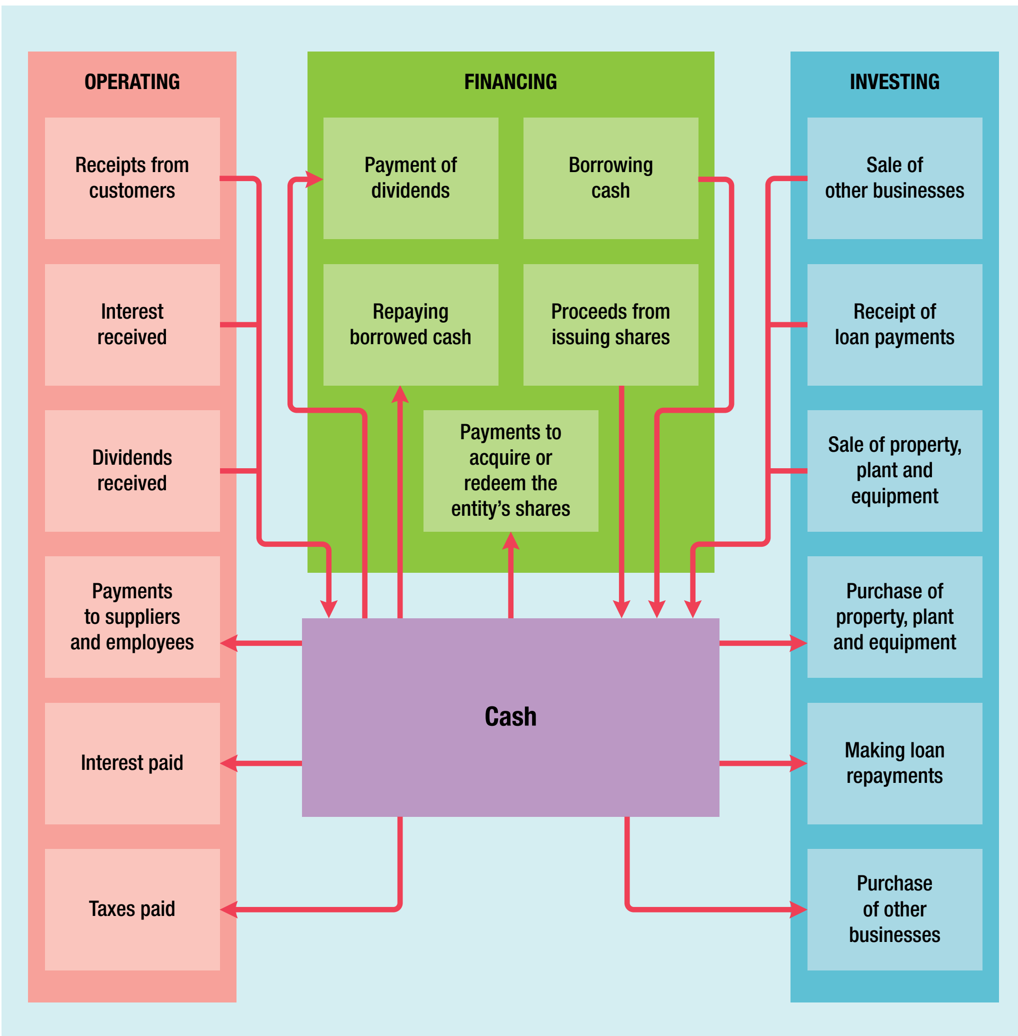


Figure 7.1 Effect of major accounting transactions on cash

Cash is at the heart of the business as it impacts on a number of profit or loss and statement of financial position accounts. For example, cash sales increase both cash (asset) and revenue (profit or loss) while cash payment for purchases of inventory decreases cash but increases inventory (asset). Figure 7.1 depicts the effects of major accounting transactions on cash. Essentially, all these transactions will be reported in the operating, investing or financing activities in the statement of cash flows, which you will learn in chapter 11. In summary, examples of transactions with inflows of cash include:

- revenue from cash sales of goods and services
- collection of cash from credit sales
- cash proceeds from divestment of assets
- cash received from business owners through issuance of shares
- cash received from borrowings.

Examples of transactions that cause outflows of cash include:

- cash payment for purchases of inventory
- cash payment for investment in assets such as property, plant and equipment
- cash payment for business expenses such as payroll and rent
- payment to business owners in the form of dividend or return of capital
- interest and loan payment to financial institution.

LEARNING OBJECTIVE 2

Describe electronic banking processes.

CREDIT AND ELECTRONIC BANKING

Increasingly, business transactions nowadays are settled electronically thanks to the convenience brought about by 'plastic money'. Having access to credit cards and bank cards means that customers can shop without physically carrying cash. What's more, in the last couple of years, advances in mobile phone technology have made it possible for people to move from credit card to mobile phone for payments. Perhaps you have a smartphone and have downloaded apps to allow you to conduct transactions whenever and wherever you like with a touch of the screen on your phone.

The convenience of easy access to credit cards has also brought about ballooning credit card debts in the last decade. Because of the high interest rate charged on credit cards, it is very important for us to be 'money-smart'. Here are some smart ways to use credit cards: (1) shop around to get a card with the lowest annual fee (some banks may offer no fees cards); (2) negotiate to get as long an interest-free period as possible; (3) use a credit card, rather than EFTPOS from your savings account, to pay for everyday expenses; (4) once you receive the credit card statements, make sure that you pay the outstanding balance in full by the due date. In this way, you can essentially use the credit card for free while you can keep earning interest on your savings account. Better still, some credit cards also come with reward programs so that you can accumulate reward points to redeem gift cards or products of your choosing. But the catch is that you should always pay the outstanding balance in full, and importantly, by the due date. Failing to do that will result in not only a late fee being charged, but also it means that you will be incurring interest on any new purchases made on your card until the full balance is paid in full.

For business owners, although a merchant or bank fee is involved in using electronic funds transfer at point of sale (EFTPOS), accepting payments electronically can bring in several benefits, the most obvious being a possible saving in staffing cost as there is less handling of cash required. For internal control purposes, cash presents a high risk of being misappropriated. Linking the business's accounting system to its electronic banking provider(s) enables the business to establish a clearer paper trail and thus reduces the possibility of mishandling cash. We will discuss credit card sales in more detail later in the chapter. For the moment, let's take a closer look at how electronic banking works.

Alternative terminology

Electronic banking is also referred to as *internet banking*, *e-banking*, *virtual banking* and *online banking*.

Electronic banking is an electronic payment system that enables customers of a financial institution to conduct financial transactions on a web site operated by the institution, such as a bank, credit union or building society. To access a financial institution's online banking facility, a customer with internet access would need to register with the institution for the service, and set up a password for customer verification. Once registered, a bank customer can transact banking tasks through online banking, including transferring funds between the customer's linked accounts and paying third parties, including bill payments through BPAY. A bank customer can also perform non-transactional tasks through online banking, including viewing account balances, viewing recent transactions, downloading bank statements and ordering cheque books and so on.

In the last decade, **electronic funds transfer (EFT)** has gained widespread acceptance as the cost of processing cheques through the banking system is high. Considerable delays of up to 5 working days exist in the clearing process for cheques. With EFT, money is transferred almost instantaneously from one location to another via the internet. Electronic banking not only speeds up the transfer of money, but also helps to reduce the transactional cost as there is less documentation of writing cheques and deposit slips, and less labour required.

APPLICATION IN BUSINESS

E-business perspective

The internet and e-commerce require a higher level of sophistication in data security as fraudsters become more experienced and new forms of fraud are committed each year. When time sensitive data gets into the hands of non-authorised individuals, it can constitute a data security breach. Malicious employees may take and use sensitive customer or employee information to commit fraud, identity theft or sell to other criminal organisations. Data breaches can cost companies million of dollars in terms of negative public perception and expensive damage control, even if the data is never used to commit fraud or used for identity theft. Thus, access control for signing on to computer networks and accounting applications such as MYOB and SAP is an important element of information system security. In recent years, more complex access controls, such as two-factor authentication, have been developed to combat e-commerce fraud. Two-factor authentication means that instead of using only one type of authentication factor, such as user login IDs and passwords, a second factor, such as a randomly generated One Time Password (OTP) token generated from a SecurID device are also used to authenticate access. IT experts are gaining confidence that online security solutions such as the two-factor authentication will make fraud much harder for criminals to attempt.

Source: Based on information from 'There is more than one way to plug enterprise data leaks', *TechNewsWorld*, 12 January 2010, *www.technewswolds.com*.

SAFEGUARDING AND MANAGING CASH

LEARNING OBJECTIVE 3

Explain the application of internal control principles for handling cash.

Cash is the one asset that is readily convertible into any other type of asset; it is easily concealed and transported; and it is highly desired. Moreover, because of the large volume of cash transactions, numerous errors may occur in executing and recording cash transactions. Therefore, having an effective mechanism in place to safeguard cash assets is essential. An internal control procedure such as performing a bank reconciliation regularly is one such measure to safeguard cash. Further, monitoring cash in terms of striking a balance between keeping too much cash on hand and running a low cash balance; and managing cash through careful cash budgeting, are also important tools for keeping businesses afloat. We will also look at ways to analyse the adequacy of cash to aid making informed business decisions.

INTERNAL CONTROL OVER CASH

Because cash is the asset most susceptible to misappropriation, i.e. improper use and theft, it is important to set up a strong internal control system for handling and recording cash transactions. Such a system must contain procedures for protecting cash on hand as well as for handling both cash receipts and cash payments.

Internal control over cash receipts

Cash receipts result from a variety of sources such as cash sales, cash in the form of cheques received from customers through the mail, the receipt of other income including interest, rents and dividends, cash from owners' capital contributions, bank loans and proceeds from the sale of non-current assets.

Procedures for the control of cash receipts from cash sales are based heavily on the principle of segregation of duties for record keeping and custodianship (discussed in chapter 6). Briefly, cash received from cash sales, on EFTPOS or on credit cards should be rung up on a cash register located in a position that permits the customer to see the amount recorded. The register prints a receipt that is given to the customer. Registers are usually linked directly to computers used by the accounting department or have a locked-in tape on which each cash sale is recorded. The cash in the register plus EFTPOS and credit card slips are counted and recorded on a preprinted form that is sent to the accounting department. The cash and slips are then forwarded to the cashier for deposit, and the tape is sent to the accounting department for preparing accounting entries.

Similarly, procedures for the control of cash received in the mail are based heavily on separation of record keeping and custodianship. The employee who opens the mail should prepare a list of the amounts received. One copy of the list is sent to the cashier along with the cash amounts. These amounts are combined with those from the cash registers in preparing the daily bank deposit. Another copy of the list is forwarded to the accounting department for preparing entries in the cash receipts journal and in customers' accounts.

In both cash sales and cash received in the mail, it should be emphasised that neither the cash register, the mail clerk nor the cashier should have access to the accounting records. Likewise, the accounting staff should not have access to cash. If properly carried out, these internal control procedures should minimise fraud unless there is collusion by two or more employees. The internal control principles applicable to cash receipts transactions are shown in figure 7.2. As might be expected, businesses vary considerably in how they apply these principles.

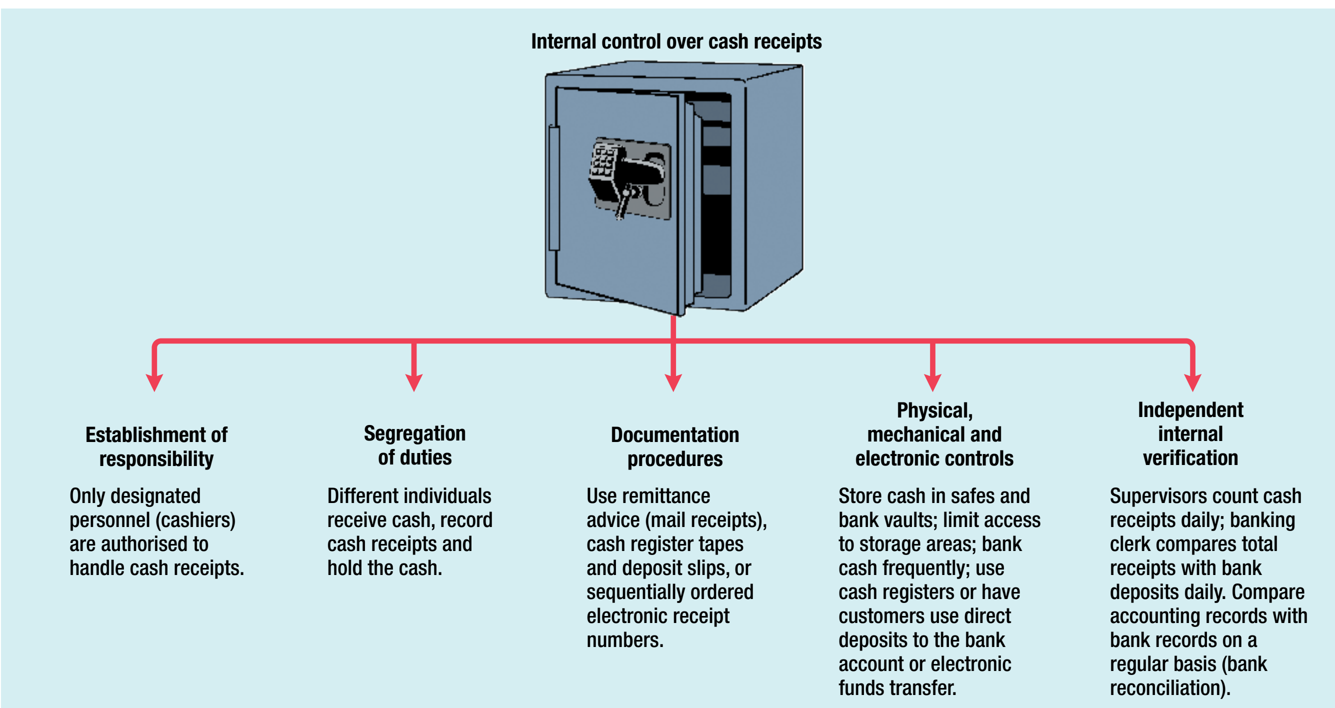


Figure 7.2 Application of internal control principles to cash receipts

Internal control over cash payments

Cash is disbursed (paid out) for a variety of reasons, such as to pay for cash purchases, to pay suppliers for goods and services bought on credit, to pay for expenses and liabilities or to purchase assets. Determining appropriate procedures for authorisation of electronic payments and the issue of cheques is key to effective control over cash payments. Similar to control over cash receipts, the establishment of responsibility and segregation of duties are important principltes for internal control over cash payments.

Generally, internal control over cash payments is more effective when payments are made by *using a bank account* rather than cash on hand, except for incidental amounts that are paid out of petty cash (discussed in the appendix to this chapter). Whether payment is through petty cash, by cheque or by using some form of EFT, it is generally made only after specified control procedures have been followed. For example, consider the payment of invoices received from suppliers for purchases made. Staff designated to approve invoices for payments should have no responsibility for preparing cheques or other payment instruments. They should verify that the goods or services represented by the invoice were properly ordered and actually received before authorising payment. On the other hand, employees responsible for signing cheques or approving electronic fund transfers should have no invoice approval or accounting responsibilities. Cheques should be signed only on receipt of a properly approved invoice. For payments exceeding a certain larger amount, some businesses require two signatories to approve these payments as an extra security check. Another control procedure is to cancel supporting documents after payment so that they are not used to support another payment.

Approved invoices, copies of the cheques and approved electronic transfers are then sent to the accounting department for preparing the appropriate entries to record the payments. If properly carried out, these internal control procedures would make it difficult for a fraudulent payment to be made without collusion by two or more employees. The principles of internal control apply to cash payments as shown in figure 7.3.

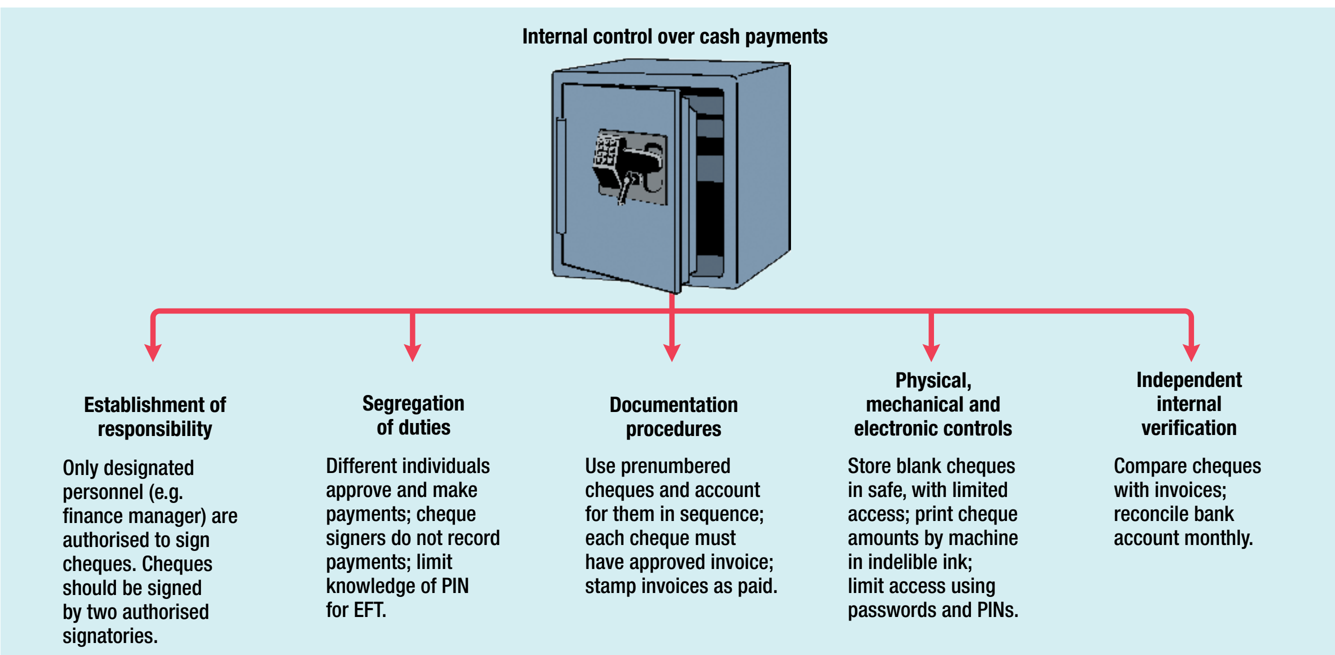


Figure 7.3 Application of internal control principles to cash payments

An essential element of internal control of cash is the requirement that each day's cash receipts are to be deposited intact into a bank account and that all payments are made by cheques drawn on that account or by properly authorised electronic funds transfer.

Petty cash fund

Better internal control over cash disbursements is possible when payments are made by cheque or electronic fund transfer. However, using cheques to pay such small amounts as those for postage, employees' working lunches and taxi fares is both impractical and a nuisance. A common way of handling such payments while maintaining satisfactory control is to use a petty cash fund. A **petty cash fund** is a cash fund used to pay relatively small amounts. Information regarding the operation of a petty cash fund is provided in the appendix to this chapter.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. How do the principles of internal control apply to cash receipts?
2. How do the principles of internal control apply to cash disbursements?
3. What is the purpose of a petty cash fund?

>> DO IT

Liam Jeffery is concerned about control over cash receipts in his fast-food restaurant, Healthy Snap. The restaurant has two cash registers. At no time do more than two employees take customer orders and ring up sales. Work shifts for employees range from 4 to 8 hours. Liam asks for your help in installing a good system of internal control over cash receipts.

REASONING: Liam needs to understand the principles of internal control, especially establishing responsibility, the use of electronic controls, and independent internal verification. With this knowledge, an effective system of control over cash receipts can be designed and implemented.

SOLUTION: Liam should assign a cash register to each employee at the start of each work shift, with register totals set at nil. Each employee should be instructed to use only the assigned register and to ring up all sales. At the end of each work shift, Liam or a supervisor/manager should total the register and make a cash count to see whether all cash is accounted for. Alternatively, orders could be entered by one employee and payments received by the other employee on duty.

LEARNING OBJECTIVE 4

Prepare a bank reconciliation.

BANK RECONCILIATION

The use of a bank contributes significantly to good internal control over cash. The business deposits money with the bank to open a bank account. The business can add to its bank account by making deposits, thus increasing its asset, cash at bank. From the bank's point of view, its customer's deposit is a liability because it is money that the bank is obliged to return to its customer.

A business can use the money in its bank account to pay other parties, such as suppliers, by writing a cheque or by EFT. In the case of a cheque, the business is the payer, and the supplier who is to receive the cheque is the payee. The cheque is drawn on the business's bank. This means that the bank is obligated to pay the amount shown on the cheque to the payee. When the bank pays the amount of the cheque, this is known as honouring the cheque. When a bank honours a customer's cheque, it deducts the money from the customer's bank account.

Alternative terminology

Some banks refer to honouring cheques as *clearing cheques*.

The asset account cash at bank, maintained by the business, is the reciprocal of the bank's liability account for that business. Conversely, if the business has overdrawn its bank account, the cash at bank account is a liability from the point of view of the business and a receivable, i.e. an asset, from the point of view of the bank. It should be possible to reconcile these accounts — make them agree — at any time.

Many businesses have more than one bank account. For efficiency of operations and better control, some businesses may have state or regional bank accounts. In addition, a business may maintain accounts with several different banks in order to have more than one source for obtaining short-term loans when needed.

Each month, the business receives from the bank a **bank statement** showing its bank transactions and balances. A list of bank transactions can also be downloaded from the bank's web site directly into accounting systems such as QuickBooks, MYOB and SAP. The statement for Justco Pty Ltd in figure 7.4 (p. 416) shows (1) cheques that have been presented and paid, electronic payments (e.g. Autopay, BPay) made during the month, as well as other debits that reduce the balance in Justco's account, (2) deposits (card entry), direct-deposit electronic transfers, other third-party deposits paid directly to the bank, and other credits that increase the balance in Justco's account, and (3) the account balance after each day's transactions.

Helpful hint

Essentially, the bank statement is a copy of the bank's records sent to the customer for periodic review.

Remember that bank statements are prepared from the *bank's* perspective. Therefore, every deposit received from Justco Pty Ltd by the Regional Bank of Australia is *credited* by the bank to Justco Pty Ltd. The reverse occurs when the bank honours, i.e. pays, a cheque issued by Justco Pty Ltd. Payments reduce the bank's liability and are therefore *debited* to Justco's account with the bank. This is the opposite of the entity's records, where payments reduce the entity's assets and are therefore credited to the cash at bank account.

All honoured cheques are listed on the bank statement in the order in which they are paid by the bank, along with the amount. The date refers to when the cheque is honoured by the bank. In addition, the bank statement explains other debits and credits made by the bank to its customer's account.

When a previously deposited customer's cheque 'bounces', it is called a **dishonoured cheque**. This means that the customer's bank has not honoured the cheque. This may occur if the customer does not have sufficient funds. In such a case, the cheque is returned to the depositor's bank. The bank then debits (decreases) the depositor's account, as shown in figure 7.4 (RET of $25 on 26 August, p. 416). The bank typically charges the account holder a fee for having deposited a cheque that was subsequently dishonoured. The dishonoured cheque and the dishonoured cheque fee reduce the amount of cash in the bank account.

Helpful hint

Bank fees are financial supplies and no GST is charged.

RECONCILING THE BANK ACCOUNT

A bank reconciliation involves a comparison between the bank's records and the business's cash receipts journal, cash payments journal and cash at bank ledger account. Because the bank and the business maintain independent records of the business's bank account, you might assume that the respective balances will always agree. In fact, the two balances are seldom the same at any given time. Therefore it is necessary to make the balance in the business's records agree with the balance as per the bank — a process called reconciling the bank account. The lack of agreement between the balances has two causes:

- *timing differences*, when one of the parties records the transaction in a different period from the period used by the other party
- *errors* by either party in recording transactions.

Timing differences occur frequently. For example, several days may elapse between the time a business pays by cheque and the date the cheque is honoured by the bank. A cheque that has been drawn by the payer but not yet paid by the bank is called an **unpresented cheque**. Similarly, when a business uses the bank's night safe to make its deposits, there will be a difference of one day between the time the receipts are recorded by the business and the time they are recorded by the bank. Business deposits that do not yet appear in the bank records are called **outstanding deposits**. A time lag also occurs whenever the bank makes a direct entry, such as bank charges, to the business's bank account.

Helpful hint

All cheques drawn by the entity, even unpresented cheques, are recorded in the cash payments journal. This is because an unpresented cheque is one that has been drawn by the business as payment for an amount owing, but the party receiving the cheque did not present the cheque to the bank for payment before the bank statement was printed.

The incidence of errors depends on the effectiveness of the internal controls maintained by the business and the bank. Bank errors are infrequent. However, either party could inadvertently record a $450 cheque as $45 or $540. In addition, the bank might mistakenly deposit money to the wrong account.

Alternative terminology

An unpresented cheque is also called an *outstanding cheque*. An outstanding deposit is sometimes referred to as a *deposit in transit*.

Reconciliation procedure

To obtain maximum benefit from a bank reconciliation, the reconciliation should be prepared by an employee who has no other responsibilities pertaining to the bank account. When the internal control principle of independent internal verification is not followed in preparing the reconciliation, cash embezzlements may escape unnoticed.

Helpful hint

Outstanding deposits and unpresented cheques are reconciling items that result from timing differences.

Most businesses prepare a bank reconciliation at least monthly. Bank reconciliations are ongoing. The following steps should reveal all the reconciling items that cause the difference between the bank statement balance and the cash records of the business.

Step 1

Compare the amounts listed on the bank statement (bank records) to the *previous* month's bank reconciliation statement and to the *current* month's cash receipts and cash payments journals (business records).

First, review the previous month's bank reconciliation statement and place a tick beside any amounts appearing on the current month's bank statement that were recorded as outstanding on the bank reconciliation statement from last month (i.e. unpresented cheques and/or outstanding deposits). Place a tick beside the figures on *both* the bank statement and the previous bank reconciliation statement. After this process is complete, any amounts that remain outstanding (e.g. unpresented cheques) must be carried forward, i.e. entered on the *current* bank reconciliation statement. These should then be investigated to determine the reason they remain outstanding.

Second, match the individual deposits recorded on the bank statement with the deposits recorded in the cash receipts journal and place a tick near each of the items appearing in both places. Match the individual presented cheques recorded on the bank statement with the cheques issued by the business and recorded in the cash payments journal. Place a tick near each of the items appearing in both places, and check that *both* the cheque numbers and the cheque amounts correspond exactly. Similarly, match the individual electronic fund transfer items (e.g. Autopay, BPay) recorded on the bank statement and recorded in the cash payments journal.

As the first and second parts of this step are completed, discrepancies may be uncovered. Such discrepancies may be due to errors made in the recording of cheques or deposits either by the business or by the bank. For example, if a presented cheque correctly written by the entity for $195 is mistakenly recorded in the cash payments journal as $159 (transposition error), the resulting error of $36 should be corrected. Errors made by the business should be corrected in the cash journals. In the example above, the understated cheque should be corrected in the cash payments journal by recording an adjustment entry to increase cash payments by $36. Errors made by the bank are reconciling items. The business should inform the bank of the error so that it can be corrected by the bank, and the error should be listed in the business's current bank reconciliation statement.

Step 2

Identify items on the bank statement that remain unticked. These are items initiated by the bank and include dishonoured cheques and cash transactions made directly through the bank but not yet recorded in the business's records. These should be entered in the appropriate cash journals and ticked in these records and on the bank statement.

The remaining unticked items in the cash receipts journal are outstanding deposits. The remaining items in the cash payments journal are unpresented cheques. Both are reconciling items. Any unticked outstanding deposits or unpresented cheques from the previous bank reconciliation are carried forward as reconciling items.

Step 3

The cash journals should then be totalled and posted to the cash at bank ledger account. The balance of the account should then be determined.

Step 4

The balance as per cash at bank (as determined in step 3) is often different to the bank statement balance. The bank reconciliation statement accounts for the differences. The bank reconciliation statement can be completed, starting with the balance as per bank statement. Reconciliation items that increase the bank account, such as outstanding deposits, should be added to the balance as per bank statement. Reconciliation items that decrease the bank account, such as unpresented cheques drawn by the business, should be subtracted from the balance as per bank statement. If the balance as per bank statement is in debit, i.e. an overdraft, subtract the outstanding deposits and add unpresented cheques. The balance as per bank statement, adjusted for reconciliation items, should then equal the balance as per the cash at bank ledger account.

Bank reconciliation illustrated

The bank statement for Justco Pty Ltd is illustrated in figure 7.4 (p. 416). The bank statement shows a balance of $399.10 at 31 August 2016. Note that it is a credit balance from the perspective of the bank because the bank has a liability to Justco Pty Ltd. The previous month's bank reconciliation is illustrated in figure 7.5 (p. 417). Extracts from the cash receipts journal and cash payments journal for Justco Pty Ltd are illustrated in figures 7.6 and 7.7 (pp. 417–18), respectively.

The first step in the bank reconciliation includes comparing the deposits on the bank statement with those shown as outstanding in the previous bank reconciliation and those subsequently listed in the entity's cash receipts journal. For example, the outstanding deposit of $119.50 shown on the July bank reconciliation (figure 7.5, p. 417) corresponds to the deposit shown on the bank statement on 4 August. Both can now be ticked or otherwise marked. Note that cash receipts for the same day are entered separately in the cash receipts journal but have been combined to form one deposit as shown in the amount banked column. For example, cash receipts on 2 August of $110.60 and $195.18 are combined in the card entry deposit of 2 August of $305.78 shown on the bank statement. After completing the process of matching bank deposits with the entity's records of cash receipts, an outstanding deposit of $219.40 is identified. This was entered in the cash receipts journal on 31 August, but will not be recorded in the bank's records or appear on the bank statement until September. This outstanding deposit, marked o/s, will need to be added to the bank statement balance in the bank reconciliation statement (figure 7.9 on p. 419).

The first step also involves comparing presented cheques appearing on the bank statement with the cash payments journal and the unpresented cheques appearing on the previous bank reconciliation. The unpresented cheque from the July bank reconciliation (figure 7.5, p. 417) was presented on 2 August and it can now be ticked on both the bank statement and the previous bank reconciliation. This process reveals timing differences — four cheques remain unpresented at the end of August. The four cheques, numbered 1922, 1923, 1924 and 1925, are marked o/s and therefore will be included in the bank reconciliation statement. Note also that cheque number 1916 was recorded in the cash payments journal as a payment of $31.80 but an amount of $32.80 was recorded on the bank statement. Assume for the purpose of this illustration that examination of the invoice reveals that the bank statement is correct and that the error was in the way that the cheque was recorded in the cash payments journal. In other words, this error originated from the company's record and therefore an adjusting entry must be made in the cash payments journal to increase cash payments by $1.00 for cheque 1916 dated 31 August, as shown in figure 7.7 (p. 418).

The second step involves identifying items on the bank statement that have been initiated by the bank and entering them in the cash journals. This process reveals three items initiated by the bank: dishonoured cheque (RET); account fees and transaction fees that have been charged by the bank. The treatment of these items is explained in the next paragraph.

STATEMENT OF ACCOUNT WITH

Regional Bank of Australia

Melbourne, Vic.

NAME OF ACCOUNT	ACCOUNT NO.	PAGE
Justco PTY LTD	801055	30

DATE	PARTICULARS	DEBIT	CREDIT	BALANCE
2016				
August 1	Balance			312.40 Cr
2	1910	5.15✓		307.25 Cr
	Card entry St Kilda branch		119.50✓	426.75 Cr
	1899	56.00✓		370.75 Cr
	Card entry St Kilda branch		305.78✓	676.53 Cr
4	1911	298.30✓		378.23 Cr
5	1912	25.50✓		352.73 Cr
	Standing Order Autopay	275.00✓		77.73 Cr
	1914	25.00✓		52.73 Cr
	Direct transfer Hayden Ltd		60.00✓	112.73 Cr
8	1913	49.18✓		63.55 Cr
	Direct transfer F. Perry & Son		310.50✓	374.05 Cr
12	1915	112.15✓		261.90 Cr
	Standing Order Autopay	275.00✓		13.10 Dr
	Card entry Camberwell branch		391.95✓	378.85 Cr
14	1917	15.00✓		363.85 Cr
	1918	30.75✓		333.10 Cr
15	Direct entry D. Logovic		111.15✓	444.25 Cr
16	1916	32.80✓		411.45 Cr
19	1919	94.10✓		317.35 Cr
	Standing Order Autopay	275.00✓		42.35 Cr
	Card entry Camberwell branch		305.00✓	347.35 Cr
25	Card entry Camberwell branch		265.68✓	613.03 Cr
26	Standing Order Autopay	275.00		338.03 Cr
	1920	16.90✓		321.13 Cr
	Ret	25.00✓		296.13 Cr
29	1921	38.32✓		257.81 Cr
	Account fees	11.00✓		246.81 Cr
	External BPay-ATO	42.60✓		204.21 Cr
	Card entry St Kilda branch		204.39✓	408.60 Cr
	Transaction fees	9.50✓		399.10 Cr

DATE OF ISSUE	TOTAL DEBITS	TOTAL CREDITS	**BALANCE**
31 August 2016	1987.25	2073.95	399.10 Cr

(*Note:* Ticks have been added as part of the reconciliation procedure in the illustrative example beginning on page 433.)

A number of abbreviations have been used. Some of the typical ones which may be used are set out below:

BC	Proceeds bill for collection	INT	Interest on account
Cr	Account in credit	MSC	Miscellaneous charge
CBK	Cheque book	PA	Payment under authority
CHQ	Deposit inc. cheque(s)	PCR	Periodic credit received
COM	Commission	PN	Promissory note
CSH	Cash deposit	REP	Unpaid cheque represented
CTI	Interest on Commonwealth Bonds	RET	Cheque returned unpaid debited to account (dishonoured cheque)
DEP	Deposit		
DIV	Dividend	REV	Reversal of entry
Dr	Account in debit	TRA	Transactions fee
FEE	Charge for keeping account	TFR	Transfer from other bank/branch

Note: A modern trend is the use of full descriptions of entries in the statement rather than abbreviations. These details differ from one financial institution to another.

Figure 7.4 Bank statement

JUSTCO PTY LTD Bank reconciliation as at 31 July 2016 (previous month)		
Balance as per bank statement	Cr	$312.40
Add: Outstanding deposit		119.50 ✓
		431.90
Less: Unpresented cheque no. 1899		56.00 ✓
Balance as per cash at bank account	Dr	$375.90

Note: Ticks are added as part of the reconciliation process.

Figure 7.5 Bank reconciliation for previous month

The dishonoured cheque (RET) related to a cheque of $25 received from R. Richards (a customer on account) which was deposited in Justco's bank account on 19 August (as part of the card entry deposit of $305). This original transaction was recorded in the company's cash receipts journal as a debit to cash at bank and a credit to accounts receivable. When this cheque subsequently bounced, the company needed to 'reverse' the original transaction by reducing the cash at bank column by $25 (a negative cash receipt) and increasing the accounts receivable column by $25. This entry is shown on 27 August in figure 7.6.

The two bank charges were deducted from the bank statement balance. However, the company's book balance has not recorded these deductions. Therefore, these two items should be entered in the cash payments journal. The entries are illustrated in figure 7.7 (overleaf).

Cash receipts journal

Date	Account	Post ref.	Discount allowed Dr	Cash at bank Dr	Accounts receivable Cr	Sales Cr	Other accounts Cr	Amount banked
2016								
Aug. 2	M. Mason	✓		✓ 110.60	110.60			
	Sales			✓ 195.18		195.18		305.78
5	Hayden Ltd	✓		✓ 60.00	60.00			60.00
8	F. Perry & Son	✓		✓ 310.50	310.50			310.50
12	Sales			✓ 136.20		136.20		
	H. Lawson	✓		✓ 85.00	85.00			
	W. Wentworth	✓		✓ 170.75	170.75			391.95
15	Sales			✓ 111.15		111.15		111.15
19	R. Richards	✓		✓ 25.00	25.00			
	Morley Co-op	✓		✓ 280.00	280.00			305.00
25	Sales			✓ 77.18		77.18		
	M. Mason	✓		✓ 140.00	140.00			
	Hayden Ltd	✓		✓ 48.50	48.50			265.68
27	R. Richards (dish. ch.)	✓		✓ (25.00)	(25.00)			
29	Sales			✓ 204.39		204.39		204.39
31	Sales			o/s 219.40		219.40		219.40
				$2 148.85	$1 205.35	$943.50		
				(100)	(110)	(400)		

Note: Ticks and o/s (for outstanding deposit) in the cash at bank column are added as part of the reconciliation process.

Figure 7.6 Extract from cash receipts journal of Justco Pty Ltd

Cash payments journal								
Date	Chq. no.	Account debited	Post ref.	Accounts payable Dr	Other accounts Dr		Cash at bank Cr
2016							
Aug. 1	1910	Office supplies	116		5.15	✓	5.15
	1911	Wm. Prince & Co. Ltd	✓	298.30		✓	298.30
4	1912	Advertising expense	560		25.50	✓	25.50
5	1913	R. Bill & Co.	✓	49.18		✓	49.18
		Standing order autopay—wages & salaries	550		275.00	✓	275.00
	1914	Petty cash	105		25.00	✓	25.00
8	1915	L. Edwards & Son	✓	112.15		✓	112.15
12	1916	Truck maintenance	545		$\boxed{31.80}$		31.80
		Standing order autopay—wages & salaries	550		275.00	✓	275.00
14	1917	Travel expenses	532		15.00	✓	15.00
16	1918	Commission expense	520		30.75	✓	30.75
18	1919	Wm. Prince & Co. Ltd	✓	94.10		✓	94.10
19		Standing order autopay—wages & salaries	550		275.00		275.00
24	1920	Light & Power	540		16.90	✓	16.90
26		Standing order autopay—wages & salaries	550		275.00	✓	275.00
27	1921	J. Norton	✓	38.32		✓	38.32
		External BPay—ATO	570		42.60	✓	42.60
29	1922	Donation—Red Shield	575		10.00	o/s	10.00
	1923	L. Edwards & Son	✓	77.40		o/s	77.40
31	1924	Freight inwards	510			o/s	22.05
	1925	P. Perkins	✓	82.56	22.05	o/s	82.56
				752.01	1 324.75		2 076.76
	B/S	Account fees	569		11.00	✓	11.00
	B/S	Transaction fees	569		9.50	✓	9.50
	B/S	Truck maintenance (error adjustment cheque no. 1916)	545		1.00		1.00
				$752.01	$1 346.25	✓	$2 098.26
				(210)	(X)		(100)

Figure 7.7 Extract from cash payments journal of Justco Pty Ltd

The third step is to total the cash payments journal and the cash receipts journal and post the entries to the ledger accounts. This enables the cash at bank account to be balanced. After all entries have been posted, the balance of Justco Pty Ltd's cash at bank account shows a debit balance of $426.49, as shown in figure 7.8.

Cash							
2016				2016			
Aug.	1	Opening balance	375.90	Aug.	31	Cash payments	2 098.26
	31	Cash receipts	2 148.85		31	Closing balance	426.49
			2 524.75				2 524.75
Sept.	1	Opening balance	426.49				

Figure 7.8 Cash account

The last step is to prepare the bank reconciliation statement. This is illustrated in figure 7.9.

JUSTCO PTY LTD
Bank reconciliation statement
as at 31 August 2016

Balance as per bank statement			$399.10 Cr
Add: Outstanding deposit			219.40
			618.50
Less: Unpresented cheques:			
	1922	$10.00	
	1923	77.40	
	1924	22.05	
	1925	82.56	192.01
Balance as per cash at bank account			$426.49 Dr

Note that the bank statement was the source of evidence for recording, in the cash payments journal, various bank charges, $20.50, and the error in cheque no. 1916, $1.00.

Figure 7.9 Bank reconciliation statement

Helpful hint

Why is an outstanding deposit added to the bank statement balance in the bank reconciliation statement?
Answer: The deposit was first recorded in the cash at bank ledger account when the business placed the deposit with the bank. The bank has not yet added this deposit onto the statement because of timing differences but it will eventually. Therefore, the outstanding deposit needs to be added to the bank statement balance.

The reconciling items are the outstanding deposit and unpresented cheques, both caused by timing differences. Other potential reconciling items not illustrated in this example are bank errors.

What entries does the bank make? If any bank errors are discovered in preparing the reconciliation, the bank should be notified so it can make the necessary corrections on its records. The bank does not make any entries for outstanding deposits or unpresented cheques. Only when these items reach the bank will the bank record them.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. Why is it necessary to reconcile a bank account?
2. What steps are involved in the reconciliation procedure?
3. What information is included in a bank reconciliation statement?

>> DO IT

Kirsty Harris owns Harris Linen Hire. Kirsty asks you to explain how the following differences between the bank statement and the cash at bank ledger account should be treated: (1) an entry on the bank statement for a dishonoured cheque, (2) unpresented cheques, and (3) an outstanding deposit.

REASONING: Kirsty needs to understand that one cause of reconciling items is timing differences. The first item generates a difference between the bank records and the ledger because Harris Linen Hire has not yet recorded the dishonoured cheque. Items (2) and (3) are reconciling items because the bank has not recorded the transactions.

SOLUTION: In reconciling the bank account, the items are treated by Harris Linen Hire as follows:

Dishonoured cheque: Record the dishonoured cheque in the cash receipts journal.

Unpresented cheques: Deduct from the balance as per bank (if it is not an overdraft) in the bank reconciliation statement.

Outstanding deposit: Add to the balance as per bank (if it is not an overdraft) in the bank reconciliation statement.

APPLICATION IN BUSINESS

E-business perspective

With electronic banking, it is now possible to regularly compare the company's cash at bank balance with the bank's balance. In essence, bank customers can carry out bank reconciliations whenever they want to, rather than wait until the bank statement is received from the bank at the end of the month. The method of reconciliation used in computerised accounting system varies from one package to another. However, a typical approach used in for example, QuickBooks, is to compare the bank statement with receipts and payments in the journals in a manner similar to the manual method described previously. Items on the bank statement are checked on the computer screen and items on the bank statement not already entered are recorded. The program then produces a reconciliation report.

LEARNING OBJECTIVE 5

Discuss the basic principles of cash management.

DECISION MAKING

MANAGING AND MONITORING CASH

Many businesses struggle, not because they can't generate sales, but because they can't manage their cash. For example, Doris Tam starts up her own clothing manufacturing business. Soon she has more orders from large stores than she can fill. Yet she finds herself on the brink of financial disaster, having mortgaged her house and owing a lot of money to the taxation authority. Her business can generate sales, but it isn't collecting cash fast enough to support its operations. The bottom line is that a business must have cash.

To understand cash management, consider the operating cycle of Doris's clothing manufacturing business. To begin with, it must purchase cloth. Let's assume that it purchases the cloth on credit provided by the supplier, so the business owes its supplier money. Next, employees convert the cloth to clothing. Now the business also owes its employees money. Next, it sells the clothing to retailers, on credit. Doris's business has no money to pay suppliers or employees until its customers pay it. In a manufacturing operation there may be a significant lag between the original purchase of raw materials and the ultimate receipt of cash from customers. Managing the often precarious balance created by the ebb and flow of cash during the operating cycle is one of an entity's greatest challenges. The objective is to ensure that a business has sufficient cash to meet payments as they come due, yet minimise the amount of surplus cash on hand because the money could be invested more profitably in operations.

A merchandising entity's operating cycle is generally shorter than that of a manufacturing entity's, depending on how long the inventory is held for sale. The cash to cash operating cycle of a retail operation is shown graphically in figure 7.10.

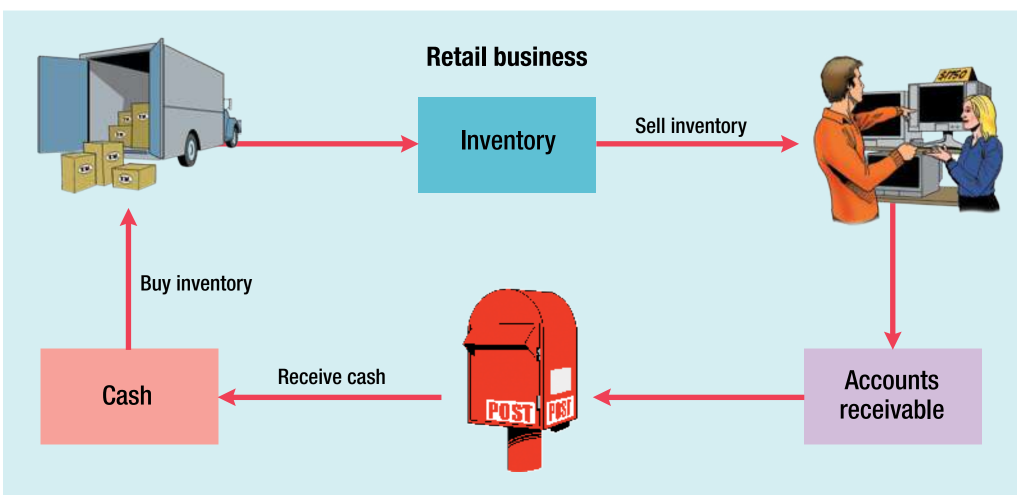


Figure 7.10 Operating cycle of a retail business

APPLICATION IN BUSINESS

Management perspective

One of the main reasons that small businesses fail is their inability to meet their financial obligations when they are due, simply because they run out of cash. Therefore, maintaining a healthy cash flow is essential for the survival and success of a business. Ideally, a business wants to get paid from customers as early as possible but defer paying suppliers for as long as possible. There are a number of strategies that small and medium-size businesses can employ to improve their cash flow. Strategies to facilitate cash collection include billing regularly, getting progress payments for services that span over a period of time and chasing up late payments from customers. Strategies to defer cash payment include buying smaller quantities of inventory, using trade credit when it is available (as this amounts to a short-term, interest-free loan from suppliers), working up the value of discounts for prompt payment, and using credit cards for business purchases to enjoy the interest-free period.

Source: Based on information from 'Cash flow is vital for small business survival', *CPA News*, www.cpaaustralia.com.au.

BASIC PRINCIPLES OF CASH MANAGEMENT

Management of cash is typically the responsibility of an entity's finance director or finance manager. A business can improve its chances of having adequate cash by following five basic principles of cash management.

1. *Increase the speed of collection of receivables.* Money owed to Doris by her customers is money she can't use. The sooner customers pay her, the sooner she can use those funds. Thus, rather than have an average collection period of 60 days, she may want an average collection period of 40 days. However, any attempt to force her customers to pay earlier must be carefully weighed against the possibility that she may anger or alienate customers. Perhaps her competitors are willing to provide a 30-day grace period. As noted in chapter 4, one way to encourage customers to pay more quickly is to offer cash discounts for early payment under such terms as 2/7, n/30.
2. *Keep inventory levels low.* Maintaining a large inventory of cloth and finished clothing is costly. It requires that large amounts of cash be tied up, as well as warehouse space. Increasingly, businesses are using techniques to reduce inventory on hand, thus conserving their cash. Of course, if Doris has inadequate inventory, she will lose sales. The proper level of inventory is an important decision.
3. *Don't pay earlier than necessary.* By keeping track of when her payments are due, Doris can avoid paying accounts too early. Let's say her supplier allows 30 days for payment. If she pays in 10 days, she has lost the use of cash for 20 days. Therefore, she should use the full payment period but should not 'stretch' payment past the point that could damage her credit rating (and future borrowing ability). Doris should conserve cash by taking cash discounts offered by suppliers, when the benefit of the discount exceeds the cost of not having the use of the cash (such as additional interest paid on an overdraft).
4. *Plan the timing of major expenditures.* To maintain operations or to grow, all business entities must make major expenditures, which normally require some form of outside financing. In order to increase the likelihood of obtaining outside financing, the timing of major expenditures should be carefully considered in light of the entity's operating cycle and cash flows. Expenditure that is made at a time when the entity normally has excess cash places less stress on the entity's cash resources.
5. *Invest idle cash.* Cash on hand earns little, if anything at all. An important part of the finance manager's job is to ensure that any excess cash is invested, even if it is only overnight. Many businesses, such as Doris' clothing business, are seasonal. When she has excess cash, she should invest it. To avoid a cash crisis, it is very important that these investments be highly liquid and risk-free. A *liquid investment* is one with a market in which someone is always willing to buy or sell the investment. A *risk-free investment* means there is no concern that the party will default on its promise to pay its principal and interest. For example, using excess cash to purchase shares in a small company because you heard that the shares were probably going to increase in value in the short term is totally inappropriate. First, the shares of small companies are often

illiquid. Second, if the shares suddenly decrease in value, you might be forced to sell them at a loss in order to pay your accounts as they come due. The most common form of liquid investment is interest-bearing government securities.

These five principles of cash management are summarised in figure 7.11.

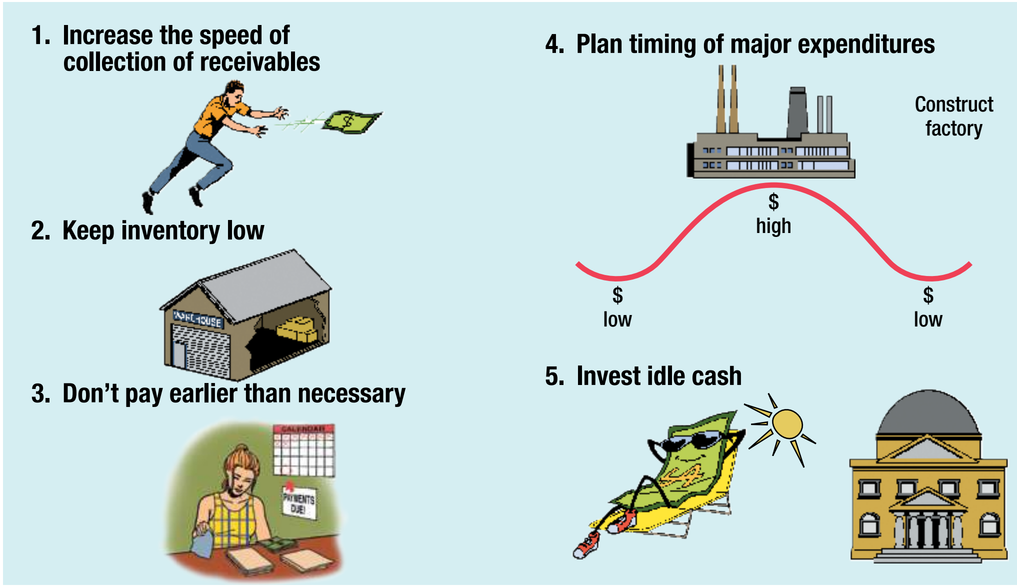


Figure 7.11 Five principles of sound cash management

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What are the five main elements of sound cash management?
2. How does Domino's define cash in the consolidated statement of financial position? (*Hint:* Refer to Notes 3.11 and 37 of the notes to the financial statements.) What was the balance of cash at 30 June 2013? (The answer is on p. 472.)

CASH BUDGET

Cash is at the heart of a business. As highlighted in the opening story, Fonterra needs to ensure that it has adequate cash to pay its farmers/shareholders on time to ensure that it can continue to collect milk from their farms. But how does Fonterra decide how much cash is needed and when payments are required? Planning the entity's cash needs is important to enable possible cash shortfalls to be covered and to make use of idle funds. Let's see how a small café business uses cash budgets to help it plan cash flow activities.

A cash budget shows anticipated cash receipts and payments. The cash budget generally contains three sections (cash receipts, cash payments, and financing), and the beginning and ending cash balances, as shown in figure 7.12.

ANY ENTITY Cash budget	
Beginning cash balance	$XXX
Add: Cash receipts (itemised)	XXX
Total available cash	XXX
Less: Cash payments (itemised)	XXX
Excess (deficiency) of available cash over cash payments	XXX
Financing	XXX
Ending cash balance	$XXX

Figure 7.12 Basic form of a cash budget

The *cash receipts section* includes expected receipts from the entity's main source(s) of revenue such as cash sales and collections from customers on credit sales. This section also shows anticipated receipts of interest and dividends, and proceeds from planned sales of investments, plants and equipment, and the issue of shares.

The *cash payments section* shows expected payments for materials and selling and administrative expenses. This section also includes projected payments for income tax, dividends, investments, and plant and equipment.

The *financing section* shows expected borrowings and the repayment of the borrowed funds plus interest. This section is needed when there is a cash deficiency or when the cash balance is below management's minimum required balance.

Data in the cash budget must be prepared in sequence because the ending cash balance of one period becomes the beginning cash balance for the next period. Data for preparing the cash budget are obtained from other budgets and from information provided by management. In practice, cash budgets are often prepared for the year on a monthly basis.

For illustrative purposes, the sales budget, materials budget, and selling and administrative expense budget for Campus Café & Catering Ltd for the year ended 30 June 2016 are presented below. These budgets contain essential information that is needed to prepare the cash budget.

To minimise detail, we will assume that Campus Café & Catering Ltd prepares an annual cash budget by quarters. The cash budget for Campus Café & Catering Ltd is based on the following assumptions.

1. The 1 July 2015 cash balance is expected to be $10 000.
2. Sales (figure 7.13) — 60% are collected in the quarter sold and 40% are collected in the following quarter. Accounts receivable of $7 000 at 30 June 2015 are expected to be collected in full in the first quarter of 2015–16.
3. Marketable investments are expected to be sold for $2000 cash in the first quarter.
4. Materials (figure 7.14, overleaf) — 50% is paid in the quarter purchased and 50% is paid in the following quarter. Accounts payable of $5000 at 30 June 2015 are expected to be paid in full in the first quarter.
5. Selling and administrative expenses (figure 7.15, overleaf) — all items except depreciation are paid in the quarter incurred.
6. Management plans to purchase a new coffee machine in the first quarter for $8000 cash.
7. Management plans to purchase a dishwasher in the third quarter for $15 000 cash.
8. Loans are repaid in the first subsequent quarter in which there is sufficient cash; interest of $100 is payable with repayments.
9. It is Campus Café & Catering Ltd's policy to maintain a minimum cash level of $10 000.

Schedules for collections from customers (assumption no. 2 above) and cash payments for materials (assumption no. 4 above) are useful in preparing the cash budget. The schedules are shown in figures 7.16 and 7.17 (overleaf).

The cash budget for Campus Café & Catering Ltd is shown in figure 7.18 (p. 425). The budget indicates that $3500 and $2100 of financing will be needed in the first and the third quarter to maintain a minimum cash balance of $10 000. Since there is an excess of available cash over payments of $17 500 and $20 500 at the end of the second and fourth quarter, the borrowings are repaid in these quarters plus $100 interest.

Campus Café & Catering Ltd
Sales budget
for the year ended 30 June 2016

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Year
Expected unit sales	6 000	6 500	7 000	7 500	27 000
Unit selling price $	5	5	5	5	5
Total sales $	30 000	32 500	35 000	37 500	135 000

Figure 7.13 Sales budget

Materials budget
for the year ended 30 June 2016

	Quarter 1	2	3	4	Year
Units to be sold (figure 7.13)	6 000	6 500	7 000	7 500	
Materials (kg) per unit	0.1	0.1	0.1	0.1	
Total materials (kg) required	600	650	700	750	
Cost per kilogram $	20	20	20	20	
Total cost of materials purchases $	**12 000**	**13 000**	**14 000**	**15 000**	**54 000**

Figure 7.14 Materials budget

Campus Café & Catering Ltd
Selling and administrative expense budget
for the year ended 30 June 2016

	Quarter 1	2	3	4	Year
Advertising	1 000	1 000	1 000	1 000	4 000
Salaries	7 500	7 500	7 500	7 500	30 000
Depreciation	500	500	500	500	2 000
Rent	3 000	3 000	3 000	3 000	12 000
Total selling and administrative expenses $	**12 000**	**12 000**	**12 000**	**12 000**	**48 000**

Figure 7.15 Selling and administrative expense budget

Schedule of expected collections from customers

	Quarter 1	2	3	4
Accounts receivable, 30/6/15	7 000			
Sales, first quarter ($30 000)*	18 000*	12 000**		
Sales, second quarter ($32 500)		19 500*	13 000**	
Sales, third quarter ($35 000)			21 000*	14 000**
Sales, fourth quarter ($37 500)				22 500*
Total collections $	25 000	31 500	34 000	36 000

*See item 2 above, $30 000 × 60% = $18 000 or 60% of current quarter's sales
**40% of previous quarter's sales

Figure 7.16 Collection from customers

Schedule of expected payments for materials

	Quarter 1	2	3	4
Accounts payable, 30/6/15	5 000			
Purchases, first quarter ($12 000)	6 000*	6 000		
Purchases, second quarter ($13 000)		6 500	6 500	
Purchases, third quarter ($14 000)			7 000	7 000
Purchases, fourth quarter ($15 000)				7 500
Total payments $	11 000	12 500	13 500	14 500

*See item 4 above, $12 000 ⟷ 60% = $6000

Figure 7.17 Payments for materials

A cash budget contributes to more effective cash management. For example, it can show when additional financing will be necessary well before the actual need arises, and arrangements can be made with the bank ahead of time or you may be able to delay the payment of your suppliers in the short term. Conversely, it can indicate when excess cash will be available for investments or other purposes.

Campus Café & Catering Ltd
Cash budget
for the year ended 30 June 2016

		Quarter			
	Assumption	1	2	3	4
Beginning cash balance	1	10 000	10 000	13 900	10 000
Add: Receipts					
Collections from customers	2	25 000	31 500	34 000	36 500
Sale of investments	3	2 000	—	—	—
Total receipts		27 000	31 500	34 000	36 500
Total available cash		37 000	41 500	47 900	46 500
Less: Payments					
Materials	4	11 000	$12 500	13 500	14 500
Selling and administrative expenses	5	11 500*	11 500	11 500	11 500
Purchase of coffee machine	6	8 000	—	—	—
Purchase of dishwasher	7	—	—	15 000	—
Total payments		30 500	$24 000	40 000	26 000
Excess (deficiency) of available cash over payments		6 500	$17 500	7 900	20 500
Financing					
Borrowings		3 500		2 100	—
Repayments — plus $100 interest	8	—	3 600	—	2 200
Ending cash balance		10 000	$13 900	10 000	18 300

*$12 000 – $500 depreciation

Figure 7.18 Cash budget

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Will the entity need to borrow funds in the coming quarter?	Beginning cash balance, cash receipts, cash payments, and desired cash balance	Cash budget	The entity will need to borrow money if the cash budget indicates a projected cash deficiency of available cash over cash payments for the quarter.

We have used a small café business to illustrate how cash budgets are prepared. Obviously, for retail and service businesses, the process is less taxing. Nonetheless, it is important for these businesses to prepare a cash budget as it assists decision making by:

- detailing the timing of all estimated cash inflows and outflows
- identifying periods of expected cash shortfalls so corrective actions, such as borrowing, can be arranged
- identifying periods of expected cash surpluses so short-term investments, such as term deposits, can be considered.

DECISION MAKING

LEARNING OBJECTIVE 6

Assess the adequacy of cash.

ASSESSING CASH ADEQUACY

In evaluating an entity's cash management practices we are interested in whether the amount of cash it has on hand is adequate. This can be evaluated using the ratio of cash to daily cash expenses.

RATIO OF CASH TO DAILY CASH EXPENSES

Company managers, as well as outside investors, closely monitor a company's cash position. Announcement of a projected cash shortfall can send shock waves through the sharemarket. For example, in early December 2013, Qantas flagged deteriorating trading conditions and a potential A$300 million half-year loss in a media release that sent its share price tumbling on the Australian sharemarket. To improve its financial performance, Qantas would undertake further cost cutting plans which include 1000 job cuts flagged for the next 12 months, a review of capital expenditure and a pay cut for the board and CEO in a bid to save $2 billion over three years. Qantas announced that it no longer expected to generate a positive net free cash flow in the current financial year.

Helpful hint

Cash equivalents are highly liquid investments that can be quickly converted to cash.

One measure of the adequacy of cash is the **ratio of cash to daily cash expenses**. In this ratio, 'cash' includes cash plus cash equivalents. It calculates the number of days of cash expenses the cash on hand can cover. Dividing the balance in cash by average daily cash expenses, as shown in figure 7.19, gives the number of days the entity can operate without an additional injection of cash. Average daily cash expenses can be calculated by dividing cash payments for the provision of services, interest and taxes by 365 days.

$$\text{Cash to daily cash expenses ratio} = \frac{\text{Cash}}{\text{Average daily cash expense}}$$

Figure 7.19 Ratio of cash to daily cash expenses

Alternative terminology

The statement of financial position may also be called the *balance sheet* and the *statement of cash flows* may also be called the *cash flow statement*.

Users of external financial reports can obtain the data needed to calculate this ratio from the statement of cash flows (chapter 11 discusses the preparation and analysis of the statement of cash flows). The cash balance is also reported in the statement of financial position.

Note that the ratio of cash to daily cash expenses is a short-term measure of the adequacy of cash because it ignores other cash outgoings, such as loan repayments, the timing of cash flows and access to financing facilities, such as an overdraft facility or borrowings. Longer-term measures such as liquidity and solvency ratios are discussed in chapter 12.

The cash to daily expenses ratio provides management and external users such as shareholders some insight into the entity's ability to cover its daily expenditure. By comparing the cash on hand with the average daily expenses, users can determine whether the entity's cash level is adequate by the number of days covered. If the ratio indicates a low level of coverage this may need further investigation to avert potential liquidity issues. In contrast, a very high level of coverage may indicate excessive cash held. In this case, management can consider alternative investment opportunities to maximise the returns on any cash in surplus of its daily needs. The relevance of this information in assisting management to determine the appropriate level of cash to be held is summarised in the decision-making toolkit below.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Does the business have adequate cash to meet its daily needs?	Cash, average daily expenses	Cash to daily cash expenses ratio $= \frac{\text{Cash}}{\text{Average daily cash expenses}}$	A low level of cash coverage should be investigated. If this measure is very low, it may be necessary to source additional financing.

The ratio of cash to daily cash expenses for Domino's is shown in figure 7.20.

($ in thousands)	2013	2012
Cash to daily cash expenses ratio	$\frac{\$18\,691}{\$808} = 23$ days	$\frac{\$40\,340}{\$710} = 57$ days
Average daily cash expenses	$\frac{\$295\,065}{365} = \$808$	$\frac{\$259\,206}{365} = \$710$

Figure 7.20 Cash to daily cash expenses ratio for Domino's

The cash adequacy of Domino's in 2013 declined significantly from 2012 due to a decrease in cash on hand and an increase in the daily cash expenses. The ratio of cash to daily cash expenses indicates that at the end of the 2013 reporting period its cash was sufficient to meet the needs of 23 days of normal operating activity whereas in 2012 its cash balance would cover 57 days of operating activity without further cash injection.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

What is the formula for the cash to daily cash expenses ratio? What does it tell management about the entity's cash position?

USING THE DECISION-MAKING TOOLKIT

Presented below are financial data obtained from the latest annual reports of two public companies that operate in Australia and New Zealand: Kathmandu Holdings and Fonterra Co-operative Group.

Name of entity	Cash $NZ in thousands	Cash expenses for the year $NZ in thousands
Kathmandu Holdings for year ended 31 July 2013	$ 2 345	$338 889
Fonterra Co-operative Group for year ended 31 July 2013	$330 000	$536 000

REQUIRED

(a) Use the selected data to calculate the ratio of cash to daily cash expenses for each entity.
(b) Rank the entities in terms of their ability to meet cash expenses from cash available.
(c) Comment on why it is not enough to just look at the cash balance to analyse the adequacy of cash reserves.

SOLUTION

(a)

($NZ in thousands)	Kathmandu	Fonterra
Cash to daily cash expenses ratio	$\frac{\$2\,345}{\$928} = 3$ days	$\frac{\$330\,000}{\$1\,468} = 225$ days
Average daily cash expenses	$\frac{\$338\,889}{365} = \$928$	$\frac{\$536\,000}{365} = \$1\,468$

(b) Fonterra's cash to daily cash expenses ratio shows an extremely high level of coverage with sufficient cash to cover 225 days of normal operating activity. In contrast, Kathmandu manages its business with a very low coverage with sufficient cash to cover only 3 days of normal operating activity.

(c) It is not enough to look at the cash balance in isolation to determine the adequacy of cash reserves; the average daily cash expenses need to also be considered. For example, Fonterra had significantly higher cash reserves than Kathmandu, but its daily needs for cash are also much greater. Although the cash to daily cash expenses ratio considers cash needs, it does not take into account the timing of cash flows and therefore should be used with other cash flow ratios to give a more comprehensive overview of the entities' cash position.

Source: Fonterra Co-operative Group Limited's 2013 annual report, www.fonterra.com and Kathmandu 2013 annual report, www.kathmanduholdings.com.

LEARNING OBJECTIVE 7

Identify the different types of receivables.

RECORDING AND REPORTING RECEIVABLES

The term **receivables** refers to amounts due from individuals and businesses. Receivables are claims that are expected to be collected in cash. The management of receivables is a very important activity for any entity that sells goods on credit. Receivables are important because they represent one of an entity's most liquid assets. For many businesses, receivables are also one of the largest assets. Figure 7.21 lists receivables as a percentage of total assets for four well-known entities in 2013.

Company	Receivables as a percentage of total assets
Domino's Pizza Enterprises Ltd	14%
Fisher & Paykel	13%
Qantas	7%
Vodafone	7%

Figure 7.21 Receivables as a percentage of assets

The relative significance of an entity's receivables as a percentage of its assets differs depending on its industry, the time of year, whether it extends long-term financing, and its credit policies. For external financial reporting, receivables are classified as current or non-current assets on the statement of financial position. Details of receivables and their maturity are disclosed in the notes to the financial statements.

Alternative terminology

Accounts receivable from customers are also referred to as *trade debtors*.

Accounts receivable are amounts owed by customers on account. More specifically, accounts receivable refer to those accounts that arise from the sale of goods and services on credit in the course of business. Credit is often extended to business customers and these receivables generally are expected to be collected within 30 to 60 days. They are usually the most significant type of claim held by a business.

Notes receivable represent claims for which formal instruments of credit are issued as evidence of the debt. Note receivable is an asset of a company, bank or other organisation that holds a written promissory note from another party. For example, if a company lends a supplier $10 000 and the supplier signs a written promise to repay the amount, the company will enter the amount in its asset account notes receivable. The credit instrument normally requires the debtor to pay interest and extends for time periods of 60–90 days or longer. The supplier will also enter the amount in its current liability account notes payable.

Other receivables include non-trade receivables such as interest receivable, loans to officers, advances to employees, and GST receivable.

ACCOUNTING FOR RECEIVABLES

Accounts receivable are classified as a current asset because they represent resources controlled by the entity from which future economic benefits are expected to flow to the entity within a normal operating cycle. Accounts receivable arise from the sale of goods or services on account. The future economic benefits result from the right of the entity to collect cash from customers who have been extended credit. Even though many business owners may prefer to receive cash at the time of sale, due to competitive market condition, they may have no choice but to extend credit to customers. Two issues associated with accounting for accounts receivable are:

- recognising accounts receivable
- valuing accounts receivable.

A third issue, accelerating cash receipts from receivables, is discussed later in the chapter.

Initial recognition of accounts receivable is relatively straightforward. For a service entity, a receivable is recorded when service is provided on account. For a merchandiser, accounts receivable are recorded at the point of sale of goods on account. When a merchandiser sells goods on credit, both accounts receivable and sales are increased by debiting accounts receivable and crediting Sales.

Receivables also are reduced as a result of sales discounts and sales returns. The seller may offer terms that encourage early payment by providing a discount. For example, terms of 2/7, n/30 provide the buyer with a 2% discount if paid within 7 days. If the buyer chooses to pay within the discount period, the seller's accounts receivable is reduced. Also, the buyer might find some of the goods unacceptable and choose to return the unwanted goods. For example, if goods with a selling price of $100 are returned, the seller reduces accounts receivable by $100 upon receipt of the returned goods.

Helpful hint

Another way to describe the buying and selling of goods 'on account' is buying and selling goods 'on credit'.

VALUING ACCOUNTS RECEIVABLE

LEARNING OBJECTIVE 8

Describe how to value receivables.

Accounts receivable are reported on the statement of financial position as an asset. At what amount? The amount owing by the customer? Not always. Let's see why not.

Although each customer must satisfy the credit requirements of the seller before the credit sale is approved, inevitably some accounts receivable become uncollectable, i.e. the customer defaults and never pays the account. For example, one of your customers may not be able to pay because it experienced a decline in sales due to a downturn in the economy. Similarly, individuals may be laid off from their jobs or be faced with unexpected hospital bills. Unrecoverable receivables are written off by debiting **bad debts expense**. Such losses are considered a normal and necessary risk of doing business on a credit basis.

Two methods are used in accounting for uncollectable accounts: (1) the direct write-off method and (2) the allowance method.

Alternative terminology

Bad debts expense is also referred to as *bad and doubtful debts expense.*

DIRECT WRITE-OFF METHOD FOR UNCOLLECTABLE ACCOUNTS

Under the **direct write-off method**, when a particular account is determined to be uncollectable, the loss is charged to bad debts expense. Assume, for example, that Warden Pty Ltd writes off M.E. Doran's $200 balance as uncollectable on 12 December. The entry is:

Dec. 12	Bad debts expense	200	
	Accounts receivable—M.E. Doran		200
	(To record write-off of M.E. Doran account)		

A	= L +	E
−200		−200

When this method is used, bad debts expense will be recognised when the uncollectable account is specifically identified and written off. Accounts receivable will be reported at its gross amount. Note that the credit to accounts receivable must be recorded in both the general ledger and the subsidiary ledger (refer to chapter 6).

Use of the direct write-off method can reduce the usefulness of both the statement of profit or loss and statement of financial position if bad debts are material. Consider the following example. In 2015, Quick Buck Computers Ltd decided it could increase its revenues by offering computers to university students without requiring any deposit, and with no credit-approval process. It distributed 10 000 computers with a selling price of $800 each. This increased Quick Buck's revenues and receivables by $8 million. The promotion was a huge success! The 2015 statement of financial position and statement of profit or loss looked wonderful. Unfortunately, during 2016, nearly 40% of the student customers defaulted on their loans. This made the 2016 statement of financial position and statement of profit or loss look terrible. Figure 7.22 shows the effect of these events on the financial statements if the direct write-off method is used.

Under the direct write-off method, bad debts expense is often recorded in the period following that in which the revenue was recorded. It is not until the account receivable has been outstanding for a while that it becomes apparent that it is uncollectable. The direct write-off method makes no attempt to show accounts receivable in the statement of financial position at the amount actually expected to be received. Consequently, unless bad debts losses are insignificant, the direct write-off method is not acceptable for financial reporting purposes.

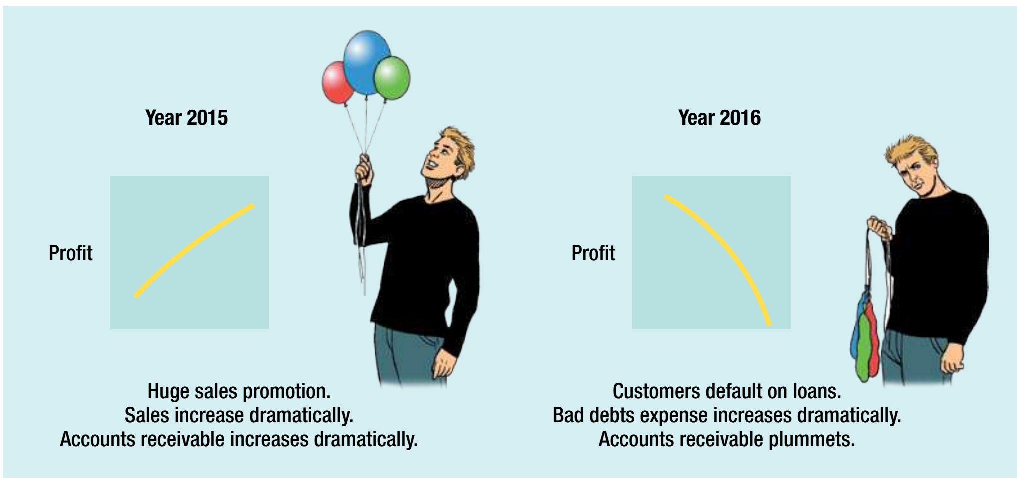


Figure 7.22 Effects of direct write-off method

ALLOWANCE METHOD FOR UNCOLLECTABLE ACCOUNTS

The **allowance method** of accounting for bad debts is used in order to give financial statement users a more accurate picture as to the amount of accounts receivable expected to be collectable at the end of the reporting period. At the end of the accounting period, before the accounting records are closed and the financial reports prepared, managers need to estimate the amounts of receivable expected to be uncollectable, i.e. doubtful debts. An adjusting entry is prepared with a debit to the bad debts expense account and a credit to an account called allowance for doubtful debts. (For external reporting purposes, this allowance is sometimes called an 'allowance for impairment of receivables'.) IAS 37/AASB 137 *Provisions, Contingent Liabilities and Contingent Assets* requires that the 'provision' or 'allowance' be reviewed at the end of each reporting period and adjusted to reflect the current best estimate. An entity is required to assess at the end of each reporting period whether there is any evidence of impairment to (or deterioration in) the value of the accounts receivable on its statement of financial position.

To illustrate these concepts, let's see how Domino's reported accounts receivable in its 2013 financial statements. An extract from the notes to the financial statements is shown in figure 7.23.

The example on page 431 shows that at the end of the reporting period on 30 June 2013, the management of Domino's estimated an impairment of $3 413 000 to its trade receivables of $27 010 000.

Domino's Pizza Enterprises Ltd
Notes to the financial statements (extract)

13. Trade and other receivables

	2013 $'000	2012 $'000
Trade receivables	27 010	22 919
Allowance for doubtful debts	(3 413)	(3 275)
	23 597	19 644
Other receivables	2 815	1 374
	26 412	21 018

13.1 Trade receivables

Trade receivables disclosed above are classified as loans and receivables and are therefore measured at amortised cost.

The average credit period on sales of goods and rendering of services is 30 days. No interest is charged on the outstanding balance. An allowance has been made for estimated irrecoverable amounts from the past sale of goods and rendering of services, determined by reference to past default experience. Trade receivables 60 days and over are provided for based on the estimated irrecoverable amounts from the sale of goods and rendering of services, determined by reference to past default experience.

Figure 7.23 Note on accounts receivable from the notes to the financial statements of Domino's for 2013

The allowance method is required for financial reporting purposes when bad debts are material in amount. In the case of Domino's above, the estimate of doubtful debt was 13%* of the value of receivables in 2013. The allowance method has three essential features.

1. Uncollectable accounts receivable are *estimated*.
2. Estimated uncollectables are recorded as an increase (a debit) to bad debts expense and an increase (a credit) to allowance for doubtful debts (a contra asset account) through an adjusting entry at the end of each period. A contra asset account is used because the specific uncollectable accounts are not yet identified.
3. Actual uncollectables are debited to allowance for doubtful debts and credited to accounts receivable at the time the specific account is written off as uncollectable.

Alternative terminology

The allowance for doubtful debts is often referred to as the *provision for doubtful debts.*

Recording estimated uncollectables. To illustrate the allowance method, assume that Hampson Furniture Ltd has credit sales of $1 200 000 in 2016, of which $200 000 remains uncollected at 31 December. The credit manager estimates that $12 000 of these sales will prove uncollectable. The adjusting entry to record the estimated uncollectables is:

Dec. 31	Bad debts expense	12 000	
	Allowance for doubtful debts		12 000
	(To record estimate of uncollectable accounts)		

A	= L +	E
−12 000		−12 000

Bad debts expense is reported in the statement of profit or loss as an operating expense (usually as a finance expense). Thus, the estimated reduction in the recoverable amount of accounts receivable is recognised as an expense when it can be reliably measured.

The allowance for doubtful debts shows the estimated amount of claims on customers that are expected to become uncollectable in the future. A contra account is used instead of a direct credit to accounts receivable because we do not know which customers will not pay. The credit balance in the allowance account will absorb the specific write-offs when they occur. It is deducted from accounts receivable in the current asset section of the statement of financial position as shown in figure 7.24 (overleaf).

*Domino's policy of allowance for doubtful debts is based on trade receivables 60 days and over. In 2013, the amount written off as uncollectible was $425 000; representing 1.6% of the value of trade receivables.

HAMPSON FURNITURE LTD Statement of financial position (partial)		
Current assets		
Cash		$ 14 800
Accounts receivable	$**200 000**	
Less: Allowance for doubtful debts	**(12 000)**	**188 000**
Inventory		310 000
Prepaid expense		25 000
Total current assets		$ 537 800

Figure 7.24 Presentation of allowance for doubtful debts

The amount of $188 000 in figure 7.24 represents the expected recoverable amount of the accounts receivable at the statement date. Allowance for doubtful debts is not closed at the end of the financial year, because it is a permanent account. This contra account records the extent to which the gross amount of accounts receivable has been written down. Bad debts expense is closed to profit or loss summary at the end of the financial year.

Recording the write-off of an uncollectable account. Entities use various methods of collecting past-due accounts, such as letters, calls and legal action. When all means of collecting a past-due account have been exhausted and collection appears impossible, the account should be written off. To prevent premature or unauthorised write-offs, each write-off should be formally approved in writing by authorised management personnel. To maintain good internal control, authorisation to write off accounts should not be given to someone who also has daily responsibilities related to cash or receivables because that person might keep the money paid by the customer and write off the account receivable.

To illustrate a receivables write-off, assume that the credit manager of Hampson Furniture Ltd authorises a write-off of the $500 balance owed by R.A. Ware on 1 March 2017. The entry to record the write-off is:

A	=	L	+	E
+500				
−500				

Mar. 1	Allowance for doubtful debts	500	
	Accounts receivable—R.A. Ware		500
	(Write-off of R.A. Ware account)		

Helpful hint

The credit to accounts receivable must be posted to both the general ledger account and the subsidiary ledger account.

Bad debts expense is not increased when the write-off occurs. Under the allowance method, every bad debt write-off is debited to the allowance account and not to bad debts expense. A debit to bad debts expense would be incorrect because the expense has already been recognised, when the adjusting entry was made for estimated bad debts. Instead, the entry to record the write-off of an uncollectable account reduces both accounts receivable and the allowance for doubtful debts. After posting, the general ledger accounts will appear as in figure 7.25.

Accounts receivable

2017			2017	
Jan. 1	Bal.	200 000	Mar. 1	**500**
				199 500
		200 000		200 000
Mar. 1	Bal.	199 500		

Allowance for doubtful debts

2017		2017		
Mar. 1	**500**	Jan. 1	Bal.	12 000
	11 500			
	12 000			12 000
		Mar. 1	Bal.	11 500

Figure 7.25 General ledger balances after write-off

A write-off affects only statement of financial position accounts. The net receivable amount in the statement of financial position, therefore, remains the same, as shown in figure 7.26.

	Before write-off	After write-off
Accounts receivable	$ 200 000	$ 199 500
Allowance for doubtful debts	12 000	11 500
Net receivable amount	$**188 000**	$**188 000**

Figure 7.26 Recoverable amount comparison

Recovery of an uncollectable account. Occasionally, a business collects from a customer after the account has been written off as uncollectable. Two entries are required to record the recovery of a bad debt: (1) the entry made in writing off the account is reversed to reinstate the customer's account; (2) the collection is journalised in the usual manner. To illustrate, assume that on 1 July 2017 R.A. Ware pays the $500 amount that had been written off on 1 March 2017. These are the entries:

	(1)		
July 1	Accounts receivable—R.A. Ware	500	
	Allowance for doubtful debts		500
	(To reverse write-off of R.A. Ware account)		
	(2)		
July 1	Cash	500	
	Accounts receivable—R.A. Ware		500
	(To record collection from R.A. Ware)		

A	=	L	+	E
+500				
−500				

A	=	L	+	E
+500				
−500				

The second journal entry will be recorded in the cash receipts journal if specialised journals are used.

Note that the recovery of a bad debt, like the write-off of a bad debt, affects only statement of financial position accounts. The net effect of the two entries above is an increase in cash and an increase in allowance for doubtful debts for $500. Accounts receivable and the allowance for doubtful debts both increase in entry (1) for two reasons: the entity made an error in judgement when it wrote off the account receivable, and R.A. Ware did pay, and therefore the accounts receivable account should show this collection for possible future credit purposes.

Estimating the allowance. For Hampson Furniture Ltd in figure 7.25, the amount of the expected uncollectables was given. However, in 'real life', businesses must estimate that amount if they use the allowance method. Two methods are used: (1) the percentage of net sales and (2) ageing the accounts receivable.

Under the percentage of net sales method, the increment to the allowance for doubtful debts for each period is determined as a percentage of sales. This method is used by some entities for monthly internal reporting. However, at year-end and for external reporting purposes, the allowance for doubtful debts should be estimated by **ageing the accounts receivable**. This involves preparing a schedule in which customer balances are classified by the length of time they have been unpaid.

After the accounts are arranged by age, the expected bad debt losses are determined by applying percentages based on past experience to the totals of each category. The longer a receivable is past due, the less likely it is to be collected. As a result, the estimated percentage of uncollectable debts increases as the number of days past due increases. An ageing schedule for Hampson Furniture Ltd as at 31 December 2016 is shown in figure 7.27. Note the increasing uncollectable percentages from 2% to 40%.

			Number of days past due			
Customer	**Total**	**Not yet due**	**1–30**	**31–60**	**61–90**	**Over 90**
T.E. Adert	$ 60 000		$30 000	$24 000		$ 6 000
R.C. Bortz	20 000	$20 000				
B.A. Carl	45 000		22 500	22 500		
O.L. Diker	55 000				$33 000	22 000
T.O. Ebbet	43 000	43 000				
R.A. Ware	12 000	6 000	6 000			
	$235 000	$69 000	$58 500	$46 500	$33 000	$28 000
Estimated percentage uncollectable		2%	4%	10%	20%	40%
Total estimated bad debts	$ 26 170	$ 1 380	$ 2 340	$ 4 650	$ 6 600	$11 200

Figure 7.27 Accounts receivable ageing schedule as at 31 December 2016

Total estimated bad debts for Hampson Furniture Ltd ($26 170) represent the existing customer claims expected to become uncollectable in the future. Thus, this amount represents the *required balance* in allowance for doubtful debts at year-end. Accordingly, the amount of the bad debts adjusting entry is the difference between the required balance and the existing balance in the allowance account. So, what is the existing balance in the allowance account? The allowance account is presented in a running-balance format below.

Allowance for doubtful debts				**Balance**	
Date	**Particular**	**Dr**	**Cr**	**Dr**	**Cr**
1 Jan. 2017	Opening balance				12 000
1 Mar.	Accounts receivable—R.A. Ware (Write-off of R.A. Ware account)	500			11 500
1 Jul.	Accounts receivable—R.A. Ware (Reverse write-off of R.A. Ware account)		500		12 000

The existing balance of the allowance account was $12 000 in credit. In order to bring the account to a credit balance of $26 170 to match the estimated bad debt from the ageing schedule, a credit of $14 170 is required, as shown in the following adjusting entry:

A	= L +	E
−14 170		−14 170

Dec. 31	Bad debt expense	14 170	
	Allowance for doubtful debts		14 170
	(To adjust allowance account to total estimated uncollectables)		

After the adjusting entry is posted, the accounts of Hampson Furniture Ltd will appear as in figure 7.28, in running-balance format.

Bad debts expense				**Balance**	
Date	**Particular**	**Dr**	**Cr**	**Dr**	**Cr**
31 Dec. 2017	Allowance for doubtful debts (Adjusting entry)	14 170		14 170	

Allowance for doubtful debts				**Balance**	
Date	**Particular**	**Dr**	**Cr**	**Dr**	**Cr**
1 Jan. 2017	Opening balance				12 000
1 Mar.	Write-off of R.A. Ware account	500			11 500
1 Jul.	Reverse write-off of R.A. Ware account		500		12 000
31 Dec.	Bad debt expense		14 170		26 170

Figure 7.28 Bad debts accounts after posting

The review at year-end should also consider specific debtors. Accounts that are unlikely to be recovered should be written off.

An important aspect of accounts receivable management is simply maintaining a close watch on the accounts. Studies have shown that accounts more than 60 days past due lose approximately 50% of their value if no payment activity occurs within the next 30 days. For each additional 30 days that pass, the collectable value halves once again because the probability of collection is lower.

Occasionally, the allowance account will have a debit balance before adjustment because write-offs during the year have exceeded the previous allowance for bad debts.

In such a case, the debit balance is added to the required balance when the adjusting entry is made. Thus, if there was a $12 000 debit balance in the account before adjustment, the adjusting entry would be for $38 170 ($26 170 + $12 000) to arrive at a credit balance of $26 170. In other words, a bigger amount of bad debts expense needs to be recognised because of larger write-offs during the year.

The percentage of receivables basis provides an estimate of the *recoverable amount* of the receivables. It also provides for the recognition of an expense in the period that the expected future cash flows from accounts receivable decline.

GST AND BAD DEBT WRITE-OFF

The basic recording for the GST was demonstrated in the appendix to chapter 4 (p. 239). The sale and subsequent payment from the customer was illustrated and you will recall that the accounts receivable account included the GST charged. Just as settlement discount alters the amount of GST liability, similarly when the GST is recognised on the non-cash basis a bad debt write-off also affects the amount of the GST liability. Assume Jones Enterprises Pty Ltd uses the provisioning method to account for impairment of receivables. For the year ended 30 June 2016, it was estimated that the allowance for doubtful debts was $4000. This entry is illustrated below.

June 30	Bad debt expense	4 000	
	Allowance for doubtful debts		4 000
	(To record the year-end allowance to write down accounts receivable to net realisable value)		

A	= L +	E
−4 000		−4 000

This entry would be reported as an expense in 2016 statement of profit or loss. The allowance account does not recognise any adjustment to the GST at this stage. On 2 February 2017, after efforts to collect a debt from G. Antoniou for $2200, the manager decided to write the debt off as bad.

Feb. 2	Allowance for doubtful debts	2 000	
	GST collected	200	
	Accounts receivable (subsidiary ledger also credited)		2 200
	(To record the debt being written off in accordance with the manager's decision)		

A	=	L	+	E
+2 000		−200		
−2 200				

The debit to the GST Collected account is a decreasing adjustment. When the amount owing was originally invoiced then the GST liability was recorded in the ledger as if it had been collected. As the customer G. Antoniou did not settle the account then the GST collected is also reduced as well as reducing the accounts receivable. A demonstration problem at the end of this chapter will further illustrate the GST.

APPLICATION IN BUSINESS

Ethical and governance perspective

Bad debt write-offs affect not only business but organisations in the public sector. Take the local councils in Scotland as examples. It was reported that Scotland's local authorities wrote off more than £80 million (A$130 million) in bad debts during 2009 as they failed to collect vast amounts of overdue council taxes and business rates. Glasgow City Council alone wrote off £30 million, at the same time that councils faced stringent budget cuts. Not surprisingly, taxpayers are not happy with such high levels of bad debts when measures to cut public services are being proposed.

Source: Based on information from S. MacDonald & B. Dickson 2010, 'Scandal of £80 million council bad debt write-off, *The Mail on Sunday*, 29 August, www.thefreelibrary.com.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Is the amount of past due accounts increasing? Which accounts require management's attention?	List of outstanding receivables and their due dates	Prepare an ageing schedule showing the receivables in various stages: outstanding 1–30 days, 31–60 days, 61–90 days, and over 90 days.	Accounts in the older categories require follow-up: letters, phone calls and possible renegotiation of terms.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. To maintain adequate internal controls over receivables, who should authorise receivables write-offs?
2. What are the essential features of the allowance method?
3. What is the main criticism of the direct write-off method?
4. What is the effect on the GST liability for a bad debt write-off?

>> DO IT

Jet Ltd has been in business for 5 years. The ledger at the end of the current year shows: accounts receivable $30 000, sales $180 000, and allowance for doubtful debts with a debit balance of $2000. After ageing the accounts receivable, bad debts are estimated to be 10% of accounts receivable. Prepare the entry necessary to adjust the allowance for doubtful debts.

Helpful hint

The debit of $5000 to bad debts expense is calculated as follows:

Allowance for doubtful debts

Op. bal.	2 000	Adj.	5 000
Cl. bal.	3 000		
	5 000		5 000
		Op. bal.	3 000

REASONING: Receivables are to be reported net of allowance for doubtful debts. The allowance reflects the current best estimate of any amount the entity does not expect it will collect. The estimated uncollectable amount should be recorded in an allowance account.

SOLUTION: The following entry should be made to bring the balance in the allowance for doubtful debts up to a balance of $3000 (10% × $30 000):

Bad debts expense	5 000	
Allowance for doubtful debts		5 000
(To record estimate of uncollectable accounts)		

NOTES RECEIVABLE

Notes receivable captures receivables that differ from trade debtors in that they involve a formal credit instrument and do not always arise from transactions with customers. In this section we will use promissory notes to illustrate accounting procedures for short-term notes receivable.

Credit may also be granted in exchange for a formal credit instrument known as a promissory note. A **promissory note** is a written promise to pay a specified amount of money at a definite time. Promissory notes may be used (1) when individuals and businesses lend or borrow money, (2) when the amount of the transaction and the credit period exceed normal limits, and (3) in settlement of accounts receivable.

In a promissory note, the party making the promise to pay is called the issuer; the party to whom payment is to be made is called the payee. The payee may be specifically identified by name or may be designated simply as the bearer of the note.

In the note shown in figure 7.29, Brent Ltd is the issuer and Wilma Ltd is the payee. To Wilma Ltd, the promissory note is a note receivable; to Brent Ltd, the note is a note payable.

Notes receivable give the holder a more expedient legal claim to assets than accounts receivable. Notes receivable can be readily sold to another party. Promissory notes are negotiable instruments (as are cheques), which means that, when sold, they can be transferred to another party by endorsement.

Notes receivable may be accepted from customers who need to extend the payment of an outstanding account receivable, and are often required from high-risk customers. The majority of notes, however, originate from lending transactions.

Helpful hint

Who are the two key parties to a note, and what entry does each party make when the note is issued?

Answer:

1. The issuer, Brent Ltd, credits notes payable.
2. The payee, Wilma Ltd, debits notes receivable.

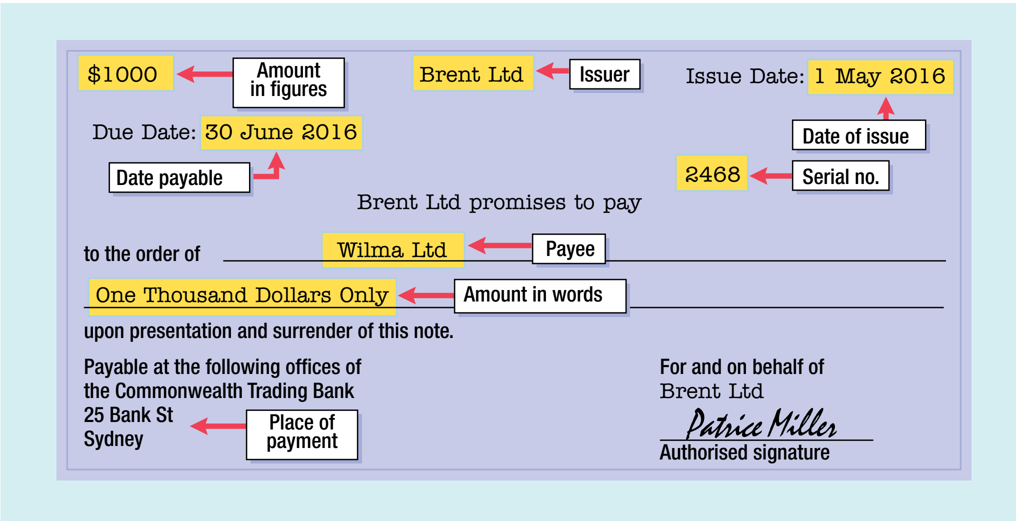


Figure 7.29 Promissory note

Recognising notes receivable

To illustrate the basic entry for notes receivable, we will use Brent Ltd's $1000, 2-month promissory note dated 1 May. Assuming that the note was written to settle an outstanding debtor's account, we record this entry for the receipt of the note by Wilma Ltd:

Mar. 1	Notes receivable	1 000	
	Accounts receivable—Brent Ltd		1 000
	(To record acceptance of Brent Ltd note)		

A	=	L	+	E
+1 000				
−1 000				

The note receivable is recorded at its *face value*, i.e. the value shown on the face of the note.

Valuing notes receivable

Like accounts receivable, short-term notes receivable are reported at their recoverable amount. The notes receivable allowance account is allowance for doubtful debts. Valuing short-term notes receivable is the same as valuing accounts receivable. The calculations and estimations involved in determining the recoverable amount and in recording the proper amount of bad debts expense and related allowance are similar. However, given the formality of the legal claim, bad debts on notes receivable are less common.

Disposing of notes receivable

Notes may be held to their maturity date, at which time the face value is collected. In some situations, the maker of the note defaults and appropriate adjustment must be made. In other situations, the holder of the note speeds up the conversion to cash by exchanging the note. The entries for honouring and exchanging notes are illustrated next.

Honour of notes receivable. A note is *honoured* when it is paid in full at its maturity date. To illustrate, using the example from figure 7.29, if Wilma Ltd collects the note receivable on the maturity date, the entry to record the collection is:

June 30	Cash	1 000	
	Notes receivable		1 000
	(To record collection of Brent Ltd note)		

A	=	L	+	E
+1 000				
−1 000				

Exchanging notes receivable. If Wilma Ltd does not wish to wait until 30 June to receive the face value of the note, it may exchange the note. This is referred to as discounting the note because, when a holder exchanges a note before maturity, the amount of cash received is the face value less a discount. The purchaser of the note makes a gain by paying a discounted amount for the note but receiving the face value of the note at maturity. The party selling the note receivable must account for the difference between the face value of the note and the cash received as an interest expense, because it is the cost of having the use of the money for the period from the date of exchange to the date of maturity of the note. For example, if Wilma Ltd exchanges the note at a 1% discount on 1 June it would receive $990. The entry to record this exchange would be:

A	=	L	+	E
−1000				−10
+ 990				

June 1	Cash	990	
	Interest expense	10	
	Note receivable		1 000
	(To record discounting the note from Brent at 1%)		

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. Why are notes receivable accounted for separately from accounts receivable?
2. Explain the difference between holding a promissory note to maturity and exchanging it before maturity.

>> DO IT

Taylor Store Ltd accepts from Leonard Ltd a $3400, 90-day note dated 10 May in settlement of Leonard Ltd's overdue account. What is the maturity date of the note? What entry is made by Taylor Stores Ltd at the maturity date, assuming Leonard Ltd pays the note in full at that time?

REASONING: When the due date is stated in terms of days, it is necessary to count the exact number of days to determine the maturity date. The date the note is issued is omitted from the count, but the due date is included. The entry to record interest at maturity in this solution assumes that no interest is previously accrued on this note.

SOLUTION: The maturity date is 8 August, calculated as follows:

Term of note		90 days
May (31 – 10)	21	
June	30	
July	31	82
Maturity date, August		8

This entry is recorded by Taylor Stores Ltd at the maturity date:

Aug. 8	Cash	3 400	
	Notes receivable		3 400
	(To record collection of Leonard Ltd note)		

LEARNING OBJECTIVE 9
Describe how receivables are reported in financial statements.

FINANCIAL STATEMENT PRESENTATION OF RECEIVABLES

Each of the major types of receivables should be identified in the notes to the financial statements. Receivables that mature within 12 months or the entity's operating cycle (whichever is the longer) are reported in the current assets section of the statement of financial position. Receivables not classified as current assets are classified as non-current. Both the gross amount of receivables and the allowance for doubtful debts should be reported in the notes to the financial statements. Figure 7.30 shows an extract from the 2013 financial report of Domino's.

Domino's Pizza Enterprises Ltd
Notes to the financial statements (extract)

13.1 Trade receivables (continued)
In determining the recoverability of a trade receivable, the Consolidated entity considers any change in the credit quality of the trade receivable from the date credit was initially granted up to the reporting date. The concentration of credit risk is limited due to the customer base being large and unrelated. Accordingly, the directors believe that there is no further allowance required in excess of the allowance for doubtful debts.

Figure 7.30 Presentation of receivables in the notes to the financial statements of Domino's for 2013

If an entity has significant risk of uncollectable accounts or other problems with its receivables, it is required to discuss this possibility in the notes to the financial statements.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

Distinguish between current and non-current receivables.

ANALYSING AND MANAGING RECEIVABLES

LEARNING OBJECTIVE 10
Analyse and manage receivables.

Managing accounts receivable involves five steps.
1. Determine to whom to extend credit.
2. Establish a payment period.
3. Monitor collections.
4. Evaluate the receivables balance.
5. Accelerate cash receipts from receivables when necessary.

EXTENDING CREDIT

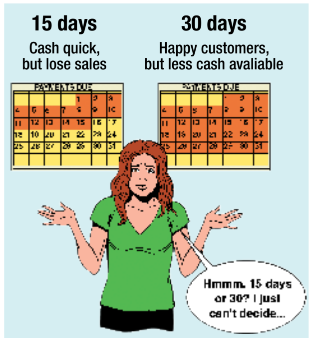
A critical part of managing receivables is determining who should be extended credit and who should not. Many businesses increase sales by being generous with their credit policy, but they may end up extending credit to risky customers who do not pay. If the credit policy is too tight, they will lose sales; if it is too loose, they may sell to customers who will pay either very late or not at all.

Certain steps can be taken to help minimise losses as credit standards are relaxed. Risky customers might be required to provide letters of credit or bank guarantees. Then if the customer does not pay, the bank that provided the guarantee will. Particularly risky customers might be required to pay cash on delivery. In addition, potential customers may be asked for references from banks and suppliers to determine their payment history. It is important to check these references on potential new customers as well as periodically checking the financial health of continuing customers. Many resources are available for investigating customers. For example, *The Dun & Bradstreet Reference Book* lists millions of companies and provides credit ratings for many of them.

Determine to whom to extend credit

ESTABLISHING A PAYMENT PERIOD

Businesses that extend credit should determine a required payment period and communicate that policy to their customers. It is important to make sure that the payment period is consistent with that of competitors. For example, if you decide to require payment within 15 days, but your competitors require payment within 45 days, you may lose sales to your competitor. However, as noted in chapter 4, you might allow up to 45 days to pay but offer a settlement discount of 2% for people paying within 15 days to match competitors' terms but encourage prompt payment of accounts; in this case, the payment term would be 2/15, n/45.



Establish a payment period

MONITORING COLLECTIONS

Credit risk is the threat of non-payment of receivables that could adversely affect an entity's financial position. One initial step that can be taken to monitor receivables is to calculate an entity's **credit risk ratio**, which is found by dividing the allowance for doubtful debts by accounts receivable, as shown in figure 7.31.

$$\text{Credit risk ratio} = \frac{\text{Allowance for doubtful debts}}{\text{Accounts receivable}}$$

Figure 7.31 Credit risk ratio

DECISION MAKING

Changes in this ratio over time may suggest that the overall credit risk is increasing or decreasing, and differences across entities may suggest differences in each entity's overall credit risk. A high credit risk ratio may indicate that a business is extending credit to questionable customers.

To illustrate the use of the credit risk ratio, we will evaluate the receivables of Domino's, reported in figure 7.30 (p. 439). The credit risk ratio for Domino's is shown in figure 7.32.

($ in thousands)	2013	2012
Credit risk ratio = $\frac{\text{Allowance for doubtful debts}}{\text{Accounts receivable}}$	$\frac{\$3\,413}{\$27\,010} = 12.6\%$	$\frac{\$3\,275}{\$22\,919} = 14.3\%$

Figure 7.32 Credit risk ratio for Domino's

Monitor collections

Domino's credit risk ratio improved slightly with the level of risk decreasing from 14.3% in 2012 to 12.6% in 2013.

Preparation of the accounts receivable ageing schedule was discussed on pages 433–4. In addition to estimating the allowance for bad debts, the ageing schedule has other uses to management. It aids estimation of the timing of future cash inflows, which is very important to the finance manager's efforts to prepare a cash budget. It provides information about the overall collection experience of the business and identifies problem accounts. Problem accounts need to be pursued with phone calls, letters and occasionally legal action. Sometimes special arrangements must be made with problem accounts, such as discontinuing credit. This means that all further sales are on a cash on delivery (COD) basis until the outstanding account is paid.

As credit sales represent a significant proportion of total sales for many business entities, it is important for management to monitor receivables to minimise credit risk and to strengthen its overall cash position. One measure of assessing the integrity of the receivables is to evaluate the entity's credit risk ratio, by comparing the allowance for doubtful debts to accounts receivable. Management and potential investors would be concerned if the entity were exposed to a high level of credit risk ratio as this may indicate that credit has been extended to customers who are not creditworthy. Lower amounts of cash collected would have an adverse impact on the entity's liquidity and the increased likelihood of bad debts would have a similar impact on profitability. The relevance of the credit risk ratio is summarised in the decision-making toolkit below.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Is the entity's credit risk increasing?	Allowance for doubtful debts and accounts receivable	Credit risk ratio = $\frac{\text{Allowance for doubtful debts}}{\text{Accounts receivable}}$	Increase in ratio may suggest increased credit risk, requiring evaluation of credit policies.

Companies must report on credit risk in their published financial statements. The amount and likelihood of significant credit risks should be considered. An excerpt from the credit risk note from the 2013 annual report of Domino's is shown in figure 7.33.

Domino's Pizza Enterprises Ltd
Notes to the financial statements (extract)

32.8 Credit risk management
Credit risk refers to the risk that a franchisee or business partner will default on its contractual obligations resulting in financial loss to the Group. The Group has adopted a policy of only dealing with creditworthy counterparties and obtaining sufficient collateral where appropriate, as a means of mitigating the risk of financial loss from defaults. Credit exposure is controlled by limits that are continually reviewed.

The credit risk on liquid funds and derivative financial instruments is limited because the counterparties are banks with high credit ratings assigned by international credit rating agencies.

The carrying amount of financial assets recorded in the financial statements, net of any allowances for losses, represents the Group's maximum exposure to credit risk without taking account of the value of any collateral obtained.

Figure 7.33 Note on credit risk in the notes to the financial statements of Domino's for 2013

This note to Domino's financial statements suggests that, although the entity extends significant amounts of credit, its exposure to any individual customer or group of customers is limited.

DECISION-MAKING TOOLKIT

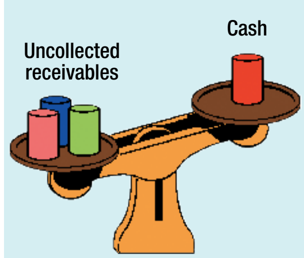
Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Does the business have significant concentrations of credit risk?	Notes to the financial statements on credit risk	The potential impact of the credit risk should be evaluated in terms of amount and likelihood.	If a material loss appears likely, the potential negative impact of that loss should be carefully evaluated, along with the adequacy of the allowance for doubtful debts.

EVALUATING THE RECEIVABLES BALANCE

Investors and managers keep a watchful eye on the relationship among sales, accounts receivable and cash collections. If sales increase, then accounts receivable are also expected to increase. But a disproportionate increase in accounts receivable might signal trouble. Perhaps the business increased its sales by loosening its credit policy, and these receivables may be difficult or impossible to collect. Such receivables are considered less liquid. Recall that liquidity is measured by how quickly certain assets can be converted to cash. The ratio used to assess the liquidity of the receivables is the **receivables turnover**. This ratio measures the number of times, on average, receivables are collected during the period. The receivables turnover is usually calculated by dividing net credit sales (net sales less cash sales) by the average net receivables during the year. Unless seasonal factors are significant, *average* receivables outstanding can be calculated from the beginning and ending balances of the net receivables.*

A popular variant of the receivables turnover is to convert it into an **average collection period** in terms of days. This is done by dividing the receivables turnover into 365 days. The average collection period is often used to assess the effectiveness of credit and collection policies. The general rule is that the collection period should not greatly exceed

Helpful hint
An alternative method of calculating the receivables turnover is to use average gross receivables in the denominator.



Evaluate the receivables balance

*If seasonal factors are significant, the average receivables balance might be determined by using monthly amounts. However, this would be useful only for users of internal information, as disclosures in published financial statements do not include monthly debtors' balances.

the credit term period (i.e. the time allowed for payment). The following data (in millions) are available for Coca-Cola Amatil Ltd.

	For the year ended 30 June		
	2013 $ millions	**2012 $ millions**	**2011 $ millions**
Sales	$ 5 036.4	$ 5 097.4	$ 4 801.2
Accounts receivable	889.8	887.2	776.0

The receivables turnover and average collection period for Coca-Cola Amatil Ltd are shown in figure 7.34.

$$\text{Receivables turnover} = \frac{\text{Net credit sales}}{\text{Average net receivables}}$$

$$\text{Average collection period} = \frac{365}{\text{Receivables turnover}}$$

($ in thousands)		2013	2012
Coca-Cola Amatil	Receivables turnover	$\frac{\$5\,036.4}{(\$889.8 + \$887.2)/2} = 5.67$ times	$\frac{\$5\,097.4}{(\$887.2 + \$776.0)/2} = 6.13$ times
	Average collection period	$\frac{365}{5.67} = 64.4$ days	$\frac{365}{6.13} = 59.5$ days

Figure 7.34 Receivables turnover and average collection period

These calculations assume that all sales were credit sales.

The receivables turnover for Coca-Cola Amatil Ltd was 6.13 times in 2012 with a corresponding average collection period of 59.5 days. In 2013, the receivables turnover had slowed down to 5.67 times per annum which lengthened the collection period to 64.4 days. These results indicate an 8% increase in the collection time while the dollar value of credit sales decreased by 7%. Coca-Cola Amatil Ltd was not able to improve its receivables turnover by increasing credit sales revenue and decreasing the average time taken to collect cash during this period.

APPLICATION IN BUSINESS

Management perspective

Businesses with generous credit terms and ineffective accounts collection procedures are essentially offering an interest-free facility to fund their slow-paying customers. So, what can a manager do if the business is taking a long time to collect its accounts receivable? The following are some practical strategies for better debt collection.

- Make someone responsible for debt collection.
- Develop a measurement that shows how debt collection is proceeding.
- Give the debt-collection team both a high profile and management backing to get the sales team involved.
- Include salespeople in the process and motivate them around collections.
- Educate staff that collecting debts on time is as important as winning new work.

Source: Based on information from K. Mills 2009, 'Quick and the debt', *Business Review Weekly*, 12 August, www.brw.com.au.

One of the practical strategies for better debt collection outlined in the management perspective highlighted the importance of developing a measurement that monitors the efficiency of the cash collection process and having procedures in place to follow up on slow-paying accounts. One measure used to assess whether the cash is collected within a reasonable timeframe is the receivables turnover. By comparing the net credit sales to the average net receivable, this ratio determines the number of times that cash is collected from credit customers during the year, the higher the receivable turnover ratio, the faster the cash collection. This can also be expressed in days as the average collection period by calculating the number of days in the year divided into the receivables turnover, the lower the number of days, the quicker the cash collection. The decision-making and analysis process in determining the efficiency in managing accounts receivable and cash collection is summarised in the decision-making toolkit below.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Are collections being made in a timely fashion?	Net credit sales and average receivables balance	$\text{Receivables turnover} = \dfrac{\text{Net credit sales}}{\text{Average net receivables}}$ $\text{Average collection period} = \dfrac{\text{365 days}}{\text{Receivable turnover}}$	Receivables turnover and average collection period should be consistent with the entity's credit policy. Any significant deviation which results in a slower receivables turnover or a longer collection period may suggest a decline in the financial integrity of credit customers.

ACCELERATING CASH RECEIPTS

In the normal course of events, accounts receivable are collected in cash. However, as credit sales and receivables have grown in size and significance, the 'normal course of events' has changed. Two common expressions apply to the collection of receivables: (1) time is money — i.e. waiting for the normal collection process costs money; (2) a bird in the hand is worth two in the bush — i.e. getting the cash now is better than getting it later or not at all. Therefore, in order to accelerate the receipt of cash from receivables, businesses often sell their receivables to another business for cash, thereby shortening the cash-to-cash operating cycle.

There are three reasons for the sale of receivables. The first is their size. In recent years, for competitive reasons, sellers (retailers, wholesalers and manufacturers) often have provided financing to purchasers of their goods. For example, many major businesses in the vehicles, industrial and farm equipment, computer, and appliance industries offer finance to their customers. However, the entities involved do not necessarily want to hold large amounts of receivables.

Accelerate cash receipts from receivables

Second, receivables may be sold because they may be the only reasonable source of cash. When money is tight, businesses may not be able to borrow money in the usual credit markets. If money is available, the cost of borrowing may be prohibitive.

A final reason for selling receivables is that invoicing and collection are often time-consuming and costly. As a result, it is often easier for businesses to sell the receivables to another party that has expertise in invoicing and collection matters.

Sale of receivables to a factor

A common way to accelerate receivables collection is by a sale to a factor. A **factor** is a financial institution or bank that buys receivables from businesses for a fee and then collects the payments directly from the customers. Factoring was traditionally associated with the textiles, apparel, footwear, furniture and home furnishing industries.

Credit card sales

Three parties are involved when credit cards are used in making retail sales: (1) the credit card issuer, who is independent of the retailer, (2) the retailer, and (3) the customer. A retailer's acceptance of a credit card is another form of selling — factoring — the receivable by the retailer.

The use of credit cards translates to more sales without bad debts for the retailer. Both are powerful reasons for a retailer to accept such cards. The major advantages of credit cards to the retailer are shown in figure 7.35 (overleaf). In exchange for these advantages, the retailer pays the credit card issuer a fee of 2% to 6% of the invoice price for its services.

Sales resulting from the use of VISA, Bankcard and MasterCard are considered cash sales by the retailer. These cards are issued by banks. Upon receipt of credit card sales slips from a retailer, the bank immediately adds the amount to the seller's bank balance. These credit card sales slips are therefore recorded in the same manner as cheques deposited from a cash sale.

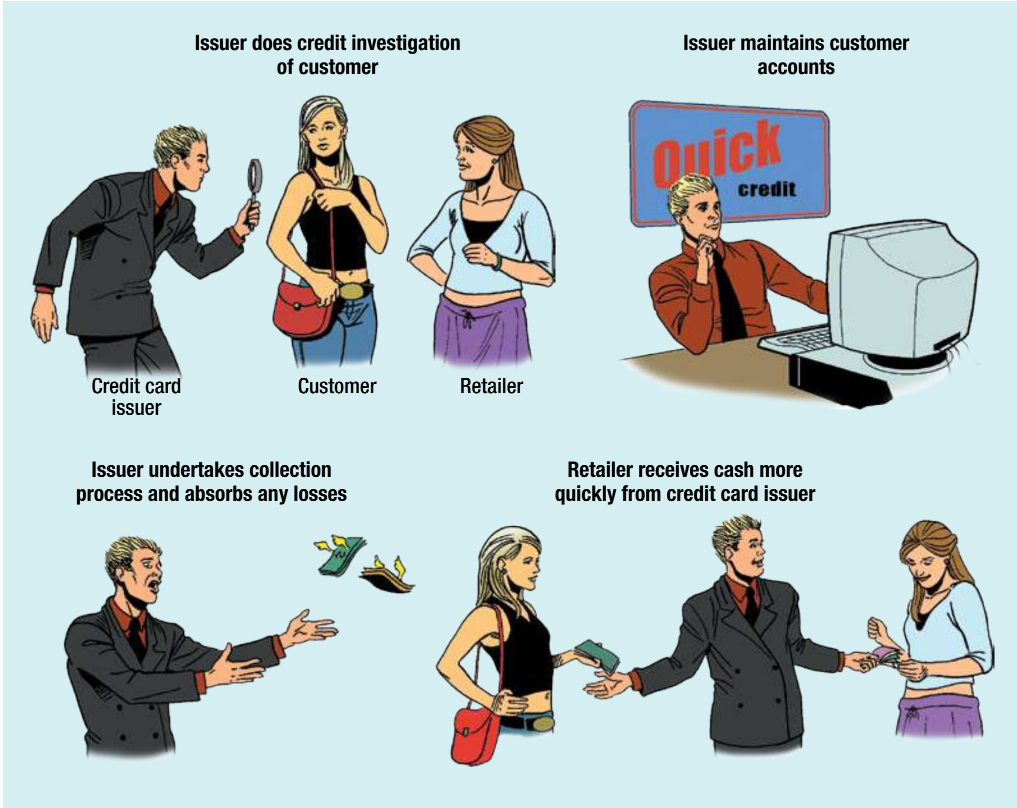


Figure 7.35 Advantages of credit cards to the retailer

The basic principles of managing accounts receivable are summarised in figure 7.36.

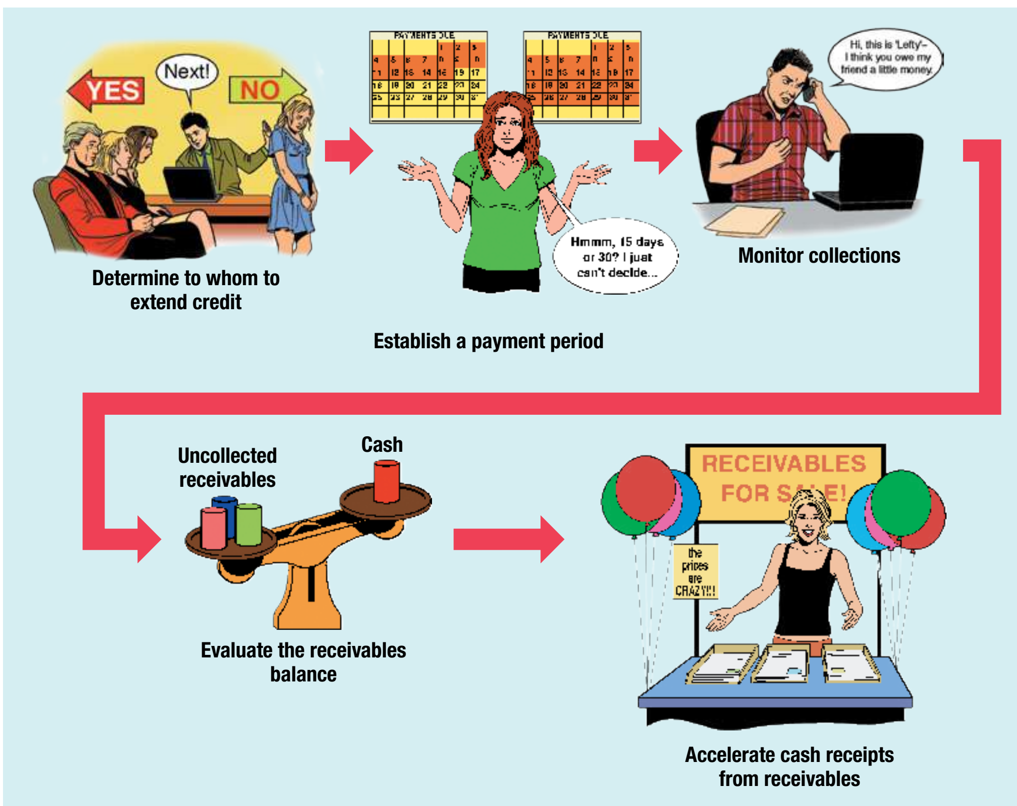


Figure 7.36 Managing receivables

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What is the interpretation of the receivables turnover and the average collection period?
2. Why do some businesses sell their receivables?
3. For whom is the service charge on a credit card sale an expense?

>> DO IT

Grayson Ltd has been expanding faster than it can raise capital. According to its local banker, the entity has reached its debt ceiling. Grayson customers are slow in paying (60–90 days), but its suppliers (creditors) are demanding 30-day payment. Grayson has a cash flow problem.

Grayson needs to raise $120 000 in cash to safely cover next Friday's employee payroll. Grayson's present balance of outstanding receivables totals $750 000. What might Grayson do to alleviate this cash crisis?

REASONING: Grayson has an urgent need for cash to pay the payroll.

SOLUTION: One source of immediate cash at a competitive cost is the sale of receivables to a factor. Rather than waiting until it can collect receivables, Grayson may raise immediate cash by selling its receivables. The last thing Grayson (or any employer) wants to do is miss a payroll.

USING THE DECISION-MAKING TOOLKIT

The following information was taken from the 2016 financial statements of Bradman Ltd, a manufacturer and distributor of high quality cricket bats.

BRADMAN LTD
Selected financial information
(in thousands)

	2016		2015	
Sales		$1 300		$1 200
Current assets				
Cash and cash equivalents		$ 200		$ 200
Accounts receivable	$600		$550	
Allowance for doubtful debts	(80)		(50)	
Net accounts receivable		520		500
Inventories		300		280
Other current assets		80		20
Total current assets		$1 100		$1 000

All sales are on credit. The industry average credit ratio is 10% and the industry average collection period is 70 days. The industry averages have been constant during 2016 and 2015.

REQUIRED

Comment on Bradman Ltd's accounts receivable management relative to that of the industry, with consideration given to (a) the credit risk ratio and (b) the receivables turnover and average collection period.

SOLUTION

(a) Here are the credit risk ratios of Bradman Ltd:

2016	**2015**
$\frac{\$80}{\$600} = 13\%$	$\frac{\$50}{\$550} = 9\%$

Bradman Ltd's increase in sales has come at the expense of credit risk. The ratio has increased from 9%, which was below the industry average, to 13% in 2016, which was well above the industry average.

(b) The receivables turnover ratio and average collection period for Bradman Ltd for 2016 are:

$$\text{Receivables turnover ratio } \frac{\$1\,300}{(\$520 + \$500)/2} = 2.5 \text{ times}$$

$$\text{Average collection period } \frac{365}{2.5} = 146 \text{ days}$$

Bradman Ltd's receivables turnover of 2.5 is much lower than the industry average. Its average collection days of 146 days compared to the industry average of 70 days suggests that Bradman Ltd's credit customers take longer to pay.

SUMMARY OF LEARNING OBJECTIVES

1 Identify the effect of business transactions on cash.
Many transactions have implications on an entity's cash flows in that almost every business transaction eventually results in an inflow or outflow of cash. It is therefore important to carefully consider the cash flow requirements in any business plan and operation.

2 Describe electronic banking processes.
Electronic banking is an electronic payment system that enables customers of a financial institution to conduct financial transactions on a web site operated by the financial institution. To access a financial institution's online banking facility, a customer with internet access would need to register with the institution for the service, and set up a password for customer verification. Once registered, a bank customer can transact banking tasks through online banking, including transferring funds between the customer's linked accounts and paying third parties, including bill payments through BPAY.

3 Explain the application of internal control principles for handling cash.
Internal controls over cash include: (a) designating only personnel such as cashiers to handle cheques and cash; (b) assigning the duties of receiving and disbursing cash, recording cash, and having custody of cash to different people; (c) obtaining remittance advices for mail receipts, cash register tapes, sequential electronic receipt numbers and deposit slips for bank deposits, and prenumbered cheques; (d) using safes and bank vaults to store cash with access limited to authorised personnel, direct deposits, and cash registers when dealing with over-the-counter receipts; (e) making independent daily counts of register receipts, daily comparisons of total receipts with total deposits, and adhering to cheque-signing procedures; (f) requiring personnel who handle cash to take annual leave, and stamping invoices 'paid'.

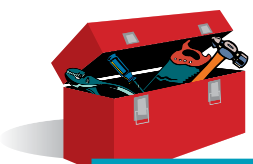
4 Prepare a bank reconciliation.
The steps in determining the reconciling items are to ascertain outstanding deposits, unpresented cheques and errors by the depositor or the bank, updating and, if necessary, correcting cash records and preparing a bank reconciliation statement.

5 Discuss the basic principles of cash management.
The basic principles of cash management include: (a) increase collection of receivables, (b) keep inventory levels low, (c) don't pay earlier than necessary, (d) plan timing of major expenditures, and (e) invest idle cash. The cash to daily expense ratio indicates how many days of expenses the current cash resources will cover.

6 Assess the adequacy of cash.
In evaluating an entity's cash management practices, one of the key considerations is whether the amount of cash held is adequate to cover its daily operational needs. One measure of the adequacy of cash is the ratio of cash to daily cash expenses. This ratio provides management and external decision makers with some insight into the entity's ability to cover its daily expenditure. A low level of coverage may require further investigation to avert potential liquidity issues. In contrast, a very high level of coverage may indicate excessive cash held. In this case, management may consider alternative investment opportunities to maximise the returns on any cash in surplus of its daily needs.

7 Identify the different types of receivables. Receivables are frequently classified as accounts, notes and other. Accounts receivable are amounts owed by customers on account. Notes receivable represent claims that are evidenced by formal instruments of credit. Other receivables include non-trade receivables such as interest receivable, loans to officers, advances to employees and goods and services tax refundable.

8 Describe how to value receivables. Accounts receivable are recorded at the invoice price and reduced by sales returns and allowances. The two methods of accounting for uncollectable accounts are the direct write-off method and the allowance method, which emphasises the net amount of accounts receivable estimated to be received. The percentage of sales revenue basis can be used to estimate uncollectable accounts in the allowance method for monthly internal reports. The ageing of the accounts receivable method must be used at the end of the year. A decreasing adjustment must be made to the GST liability account when a bad debt is written off if GST was charged to the customer. Notes receivable can be held to maturity, at which time the face value of the note is received. Collecting a note receivable is accounted for by debiting cash and crediting notes receivable. Alternatively, the note receivable may be discounted earlier. The discount is allocated to interest expense.



9 Describe how receivables are reported in financial statements. Each major type of receivable should be identified in the notes to the financial statements. Receivables maturing within 1 year or the operating cycle are considered current assets. The gross amount of receivables and allowance for doubtful debts should be reported in the notes to the financial statements.

10 Analyse and manage receivables. To properly manage receivables, management must (a) determine to whom to extend credit, (b) determine a payment period, (c) monitor collections, (d) evaluate the receivables balance, and (e) accelerate cash receipts from receivables when necessary. The receivables turnover and the average collection period are useful in analysing management's effectiveness in managing receivables. The accounts receivable ageing schedule also provides useful information. If the business needs additional cash, management can accelerate the collection of cash from receivables by selling (factoring) its receivables or by allowing customers to pay with credit cards.

DECISION-MAKING TOOLKIT — A SUMMARY

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Will the entity need to borrow funds in the coming quarter?	Beginning cash balance, cash receipts, cash payments, and desired cash balance	Cash budget	The entity will need to borrow money if the cash budget indicates a projected cash deficiency of available cash over cash payments for the quarter.
Does the business have adequate cash to meet its daily needs?	Cash, average daily expenses	$\text{Cash to daily cash expenses ratio} = \dfrac{\text{Cash}}{\text{Average daily cash expenses}}$	A low level of cash coverage should be investigated. If this measure is very low, it may be necessary to source additional financing.
Is the amount of past due accounts increasing? Which accounts require management's attention?	List of outstanding receivables and their due dates	Prepare an ageing schedule showing the receivables in various stages: outstanding 1–30 days, 31–60 days, 61–90 days, and over 90 days.	Accounts in the older categories require follow-up: letters, phone calls and possible renegotiation of terms.
Is the entity's credit risk increasing?	Allowance for doubtful debts and accounts receivable	$\text{Credit risk ratio} = \dfrac{\text{Allowance for doubtful debts}}{\text{Accounts receivable}}$	Increase in ratio may suggest increased credit risk, requiring evaluation of credit policies.
Does the business have significant concentrations of credit risk?	Notes to the financial statements on credit risk	The potential impact of the credit risk should be evaluated in terms of amount and likelihood.	If a material loss appears likely, the potential negative impact of that loss should be carefully evaluated, along with the adequacy of the allowance for doubtful debts.
Are collections being made in a timely fashion?	Net credit sales and average receivables balance	$\text{Receivables turnover} = \dfrac{\text{Net credit sales}}{\text{Average net receivables}}$ $\text{Average collection period} = \dfrac{\text{365 days}}{\text{Receivable turnover}}$	Receivables turnover and average collection period should be consistent with the entity's credit policy. Any significant deviation which results in a slower receivables turnover or a longer collection period may suggest a decline in the financial integrity of credit customers.

APPENDIX

OPERATION OF THE PETTY CASH FUND

LEARNING OBJECTIVE 11

Explain the operation of a petty cash fund.

The operation of a petty cash fund involves (1) establishing the fund, (2) making payments from the fund, and (3) replenishing the fund.

ESTABLISHING THE FUND

Two essential steps in establishing a petty cash fund are appointing a petty cash custodian who will be responsible for the fund and determining the size of the fund. Ordinarily, the amount is expected to cover anticipated disbursements for a short period ranging from one day to several months, depending on the size of the entity. The fund is established by withdrawing cash from the bank account. Larger entities usually do this by cashing a cheque. If Justco Pty Ltd decides to establish a $100 fund on 1 March, the entry in general journal form is:

A	= L +	E
+100		
−100		

Mar. 1	Petty cash	100	
	Cash at bank		100
	(To establish a petty cash fund)		

However, this entry would usually be made in the cash payments journal.

The cheque is then cashed and the proceeds are placed in a locked petty cash box or drawer. Most petty cash funds are established on a fixed amount basis. Moreover, no additional entries will be made to the petty cash account unless the stipulated amount of the fund is changed. For example, if Justco Pty Ltd decides on 1 July to increase the size of the fund to $250, it would debit petty cash $150 and credit cash $150.

MAKING PAYMENTS FROM PETTY CASH

The cashier, who is the custodian of the petty cash fund, makes payments from the fund that conform to prescribed management policies. Usually management limits the size of expenditures that may be reimbursed through petty cash. Each petty cash claim must be documented on a petty cash voucher, usually supported by evidence of the claimant's expenditure. For example, if an employee claimed reimbursement for the purchase of petrol while driving the employer's motor vehicle, the receipt from the petrol station should be attached to the petty cash voucher. The petty cash voucher should be signed by the manager who authorises the expenditure. The petty cash voucher satisfies two principles of internal control: (1) establishing responsibility through authorisation, and (2) documentation procedures.

The receipts are kept in the petty cash box until the fund is replenished. As a result, the sum of the petty cash receipts and money in the fund should equal the established total at all times. This means that surprise counts can be made at any time by an independent person, such as an internal auditor, to determine whether the fund is being maintained intact.

No accounting entry is made to record a payment at the time it is taken from petty cash. It is considered both time consuming and unnecessary to do so. Instead, the accounting effects of each payment are recognised when the fund is replenished. The fund is replenished at the end of each reporting period to ensure that all expenses are recognised.

REPLENISHING THE FUND

When the money in the petty cash fund reaches a minimum level and at the end of each accounting period, the fund is replenished. The request for reimbursement is initiated by the cashier. This person prepares a schedule (or summary) of the payments that have been made and sends the schedule, supported by petty cash receipts and other documentation, to the financial accountant or other designated authority. The receipts and supporting documents are examined to verify that they were proper payments from the fund. The replenishment of the petty cash fund is then approved and a cheque is prepared.

At the same time, all supporting documentation is stamped 'paid' so that it cannot be submitted again for payment.

To illustrate, assume that on 15 March the cashier requests a cheque for $87. The fund contains $13 cash and petty cash receipts for postage $44, supplies $38 and miscellaneous expenses $5. The entry, in general journal form, to record the cheque is:

Mar. 15	Postage expense	44	
	Supplies	38	
	Miscellaneous expense	5	
	Cash at bank		87
	(To replenish petty cash fund)		

A	=	L	+	E
+38				−44
−87				−5

This entry would usually be recorded in a cash payments journal.

Note that the petty cash account is not affected by the reimbursement entry. Replenishment changes the composition of the fund by replacing the petty cash receipts with cash, but it does not change the balance of the fund.

Occasionally, in replenishing a petty cash fund it may be necessary to recognise a cash shortage or surplus. To illustrate, assume in the preceding example that the custodian had only $12 in cash in the fund plus the receipts as listed. The request for reimbursement would therefore be for $88, and the following entry would be made:

Mar. 15	Postage expense	44	
	Supplies	38	
	Miscellaneous expense	5	
	Cash over and short	1	
	Cash at bank		88
	(To replenish petty cash fund)		

A	=	L	+	E
+38				−44
−88				−5
				−1

Conversely, if the custodian had $14 in cash, the reimbursement request would be for $86, and **cash over and short** would be credited for $1. A debit balance in cash over and short is reported in the statement of profit or loss as an expense; a credit balance is reported as revenue. Cash over and short is closed to the profit or loss summary at the end of the year.

Replenishing petty cash involves three internal control procedures: segregation of duties, documentation procedures and independent internal verification. Internal control over a petty cash fund is strengthened by (1) having a supervisor make surprise counts of the fund to ascertain whether the petty cash vouchers and fund cash equal the designated amount, and (2) cancelling the paid vouchers so they cannot be resubmitted for reimbursement.

SUMMARY OF LEARNING OBJECTIVE FOR APPENDIX

11 Explain the operation of a petty cash fund. In operating a petty cash fund, an entity establishes the fund by appointing a custodian and determining the size of the fund. Payments from the fund are made for documented expenditures, and the fund is replenished as needed and at the end of each accounting period. Accounting entries to record payments are made at that time.

GLOSSARY

Accounts receivable Amounts owed by customers on account (p. 428).

Ageing the accounts receivable A method of determining the allowance for doubtful debts by analysing customer balances by the length of time they have been unpaid (p. 433).

Allowance method A method of accounting for bad debts that involves estimating uncollectable accounts at the end of each period and recognising an allowance account as a contra accounts receivable account (p. 430).

Average collection period The average amount of time that a receivable is outstanding, calculated by dividing 365 days by the receivables turnover (p. 441).

Bad debts expense An expense account to record uncollectable receivables (p. 429).

Bank statement A statement received from the bank that shows the depositor's bank transactions and balances for a period (p. 413).

Cash Resources that consist of cash on hand, cash at bank, cheque account, and highly liquid investments such as deposits on the money market and 90-day bank acceptance bills (p. 406).

Cash over and short A general ledger account for recording surplus or deficit of petty cash (p. 449).

Credit risk The threat of non-payment of receivables that could adversely affect the financial health of a business (p. 439).

Credit risk ratio A measure of the risk that a business's customers may not pay their accounts, calculated as the allowance for doubtful debts divided by accounts receivable (p. 440).

Direct write-off method A method of accounting for bad debts that involves expensing accounts receivable at the time they are determined to be uncollectable (p. 429).

Dishonoured cheque A cheque that is not paid by the bank because of insufficient funds in the payer's bank account or because it has been cancelled by the payer (p. 413).

Electronic funds transfer (EFT) A cash transfer system that uses telephone, telegraph or computer to transfer cash from one location to another (p. 409).

Factor A financial institution that buys receivables from businesses for a fee and then collects the payments directly from the customers (p. 443).

Notes receivable Claims for which formal instruments of credit are issued as evidence of the debt (p. 428).

Outstanding deposits Deposits that have been made but do not yet appear on the bank statement because of timing differences (p. 413).

Petty cash fund A cash fund used to pay relatively small amounts (p. 412).

Promissory note A written promise to pay a specified amount of money on a defined date (p. 436).

Ratio of cash to daily cash expenses A measure that indicates the number of days of expenses that available cash can cover. Calculated as cash divided by average daily expenses (p. 426).

Receivables Amounts due from individuals and businesses that are expected to be collected in cash (p. 428).

Receivables turnover A measure of the liquidity of receivables, calculated by dividing net credit sales by average net receivables (p. 441).

Unpresented cheque A cheque that has been issued by the payer but not yet paid by the bank (p. 413).

DEMONSTRATION PROBLEM 1

Presented here are selected transactions related to Dylan Ltd.

Mar.	1	Sold $20 000 of merchandise to Potter Pty Ltd, terms 2/7, n/30.
	8	Received payment in full from Potter Pty Ltd for balance due.
	12	Accepted Juno Pty Ltd's $20 000, 6-month note for balance due.
	13	Made credit sales to Grainger Ltd for $13 200.
	15	Made Visa credit sales totalling $6700. A 5% service fee is deducted from the bank deposit by Visa.
Apr.	11	Sold accounts receivable of $8000 to Harcot Factor. Harcot Factor assesses a service charge of 2% of the amount of receivables sold.
	13	Received collections of $8200 from Grainger Ltd.
May	10	Wrote off as uncollectable $16 000 account receivable from Wesley Ltd. Dylan Ltd uses the allowance method to account for bad debts.
June	30	The balance in accounts receivable at the end of the first 6 months is $200 000 and the bad debt percentage is 10%, determined by ageing the accounts receivable. At 30 June the credit balance in the allowance account before adjustment is $3500.
July	16	The account receivable written off in May pays part of the amount due, $4000. No further payment is expected.

REQUIRED

Prepare the entries for the transactions in general journal format. Discuss what information is required for a business to evaluate the quality of its accounts receivable asset.

SOLUTION TO DEMONSTRATION PROBLEM

Mar. 1	Accounts receivable—Potter Pty Ltd	20 000	
	Sales		20 000
	(To record sales on account)		
8	Cash	19 600	
	Discount allowed (2% × $20 000)	400	
	Accounts receivable—Potter Pty Ltd		20 000
	(To record collection of accounts receivable)		
12	Notes receivable	20 000	
	Accounts receivable—Juno Pty Ltd		20 000
	(To record acceptance of Juno Pty Ltd note)		
13	Accounts receivable	13 200	
	Sales		13 200
	(To record credit sales)		
15	Cash	6 365	
	Service charge expense (5% × $6700)	335	
	Sales		6 700
	(To record credit card sales)		
Apr. 11	Cash	7 840	
	Service charge expense (2% × $8000)	160	
	Accounts receivable		8 000
	(To record sale of accounts receivable to Harcot Factor)		
Apr. 13	Cash	8 200	
	Accounts receivable—Grainger Ltd		8 200
	(To record collection of accounts receivable)		
May 10	Allowance for doubtful debts	16 000	
	Accounts receivable—Grainger Ltd		16 000
	(To record write-off of accounts receivable)		
June 30	Bad debts expense	16 500	
	Allowance for doubtful debts [($200 000 × 10%) − $3500]		16 500
	(To record estimate of uncollectable accounts)		
July 16	Accounts receivable—Wesley Ltd	4 000	
	Allowance for doubtful debts		4 000
	(To reverse write-off of accounts receivable)		
	Cash	4 000	
	Accounts receivable—Wesley Ltd		4 000
	(To record collection of accounts receivable)		

A number of factors would influence the quality of the accounts receivable asset of an entity. Most importantly, how likely the receivables are to be collected in cash is affected by how long the accounts have been unpaid, in other words, the ageing of the account; the credit worthiness of the customers who were given credit; the relationship with the customers; and the effort by the relevant sales staff to follow up with the customers to 'chase up' their accounts, and so on.

Problem-solving strategies

1. Accounts receivable are generally recorded at invoice price.
2. Sales returns and allowances and cash discounts reduce the amount received on accounts receivable.
3. When accounts receivable are sold, a service charge expense is incurred by the seller.
4. Under the allowance method, bad debts expense is recognised when the allowance for doubtful debts is increased.
5. The ageing accounts receivable method of estimating the allowance considers any existing balance in the allowance account.
6. Write-offs of accounts receivable affect only statement of financial position accounts.

DEMONSTRATION PROBLEM 2

Walker Pty Ltd is a consultant and is registered for GST in New Zealand. Assume a GST rate of 15%. The terms of business are that a 2% settlement discount is offered if the customer pays their account within 30 days.

- Total fees for September were $460 000 (including GST).
- Walker Pty Ltd received payment for half of the fees within the discount period.
- One customer, Fred Beard, owing $28 750 went into liquidation and there was no chance of recovery so Walker Pty Ltd wrote the debt off in December.
- The balance of the monies owing of $201 250 were paid in December.

REQUIRED

Prepare the general journal format the entries to record the above information, including narrations.

Problem-solving strategies

1. Accounts receivable are generally recorded at invoice price.
2. The fees revenue is net of the GST included in the invoice price.
3. Cash settlement discounts reduce the amount received on accounts receivable and also the GST liability.
4. Write-offs of accounts receivable affect only statement of financial position accounts which includes the GST liability account.

SOLUTION TO DEMONSTRATION PROBLEM

Reasoning and workings

1. The GST included in the invoices to customers is at 15% fee revenue, i.e. $460 000 ÷ 1.15 = $400 000.
2. Settlement discount is at 2%. This is applied to half accounts receivable balance of $460 000 × 50% = $230 000. This means that 2% of the accounts receivable will not be collected so the GST collected liability account needs to be reduced also by 2%.
3. The bad debt to be written off also represents GST charged which will not be collected. Therefore, the GST liability needs a decreasing adjustment represented by the GST charged on the invoice.
4. The total collections for the September billings were $ 225 400 + $201 250 = $426 650. Therefore, the net GST collected will be $426 650 × (115 − 100)/115 = $55 650; or $60 000 − $600 − $3750 = $55 650.

1.	During Sept.	Account receivable	460 000	
		Fees revenue		400 000
		GST collected		60 000
		(To record fees for the period, GST charged at 15%)		
2.	Sept.	Cash ($230 000 × 98%)	225 400	
		Discount allowed ($200 000 × 2%)	4 000	
		GST collected ($30 000 × 2%)	600	
		Accounts receivable ($460 000 × 50%)		230 000
		(To record payment of account by customers within the discount period)		
3.	Dec.	Allowance for doubtful debts ($28 750/1.15)	25 000	
		GST collected ($28 750 − $25 000)	3 750	
		Accounts receivable		28 750
		(To record write-off of bad debt)		
4.	Dec.	Cash	201 250	
		Accounts receivable		201 250
		(To record balance of monies due from customers)		

SELF-STUDY QUESTIONS *Answers are at the end of the chapter.*

(LO1) 1. Which of the following business transactions do not involve cash?
(a) collecting accounts receivable.
(b) buying office supplies.
(c) paying wages to workers.
(d) accruing depreciation expense.

(LO3) 2. Permitting only designated personnel such as cashiers to handle cash receipts is an application of the principle of:
(a) segregation of duties.
(b) establishment of responsibility.
(c) independent internal verification.
(d) rotation of duties.

(LO3) 3. The use of prenumbered cheques in disbursing cash is an application of the principle of:
(a) establishment of responsibility.
(b) segregation of duties.
(c) physical, mechanical and electronic controls.
(d) documentation procedures.

(LO4) 4. In a bank reconciliation, when the bank statement shows a credit balance, outstanding deposits are:
(a) deducted from the business records balance.
(b) added to the business records balance.
(c) added to the balance as per bank statement.
(d) deducted from the balance as per bank statement.

(LO5) 5. Which of the following is not an effective way to manage cash?
(a) invest idle cash.
(b) hold excessive inventory.
(c) speed up collection of account receivable.
(d) stretch payment for accounts payable.

(LO6) 6. Which of the following ratios is an indication of the effectiveness of cash management?
(a) inventory turnover ratio.
(b) gross margin ratio.
(c) cash to daily cash expenses ratio.
(d) return on assets.

(LO11) 7. A cheque is written to replenish a $100 petty cash fund when the fund contains receipts of $94 and $3 in cash. In recording the cheque:
(a) Cash Over and Short should be debited for $3.
(b) Petty Cash should be debited for $94.
(c) Cash should be credited for $94.
(d) Petty Cash should be credited for $3.

(LO8) 8. Jones Pty Ltd on 15 June sells inventory on account to Bullock Ltd for $1000, terms 2/7, n/30. On 20 June Bullock Ltd returns inventory worth $300 to Jones Pty Ltd. On 21 June payment is received from Bullock Ltd for the balance due. What is the amount of cash received?
(a) $700. (c) $686.
(b) $680. (d) None of the above.

(LO8) 9. Net credit sales for the month are $800 000. The Accounts Receivable balance is $160 000. The allowance is calculated as 7.5% of the receivables balance using the ageing of receivables method. If the Allowance for Doubtful Debts has a credit balance of $5000 before adjustment, what is the balance after adjustment?
(a) $12 000. (c) $17 000.
(b) $7000. (d) $31 000.

(LO8) 10. In 2017 Norman Pty Ltd had net credit sales of $75 000. On 1 July 2016, the Allowance for Doubtful Debts had a credit balance of $1800. During 2017, $3000 of uncollectable accounts receivable were written off. Ageing of accounts receivable revealed that the allowance should be 8% of the balance in receivables. If the accounts receivable balance at 30 June 2017 was $20 000, what is the required adjustment to the Allowance for Doubtful Debts at 30 June 2017?
(a) $1600. (c) $2800.
(b) $7500. (d) $3000.

(LO9) 11. An analysis and ageing of the accounts receivable of Machiavelli Ltd at 31 December reveal these data:

Accounts receivable	$800 000
Allowance for doubtful debts per business records before adjustment (credit)	50 000
Amounts expected to become uncollectable	65 000

What is the recoverable amount of the accounts receivable at 31 December after adjustment?
(a) $685 000. (c) $800 000.
(b) $750 000. (d) $735 000.

(LO7) 12. Which of these statements about promissory notes is *incorrect* ?
(a) The party making the promise to pay is called the issuer.
(b) The party to whom payment is to be made is called the payee.
(c) A promissory note is not a negotiable instrument.
(d) A promissory note is more liquid than an account receivable.

(LO8) 13. Tyres R Us Ltd accepts a $1400, 3-month promissory note in settlement of an account with Parton Ltd. The entry to record this transaction is:

(a)	Accounts Receivable	1 400	
	Notes Receivable		1 400
(b)	Notes Receivable	1 400	
	Accounts Receivable		1 400
(c)	Notes Receivable	1 400	
	Sales		1 400
(d)	Bank	1 400	
	Notes Receivable		1 400

(LO8) 14. Schlicht Ltd holds Osgrove Ltd's $10 000, 120-day note. The entry made by Schlicht Ltd when the note is collected at maturity is:

(a)	Cash	10 000	
	Notes Receivable		10 000
(b)	Cash	10 000	
	Accounts Receivable		10 000
(c)	Accounts Receivable	10 000	
	Notes Receivable		10 000
(d)	Notes Receivable	10 000	
	Accounts Receivable		10 000

(LO10) 15. Moore Ltd had net credit sales during the year of $800 000 and cost of sales of $500 000. The balance in receivables at the beginning of the year was $100 000 and at the end of the year was $150 000. What was the receivables turnover?

(a) 6.4 (b) 8.0 (c) 5.3 (d) 4.0

(LO10) 16. Hoffman Pty Ltd sells its goods on terms of 2/7, n/30. It has a receivables turnover of 7. What is its average collection period (days)?

(a) 2555 (b) 30 (c) 52 (d) 210

(LO10) 17. Morgan Retailers accepted $50 000 of Citibank Visa credit card charges for inventory sold. Citibank deducts charges of 4% for its credit card use. The entry to record this transaction by Morgan Retailers will include a credit to Sales of $50 000 and a debit(s) to:

(a) Cash $48 000 and Service Charge Expense $2000.

(b) Accounts Receivable $48 000 and Service Charge Expense $2000.

(c) Cash $50 000.

(d) Accounts Receivable $50 000.

QUESTIONS

1. Edward Lee is about to start a business selling smartphone accessories on campus. Explain the impact of business transactions on cash by giving examples of the transactions that involve cash at the start up phase of the business.
2. Continue with question 1 above. Describe the electronic banking processes to Edward as he is setting up his business on campus.
3. 'Internal control for handling cash is concerned only with enhancing the accuracy of the accounting records.' Do you agree? Explain.
4. Highland Ltd owns these assets at year-end:

Cash at bank — savings account	$15 000
Cash on hand	1 850
GST refund due	4 000
Cheque account balance	22 000

What amount should be reported as Cash in the statement of financial position?

5. Dent Department Stores has just installed new electronic cash registers in its stores. How do cash registers improve internal control over cash receipts?
6. Describe the basic principles of cash management.
7. Johnny Harris asks your help concerning a dishonoured cheque. Explain to Johnny (a) what a dishonoured cheque is, (b) how it is treated in a bank reconciliation and (c) whether it will require an adjusting entry in the business's records.
8. (a) Identify the three activities that pertain to a petty cash fund, and indicate an internal control principle that is applicable to each activity.
   (b) When are journal entries required in the operation of a petty cash fund?
9. What is the difference between an account receivable and a note receivable?
10. Soo Eng cannot understand why the net amount of accounts receivable does not decrease when an uncollectable account is written off under the allowance method. Clarify this point for Soo Eng.
11. Simona Ltd's operating cycle is 1 year. How would the following receivables be classified on the statement of financial position?
    (a) Trade debtor account of $500 000, of which 70% is due within 1 month with the balance due in 18 months.
    (b) A 90-day promissory note.
12. Jayne's Gourmet Delivery is in its second year of operation. All sales are on credit and the business has a credit term of 30 days. You have just worked out that the receivables turnover is 8 times this year. Comment on the effectiveness of the collection policy.

BRIEF EXERCISES

BE7.1 Identify which of the following items are (a) cash flows, (b) assets and (c) liabilities accounts.

Distinguish cash flows versus assets. (LO1)

- Inventory.
- Bank loan.
- Monthly loan payment.
- GST receivable.
- Motor vehicle.
- Car loan.
- Car loan payment.

BE7.2 Harry Ford is starting a fruit juice bar on campus. He is wondering whether he should accept EFTPOS payments at his juice bar. Identify some of the costs and benefits of using electronic banking for this business.

Identify costs and benefits of electronic banking (LO2)

BE7.3 Aaron Tso is the merchandising manager for Franklin Office Supplies Ltd. During the month of April when the Franklin's accounts payable manager was on holiday, Aaron was responsible for receiving the goods that he ordered as well as approving payments for the purchases. Evaluate the internal controls in this situation.

Apply internal control principles to handling cash. (LO3)

BE7.4 At 31 July Ridley Pty Ltd has this bank information: cash balance as per bank $8420; unpresented cheques $862; outstanding deposits $2700; and a bank service charge $20. Determine the balance of the Cash at Bank account after any required adjustments.

Prepare partial bank reconciliation. (LO3)

BE7.5 On 20 March Sazin's petty cash fund of $200 is replenished when the fund contains $120 in cash and receipts for postage $32, supplies $26, and travel expense $22. Prepare the journal entry in general journal form to record the replenishment of the petty cash fund.

Prepare entry to replenish a petty cash fund. (LO11)

BE7.6 Presented below are three receivables transactions. Indicate whether these receivables are reported as accounts receivable, notes receivable, or other receivables on a statement of financial position.

Identify different types of receivables. (LO7)

(a) Advanced $10 000 to an employee.
(b) Received a promissory note of $57 000 for services performed.
(c) Sold inventory on account for $60 000 to a customer.

BE7.7 Massey Ltd uses the allowance method to record bad debts expense and concludes, using the ageing of accounts receivable method, that 1% of accounts receivable will become uncollectable. Accounts receivable are $500 000 at the end of the year, and the Allowance for Doubtful Debts has a credit balance of $3000.

Prepare entry using allowance method. (LO8)

(a) Prepare the adjusting journal entry to record bad debts expense for the year.
(b) If the Allowance for Doubtful Debts had a debit balance of $800 instead of a credit balance of $3000, determine the amount to be reported for bad debts expense.

BE7.8 During its first year of operations, Wendy Ltd had credit sales of $3 million, of which $600 000 remained uncollected at year-end. The credit manager estimates that $40 000 of these receivables will become uncollectable.

Prepare entry for estimated uncollectables and classifications, and calculate ratios. (LO8,9,10)

(a) Prepare the journal entry to record the estimated uncollectables. (Assume the allowance account has an unadjusted balance of nil.)
(b) Prepare the current assets section of the statement of financial position for Wendy Ltd, assuming that in addition to the receivables it has cash of $90 000, inventory of $130 000, and prepaid expenses of $13 000.
(c) Calculate the credit risk ratio, receivables turnover, and average collection period. Assume that average net receivables were $530 000.

BE7.9 Consider these transactions:

Prepare entries for credit card sale and sale of accounts receivable. (LO2,10)

(a) Bella Restaurant accepted MasterCard for payment of a $200 dinner. The bank charges a 4% fee. What entry should Bella Restaurant make?
(b) Frantella Ltd sold its accounts receivable of $50 000. What journal entry should Frantella make, given a service charge of 4% on the amount of receivables sold?

EXERCISES

Distinguish cash flows versus assets.
(LO1)

E7.1 As a recent graduate of a fashion design and business degree, Edith Leung is planning to buy a fashion boutique from Keitha Jones, a family friend. Following are selected items from the financial records of the fashion boutique:

• Credit card sales	$56 000	• GST receivable	$3 800
• Inventory	$28 000	• Cash at bank	$8 760
• Outstanding bank loan	$12 000	• Accounts payable	$8 400
• Loan payment	$5 800	• Cash sales	$18 500
• Rent payable	$2 400	• Accounts receivable	$6 800
• Operating expenses paid	$24 000	• Payment to suppliers	$16 000

Required

(a) Calculate (i) cash inflows, (ii) cash outflows, (iii) assets and (iv) liabilities for Keitha Jones's fashion boutique.

(b) Based on requirement (a), what can Edith infer in relation to purchasing the fashion boutique?

Identify the principles of internal control for handling cash.
(LO3)

E7.2 Gerry's Pizza operates strictly on a takeaway basis. Customers pick up their orders at a counter where a clerk exchanges the pizza for cash. At the counter, the customer can see other employees making the pizzas and the large ovens in which the pizzas are baked.

Required

Identify the five principles of internal control for handling cash and give an example of each principle that you might observe when picking up your pizza. (*Note:* It may not be possible to observe all the principles.)

List internal control weaknesses over cash receipts and suggest improvements.
(LO3)

E7.3 The following control procedures are used for over-the-counter cash receipts:

1. All over-the-counter receipts are registered by three clerks who share a cash register with a single cash drawer.
2. To minimise the risk of robbery, cash in excess of $100 is stored in an unlocked attaché case in the stockroom until it is deposited in the bank.
3. At the end of each day the total receipts are counted by the cashier on duty and reconciled to the cash register tape total.
4. The accountant deposits the cash received in the bank and then records the day's receipts.

Required

(a) For each procedure, explain the weakness in internal control and identify the control principle that is violated.

(b) For each weakness, suggest a change in procedure that will result in good internal control.

Prepare bank reconciliation statement and adjusting entries.
(LO4)

E7.4 Shoe City Pty Ltd's bank reconciliation clerk is unable to reconcile the bank balance at 31 January. The balance of the Cash at Bank account, before any entries for transactions initiated by the bank, was $4770.20 in the company records. The clerk's attempt at the bank reconciliation statement is as follows:

Cash balance as per bank statement	$4 392.20 Cr
Add: Dishonoured cheque	516.00
Less: Bank charges	30.00
Less: Outstanding deposits	708.00
Add: Unpresented cheques	876.00
Cash balance as per company records	$5 046.20

Required

(a) Prepare a correct bank reconciliation.

(b) Journalise the entries required by the reconciliation.

Calculate and comment on the cash to daily cash expenses ratio.
(LO6)

E7.5 Green Dot Furniture reported the following financial data in its latest annual report:

	$'000
Cash and cash equivalents	$17 312
Total cash expenses	92 728
Net cash provided by operating activities	15 520

Required
Calculate and comment on the cash to daily cash expenses ratio.

E7.6 During October, Hair Styles Pty Ltd experiences the following transactions in establishing a petty cash fund.

Prepare journal entries for a petty cash fund.
(LO11)

Oct.	1	A petty cash fund is established with a cheque for $130 issued to the petty cash custodian.	
	31	A count of the petty cash fund disclosed the following items:	
	31	Currency (notes)	$ 7.80
		Coins	0.50
		Expenditure receipts (vouchers):	
		Office supplies	$ 36.50
		Telephone and internet	21.30
		Postage	53.70
		Freight-out	8.80
		A cheque was written to reimburse the fund and increase the fund to $260.	

Required
Journalise the entries in October that pertain to the petty cash fund.

E7.7 Marc Pty Ltd has accounts receivable of $92 500 at 31 March 2016. An analysis of the accounts shows these amounts:

Determine bad debt expense, and prepare the adjusting entry.
(LO8)

	Balance, 31 March	
Month of sale	**2016**	**2015**
March	$65 000	$75 000
February	12 600	8 000
December and January	8 500	2 400
November and October	6 400	1 100
	$92 500	$86 500

Credit terms are 2/7, n/30. At 31 March 2016 there is a $1600 credit balance in Allowance for Doubtful Debts before adjustment. The entity uses the ageing of accounts receivable basis for estimating uncollectable accounts. Marc Pty Ltd's estimates of bad debts are as follows:

Age of accounts	Estimated percentage uncollectable
Current	2.0%
1–30 days past due	5.0
31–90 days past due	30.0
Over 90 days	50.0

Required
(a) Determine the total estimated uncollectables.
(b) Prepare the adjusting entry at 31 March 2016 to record bad debts expense.
(c) Discuss the implications of the changes in the ageing schedule from 2015 to 2016.

E7.8 Brian Bazaar had sold goods on credit in September 2016 for $5500 (including 10% GST) and in November 2016 became aware that the debtor M. Waters was bankrupt and the creditors were unlikely to receive any amounts due. On 28 November, the accountant for Brian Bazaar wrote the debt off against the Allowance for Bad Debts account. Brian Bazaar uses the non-cash (accruals) basis for reporting and remitting the GST obligations.

Prepare journal entries for GST for bad debt expense.
(LO8)

Required
(a) Prepare the journal entry to record the bad debt write-off.
(b) Prepare a brief memo to the general manager explaining the effect of the bad debt write-off on the GST liabilities and the difference between reporting the GST on the cash and non-cash (accruals) basis in regards to bad debts.

Report on receivables in financial statements. (LO9)

E7.9 Spring & Co Ltd had the following balances in receivable accounts at 30 June 2015 (in millions): Allowance for Doubtful Debts $11; Accounts Receivable $290; Other Receivables $22; Notes Receivable $95.

Required
Prepare the presentation of Spring & Co Ltd's receivables in the notes to the financial statements.

Calculate ratios to evaluate an entity's receivables balance. (LO10)

E7.10 The following information was taken from the 2017 financial statements of Honey Factory Ltd:

(in millions)	2017	2016	2015
Accounts receivable	$ 146.6	$ 104.3	$ 126.0
Allowance for doubtful debts	6.3	5.7	8.2
Sales	1 113.0	899.3	756.9
Total current assets	367.2	285.8	258.7

Required
Answer each of the following questions.
(a) Calculate the receivables turnover and average collection period for 2017 and 2016 for the entity, assuming all sales are on credit.
(b) Calculate the credit risk ratio for the entity for 2017 and 2016.
(c) Comment on the entity's credit and collection policies.

Prepare entry for sale of accounts receivable. (LO9)

E7.11 On 3 March Virtual Appliances sells $900 000 of its receivables to Fundamental Factors Ltd. Fundamental Factors Ltd assesses a finance charge of 4% of the amount of receivables sold.

Required
Prepare the entry in Virtual Appliances' records for the sale of the receivables.

Prepare entry for credit card sale. (LO2)

E7.12 On 10 May New Mark Ltd sold inventory for $2400 and accepted the customer's Business Bank MasterCard. At the end of the day, the Business Bank MasterCard receipts were deposited in New Mark Ltd's bank account. Business Bank charges a 1.5% service charge for credit card sales.

Required
Prepare the entry in New Mark Ltd's records for the sale of goods.

Determine cash adequacy. (LO6)

E7.13 You are considering investing in the bed and breakfast (B&B) industry. Two B&Bs, Burleigh Heaven and Miami Paradise, have been shortlisted for your consideration. Both companies are about the same size, with similar assets and sales. The following is extracted from their statements of cash flows for the year ended 31 December 2016:

	Burleigh Heaven	Miami Paradise
Receipts from customers	$ 91 380	$ 63 288
Cash payment to suppliers and employees	(63 905)	(55 802)
Interest received	489	288
Interest and other costs of finance paid	(6 780)	(16 383)
Income taxed paid	(17 672)	(12 239)

The statements of financial position as at 31 December 2016 show the following balance for cash and cash equivalent for the two companies:

	Burleigh Heaven	Miami Paradise
Cash and cash equivalent	7 110	4 289

Required
(a) Calculate the cash to daily expenses ratio for both companies.
(b) If the adequacy of cash is the only factor in your investment decision, which company would you invest in?

E7.14 Advanced Lifestyle Ltd has stores in Auckland and Queenstown. The following information was taken from the 2016 financial statements, showing the results of its two divisions:

Calculate ratios to evaluate two divisions' credit risk and receivable balances. (LO10)

(in NZ$ millions)	Auckland	Queenstown
Total sales	1 653	1 596
Credit sales	1 498	1 388
Gross profit	215	174
Allowance for doubtful debts (2015)	7.2	6.2
Allowance for doubtful debts (2016)	10	5.2
Accounts receivable (2015)	152	128
Accounts receivable (2016)	197	120
Total current assets	322	285

Required
(a) Calculate for each division:
 1. receivable turnover for 2016
 2. average collection period for 2016
 3. credit risk ratio for 2016 and 2015.
(b) As the Managing Director of Advanced Lifestyle Ltd, what conclusion can you make about the performance of the two divisions' management in terms of their collection policy and credit risk?

PROBLEM SET A

PSA7.1 As a recent graduate of a cooking course, James Brady is considering investing in a café that his best friend, Toby Dwyer, owns. Following are selected items from financial records of the café.

Calculate ratios to make business decisions. (LO1)

- Credit card sales $56 000
- Accounts payable $12 400
- Food supplies $29 500
- Outstanding bank loan $22 000
- Rent payable $14 800
- Accounts receivable $7 200
- Operating expenses paid $18 000
- GST receivable $4 900
- Cash at bank $13 200
- Loan payment $12 000
- Cash sales $28 500
- Payment to suppliers $21 000

Required
(a) Calculate (i) cash inflows, (ii) cash outflows, (iii) assets and (iv) liabilities for Toby's cafe business.
(b) Based on requirement (a), what can James infer in relation to investing in Toby's cafe?
(c) What other business information should James seek to make the decision of whether to invest in Toby's business?

PSA7.2 Burlington Theatre is in the Burlington Mall. A cashier's booth is located near the entrance to the theatre. Two cashiers are employed. One works from 1 to 5 p.m., the other from 5 to 9 p.m. The cashiers receive cash from customers and operate a machine that ejects serially numbered tickets. The rolls of tickets are inserted and locked into the machine by the theatre manager at the beginning of each cashier's shift.

Identify internal control weaknesses over cash receipts. (LO3)

After purchasing a ticket, the customer takes the ticket to a doorperson stationed at the entrance of the theatre lobby some 60 feet from the cashier's booth. The doorperson tears the ticket in half, admits the customer, and returns the ticket stub to the customer. The other half of the ticket is dropped into a locked box by the doorperson.

At the end of each cashier's shift, the theatre manager removes the ticket rolls from the machine and makes a cash count. The cash count sheet is initialled by the cashier. At the end of the day, the manager deposits the receipts in total in a bank night deposit vault located in the mall. In addition, the manager sends copies of the deposit slip and the initialled cash count sheets to the theatre accountant for verification and to the accounting department. Receipts from the first shift are stored in a safe located in the manager's office.

Required

(a) Identify the internal control principles and their application to the cash receipts transactions of Burlington Theatre.

(b) If the doorperson and cashier decided to collaborate to misappropriate cash, what actions might they take?

Prepare bank reconciliation and adjusting entries from detailed data. (LO4)

PSA7.3 The bank reconciliation statement for Jona Ltd at 30 November 2016 is shown below.

JONA LTD
Bank reconciliation statement
30 November 2016

Cash balance per bank statement			$ 14 367.90
Add: Outstanding deposits			2 530.20
			16 898.10
Less: Unpresented cheques			
	Cheque number	Cheque amount	
	3451	$ 2 260.40	
	3470	720.10	
	3471	844.50	
	3472	1 426.80	
	3474	1 050.00	6 301.80
Cash balance as per ledger			$ 10 596.30

The December bank statement showed the following cheques and deposits:

Information from bank statement

Cheques			Deposits	
Date	Number	Amount	Date	Amount
1/12	3451	$ 2 260.40	1/12	$ 2 530.20
2/12	3471	844.50	4/12	1 211.60
7/12	3472	1 426.80	8/12	2 365.10
4/12	3475	1 640.70	16/12	2 672.70
8/12	3476	1 300.00	21/12	2 945.00
10/12	3477	2 130.00	26/12	2 567.30
15/12	3479	3 080.00	29/12	2 836.00
27/12	3480	600.00	30/12	1 025.00
30/12	3482	475.50		
29/12	3483	1 140.00		
31/12	3485	540.80		
	Total	$15 438.70	Total	$18 152.90

Jona Ltd's cash records for December showed the following:

Cash payments journal

Date	Cheque number	Amount	Date	Cheque number	Amount
1/12	3475	$1 640.70	20/12	3482	$ 475.50
2/12	3476	1 300.00	22/12	3483	1 140.00
2/12	3477	2 130.00	23/12	3484	832.00
4/12	3478	538.20	24/12	3485	450.80
8/12	3479	3 080.00	30/12	3486	1 389.50
10/12	3480	600.00	Total		$14 384.10
17/12	3481	807.40			

Cash receipts journal

Date	Amount banked
3/12	$ 1 211.60
7/12	2 365.10
15/12	2 672.70
20/12	2 954.00
25/12	2 567.30
28/12	2 836.00
30/12	1 025.00
31/12	1 190.40
	$16 822.10

The bank statement contained two items:

1. A credit of $3145 for the collection of a $3000 note for Jona Ltd; interest of $160; a collection fee of $15.00. Jona Ltd has not accrued any interest on the note.
2. A debit of $647.10 for a dishonoured cheque written by A. Jordan, a customer. At 31 December the cheque had not been redeposited in the bank.

At 31 December the cash balance per Jona Ltd's records was $13 034.30, and the cash balance per bank statement was $19 580.00. The bank did not make any errors, but two errors were made by Jona Ltd.

Helpful hint

NSF stands for not sufficient funds, that is, a dishonoured cheque.

Required

(a) Using the reconciliation procedure described on pages 414–15, prepare a bank reconciliation at 31 December.

(b) Prepare the adjusting entries based on the reconciliation. (*Note:* The correction of any errors pertaining to recording cheques should be made to Accounts Payable. The correction of any errors relating to recording cash receipts should be made to Accounts Receivable.)

PSA7.4 Delicious Pies Pty Ltd is a very profitable small business. It has not, however, given much consideration to internal control. For example, in an attempt to keep clerical and office expenses to a minimum, the jobs of cashier and bookkeeper have been combined. As a result, Rob Rowe handles all cash receipts, keeps the accounting records, and prepares the monthly bank reconciliations.

Prepare comprehensive bank reconciliation statement with internal control deficiencies. (LO3,4)

The balance as per the bank statement on 31 October 2017 was $25 732. Unpresented cheques were: no. 62 for $177.45, no. 183 for $210, no. 284 for $354.55, no. 862 for $266.99, no. 863 for $317.52, and no. 864 for $231.39. Included on the bank statement was a credit entry of $280 indicating the collection of a note receivable for Delicious Pies Pty Ltd by the bank on 25 October. This entry had not been recorded by Delicious Pies Pty Ltd.

The entity's ledger showed one cash account with a balance of $30 369.81. The balance included undeposited cash on hand. Because of the lack of internal controls, Rowe took for personal use all of the undeposited receipts in excess of $5313.71. He then prepared the following bank reconciliation statement in an effort to conceal his theft of cash:

Cash balance as per company records, 31 October		$ 30 369.81
Add: Unpresented cheques		
No. 862	$266.99	
No. 863	317.52	
No. 864	231.39	675.90
		31 045.71
Less: Undeposited receipts		5 313.71
Cash balance as per bank statement, 31 October		$ 25 732.00

Required

(a) Prepare a correct bank reconciliation statement. (*Hint:* Deduct the amount of the theft from the balance as per company records.)

(b) Indicate the three ways that Rowe attempted to conceal the theft and the dollar amount involved in each method.

(c) What principles of internal control were violated in this case?

Prepare bank reconciliation statement and adjusting entries.
(LO4)

PSA7.5 On 31 May 2015 Computec Ltd had a cash balance as per company records of $5681.50 debit. The bank statement from Community Bank on that date showed a credit balance of $7784.60. A comparison of the statement with the cash account revealed the following facts:

1. The statement included a debit entry of $60 for the printing of additional company cheques.
2. Cash sales of $836.15 on 12 May were deposited in the bank. The cash receipts journal entry and the deposit slip were incorrectly made for $846.15. The bank credited Computec Ltd for the correct amount.
3. Unpresented cheques at 31 May totalled $1276.25, and outstanding deposits were $836.15.
4. On 18 May Computec Ltd issued cheque no. 1181 for $685 to M. Helms on account. The cheque, which cleared the bank in May, was incorrectly journalised and posted by Computec Ltd for $658.
5. A $3000 note receivable was collected by the bank for Computec Ltd on 31 May plus $80 interest. The bank charged a collection fee of $20. No interest has been accrued on the note.
6. Included with the cheques paid was a cheque issued by Teller Pty Ltd to P. Jonet for $600 that was incorrectly charged to Computec Ltd by the bank.
7. On 31 May the bank statement showed a dishonoured cheque of $700 that had been issued by W. Hoad, a customer, to Computec Ltd.

Required

(a) Prepare the bank reconciliation as at 31 May 2015.

(b) Prepare the necessary adjusting entries as at 31 May 2015.

Journalise transactions related to bad debts.
(LO8)

PSA7.6 The following is an accounts receivable ageing schedule for Chin Ltd.

			Number of days past due			
Customer	**Total**	**Not yet due**	**1–30**	**31–60**	**61–90**	**Over 90**
Lee	$ 22 000		$ 10 000	$ 12 000		
Lu	40 000	$ 40 000				
Sing	57 000	16 000	6 000		$ 35 000	
Wong	34 000					$ 34 000
Others	126 000	96 000	16 000	14 000		
	$ 279 000	$ 152 000	$ 32 000	$ 26 000	$ 35 000	$ 34 000
Estimated percentage uncollectable		4%	7%	13%	25%	50%
Total estimated bad debts	$ 37 450	$ 6 080	$ 2 240	$ 3 380	$ 8 750	$ 17 000

At 31 December 2016 the unadjusted balance in Allowance for Doubtful Debts is a credit of $12 000.

Required

(a) Journalise and post the adjusting entry for bad debts at 31 December 2016.

(b) Journalise and post to the allowance account these 2017 events and transactions. (Use running-balance format.)
   1. 31 March, a $500 customer balance originating in 2017 is determined to be uncollectable.
   2. 31 May, a cheque for $500 is received from the customer whose account was written off as uncollectable on 31 March.

(c) Journalise the adjusting entry for bad debts at 31 December 2017, assuming that the unadjusted balance in Allowance for Doubtful Debts is a debit of $800 and the ageing schedule indicates that total estimated bad debts will be $30 300.

PSA7.7 The following information relates to Eason Ltd for 2016:

Calculate bad debt amounts using different methods. (LO8)

Total credit sales	$200 000
Accounts receivable at 31 December 2016	46 000
Bad debts written off	2 900

Required

(a) What amount of bad debts expense will Eason Ltd report if it uses the direct write-off method of accounting for bad debts?
(b) Assume that Eason Ltd decides to estimate its bad debts expense based on 5% of accounts receivable. What amount of bad debts expense will the business record if it has an Allowance for Doubtful Debts credit balance of $1600 at 31 December 2015?
(c) Assume the same facts as in part (b), except that there is debit balance of $1150 in Allowance for Doubtful Debts. What amount of bad debts expense will Eason Ltd record?
(d) What is the weakness of the direct write-off method of reporting bad debts expense?

PSA7.8 At 31 December 2016, the trial balance of Lexington Pty Ltd contained the following amounts before adjustment:

Journalise entries to record transactions related to bad debts. (LO8)

	Debits	Credits
Accounts Receivable	$400 000	
Allowance for Doubtful Debts		$ 1 000
Sales		950 000

Required

(a) Based on the information given, which method of accounting for bad debts is Lexington Pty Ltd using — the direct write-off method or the allowance method? How can you tell?
(b) Prepare the adjusting entry at 31 December 2016, for bad debts expense assuming that the ageing schedule indicates that $11 750 of accounts receivable will be uncollectable.
(c) Repeat part (b) assuming that instead of a credit balance there is a $1000 debit balance in the Allowance for Doubtful Debts.
(d) During the next month, January 2017, a $5000 account receivable is written off as uncollectable. Prepare the journal entry to record the write-off.
(e) Repeat part (d) assuming that Lexington uses the direct write-off method instead of the allowance method in accounting for uncollectable accounts receivable.
(f) What type of account is the Allowance for Doubtful Debts? How does it affect how accounts receivable is reported on the statement of financial position at the end of the accounting period?

PSA7.9 On 1 January 2017, Diego Ltd had Accounts Receivable $146 000; Notes Receivable $15 000; and Allowance for Doubtful Debts $13 200. The note receivable is from Annabelle Ltd. It is a 4-month, 12% note dated 31 December 2016. Diego Ltd prepares financial statements annually. During the year the following selected transactions occurred.

Journalise various receivables transactions. (LO8,9)

Jan.	5	Sold $16 000 of merchandise to George Pty Ltd, terms n/15.
	20	Accepted George Pty Ltd's $16 000, 3-month, 9% note for balance due.
Feb.	18	Sold $8000 of merchandise to Swaim Ltd and accepted Swaim's $8000, 6-month, 10% note for the amount due.
Apr.	20	Collected George Pty Ltd note in full.
	30	Received payment in full from Annabelle Ltd on the amount due.
May	25	Accepted Avery Ltd $6000, 3-month, 8% note in settlement of a past-due balance on account.
Aug.	18	Received payment in full from Swaim Ltd on note due.
	25	The Avery Ltd note was dishonoured. Avery Ltd is not bankrupt and future payment is anticipated.
Sept.	1	Sold $10 000 of merchandise to Young Pty Ltd and accepted a $10 000, 6-month, 10% note for the amount due.

Required

Journalise the transactions.

Calculate and interpret various ratios.
(LO10)

PSA7.10 Presented below is basic financial information from recent annual reports of Qantas and Air New Zealand:

	Qantas (A$ million)	**Air New Zealand (NZ$ million)**
Sales (assume all sales were credit sales)	$13 772	$4 046
Allowance for doubtful debts, start of year	27	2
Allowance for doubtful debts, end of year	6	3
Accounts receivable balance (gross), start of year	1 054	274
Accounts receivable balance (gross), end of year	1 088	322

Required

(a) Calculate the receivables turnover and average collection period for both entities. Comment on the difference in their collection experiences.

(b) Calculate the ratio of allowance for doubtful debts to gross accounts receivable (credit risk ratio) for each entity for the start of the year and at the end of the year. Comment on any apparent differences in their credit-granting practices.

PROBLEM SET B

Calculate ratios to make business decisions.
(LO1)

PSB7.1 Samantha Perry is considering investing in a bakery that her friend, Caylie Lewis, owns. Following are selected items from financial records of the bakery.

• Credit card sales	$46 000
• Accounts payable	$14 400
• Food supplies	$18 500
• Outstanding bank loan	$15 000
• Rent payable	$4 800
• Accounts receivable	$7 200
• Operating expenses paid	$22 000
• GST receivable	$2 900
• Cash at bank	$9 200
• Loan payment	$4 000
• Cash sales	$22 500
• Payment to suppliers	$18 000

Required

(a) Calculate (i) cash inflows, (ii) cash outflows, (iii) assets and (iv) liabilities for Caylie's bakery business.

(b) Based on requirement (a), what can Samantha infer in relation to investing in Caylie's bakery?

(c) What other business information should Samantha seek to make the decision of whether to invest in Caylie's business?

Identify internal control principles over cash disbursements.
(LO3)

PSB7.2 Rabbit Ears Pet Food Ltd recently changed its system of internal control over cash disbursements. The system includes the following features.

Instead of being unnumbered and manually prepared, all cheques must now be prenumbered. Before a cheque can be issued, each invoice must have the approval of Cindy Morris, the purchasing manager, and Ray Mills, the receiving department supervisor. Cheques must be signed by either Frank Malone, the accountant, or Mary Arno, the assistant accountant. Before signing a cheque, the signer is expected to compare the amounts of the cheque with the amounts on the invoice.

After signing a cheque, the signer stamps the invoice 'paid' and inserts within the stamp, the date, cheque number and amount of the cheque. The 'paid' invoice is then sent to the accounting department for recording.

Blank cheques are stored in a safe in the accountant's office. The combination to the safe is known by only the accountant and assistant accountant. Each month the bank statement is reconciled with the bank balance per books by the assistant managing director.

Required

Identify the internal control principles and their application to cash disbursements of Rabbit Ears Pet Food Ltd.

PSB7.3 The bank reconciliation statement for Watson Pty Ltd at 31 October 2015 is shown here:

Prepare bank reconciliation statement and adjusting entries from detailed data. (LO4)

WATSON PTY LTD
Bank reconciliation statement
as at 31 October 2015

Cash balance as per bank statement			$ 12 367.90 Cr
Add: Outstanding deposits			1 530.20
			13 898.10
Less: Unpresented cheques			
	Cheque number	Cheque amount	
	2451	$ 1 260.40	
	2470	720.10	
	2471	844.50	
	2472	426.80	
	2474	1 050.00	4 301.80
Cash balance as per ledger			$ 9 596.30 Dr

The November bank statement showed the following cheques and deposits:

Information from bank statement

Cheques			Deposits	
Date	Number	Amount	Date	Amount
1/11	2470	$ 720.10	1/11	$ 1 530.20
4/11	2471	844.50	4/11	1 211.60
4/11	2474	1 050.00	8/11	990.10
5/11	2475	1 640.70	13/11	2 575.00
8/11	2476	2 830.00	18/11	1 472.70
8/11	2477	600.00	21/11	2 945.00
15/11	2479	1 750.00	25/11	2 567.30
18/11	2480	1 330.00	28/11	1 650.00
27/11	2481	695.40	29/11	1 186.00
28/11	2483	575.50		
29/11	2486	900.00		
		$12 936.20		$16 127.90

The company's cash records for November showed the following:

Cash payments journal (extract)

Date	Cheque number	Amount	Date	Cheque number	Amount
1/11	2475	$ 1 640.70	20/11	2483	$ 575.50
2/11	2476	2 830.00	22/11	2484	829.50
2/11	2477	600.00	23/11	2485	974.80
4/11	2478	538.20	24/11	2486	900.00
8/11	2479	1 570.00	29/11	2487	398.00
10/11	2480	1 330.00	30/11	2488	800.00
15/11	2481	695.40			
18/11	2482	612.00			
			Total		$ 14 294.10

Cash receipts journal (extract)

Date	Amount banked
3/11	$ 1 211.60
7/11	990.10
12/11	2 575.00
17/11	1 472.70
20/11	2 954.00
24/11	2 567.30
27/11	1 650.00
29/11	1 186.00
30/11	1 225.00
Total	$15 831.70

The bank statement contained the following two items:

1. A credit of $1905 for the collection of an $1800 note for Watson Pty Ltd; interest of $120; a collection fee of $15. Watson Pty Ltd has not accrued any interest.
2. A debit for the printing of additional company cheques, $70.

At 30 November the cash balance as per company records was $11 133.90 and the cash balance as per bank statement was $17 394.60. The bank did not make any errors, but two errors were made by Watson Pty Ltd.

Required

(a) Using the reconciliation procedure described on pp. 414–15, prepare a bank reconciliation as at 30 November.

(b) Prepare the adjusting entries based on the reconciliation. (*Note:* The correction of any errors pertaining to recording cheques should be made to Accounts Payable. The correction of any errors relating to recording cash receipts should be made to Accounts Receivable.)

Prepare comprehensive bank reconciliation statement with internal control deficiencies.
(LO3,4)

PSB7.4 Wizards and Dragons Pty Ltd is a very profitable small business. It has not, however, given much consideration to internal control. For example, in an attempt to keep clerical and office expenses to a minimum, the jobs of cashier and bookkeeper have been combined. As a result, Rob Rowe handles all cash receipts, keeps the accounting records, and prepares the monthly bank reconciliations.

The balance as per the bank statement on 31 October 2016 was $18 380. Unpresented cheques were: no. 62 for $126.75, no. 183 for $150, no. 284 for $253.25, no. 862 for $190.71, no. 863 for $226.80, and no. 864 for $165.28. Included on the bank statement was a credit entry of $200 indicating the collection of a note receivable for Wizards and Dragons Pty Ltd by the bank on 25 October. This entry had not been recorded by Wizards and Dragons Pty Ltd.

The entity's ledger showed one cash account with a balance of $21 892.72. The balance included undeposited cash on hand. Because of the lack of internal controls, Rowe took for personal use all of the undeposited receipts in excess of $3795.51. He then prepared the following bank reconciliation statement in an effort to conceal his theft of cash:

Cash balance as per company records, 31 October		$21 692.72
Add: Unpresented cheques		
No. 862	$190.71	
No. 863	226.80	
No. 864	165.28	482.79
		22 175.51
Less: Undeposited receipts		3 795.51
Cash balance as per bank statement, 31 October		$18 380.00

Required

(a) Prepare a correct bank reconciliation statement. (*Hint:* Deduct the amount of the theft from the balance as per company records.)

(b) Indicate the three ways that Rowe attempted to conceal the theft and the dollar amount involved in each method.

(c) What principles of internal control were violated in this case?

Prepare bank reconciliation statement and adjusting entries.
(LO4)

PSB7.5 On 31 May 2016 Interactive Ltd had a cash balance as per company records of $10 949 debit. The bank statement from Community Bank on that date showed a credit balance of $15 569.20. A comparison of the statement with the cash account revealed the following facts:

1. The statement included a debit entry of $120 for the printing of additional company cheques.
2. Cash sales of $1672.30 on 12 May were deposited in the bank. The cash receipts journal entry and the deposit slip were incorrectly made for $1692.30. The bank credited Interactive Ltd for the correct amount.
3. Unpresented cheques at 31 May totalled $2552.50, and outstanding deposits were $1672.30.

4. On 18 May Interactive Ltd issued cheque no. 1181 for $1370 to M. Helms on account. The cheque, which cleared the bank in May, was incorrectly journalised and posted by Interactive Ltd for $1730.
5. A $6000 note receivable was collected by the bank for Interactive Ltd on 31 May plus $160 interest. The bank charged a collection fee of $40. No interest has been accrued on the note.
6. Included with the cheques paid was a cheque issued by Teller Pty Ltd to P. Jonet for $1200 that was incorrectly charged to Interactive Ltd by the bank.
7. On 31 May the bank statement showed a dishonoured cheque of $1400 that had been issued by W. Hoad, a customer, to Interactive Ltd.

Required

(a) Prepare the bank reconciliation as at 31 May 2016.
(b) Prepare the necessary adjusting entries as at 31 May 2016.

Journalise transactions related to bad debts. (LO8)

PSB7.6 The following is an accounts receivable ageing schedule for Cain Ltd.

			Number of days past due			
Customer	**Total**	**Not yet due**	**1–30**	**31–60**	**61–90**	**Over 90**
Aber	$ 20 000		$ 9 000	$ 11 000		
Bohr	30 000	$ 30 000				
Case	50 000	15 000	5 000		$ 30 000	
Datz	38 000					$ 38 000
Major Ltd	120 000	92 000	15 000	13 000		
	$ 258 000	$ 137 000	$ 29 000	$ 24 000	$ 30 000	$ 38 000
Estimated percentage uncollectable		3%	6%	12%	24%	50%
Total estimated bad debts	$ 34 930	$ 4 110	$ 1 740	$ 2 880	$ 7 200	$ 19 000

At 31 December 2016 the unadjusted balance in Allowance for Doubtful Debts is a credit of $10 000.

Required

(a) Journalise and post the adjusting entry for bad debts at 31 December 2016.
(b) Journalise and post to the allowance account these 2017 events and transactions. (Use running-balance format.)
   1. 1 March, a $600 customer balance originating in 2017 is judged uncollectable.
   2. 1 May, a cheque for $600 is received from the customer whose account was written off as uncollectable on 1 March.
(c) Journalise the adjusting entry for bad debts at 31 December 2017, assuming that the unadjusted balance in Allowance for Doubtful Debts is a debit of $1100 and the ageing schedule of accounts receivable indicates that total estimated bad debts will be $29 100.

Calculate bad debt amounts using different methods. (LO8)

PSB7.7 The following information relates to Benson Ltd for 2016.

Total credit sales	$250 000
Accounts receivable at 31 December 2016	57 500
Bad debts written off	3 625

Required

(a) What amount of bad debts expense will Benson Ltd report if it uses the direct write-off method of accounting for bad debts?
(b) Assume that Benson Ltd decides to estimate its bad debts expense based on 5% of accounts receivable. What amount of bad debts expense will the business record if it has an Allowance for Doubtful Debts credit balance of $2 000 at 31 December 2015?
(c) Assume the same facts as in part (b), except that there is a debit balance of $1 438 in Allowance for Doubtful Debts. What amount of bad debts expense will Benson Ltd record?
(d) What is the weakness of the direct write-off method of reporting bad debts expense?

Journalise entries to record transactions related to bad debts.
(LO8,9)

PSB7.8 At 30 June 2016, the trial balance of Shine Ltd contained the following amounts before adjustment.

	Debits	Credits
Accounts Receivable	$350 000	
Allowance for Doubtful Debts		$ 1 500
Sales		875 000

Required

(a) Based on the information given which method of accounting for bad debts is Shine Ltd using — the direct write-off method or the allowance method? How can you tell?

(b) Prepare the adjusting entry at 30 June 2016 to record bad debt expense assuming that the ageing schedule indicates that $16 750 of accounts receivable will be uncollectable.

(c) Repeat part (a) assuming that instead of a credit balance there is a $1500 debit balance in the Allowance for Doubtful Debts.

(d) During the next month, July 2016, a $4500 account receivable is written off as uncollectable. Prepare the journal entry to record the write-off.

(e) Repeat part (c) assuming that Shine Ltd uses the direct write-off method instead of the allowance method in accounting for uncollectable accounts receivable.

(f) What type of account is the Allowance for Doubtful Debts? How does it affect how accounts receivable is reported on the statement of financial position at the end of the reporting period?

Journalise various receivables transactions.
(LO8,9)

PSB7.9 On 1 January 2017, Elam Ltd had Accounts Receivable $54 200 and Allowance for Doubtful Debts $4700. During the year the selected transactions shown below occurred.

Jan.	5	Sold $6000 of inventory to Brooks Pty Ltd, terms n/30.
Feb.	2	Accepted a $6000, 4-month promissory note from Brooks Pty Ltd for balance due.
	12	Sold $7800 of inventory to Gage Pty Ltd and accepted Gage's $7800, 2-month note for the balance due.
	26	Sold $4000 of inventory to Mathias Ltd, terms n/10.
Apr.	12	Collected Gage Pty Ltd note in full.
June	2	Collected Brooks Pty Ltd note in full.
July	15	Sold $3000 of merchandise to Tritt Pty Ltd and accepted Tritt's $3000, 3-month note for the amount due.
Aug.	15	Tritt Pty Ltd's note was discounted for $2940.

Required

Journalise the transactions.

Calculate and interpret various ratios.
(LO10)

PSB7.10 Presented below is basic financial information from recent annual reports of CSR Ltd and Coca-Cola Amatil Ltd (CCA):

	CSR Ltd ($ million)	CCA Ltd ($ million)
Sales (assume all sales were credit sales)	$3 754.9	$4 546.8
Allowance for doubtful debts, start of year	9.0	7.8
Allowance for doubtful debts, end of year	7.5	9.0
Accounts receivable balance (gross), start of year	562.1	671.0
Accounts receivable balance (gross), end of year	491.9	777.6

Required

(a) Calculate the receivables turnover and average collection period for both entities. Comment on the difference in their collection experiences.

(b) Calculate the ratio of allowance for doubtful debts to gross accounts receivable (credit risk ratio) for each entity for the start of the year and at the end of the year. Comment on any apparent differences in their credit-granting practices.

BUILDING BUSINESS SKILLS

FINANCIAL REPORTING AND ANALYSIS

FINANCIAL REPORTING PROBLEM: *Domino's Pizza Enterprises Ltd*

BBS7.1 The financial statements of Domino's are presented in the appendix at the back of this book.

Required

Using the financial statements and reports, answer these questions about the entity's internal controls and cash:

(a) What is the balance of cash shown in the consolidated statement of financial position at 1 July 2013?
(b) How is cash defined in the notes to the financial statements?
(c) How much cash was provided by operating activities during 2012/2013?
(d) Calculate the ratio of cash to daily cash expenses for 2013 using the amount of cash reported in the statement of financial position.

COMPARATIVE ANALYSIS PROBLEM: *Domino's Pizza Enterprises Ltd*

BBS7.2 The 2013 financial statements of Domino's are presented in the appendix at the back of this book. The cash flow statement for Domino's for 2013 is reproduced below and on the following page.

Required

(a) Calculate the ratio of cash to daily cash expenses for each year using the closing consolidated cash balance reported in the cash flow statement.
(b) Which year has the stronger cash position based on the ratios calculated?

DOMINO'S PIZZA ENTERPRISES LTD
Cash flow statement
for the year ended 30 June 2013

		Consolidated	
	Note	**2013 $'000**	**2012 $'000**
Cash flows from operating activities			
Receipts from customers		327 142	295 099
Payments to suppliers and employees		(282 864)	(250 792)
Interest received		1 103	1 785
Interest and other costs of finance paid		(405)	(451)
Income taxes paid		(11 796)	(7 963)
Net cash generated by operating activities	37	**33 180**	**37 678**
Cash flows from investing activities			
Payment for investment and business operations, net of cash and inventory acquired	36	(19 077)	(11 876)
Loans repaid from third parties and franchisees			
Payment for property, plant & equipment		2 516	2 106
Proceeds from sale of businesses and other		(25 037)	(17 658)
non-current assets		21 069	22 924
Payments for intangible assets		(9 866)	(7 474)
Net cash used in investing activities		**(30 395)**	**(11 978)**

(continued)

Cash flow statement *(continued)*			
		Consolidated	
	Note	2013 $'000	2012 $'000
Cash flows from financing activities			
Proceeds from borrowings		43 721	—
Repayment of borrowings		(20 506)	(24)
Return of Share Capital		(30 042)	—
Dividends paid		(20 762)	(16 954)
Proceeds from issue of equity securities		1 025	5 349
Net cash used in financing activities		**(26 564)**	**(11 629)**
Net increase/(decrease) in cash and cash equivalents		(23 779)	14 071
Cash and cash equivalents at the beginning of the year		40 340	28 085
Effects of exchange rate changes on the balance of cash held in foreign currencies		2 130	(1 816)
Cash and cash equivalents at the end of the year	37	**18 691**	**40 340**

CRITICAL THINKING

GROUP DECISION CASE

BBS7.3 Johanna and Jake Berkvom own Campus Fashions. From its inception Campus Fashions has sold goods on either a cash or credit basis, but no credit cards have been accepted. During the past several months, the Berkvoms have begun to question their credit sales policies. First, they have lost some sales because of their refusal to accept credit cards. Second, representatives of two banks have convinced them to accept their credit cards. One bank, City Bank, has stated that (1) its credit card fee is 4% and (2) it pays the retailer 96 cents on each $1 of sales within 3 days of receiving the credit card billings.

The Berkvoms decide that they should determine the cost of carrying their own credit sales. From the accounting records of the past 3 years they accumulate these data:

	2017	2016	2015
Net credit sales	$600 000	$720 000	$480 000
Collection agency fees for slow-paying customers	2 940	3 000	1 920
Wages of part-time accounts receivable clerk	4 560	4 560	4 560

Credit and collection expenses as a percentage of net credit sales are as follows: uncollectable accounts 1.6%, invoicing and mailing costs 0.5%, and credit investigation fee on new customers 0.15%.

Johanna and Jake also determine that the average accounts receivable balance outstanding during the year is 5% of net credit sales. The Berkvoms estimate that they could earn an average of 10% annually on cash invested in other business opportunities.

Required

With the class divided into groups, answer the following:

(a) Present calculations for each year showing total credit and collection expenses in dollars and as a percentage of net credit sales.

(b) Determine the net credit and collection expenses in dollars and as a percentage of sales after considering the revenue not earned from other investment opportunities. (*Note:* The interest revenue lost on the cash held by the bank for 3 days is considered to be immaterial.)
(c) Discuss both the financial and non-financial factors that are relevant to the decision.

ETHICS CASE

BBS7.4 The chief accountant of Shirts Galore Ltd believes that the entity's yearly allowance for doubtful debts should be 2% of net credit sales. The managing director of Shirts Galore Ltd, nervous that the shareholders might expect the entity to sustain its 10% growth rate, suggests that the chief accountant increase the allowance for doubtful debts to 4%. The managing director thinks that the lower profit, which reflects a 6% growth rate, will be a more sustainable rate for Shirts Galore Ltd.

Required
(a) Who are the stakeholders in this case?
(b) Does the managing director's request pose an ethical dilemma for the chief accountant?
(c) Should the chief accountant be concerned with Shirts Galore Ltd's growth rate in estimating the allowance? Explain your answer.

COMMUNICATION ACTIVITY

BBS7.5 As a new auditor for Farmers Chartered Accountants, you have been assigned to review the internal controls over cash receipts of Aardvark Pty Ltd. Your review reveals that cheques are promptly endorsed 'For account of Aardvark Pty Ltd only' so that they can be deposited only to Aardvark's bank account, but no list of the cheques is prepared by the person opening the mail. The mail is opened either by the cashier or by the employee who maintains the accounts receivable records. Mail receipts are deposited in the bank each week by the cashier.

Required
Write a letter to Izzy Rich, manager of Aardvark Pty Ltd, explaining the weaknesses in internal control and your recommendations for improving the system.

COMMUNICATION ACTIVITY

BBS7.6 As incidence of corporate fraud increased in the wake of the global financial crisis, so has the demand for forensic accountants to investigate and manage business risks. An article published in the *Business Review Weekly* discusses this very topic. The article is reproduced below.

Trail of guilt

Forensic accountants are in demand, investigating more fraud as unscrupulous staff react to an uncertain economic future.

Just 10 years ago, forensic accounting was virtually non-existent in Australia. It is now an important part of most firms.

The economy may be weak but demand for forensic accountants has never been stronger, forcing practices to recruit from overseas and other industries to fill the skills shortage.

Forensic accountants anticipate an increase in the number of corporate fraud cases under investigation, as employees facing an uncertain economic future take advantage of lax controls to steal. Also, a deluge of expected corporate insolvency work will flood the forensic market as corporate collapses are investigated by regulators and creditors.

Deloitte's forensic team has grown by 58 per cent annually during the past decade, the Asia-Pacific lead partner of the division, Tim Phillipps, says, and the company is looking for more recruits.

Phillipps says he has noticed a change in the nature of new cases in the past six months, 'A lot of the consulting-style work we were getting, helping companies with their risk-management programs . . . has turned around to, "Oh my gosh, my CEO has been stealing from us" or "Oh my gosh, my CFO has been stealing from us".

'As the profits are dropping away quite quickly, a lot of the bodies are floating to the surface. It's starting to reveal what's really going on.'

The partner in charge of McGrath-Nicol Forensic, Jon Rowell, who has been in the field for 14 years, says he has never seen it so busy. And he expects the sector to be busy for at least the next three to four years.

(continued)

Rowell expects his division of 35 staff to expand by a third this year. Due to the skills shortage, the company has been recruiting from overseas, recently taking on two managers from London.

The number of fraud cases will increase as the global financial crisis sets in, he says. The magnitude of fraud cases the company is working on has already blown out.

'In the past, workplace fraud involving $100 000 or $200 000 was regarded as major. Now we are regularly seeing workplace frauds where the value of funds stolen is $5 million or $10 million or more.'

PPB, which has a former federal police officer on staff, has hired several professionals to boost its forensic division and is still recruiting, national forensics partner Joe Dicks says. There has been a 'definite increase' in the number of reported fraud cases the company has been asked to investigate.

'I think that traditionally when times are good, people have bigger and better things to worry about — making money and making new deals,' he says, 'if a fraud is discovered, they move on quickly without wasting time investigating.'

When things are not so rosy financially, 'there's very much more of an appetite to follow these things up'. Temptation also increases during tough times when people may lose their jobs or be forced to take pay cuts, he says.

High-tech trackers

Long a paper-based game, forensic accounting is rapidly evolving into a high-tech discipline with information technology professionals and other non-accounting recruits being employed to piece together evidence in corporate fraud cases.

Where once an accounting firm's trainees would trawl through reams of paper in a bid to track missing cash or intellectual property, now computer experts are sent in to mine data on companies' computers in a bid to identify fraud.

In a recent case, a senior executive was suspected of stealing by setting up 'ghost' employees on the payroll, the Asia–Pacific lead partner for Deloitte's forensic team, Tim Phillipps, says. Computer experts found the fake employees by looking at payroll data, finding inconsistencies in funds transfers and non-existent tax-file numbers.

New technology and varied expertise among employees allows forensic divisions to track information that would previously be overlooked, such as large downloads to a computer when intellectual property has been stolen, PPB national forensics partner Joe Dicks says.

'You are then able to interrogate very, very complex and large databases and, for example, match bank account details in a creditor's file to an employee file,' he says.

'Another area we use a lot at PPB is emails. [They] are a fantastic evidence trail. What people tend to do is think, "I deleted that email and it will be gone"... but an email is never really deleted.'

Source: Ainslie Chandler, 'Trail of guilt', *Business Review Weekly*, 8 April 2009, available from www.brw.com.au.

Required

Read the article, review the sections in the chapter dealing with forensic accounting, and discuss the following questions in a group.

(a) Why has the demand for forensic accountants been increasing over the past decade?
(b) In forensic accounting, what are some of the emerging areas of forensic investigation?
(c) The article outlines some of the forensic accounting work against high-tech corporate crimes. Briefly describe some of these forensic investigations.
(d) Consider the various fields of accounting work such as management accounting, auditing and tax. In light of the growing demand for forensic accountants, would you consider taking on this speciality strand of accounting work?

Answers to self-study questions

1. d 2. b 3. d 4. c 5. b 6. c 7. a 8. c 9. a 10. c
11. d 12. c 13. b 14. a 15. a 16. c 17. a

Answer to Review It question 2, p. 422

At 30 June 2013, Domino's Pizza Enterprises Ltd reported cash of $18 691 000. Cash and cash equivalents are defined in Notes 3.11 and 37. Cash comprises cash on hand and demand deposits. Cash equivalents are short-term, highly liquid investments that are readily convertible to known amounts of cash, which are subject to an insignificant risk of changes in value and have a maturity of 3 months or less at the date of acquisition.

Bank overdrafts are shown within borrowings in current liabilities in the consolidated statement of financial position.

CHAPTER 8

REPORTING AND ANALYSING NON-CURRENT ASSETS

LEARNING OBJECTIVES

After studying this chapter, you should be able to:

1. Explain the business context of non-current assets and the need for decision making for non-current assets.
2. Describe how the cost principle applies to property, plant and equipment assets.
3. Explain the concept of depreciation.
4. Calculate depreciation using various methods and contrast the expense patterns of the methods.
5. Account for subsequent expenditures.
6. Account for asset impairments.
7. Account for the revaluation of property, plant and equipment assets.
8. Account for the disposal of property, plant and equipment assets.
9. Describe the use of an asset register.
10. Identify the basic issues related to reporting intangible assets.
11. Describe the common types of intangible assets.
12. Explain the nature and measurement of agricultural assets.
13. Account for the acquisition and depletion of natural resources.
14. Indicate how non-current assets are reported in the statement of financial position, and explain the methods of evaluating the use of non-current assets.

LIFE'S GOOD!

Most of you will be familiar with the brand LG and the slogan 'Life's Good'. The slogan successfully communicates LG Electronics, Inc.'s (LG's) underlying goal and vision — to make life easier with people-friendly technology. Do you have an LG product that makes your life easier? Your mobile phone perhaps? Establishing and maintaining brand identity is of prime importance in a dynamic global market where technology changes very rapidly and new products are constantly being developed.

In 1958 the business was established as a private Korean consumer electronics company under the name Goldstar and an associated cleaning products company under the brand name Lucky. Since then the company has grown to become one of the major global electronics and information and communication product businesses. The business was renamed in 1995 to LG Electronics, Inc. (LG) and the products are marketed under the brand LG and the slogan 'Life's Good'. Today the business operates in 113 locations around the world with annual revenue of ₩50 960 billion or over A$46 billion — that's a lots of product sales!

LG was launched in Australia in 1997 and has since become one of the most recognised brands around. When you sit down with a nice cold drink to catch your favourite shows on TV, chances are that the fridge that chilled your drink and the television you're watching have been made by LG. Or maybe you like to whip up a bag of microwave popcorn to snack on when watching a DVD? LG is the most popular brand of microwave oven and DVD recorder in the country! In fact, in Australia it is the number one brand in six product categories: LCD TVs, home theatre and DVD recorders, microwaves, front load washers and side-by-side refrigeration.

The main divisions of LG are: home entertainment, mobile communications, home appliance, air conditioning and energy solutions, and vehicle components. To be at the cutting edge of technology requires continual research and development expenditures and, in 2012, LG spent ₩1831 billion or approximately A$1.65 billion on this. In a further effort to remain ahead of the competition, LG has developed strategic relationships with other world-leading businesses. This involves joint venture relationships with Phillips to develop flat displays; GE in developing microwave ovens; Matsushita for air conditioners; and Hitachi for optical storage.

LG also has arrangements to use other companies' technologies in its products, including the EPG

(Electronic Program Guide) function by Microsoft and Thomson Inc.'s display technology. Other associations and partnering include companies such as Nortel, HP, and even an exclusive deal for cooperative marketing with luxury brand Prada.

So grab some microwaved popcorn and switch off that LCD TV for a while, as in this chapter we're going to examine the recognition and recording of non-current assets, including property, plant and equipment and intangible assets. Some companies, such as LG and Coca-Cola Amatil, recognise the large values of brand names and intellectual property on their statements of financial position, whereas others do not. Companies also need to renew their manufacturing capabilities and update their plant and equipment with modern technologies to remain competitive in today's global economy.

Source: Adapted from information in LG Electronics, Inc. Global web site www.lg.com, and in Australia www.lg.com/au, and the 30 June 2012 consolidated financial statements and Annual Report.

On the World Wide Web
LG Electronics: www.lge.com

PREVIEW OF CHAPTER 8

For LG and many other business entities, making the right decision regarding non-current assets is critical because these assets represent huge capital investments. In this chapter we discuss these and other issues surrounding non-current assets. Our discussion is presented in three parts: property, plant and equipment; intangible assets; and other non-current assets. Property, plant and equipment (physical assets) are what commonly come to mind when we think of a business. However, business entities may also have important intangible assets. These assets, such as patents and brandnames, lack physical substance but in some types of entities they are extremely valuable and are vital to the success of the business. Other non-current assets include natural resources, such as minerals, oil and gas; and agricultural assets such as livestock, timber forests and vineyards.

The content and organisation of this chapter are as follows.

REPORTING AND ANALYSING NON-CURRENT ASSETS

Business context and decision making: overview

Property, plant and equipment
- Determining the cost of property, plant and equipment
- Depreciation
- Subsequent expenditure
- Impairments
- Revaluations
- Disposals of PPE assets
- Property, plant and equipment records

Intangible assets
- Accounting for intangible assets
- Types of intangible assets

Other non-current assets
- Agricultural assets
- Natural resources

Reporting and analysing issues
- Reporting non-current assets in the financial statements
- Analysis and decision making

LEARNING OBJECTIVE 1

Explain the business context of non-current assets and the need for decision making for non-current assets.

BUSINESS CONTEXT AND DECISION MAKING: OVERVIEW

As chapter 1 explained, non-current assets are assets that are not expected to be consumed or sold within 1 year or the operating cycle. Thus, one simple way to define non-current assets is in the context of current assets, i.e. any asset that is not current. The proportion of current assets to non-current assets is highly dependent on the nature of a business and the way it structures its operations. Entities such as LG, Qantas and Air New Zealand have high proportions of their capital tied up in non-current assets and their choices can make a very big difference to their long-term sustainability.

Decision making is crucial for non-current assets. Throughout this chapter we discuss some of the key non-current asset issues requiring the decision-making skills first introduced in chapter 1. These decisions relate to both the internal and external context of the business. Examples relating to non-current assets include, 'What non-current assets does the business need to sustain and/or expand its future operations and profitability? How much of the businesses resources should be tied up in non-current assets? Should the business buy or lease?' Such decisions can make the difference between success and failure. Air New Zealand is an example of the use of innovative non-current assets to change profitability (see the Application in Business vignette opposite).

Other decisions pertain to the determination of the cost of non-current assets, estimates for depreciation, amortisation and impairment, accounting policies such as cost or revaluation models, depreciation methods, and primarily external decision-making tools such as analysis and interpretation based on financial statements.

You will find answers to some of these questions in this chapter.

APPLICATION IN BUSINESS

Management perspective

Air New Zealand faced financial disaster after the collapse of its subsidiary Ansett in 2001. The NZ government stepped in with $885 million to keep the national carrier afloat. The airline faced strong competition from Qantas. Now, 14 years later, the roles are almost reversed. Air New Zealand is currently the most profitable Australasian airline with an expected full year pre-tax profit of $300 million compared to a forecasted pre-tax loss of $731 million for Qantas. How did this happen?

Ralph Norris, who was brought in to Air New Zealand as its CEO, made wide ranging changes, streamlining the operation, closing down its budget subsidiary and standardising its domestic and long haul fleet. The company invested heavily in innovative technology to simplify its web sites and online booking systems, including Kiosk check-in systems for both domestic and international flights. It also introduced innovations such as lie flat business seats, Skycouch economy seats that can lie flat, and premium economy cabins.

Ten years ago Air New Zealand decided to buy 777s and 787–9s (Dreamliners). Ralph Norris is quoted as stating, 'We needed to make sure if we were going to remain competitive, we had to have a good product', and 'We also needed to make sure that what we were going to put in place had superior operating economics so that we could lower the cost of the operation. So you needed to get the 787 aircraft'.

In July 2014, Air New Zealand became the first airline in the world to take delivery of the Dreamliner, an innovative stretched plane that can carry more passengers for longer flights using less fuel.

Source: Based on information from J. Freed 2014, 'How Air NZ fought off Qantas', 14 July, *Stuff,* www.stuff.co.nz; 'Air New Zealand pips Qantas by liberating itself from the ordinary', *Australian Financial Review*, 14 July, www.afr.com.

PROPERTY, PLANT AND EQUIPMENT

LEARNING OBJECTIVE 2

Describe how the cost principle applies to property, plant and equipment assets.

Property, plant and equipment are assets that have physical substance (a definite size and shape), are used in the operations of an entity for more than one period, and are not intended for sale to customers. They are called by various names — tangible assets, plant and equipment, and fixed assets. The term most often used is 'property plant and equipment (PPE)'. By whatever name, these assets are generally long-lived and are expected to provide future economic benefits to the entity for a number of years. Except for land, the future economic benefits (service potential) of PPE assets decline over their useful lives. According to International Accounting Standard IAS 16/AASB 116 *Property, Plant and Equipment*, this decline in the future economic benefits (service potential) must be recognised on a systematic basis over an asset's useful life. This decline is recognised as depreciation expense in the profit or loss statement.

DECISION MAKING

The acquisition of PPE assets is critical to the success of nearly all entities because these resources usually determine the entity's capacity and therefore ability to satisfy customers. Management must constantly monitor its needs and acquire assets accordingly. Failure to do so results in lost business opportunities or inefficient use of existing assets and is likely to show up eventually in poor financial results, problems for management, and declining interest among investors.

It is also important for a business entity to (1) keep assets in good operating condition, (2) replace worn-out or outdated facilities and (3) expand its productive resources as needed.

Many entities have substantial investments in PPE assets. For providers of infrastructure, such as city councils and state rail authorities, PPE assets often represent more than 75% of total assets. Recently, PPE assets were 81% of the Brisbane City Council's total assets and represented 97.3% of Rail Corporation New South Wales's total assets.

Figure 8.1 shows the percentage of PPE assets in relation to total assets in some other entities.

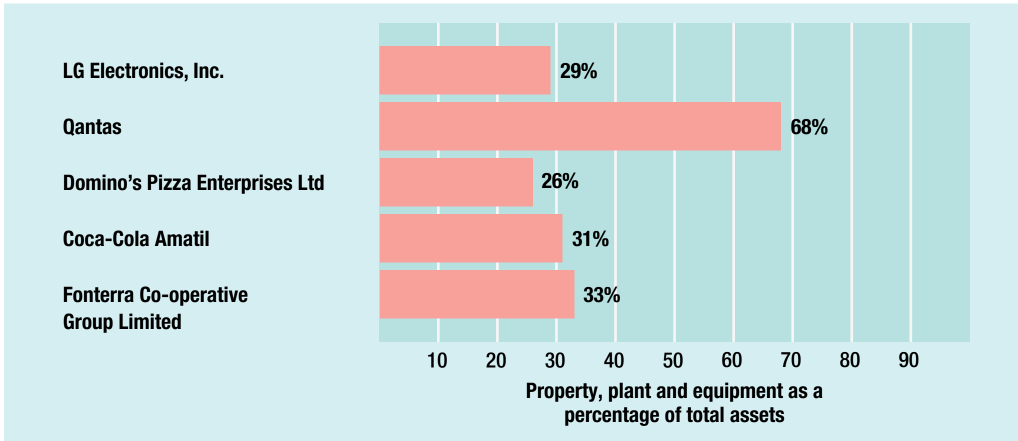


Figure 8.1 Percentage of PPE assets in relation to total assets

PPE assets are often subdivided into two classes:

- *property*, including land (such as a building site, and land improvements such as driveways and fences) and buildings (such as stores, offices, factories and warehouses)
- *plant and equipment*, such as cash registers, computers, office furniture, factory machinery and motor vehicles.

Note that land held for resale or other assets held for resale are excluded from the PPE category, and are classified as inventory.

APPLICATION IN BUSINESS

International perspective

The New Zealand dairy cooperative Fonterra Co-operative Group Limited has expanded its operations worldwide. Its 2014 interim report used a joint venture in the Netherlands as an example of its expanding global view of manufacturing and milk supply. The A-ware joint venture is a new cheese and dairy ingredients plant that will sell cheese to its customers while giving Fonterra access to high quality ingredients for its 'advanced nutrition applications'.

Fonterra's segment reporting illustrates its international perspective. The cooperative has four main segments based on product type and geographic area.

1. *New Zealand Milk Products (NZMP)*, represents the collection, processing and distribution of New Zealand milk, global sales and marketing of New Zealand and non-New Zealand milk products (including North Asia), Global Brands & Nutrition, Co-operative Affairs and Group Services.
2. *Oceania (formerly ANZ)*, represents Fast Moving Consumer Goods (FMCG) operations in New Zealand (including export to the Pacific Islands) and all FMCG and Ingredients operations in Australia (including Milk Supply and Manufacturing). It includes foodservice sales in Australia and New Zealand (except for foodservice sales to Quick Service Restaurants), and RD1.
3. *Asia (formerly Asia/AME)*, represents FMCG operations in Asia (excluding North Asia), Africa and the Middle East, and foodservice sales in Asia/AME and China. It includes international farming ventures in China.
4. *Latin America (Latam)*, represents FMCG operations in Chile and equity-accounted investments in South America. It includes international farming ventures in South America.

Source: Fonterra Co-operative Group Limited's web site, www.fonterra.com.

DETERMINING THE COST OF PROPERTY, PLANT AND EQUIPMENT

PPE assets are initially recorded at cost in accordance with the cost principle of accounting. According to IAS 16/AASB 116, para. 6, '*Cost* is the amount of cash or cash equivalents paid or the fair value of the other consideration given to acquire an asset'. For assets that are constructed or built, costs (including interest on borrowed funds) are accumulated until the asset is ready for its intended use. IFRS 13, para. 9 defines **fair value** as 'the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date'.

Cost consists of the fair value of all expenditures necessary to acquire the asset and make it ready for its intended use. For example, the purchase price, freight costs paid by the purchaser, and installation costs are all considered part of the cost of factory machinery. When an entity buys a non-current asset, it must decide whether to debit an asset account or an expense account. Examples of such spending range from LG's extension of its existing manufacturing plant to you replacing the flat tyre of your car.

Expenditures that increase an asset's capacity or efficiency or extend its useful life are called **capital expenditure**. So in the above example, the cost of LG's extension of its existing manufacturing plant should be classified as a capital expenditure as it enhances the capacity of the plant (an asset). The cost of a major overhaul that extends an asset's useful life is also classified as capital expenditure. These types of expenditures are capitalised and are debited to an asset account.

On the other hand, expenditures that do not extend an asset's capacity but merely maintain the asset in its working order are classified as **revenue expenditure**. These costs are expenses and are immediately matched against revenue. So, the costs of replacing the flat tyre of your car is considered a revenue expenditure as it does not extend the useful life of your car but merely maintains the working order of it. These types of costs are said to be expensed and are debited to an expense account.

DECISION MAKING

Determining which costs to include in the asset account and which costs not to include is very important. If a cost is not included in an asset account, then it must be expensed immediately. This distinction is important because it has immediate, and often material, implications for the profit or loss statement. In order to boost current profit, some entities, such as WorldCom (previously the United States' second-largest long-distance telecommunications carrier, which collapsed in 2002 amid a corporate accounting scandal), have been known to capitalise expenditures that should have been expensed. For example, suppose that $10 000 of maintenance costs incurred at the end of the year are improperly capitalised to the equipment account (i.e. they are included in the asset account delivery truck rather than being expensed immediately in the maintenance expense account). If the cost of the truck is being allocated as an expense (depreciated) over a 5-year life, then the maintenance cost of $10 000 will be incorrectly spread across 5 years instead of being expensed in the current year. Current-year expenses will be understated by $10 000, and current-year profit will be overstated by $10 000. Figure 8.2 (overleaf) illustrates the distinction between capital expenditures and expenses for several delivery truck expenditures and their effects on the statement of profit or loss and asset.

After the initial recognition of an asset at cost, an entity may choose to revalue its non-current assets to fair value. Accounting for the revaluation of non-current assets is explained later in this chapter.

The application of the cost principle to each of the major items consisting of PPE assets is explained in the following section.

Property

The cost of land includes (1) the cash purchase price, (2) settlement costs such as solicitor's fees, (3) stamp duty, and (4) accrued property taxes on the land assumed by the purchaser. For example, if the cash price is $50 000 and the purchaser agrees to pay accrued rates and land taxes of $5000, the cost of the land is $55 000.

All necessary costs incurred in making land ready for its intended use are recorded as an increase (debit) in the land account. When vacant land is acquired, its cost includes expenditures for clearing, draining, filling and grading. If the land has a building on it that must be removed to make the site suitable for construction of a new building, all demolition and removal costs, less any proceeds (amounts received) from salvaged materials, are included in the cost of the land and charged to the Land account.

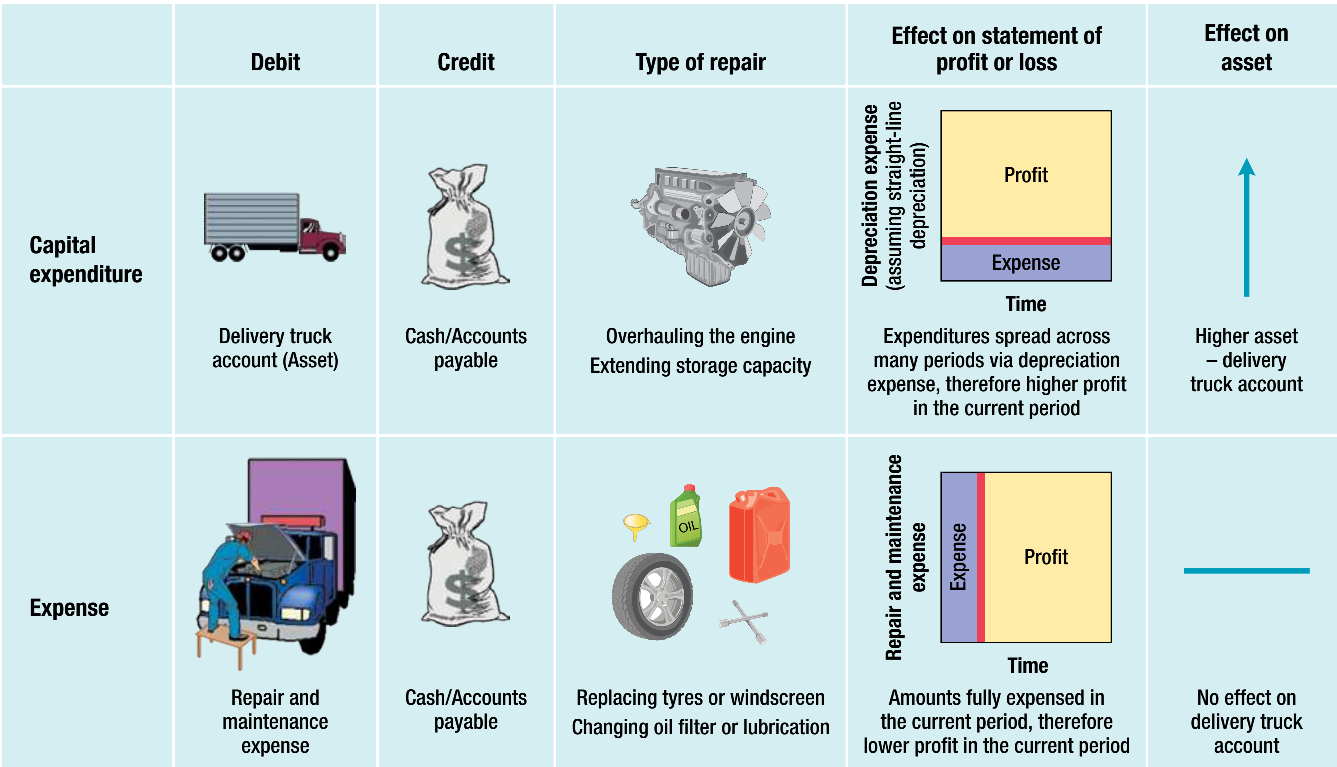


Figure 8.2 Effects of capitalising versus expensing

To illustrate, assume that Hayes Manufacturing Ltd acquires real estate at a cash cost of $100 000. The property contains an old warehouse that is demolished at a net cost of $6000 ($7500 in costs less $1500 proceeds from salvaged materials). Additional expenditures are for the solicitor's fee $1000 and the stamp duty $2000. The cost of the land is $109 000, calculated as shown in figure 8.3.

Land	
Cash price of property	$ 100 000
Net removal cost of warehouse	6 000
Solicitor's fee	1 000
Stamp duty	2 000
Cost of land	**$ 109 000**

Figure 8.3 Calculation of cost of land

When the acquisition is recorded, land is debited for $109 000 and cash is credited for $109 000.

Sometimes expenditures are made for landscaping, driveways, parking lots and fences. These are usually charged to the land improvements account, and depreciated over their useful lives.

All necessary expenditures relating to the purchase or construction of a building are charged to the buildings account. When a building is purchased, such costs include the purchase price, solicitor's fees and stamp duty. Costs to make the building ready for its intended use consist of expenditures for remodelling rooms and offices and replacing or repairing the roof, floors, electrical wiring and plumbing.

When a new building is constructed, its cost consists of the contract price plus payments made by the owner for architects' fees, building permits, and excavation costs.

Helpful hint

Capitalising interest means including interest in the carrying amount of an asset instead of recognising it as an expense in the period in which it occurs.

In addition, borrowing costs (interest) incurred to finance the project are included in the cost of the asset when a significant period of time is required to get the asset ready for use. In these circumstances, interest costs are considered as necessary as materials and labour. However, the inclusion of interest costs in the cost of a constructed building is limited to the construction period. When construction has been completed, subsequent interest payments on funds borrowed to finance the construction are recorded as increases (debits) to interest expense. IAS 23/AASB 123 *Borrowing Costs* sets out detailed rules for capitalising the interest, but generally the amount capitalised is the interest during the construction period.

Plant and equipment

The cost of equipment included in the accounts consists of the purchase price, freight charges and insurance during transit paid by the purchaser. It also includes expenditures required in assembling, installing and testing the unit. However, motor vehicle registration and accident insurance on an entity's trucks and cars are treated as expenses as they are incurred because they represent annual recurring expenditures and do not benefit future periods. Two points to consider in determining the cost of equipment are (1) the frequency of the cost — one time or recurring, and (2) the benefit period — the life of the asset or 1 year.

To illustrate, assume that Lenard Ltd purchases a delivery truck at a purchase price of \$22 000. Related expenditures are for airconditioning \$1320, painting and lettering \$500, motor vehicle registration \$350, and a 3-year accident insurance policy \$1600. The cost of the delivery truck is \$23 820, calculated as shown in figure 8.4.

Delivery truck	
Purchase price	$ 22 000
Airconditioning	1 320
Painting and lettering	500
Cost of delivery truck	**$23 820**

Figure 8.4 Calculation of cost of delivery truck

The cost of a motor vehicle registration is treated as an expense, and the cost of an insurance policy is considered a prepaid asset until the future benefits are consumed. These benefits are consumed over time as the policy expires. Thus, the entry to record the purchase of the truck and related expenditures is as follows:

Delivery truck	23 820	
Motor vehicle registration expense	350	
Prepaid insurance	1 600	
Cash		25 770
(To record purchase of delivery truck and related expenditures)		

A	= L +	E
+23 820		−350
+1 600		
−25 770		

Impact of goods and services tax (GST) on non-current assets

Although GST is included on goods and services, for the purpose of this chapter, you can ignore the impact of GST unless it is specifically stated that the figures include GST. As with all other assets in the accounts, with the exception of accounts receivable and accounts payable, the cost of non-current assets excludes GST. The only time GST impacts on journal entries in when the assets are purchased or sold. However, the following example is included to illustrate the impact of GST on the purchase of assets.

Assume Merten Ltd purchases factory machinery on account at a purchase price of \$55 000. Related expenditures are for insurance during shipping \$550, and installation and testing \$1100. All figures include GST of 10%. The cost of the factory machinery is \$51 500, calculated as in figure 8.5 (overleaf).

Factory machinery	
Machinery price	$ 55 000
Insurance during shipping	550
Installation and testing	1 100
Purchase price factory machinery (GST inclusive)	**$56 650**
Less GST	**5 150**
Cost of machinery	**$51 500**

Figure 8.5 Calculation of cost of factory machinery

Thus, the entry to record the purchase and related expenditures is as follows:

A	=	L	+	E
+56 650		+56 650		

Factory machinery	51 500	
GST paid	5 150	
Sundry accounts payable		56 650
(To record purchase of factory machinery and related expenditures)		

Helpful hint

The above example has used the current Australian GST rate of 10%. However the same principle applies regardless of the rate as that can change. New Zealand's current rate is 15%.

To buy or lease?

In this chapter we focus on assets that are purchased, but we want to discuss briefly an alternative to purchasing — leasing. In a lease, a party that owns an asset (the **lessor**) agrees to allow another party (the **lessee**) to use the asset for an agreed period of time at an agreed price. Some advantages of leasing an asset versus purchasing it are as follows.

1. *Reduced risk of obsolescence.* Frequently, lease terms allow the party using the asset (the lessee) to exchange the asset for a more modern one if it becomes outdated. This is much easier than trying to sell an obsolete asset.
2. *Little or no deposit.* Assets cost money. Although most entities can borrow money to buy assets, they still need to pay a deposit, usually of at least 20%. Leasing an asset requires little or no deposit.
3. *Shared tax advantages.* New entities typically do not make much money in their early years, and so they have little need for the tax deductions available from owning an asset. In a lease, the lessor gets the tax advantage because it owns the asset. The lessor often will pass these tax savings on to the lessee in the form of lower lease payments.
4. *Assets and liabilities not reported.* Many entities prefer to keep assets and especially liabilities off their statement of financial position, thereby not violating any loan agreements that may be in place. Using forms of finance that are not reported on the statement of financial position is referred to as **off-balance-sheet financing**.

Alternative terminology

The balance sheet is called the *statement of financial position.*

The main accounting issue is whether or not the lease arrangement should appear in the statement of financial position. IAS 17/AASB 117 *Leases* requires both the lessee and the lessor to classify their leases as either an operating or a finance (capital) lease. A **finance lease** is where the lessor (owner) effectively transfers to the lessee (party using the asset) substantially all the risks and rewards incidental to ownership of the leased asset. To be recognised as an asset, legal ownership is not an essential characteristic; rather, control of the future economic benefits from the use of the asset is what is important. An **operating lease** is where the lessor effectively retains substantially all the risks and rewards incidental to ownership of a leased asset.

If the asset is an *operating* lease, then the lease payments are recognised as rental expenses in the statement of profit or loss. The lease payment is debited to rental or lease expenses and cash at bank is credited.

If the lease is classified as a *finance* lease, both the leased asset and the lease obligation are recognised in the statement of financial position. The cost of the asset is equal to the present value of the minimum lease payments at the inception of the lease. The leased asset is then amortised over the asset's useful life to the lessee. The lease liability is treated similarly to a bank loan. Each lease payment is split between a reduction in the lease liability and an interest expense component. This is further explored with an illustrative example in chapter 9.

IAS 17/AASB 117 has been effective in reducing the amount of off-balance-sheet financing of assets, but many leases are still written to avoid the accounting requirements of the leasing standard. This may become more difficult in the future as the leasing standard has been the focus of potential changes that would require all non-cancellable leases to be classified as finance leases and thus appear on the statement of financial position.

APPLICATION IN BUSINESS

Management perspective

The airline industry is very capital intensive, irrespective of the financing arrangements. The net carrying amount of the aircraft and engines in Air New Zealand's accounts was $2488 million or 77% of the total PPE assets. This represents a total passenger and freighter fleet of 104 aircraft. These assets are subject to continual maintenance and the aircraft themselves are continually being replaced by new aircraft. The 2013 financial statements indicate that Air New Zealand was committed to purchase 23 aircraft for delivery between July 2013 and October 2017, including 10 Dreamliners (B787–9s). The Dreamliners will be able to fly faster than comparable size aircraft and will have lower maintenance costs. The aircraft renewal program enables Air New Zealand to lower its operating costs as the newer planes can fly further with more passengers and use less fuel — a significant advantage on international flights and a lowering of costs on domestic flights.

Source: Air New Zealand's web site, www.airnewzealand.co.nz and the 2013 annual report.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What are property, plant and equipment (PPE) assets? What are the major classes of PPE assets? At what value should PPE assets be recorded?
2. What are capital expenditures?
3. What are the two main types of leases?
4. What are the main advantages of leasing?

>> DO IT

Assume that a delivery truck is purchased for $15 000 cash plus delivery costs to the dealer of $500. The buyer also pays $200 for painting and lettering, $600 for an annual insurance policy, and $400 for truck registration. Explain how each of these costs is accounted for.

REASONING: The cost principle applies to all expenditures made in order to prepare the delivery equipment ready for its intended use. It does not apply to operating costs incurred during the useful life of the equipment, such as petrol and oil, motor repairs and maintenance, registration and insurance.

SOLUTION: The first three payments ($15 000, $500 and $200) are considered to be expenditures necessary to make the truck ready for its intended use. Thus, the cost of the truck is $15 700. The payments for insurance and the registration are considered to be operating expenses incurred during the useful life of the asset.

DEPRECIATION

LEARNING OBJECTIVE 3
Explain the concept of depreciation.

As introduced in chapter 3, **depreciation** is the process of allocating to expense the cost of a PPE asset over its useful (service) life in a rational and systematic manner. Such cost allocation is designed to properly recognise expenses in accordance with the period concept (see figure 8.6 overleaf).

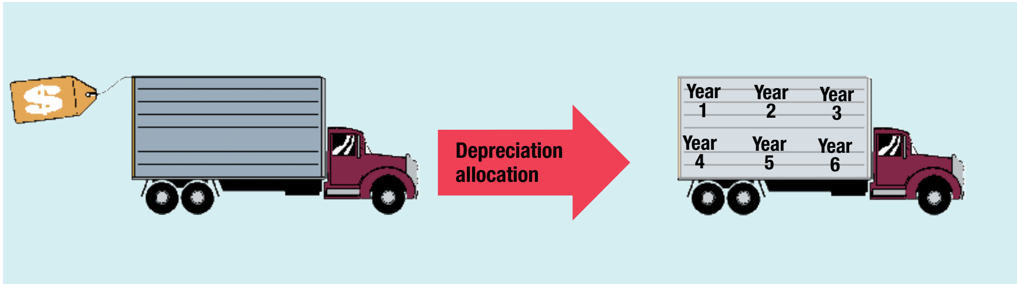


Figure 8.6 Depreciation as a cost allocation concept

The journal entry to record depreciation for the period is to debit the depreciation expense account and credit *not* the asset account where the cost was recorded but a separate account entitled accumulated depreciation. Recognising depreciation for an asset does not result in the accumulation of cash for the asset's replacement. The balance in the **accumulated depreciation** account represents the total amount of the asset's cost that has been charged to depreciation expense since the asset was acquired; *it is not a cash fund*. The accumulated depreciation account is called a *contra account*. A **contra account** is reported as an offset to or reduction from a related account, being the PPE asset account where the cost was recorded. In the statement of financial position the **carrying amount** — cost less accumulated depreciation — is reported and in the notes to the accounts the original cost of the PPE asset and the accumulated depreciation are given to provide useful information concerning the age of the assets to the statement users. Carrying amount is also referred to as *book value*. It is important to understand that depreciation is a process of cost allocation, *not* a process of asset valuation. The carrying value of a PPE asset may differ significantly from its market value. In the final section of this chapter the reporting and analysing issues are shown in more detail.

Depreciation applies to land improvements, buildings, and plant and equipment. Each of these is considered to be a depreciable asset because its usefulness to the entity and its revenue-generating ability decline over the asset's useful life. Depreciation does not apply to land because its usefulness and revenue-generating ability generally remain intact as long as the land is owned. In fact, in many cases, the usefulness of land increases over time because of the scarcity of good sites. Thus, land is not a depreciable asset.

Helpful hint

Land does not depreciate because it does not wear out. However, its value may be impaired. This is discussed later in the chapter.

IAS 16/AASB 116 *Property, Plant and Equipment* outlines four factors that contribute to the decline in the future economic benefits of a depreciable asset.

1. *Usage of the asset*. The usage is determined by the expected capacity or physical output of the asset. A delivery truck's expected useful life, for example, would be the number of kilometres driven; for a photocopier it would be the number of copies made.
2. *Wear and tear through physical use of the asset*. A delivery truck that has been driven 100 000 kilometres will be less useful to an entity than one driven only 800 kilometres. Similarly, trucks and cars exposed to salt air and rain deteriorate faster than equipment not exposed to the elements. The maintenance program, and the type of care received by the asset when it is idle, will also affect an asset's capacity.
3. *Technical and commercial obsolescence*. Technical obsolescence is the process by which an asset becomes out of date before it physically wears out. Technological advances mean that new assets can produce the same goods or services more efficiently, giving a competitive advantage to entities having such assets. Many entities replace their computers long before originally planned because improvements in new computer technology make the old computers obsolete. Advances in robotic factory machinery make much of the older factory machinery and equipment obsolete. Today, many factories have fully automated production lines, with less human labour involved in the production process. Commercial obsolescence is where the revenue-producing ability of the asset declines because there is a fall in the market demand for the good or service produced by the PPE asset.
4. *Legal life* or similar limits on the use of the asset. If a lease on equipment expires and the equipment is returned to the lessor, then the period of the lease determines the maximum period that the economic benefits are obtained from the relevant asset.

Determining the useful life of the asset therefore requires judgement and reassessment each reporting period.

FACTORS IN CALCULATING DEPRECIATION

Three factors affect the calculation of depreciation, as shown in figure 8.7.

1. *Cost*. Considerations that affect the cost of a depreciable asset have been explained earlier in this chapter.
2. *Useful life*. **Useful life** is an estimate of the expected productive life (also called service life) of the asset to the entity. Useful life may be expressed in terms of time, units of activity (such as machine hours), or units of output. Useful life is an estimate. In making the estimate, management considers such factors as the intended use of the asset, repair and maintenance policies, vulnerability of the asset to obsolescence, and the legal life of the asset. The entity's past experience with similar assets is often helpful in deciding on expected useful life.
3. *Residual value*. **Residual value** is an estimate of the asset's value at the end of its useful life. The value may be based on the asset's worth as scrap or salvage or on its expected trade-in value. Like useful life, residual value is an estimate. In making the estimate, management considers how it plans to dispose of the asset and its experience with similar assets.

Alternative terminology

The residual value is also called *salvage value* or *trade-in value*.

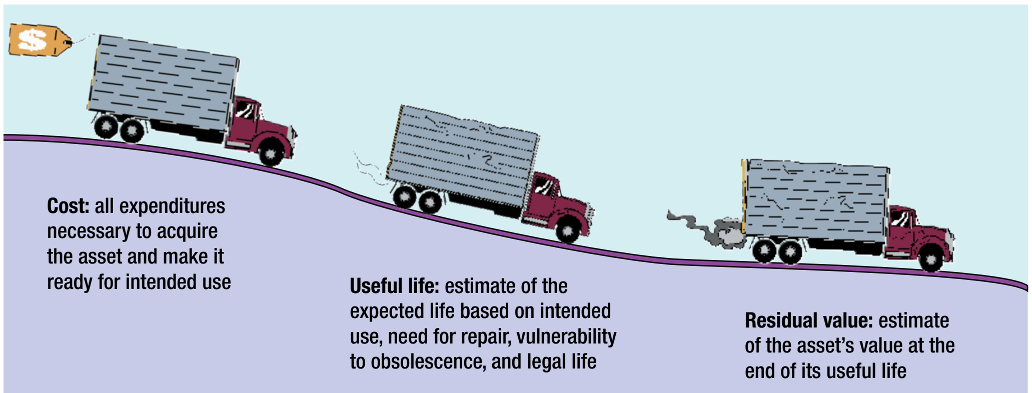


Figure 8.7 Three factors in calculating depreciation

APPLICATION IN BUSINESS

Management perspective

As depreciable assets of an entity constitute a significant proportion of total assets, the depreciation policy adopted can have a significant impact on the profits of an entity. A review of Santos Ltd's 2013 annual report showed that total depreciation and depletion expenses were \$888 million, and profit after tax in the profit or loss statement was \$434 million, while total comprehensive income after tax was 990 million. Total assets were \$20 609 (18 531 non-current) million. Another example is Coca-Cola Amatil where depreciation and amortisation for 2013 was \$367.8 million, with profit after tax in the profit or loss statement of \$79.9 million and total comprehensive income after tax of 137.8 million. Coca-Cola Amatil's total assets were \$6608.4 million. Depreciation and amortisation expenses can be significant in relation to profit, and a change in depreciation rates can dramatically affect reported profits.

Source: Santos Ltd' s web site, www.santos.com, Coca-Cola Amatil's web site, www.ccamatil.com.au, and their respective 2013 annual reports.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What is the relationship, if any, of depreciation to (a) cost allocation, (b) asset valuation, and (c) cash accumulation?
2. Explain the factors that contribute to the decline in the future economic benefits of a depreciated asset.
3. What does Domino's use as the estimated useful life on its plant and equipment and equipment under finance leases? Refer to the appendix at the back of the book. (The answer to this question is on p. 532.)

LEARNING OBJECTIVE 4

Calculate depreciation using various methods and contrast the expense patterns of the methods.

DEPRECIATION METHODS

Depreciation is generally calculated using one of three methods:

- straight-line
- diminishing-balance
- units-of-production.

Like the alternative inventory methods discussed in chapter 5, each of these depreciation methods is acceptable under generally accepted accounting principles. Management selects the method it believes best measures an asset's decline in future benefits over its useful life. Once a method is chosen, it should be applied consistently over the useful life of the asset. Consistency enhances the comparability of financial statements between reporting periods. However, the depreciation method applied should be reviewed at the end of the reporting period and, if there is a significant change in the consumption of the future benefits, the depreciation method should be changed.

Depreciation affects the statement of financial position through accumulated depreciation, which is reported as a deduction from PPE assets. It affects the statement of profit or loss through depreciation expense.

Our illustration of the different depreciation methods is based on the following data relating to a small delivery truck purchased by Bill's Pizzas on 1 January 2015:

Cost	\$ 13 000
Expected residual value	\$ 1 000
Estimated useful life (in years)	5
Estimated useful life (in kilometres)	100 000

Straight-line. Under the **straight-line method**, depreciation is the same for each year of the asset's useful life because the future benefits are consumed at the same rate each year. To calculate the annual depreciation expense, we need to determine depreciable cost, which represents the total amount subject to depreciation. **Depreciable amount** is calculated as the cost of the asset or other amount substituted as cost, less its residual value. Depreciable amount is then divided by the asset's useful life to determine depreciation expense. Management must choose the useful life of an asset based on its own expectations and experience. The calculation of depreciation expense in the first year for Bill's Pizzas' delivery trucks is shown in figure 8.8.

Cost	−	Residual value	=	Depreciable amount
\$13 000	−	\$1000	=	\$12 000

Depreciable amount	÷	Useful life (in years)	=	Depreciation expense
\$12 000	÷	5	=	\$2400

Figure 8.8 Formula for straight-line method

Alternatively, we can calculate an annual *rate* at which the delivery truck is being depreciated. In this case, the rate is 20% (100% ÷ 5 years). When an annual rate is used under the straight-line method, the percentage rate is applied to the *depreciable amount* (cost minus residual value) of the asset, as shown in the depreciation schedule in figure 8.9.

BILL'S PIZZAS								
	Calculation						End of year	
Year	Depreciable amount	×	Depreciation rate	=	Annual depreciation expense		Accumulated depreciation	Carrying amount
2015	$12 000		20%		**$ 2 400**		$ 2 400	$10 600*
2016	12 000		20		**2 400**		4 800	8 200
2017	12 000		20		**2 400**		7 200	5 800
2018	12 000		20		**2 400**		9 600	3 400
2019	12 000		20		**2 400**		12 000	**1 000**
				Total	$12 000			

*Cost $13 000 − Year 1 depreciation $2400 = Carrying amount $10 600

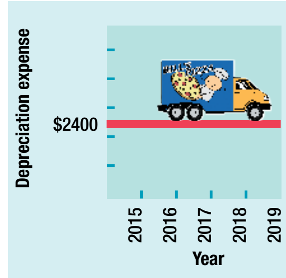


Figure 8.9 Straight-line depreciation schedule

The journal entry to record depreciation expense is:

Dec. 30	Depreciation expense—delivery truck	2 400	
	Accumulated depreciation—delivery truck		2 400
	(To record depreciation expense for the year)		

A	=	L	+	E
−2400				−2400

Note that the depreciation expense of $2400 is the same each year, and that the carrying amount at the end of the useful life is equal to the estimated $1000 residual value.

What happens when an asset is purchased *during* the year, rather than on 1 January, as in our example? In that case, the amount of depreciation for the first year is a proportion of the annual amount. If Bill's Pizzas had purchased the delivery truck on 1 April 2015, the depreciation for 2015 would have been $1800 ($12 000 × 20% × $\frac{9}{12}$ of a year).

The straight-line method predominates in practice. For example, entities such as Qantas, Coca-Cola Amatil and Domino's use the straight-line method. It is simple to apply, and it writes down the asset appropriately when the use of the asset is reasonably uniform throughout the service life. The types of assets that give equal benefits over useful life generally are those for which daily use does not affect productivity. Examples are office furniture and fixtures, buildings, warehouses and garages for motor vehicles.

Diminishing-balance. The **diminishing-balance method** is called an 'accelerated method' because it results in more depreciation in the early years of an asset's life than does the straight-line approach. However, because the total amount of depreciation (the depreciable amount) taken over an asset's life is the same no matter what approach is used, the diminishing-balance method produces a decreasing annual depreciation expense over the useful life of the asset. That is, in early years, diminishing-balance depreciation expense will exceed straight-line, but in later years it will be less than straight-line. Managers might choose an accelerated approach if they think that an asset's usefulness will decline very quickly.

The depreciation rate remains constant from year to year, but the carrying amount to which the rate applies declines each year. The formula for calculating the annual depreciation rate is as follows:

$$\text{Depreciation rate} = 1 - \sqrt[n]{\frac{r}{c}}$$

where n = estimated useful life (in years)
r = estimated residual value (in dollars)
c = original cost of the asset (in dollars).

In relation to Bill's Pizzas:

$$\text{Depreciation rate} = 1 - \sqrt[5]{\frac{\$1000}{\$13\ 000}}$$
$$= 1 - 0.5987$$
$$= 40\%\ \text{(approximately)}.$$

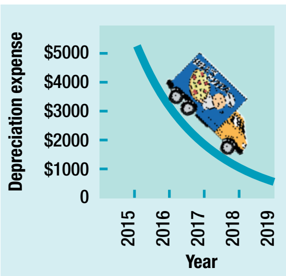
Irrespective of which calculation is used to calculate the diminishing-balance depreciation rate, the accelerated method is justified when the future economic benefits are obtained in the earlier years rather than in the later years of an asset's useful life.

Using the rate of 40%, figure 8.10 presents the formula and the calculation for the first year of the delivery truck.

Carrying amount at beginning of year	×	Diminishing-balance rate	=	Depreciation expense
$13 000	×	40%	=	$5200

Figure 8.10 Formula for diminishing-balance method, after rate is determined

The depreciation schedule under this method is given in figure 8.11.



BILL'S PIZZAS

	Calculation					End of year	
Year	Carrying amount beginning of year	×	Depreciation rate	=	Annual depreciation expense	Accumulated depreciation	Carrying amount
2015	$13 000		40%		**$ 5 200**	$ 5 200	$ 7 800[*]
2016	7 800		40		**3 120**	8 320	4 680
2017	4 680		40		**1 872**	10 192	2 808
2018	2 808		40		**1 123**	11 315	1 685
2019	1 685		40		**685**[**]	12 000	**1 000**
				Total	$12 000		

[*]$13 000 − $5200

[**]Calculation of $674 ($1685 × 40%) is adjusted to $685 in order for carrying amount to equal residual value. This is because the rate was rounded to 40%, rather than 40.13% using the formula.

Figure 8.11 Diminishing-balance depreciation schedule

Another accelerated depreciation method is the sum-of-the-years-digits (SOYD). The depreciation charges are greater in the earlier years of an asset's life and become smaller as time goes on. Under the SOYD method, the depreciation rate changes each year. For example, if the useful life is 4 years, the sum of the years is calculated as 1 + 2 + 3 + 4 = 10. The rate applied each year is a fraction of the remaining useful life at the beginning of the period — thus year 1 = 4/10 (40%), year 2 = 3/10 (30%), year 3 = 2/10 (20%), and year 4 = 1/10 (10%). Over the 4 years the depreciation equals 100% of the depreciable amount. This method is not used very often in practice, but it is another method which can be applied to vary the pattern of depreciation charges between the reporting periods.

Units-of-production. Under the **units-of-production method**, useful life is expressed in terms of the total units of production or the use expected from the asset. The units-of-production method is ideally suited to factory machinery — production can be measured in terms of units of output or in terms of machine hours used in operating the machinery. It is also possible to use the method for such items as delivery equipment (kilometres driven) and aircraft (hours in use).

Applying the units-of-production method to the delivery truck owned by Bill's Pizzas, we first need some basic information. The business expects to be able to drive the truck 100 000 kilometres in total. If we assume that this occurs in the given pattern (figure 8.13) over the 5-year life, depreciation in each year is shown in figure 8.12 as a formula.

Depreciable cost ÷ Total units of production = Depreciation cost per unit

$12 000 ÷ 100 000 kilometres = $0.12

Depreciation cost per unit × Units of production during the year = Depreciation expense

$0.12 × 15 000 kilometres = $1800

Figure 8.12 Formula for units-of-production method

The depreciation schedule, using assumed kilometres data, is shown in figure 8.13.

BILL'S PIZZAS

Year	Calculation: Units of production (km)	×	Calculation: Depreciation cost unit	=	Annual depreciation expense	End of year: Accumulated depreciation	End of year: Carrying amount
2015	15 000		$0.12		**$ 1 800**	$ 1 800	$11 200*
2016	30 000		0.12		**3 600**	5 400	7 600
2017	20 000		0.12		**2 400**	7 800	5 200
2018	25 000		0.12		**3 000**	10 800	2 200
2019	10 000		0.12		**1 200**	12 000	**1 000**
Total	100 000				$12 000		

*$13 000 − $1800

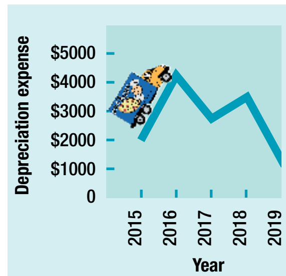


Figure 8.13 Units-of-production depreciation schedule

As the name implies, under units-of-production depreciation, the amount of depreciation is proportional to the production/activity that took place during that period. For example, the delivery truck was driven twice as many kilometres in 2016 as in 2015, and depreciation was exactly twice as much in 2016 as it was in 2015.

MANAGEMENT'S CHOICE: COMPARISON OF METHODS

Figure 8.14 presents a comparison of annual and total depreciation expense for Bill's Pizzas under the three methods.

Year	Straight-line	Diminishing-balance	Units-of-production
2015	$ 2 400	$ 5 200	$ 1 800
2016	2 400	3 120	3 600
2017	2 400	1 872	2 400
2018	2 400	1 123	3 000
2019	2 400	685	1 200
	$12 000	**$12 000**	**$12 000**

Figure 8.14 Comparison of depreciation methods

Periodic depreciation varies considerably among the methods, but total depreciation is the same for the 5-year period. Each method is acceptable in accounting because each recognises the decline in service potential of the asset in a rational and systematic manner. The depreciation expense pattern under each method is presented graphically in figure 8.15 (overleaf).

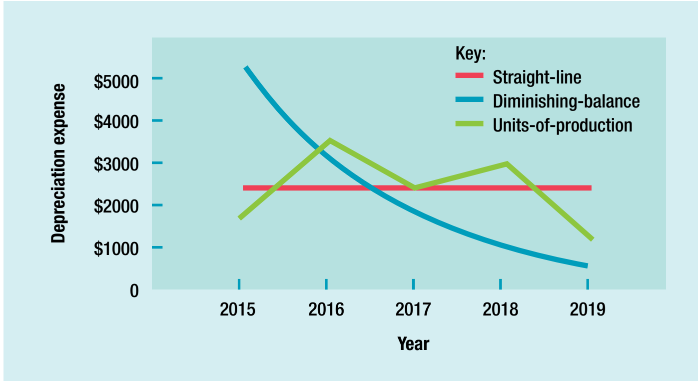


Figure 8.15 Patterns of depreciation

DEPRECIATION DISCLOSURE IN THE NOTES

The choice of depreciation method must be disclosed in the notes to the financial statements. Figure 8.16 shows the depreciation and amortisation note from the 2013 financial statements of Domino's Pizza.

Domino's Pizza
Notes to the financial statements
30 June 2013

3.15 Property, plant and equipment

Plant and equipment, leasehold improvements and equipment under finance leases are stated at cost less accumulated depreciation and impairment. Cost includes expenditure that is directly attributable to the acquisition of an item. In the event that settlement of all or part of the purchase consideration is deferred, cost is determined by discounting the amounts payable in the future to their present value as at the date of acquisition.

Depreciation is provided on property, plant and equipment excluding land. Depreciation is calculated on a straight-line basis so as to write off the cost of each asset over its expected useful life to its estimated residual value. Leasehold improvements are depreciated over the period of the lease or estimated useful life, whichever is the shorter, using the straight-line method. The estimated useful lives, residual values and depreciation method are reviewed at the end of each annual reporting period, with the effect of any changes recognised on a prospective basis.

Assets held under finance leases are depreciated over their expected useful lives on the same basis as owned assets or, where shorter, the term of the relevant lease.

The gain or loss arising on disposal or retirement of an item of property, plant and equipment is determined as the difference between the sales proceeds and the carrying amount of the asset and is recognised in profit or loss.

The following useful lives are used in the calculation of depreciation:
- Plant and equipment 1–10 years
- Equipment under finance leases 3–10 years

Source: Domino's Pizza Enterprises Ltd's web site, www.dominos.com.au, and the 2013 annual report.

Figure 8.16 Disclosure of depreciation policies

The notes to the financial statements also disclose for each *class of non-current assets* the total amount of depreciation for the reporting period, the gross amount of depreciable assets and the related accumulated depreciation.

REVISING PERIODIC DEPRECIATION

Annual depreciation expense should be reviewed at least annually by an entity. If wear and tear or obsolescence indicates that annual depreciation is either inadequate or excessive, the depreciation expense amount should be changed.

When a change in an estimate is required, the change is made in current and future years but not to previous periods. Thus, when a change is made, (1) there is no correction of previously recorded depreciation expense, and (2) depreciation expense for current and future years is revised. The reason for this treatment is that continual restatement of previous periods would adversely affect users' confidence in financial statements.

Significant changes in estimates must be disclosed in the financial statements. Although an entity may have a legitimate reason for changing an estimated life, financial statement users should be aware that some entities might change an estimate simply to achieve financial statement goals. For example, extending an asset's estimated life reduces depreciation expense and increases current period profit.

A change in depreciation method, e.g. from straight-line to diminishing balance, is considered a change in accounting policy and requires extensive disclosure, including the effect on prior periods if practicable (see chapter 10 p. 607 for further information).

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. Why is depreciation an allocation concept rather than a valuation concept?
2. What is the formula for calculating annual depreciation under the straight-line method?
3. How do the depreciation methods differ in their effects on annual depreciation over the useful life of an asset?
4. Are revisions of periodic depreciation made to previous periods? Explain.

>> DO IT

On 1 July 2016, Snowy Ski Ltd purchased a new snow-making machine for $50 000. The machine is estimated to have a 10-year life with a $2000 residual value. What journal entry would Snowy Ski Ltd make at 30 June 2017 if it uses the straight-line method of depreciation?

REASONING: Depreciation is an allocation concept. Under straight-line depreciation an equal amount of the depreciable cost is allocated to each period.

SOLUTION:

$$\text{Depreciation expense} = \frac{\text{Cost} - \text{Residual value}}{\text{Useful life}} = \frac{\$50\,000 - \$2000}{10} = \$4800$$

The entry to record the first year's depreciation would be:

June	30	Depreciation expense	4 800	
		Accumulated depreciation		4 800
		(To record annual depreciation on snow-making machine)		

SUBSEQUENT EXPENDITURE

LEARNING OBJECTIVE 5
Account for subsequent expenditures.

During the useful life of an asset, an entity may incur costs for ordinary repairs, additions and improvements. **Ordinary repairs** are expenditures to maintain the operating efficiency and expected productive life of the asset. They are usually fairly small amounts that occur frequently throughout the service life. Replacing parts on aircraft, painting buildings, and replacing worn-out gears on factory machinery are examples. They are debited to repair and maintenance expense as incurred, and are an expense in the statement of profit or loss. However, when businesses possess large values of plant assets, the repairs and maintenance costs can be material amounts. For example, Qantas established a separate engineering division to undertake aircraft maintenance for it and other airlines. This division employs more than 6000 skilled engineers throughout Australia and is able to provide complete maintenance and overhaul for Boeing 737, 767 and 747 series aircraft in Sydney and Melbourne. The aircraft are continually maintained and a typical B747–400 check involves more than 55 000 labour hours and more than 9000 tasks. (See Qantas's web site, www.qantas.com.au.)

Additions and improvements are costs incurred to increase the operating efficiency, productive capacity or expected useful life of the PPE asset. These expenditures are usually material in amount and occur infrequently during the period of ownership.

Helpful hint
These expenditures occur after all costs have been incurred to make the asset ready for its intended use when it was acquired.

When additional expenditure is incurred in relation to a non-current asset already in use, if the expenditure is material in amount and enhances the future economic benefits, such expenditure should be capitalised and depreciated over the remaining useful life of that asset.

LEARNING OBJECTIVE 6

Account for asset impairments.

IMPAIRMENTS

An additional measurement consideration in reporting the value of non-current assets is a test to ensure that the value reported in the statement of financial position is not above the present value of expected future cash flows the business will generate from the use of the assets. All items of PPE must be tested for impairment, in accordance with the requirements of IAS 36/AASB 136 *Impairment of Assets*. An **impairment loss** is the amount by which the carrying amount of an asset or a cash-generating unit exceeds its *recoverable amount*. The **recoverable amount** of an asset or a cash-generating unit is the higher of its fair value less costs of disposal and its value in use. **Value in use** is the present value of the future cash flows expected to be derived from an asset or cash-generating unit. When applying the impairment test it is recognised that at times the cash flows relating to individual assets are hard to identify, so the impairment test is applied to the *cash-generating unit*. A **cash-generating unit** is the smallest identifiable group of assets that generates cash inflows which are largely independent of the cash inflows from other assets or groups of assets.

DECISION MAKING

Applying the impairment test to PPE assets is a two-step process. First, an entity must assess if there is any indication that an asset may be impaired, i.e. are there factors during the reporting period which would change the expected future cash flows that were originally estimated would flow to the business? Indicators include external factors such as a decline in the market value of the asset, changes in the technological, market, economic or legal environment, or an increase in the market interest rates; and internal factors such as physical damage, evidence of obsolescence, an adverse change or intended change in the intended use of the asset, or evidence from the internal reporting system indicating that the performance of the asset is worse than expected. The second step is if any of these indicators exist, then the *recoverable amount* must be estimated. This is described below.

ACCOUNTING FOR IMPAIRMENTS

Helpful hint

If the fair value is easily determined and it is higher than the carrying value, then the value in use does not need to be calculated.

Applying the impairment test, you first need to calculate the fair value less costs of disposal and the value in use. It is the higher of these two values which must be compared to the carrying amount. It is only when the recoverable amount is lower that an impairment loss must be recognised. If the carrying value is below the recoverable amount, no entry is necessary, i.e. you do not write the asset up to the recoverable amount.

To illustrate how an impairment loss is accounted for, assume that on 30 June 2015 Microcloud has equipment with an original cost of \$60 000 and accumulated depreciation of \$35 000. Therefore the carrying amount is \$25 000. The annual depreciation expense is \$5000 per year, with 5 years of useful life remaining. The value in use (i.e. net present value from using the computer) is \$16 500 and the net selling price is \$18 000 (\$20 000 selling price less cost to sell of \$2000). This is shown in figure 8.17.

Year	Current depreciation	Accumulated depreciation	Carrying value	Fair value	Value in use
2015	\$5 000	\$35 000	\$25 000	\$18 000	\$16 500
2016	5 000	40 000	20 000	18 000	21 500
2017	5 000	45 000	15 000		
2018	5 000	50 000	10 000		
2019	5 000	55 000	5 000		
2020	5 000	60 000	nil		

Figure 8.17 Microcloud's original estimation for \$60 000 asset

The recoverable amount is the *higher* of the net selling price (\$18 000) and the value in use (\$16 500), i.e. \$18 000. This amount is then compared to the carrying value of the asset.

Because the carrying value exceeds the recoverable amount, an impairment write-down of $7000 ($25 000 − $18 000) is required. The journal entry to record the impairment is:

June	30	Impairment loss
		  Accumulated impairment loss—computers
		    (To record the impairment write-down on equipment)
			7 000	7 000

A	=	L	+	E
−7000				−7000

From 2016, the depreciation charge (after the impairment write-down) will be only $3600 ($18 000 ÷ 5) per year.

When the PPE asset is measured using the revaluation basis, any impairment loss is treated as a revaluation decrease. Revaluations are explained below.

REVERSAL OF IMPAIRMENTS

Reversal of impairment losses for PPE assets are permitted so long as the new carrying value is no greater than it would have been had no impairment loss been recognised in previous years.

To illustrate, consider the Microcloud example from earlier and refer to figure 8.17. The revised depreciation charge on equipment for 2016 is $3600. Accumulated depreciation is therefore $38 600 ($35 000 + $3600). The carrying value of the equipment at 30 June 2016 is:

Cost	$ 60 000
Less: Accumulated depreciation	(38 600)
Less: Accumulated impairment	(7 000)
Carrying value	$ 14 400

Assume that at 30 June 2016 the factors that caused the impairment write-down are no longer present, the net selling price is still $18 000 and the value in use is estimated to be $21 500. The recoverable amount is $21 500 (the higher of the net selling price and value in use). Can the impairment write-down be reversed? Yes, but only to what the equipment's carrying value would be if no impairment had taken place. Figure 8.17 (p. 492) shows that, had no impairment occurred, the carrying value on 30 June 2016 would have been $20 000 and this value is the maximum reversal permitted to a carrying value of $20 000. The adjustment is $5600 ($20 000 – $14 400). The journal entry necessary is:

July	1	Accumulated impairment loss—equipment
		  Income—impairment loss reversal
		    (To record reversal of the impairment write-down on equipment)
			5 600	5 600

A	=	L	+	E
+5600				+5600

REVALUATIONS

LEARNING OBJECTIVE 7

Account for the revaluation of property, plant and equipment assets.

A **revaluation** is a reassessment of the fair value of a non-current asset at a particular date. After initial recognition of a PPE asset at cost, IAS 16/AASB 116 requires each *class* of property plant and equipment to be measured on either the cost basis or the revalued basis. A **class of non-current assets** is a category of non-current assets having a similar nature or function in the operations of the entity, and is shown without further dissection as a single line item in the notes to the statement of financial position. The cost model is the initial cost less accumulated depreciation and any impairment losses. The revaluation model permits the PPE asset — whose fair value can be measured reliably — to be carried at a revalued amount. This is the fair value at the date of the revaluation less any subsequent accumulated depreciation and impairments. If an entity chooses to measure its assets at fair value, then the revaluations must be kept up to date so that the carrying amount does not materially differ from fair value at the end of each reporting period. It is expected that revaluations be carried out every 3 to 5 years. This is sometimes described as a revaluation treadmill.

Revaluations may be either upwards or downwards. Any revaluation to a value above the up-to-date carrying amount is referred to as a revaluation increase, and any revaluation to a value below the up-to-date carrying amount is referred to as a revaluation decrease. If the asset is depreciable, then the carrying amount is the value net of the accumulated depreciation. Offsetting increases and decreases within the class of PPE assets is not permitted.

Revaluation increases must be credited directly to equity to an account called revaluation surplus rather than being treated as revenue in the profit or loss statement. Instead it forms part of comprehensive income. A revaluation decrease is treated as an expense in the statement of profit or loss.

REVALUATION JOURNAL ENTRIES

The recording procedures for a revaluation are as follows:

1. Record depreciation to date of the asset revaluation.
2. Transfer the balance of the contra account, accumulated depreciation, to the asset account to give the asset's carrying amount.
3. Record the revaluation.

To illustrate, assume that the statement of financial position of Morris Decorators Ltd shows two classes of non-current assets on 31 December 2015, namely:

Land (Land A $150 000, Land B $150 000)		$300 000
Equipment	$75 000	
Accumulated depreciation	25 000	50 000

A decision is made on 1 January 2016 to revalue both assets: the land to a fair value of $290 000 (Land A $200 000 and Land B $90 000), and the equipment to a fair value of $45 000. The journal entries necessary for each asset are as follows.

A	=	L	+	E
+50 000				+50 000

A	=	L	+	E
−60 000				−60 000

A	=	L	+	E
+25 000				−5 000
−30 000				

Jan.	1	Land	50 000	
		Revaluation surplus		50 000
		(To record revaluation increase on Land A)		
	1	Revaluation expense	60 000	
		Land		60 000
		(To record revaluation decrease on Land B)		
	1	Accumulated depreciation—equipment	25 000	
		Revaluation expense	5 000	
		Equipment		30 000
		(To record revaluation decrease on equipment)		

After the revaluation, the asset accounts would have the following balances:

Land	$290 000
Equipment	45 000

Helpful hint

To calculate the carrying amount of a depreciable asset, deduct accumulated depreciation from the asset cost account.

The equipment had a carrying amount of $50 000 ($75 000 − $25 000) before revaluation. The equipment had to be written down to the fair value of $45 000. Alternatively, the revaluation of the equipment can be split into two entries to make the journal entry a little clearer:

A	=	L	+	E
+25 000				
−25 000				

A	=	L	+	E
−5 000				−5 000

Jan.	1	Accumulated depreciation—equipment	25 000	
		Equipment		25 000
		(To close off accumulated depreciation against the asset)		
	1	Revaluation expense	5 000	
		Equipment		5 000
		(To record revaluation decrease on equipment)		

REVERSALS OF INCREASES AND DECREASES

If in a subsequent period the initial revaluations reverse, the revaluation increase (decrease) for an asset should be offset against the previous revaluation decrease (increase) to the extent of the amount of the previous revaluation. For reversals against the revaluation surplus, there must be balances relating to that asset available in the surplus. Using the previous example, assume that the piece of Land A owned by Morris Decorators is worth only $120 000 due to unforeseen contamination, and a decision is made to write down the land at 30 September 2018. The balance of the revaluation surplus is $50 000 credit arising from the previous revaluation of the land. The journal entry is as follows:

Sept. 30	Revaluation surplus	50 000	
	Revaluation expense	30 000	
	Land		80 000
	(To record the reversal of revaluation increase of land A by writing down the revaluation surplus by $50 000 and recognising an expense of $30 000)		

A	= L +	E
−80 000		−50 000
		−30 000

In this example, land A had an original cost of $150 000 and now has a carrying amount of $120 000. When the land is revalued downwards, the revaluation decrease of $80 000 reverses the previous increase ($50 000) recognised on 1 January 2016.

Impairment testing applies to assets held on the revalued basis. However if the impairment is indicated, then the whole class of assets does not need to be adjusted. The asset which is impaired is written down and it is treated as a revaluation decrease.

The more complex issues relating to revaluations are covered in more advanced accounting courses.

APPLICATION IN BUSINESS

Investor perspective

Asset impairments and revaluations have a significant impact on an entity's bottom line. During the global financial crisis, the fair value of assets, particularly in the investment properties sector, insurance and real estate industries, deteriorated substantially. According to Bowen & Khan (2014, p. 233) fair value accounting has been blamed for contributing 'to the worst economic crisis in the United States since the great depression'. Research by the Institute of Chartered Accountants in Australia found that impairment losses resulted in the worst annual profit season in 2009 with $10.9 billion worth of assets lost due to a decline in fair value and impairment of assets. Managers and auditors had to make more judgement calls during the financial crisis to explain how they arrived at their impairment decisions, how conservative management was being in making its calls, the alternatives considered and why a particular decision was made. Improving economic conditions created new challenges as surviving companies needed to revalue badly impaired assets and reverse those write-downs.

Source: Based on information from R.M. Bowen and U. Khan 2014, 'Market reactions to policy deliberations on fair value accounting and impairment rules during the financial crisis of 2008–2009', *Journal of Accounting and Public Policy*, vol. 33, no. 3, pp. 233–59; Institute of Chartered Accountants, media release, 'Accounting analysis reveals $10.9bn worth of assets lost in 2009', December 2009, www.charteredaccountants.com.au; and A. King 2010, 'Value back in vogue', *BRW*, 14 January, www.brw.com.au.com.au.

DISPOSALS OF PPE ASSETS

LEARNING OBJECTIVE 8
Account for the disposal of property, plant and equipment assets.

Entities dispose of PPE assets that are no longer useful to them. Figure 8.18 (overleaf) shows the three ways in which asset disposals are made: sale, scrapping, or exchange. (The accounting for exchanges is discussed in more advanced courses.)

Whatever the disposal method, the entity must determine the carrying amount of the PPE asset at the time of disposal. Recall that the carrying amount is the difference between the cost of the PPE asset and the accumulated depreciation to date. If the disposal occurs at any time during the year, depreciation for the portion of the year to the date of disposal must be recorded. The carrying amount is then eliminated by reducing (debiting) accumulated depreciation for the total depreciation associated with that asset to the date of disposal and reducing (crediting) the asset account for the cost of the asset.

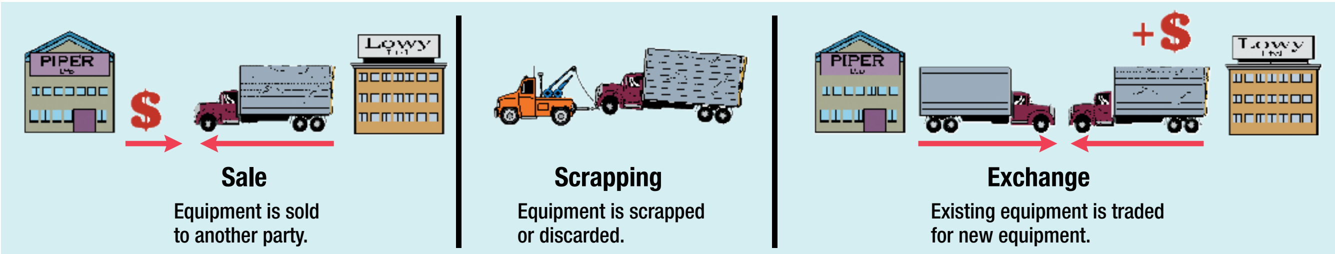


Figure 8.18 Methods of PPE asset disposal

SALE OF PPE ASSETS

In a disposal by sale, the carrying amount of the asset is compared with the proceeds received from the sale. If the proceeds from the sale exceed the carrying amount of the asset, a gain on disposal occurs. If the proceeds from the sale are less than the carrying amount of the asset sold, a loss on disposal occurs.

Only by coincidence will the carrying amount and the proceeds from sale of the asset be the same. Gains and losses on sales of PPE assets are therefore quite common.

Gain on sale. To demonstrate a gain on sale of PPE assets, assume that on 1 July 2015 Wright Ltd sells office furniture for $16 000 cash. The office furniture originally cost $60 000 and as of 1 January 2015 had accumulated depreciation of $41 000. Depreciation for the first 6 months of 2015 is $8000. The entry to record depreciation expense and update accumulated depreciation to 1 July is as follows:

A	= L +	E
−8000		−8000

July	1	Depreciation expense	8 000	
		Accumulated depreciation—office furniture		8 000
		(To record depreciation expense for the first 6 months of 2015)		

After the accumulated depreciation balance is updated, a gain on disposal of $5000 is calculated as shown in figure 8.19.

Cost of office furniture	$60 000
Less: Accumulated depreciation ($41 000 + $8000)	49 000
Carrying amount at date of disposal	11 000
Proceeds from sale	16 000
Gain on disposal of asset	**$ 5 000**

Figure 8.19 Calculation of gain on disposal

The entry to record the sale and the gain on sale of the PPE asset is as follows:

A	= L +	E
+16 000		+5 000
+49 000		
−60 000		

July	1	Cash	16 000	
		Accumulated depreciation—office furniture	49 000	
		Office furniture		60 000
		Gain on disposal		5 000
		(To record sale of office furniture at a gain)		

Gains on disposal of PPE are classified as other income in the statement of profit or loss.

Loss on sale. Assume that instead of selling the office furniture for $16 000, Wright sells it for $9000. In this case, a loss of $2000 is calculated as in figure 8.20.

Cost of office furniture	$60 000
Less: Accumulated depreciation	49 000
Carrying amount at date of disposal	11 000
Proceeds from sale	9 000
Loss on disposal of asset	**$ 2 000**

Figure 8.20 Calculation of loss on disposal

The entry to record the sale and the loss on sale of the asset is as follows:

July	1	Cash	9 000	
		Accumulated depreciation—office furniture	49 000	
		Loss on disposal	2 000	
		Office furniture		60 000
		(To record sale of office furniture at a loss)		

A	=	L	+	E
+9 000				−2 000
+49 000				
−60 000				

SCRAPPING OF PPE ASSETS

Some assets are simply scrapped by the entity at the end of their useful life rather than sold. For example, some productive assets that are used in manufacturing may have very specific uses and consequently have no ready market when the entity no longer needs them. In this case the asset is simply scrapped.

Scrapping of an asset is recorded as a special case of a sale where no cash is received. Accumulated depreciation is decreased (debited) for the full amount of depreciation taken over the life of the asset. The asset account is reduced (credited) for the original cost of the asset. The loss on scrapping (a gain is not possible) is equal to the asset's carrying amount on the date of scrapping.

PROPERTY, PLANT AND EQUIPMENT RECORDS

LEARNING OBJECTIVE 9
Describe the use of an asset register.

Just as subsidiary ledgers are maintained for receivables, payables and inventory, as outlined in chapter 6, similarly a detailed asset register is maintained as an internal control procedure to protect and efficiently manage the property, plant and equipment (PPE).

The PPE assets in the general ledger are separated into functional asset groups, which means that there would normally be separate general ledger accounts for land, buildings, land improvements, motor vehicles, office equipment, office furniture, storage equipment and so on. Separate accounts may also be kept for different geographical locations, e.g. Christchurch and Perth. However, these general ledger accounts are summarised accounts and may contain many hundreds of individual items. Subsidiary ledgers are maintained to keep the details of the individual assets. The layout and content of a subsidiary ledger varies between entities, but at a minimum it would record the cost of the item, the depreciation rate and accumulated depreciation to date. For example, if the asset were a motor vehicle, the asset register information may include an asset identifying number (for stocktake and keeping track of its location), the date of purchase, the supplier, details of registration, insurance and maintenance information, depreciation method and rate, as well as depreciation each period. The master schedule from the asset register forms the source document for the journal entry to record depreciation for the period. Many entities use computerised asset registers which makes the detailed calculation of depreciation relatively easy.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What is the difference between an ordinary repair and an addition or improvement? Why is this distinction important to financial reporting?
2. What is an impairment?
3. What is a revaluation?
4. How are the sales and scrapping of PPE assets accounted for?
5. What is the purpose of an asset register?

>> DO IT

Overland Transport Ltd has an old truck that cost $30 000 and has accumulated depreciation of $16 000. Assume two different situations: (1) the entity sells the old truck for $17 000 cash; (2) the truck is worthless, so the entity simply scraps it. What entry should Overland use to record each scenario?

REASONING: Gains and losses on the sale of PPE assets are determined by the difference between the carrying amount and the sale proceeds of the entity's asset. The expense on scrapping a PPE asset is the carrying amount at the time the asset is scrapped.

SOLUTION:

1. Sale of truck for cash:

Cash	17 000	
Accumulated depreciation—truck	16 000	
Truck		30 000
Gain on disposal [$17 000 − ($30 000 − $16 000)]		3 000
(To record sale of truck at a gain)		

Here the entity made a gain (profit) on sale of $3000, i.e. the proceeds of $17 000 less the carrying amount of $14 000.

2. Scrapping of truck:

Accumulated depreciation—truck	16 000	
Loss on disposal	14 000	
Truck		30 000
(To record scrapping of truck at a loss)		

LEARNING OBJECTIVE 10

Identify the basic issues related to reporting intangible assets.

INTANGIBLE ASSETS

Intangible assets are defined in IAS 38/AASB 138 *Intangible Assets* as identifiable non-monetary assets that have no physical substance. Many valuable assets are intangible. Some widely known intangibles are the patents of the Apple iPod, the franchises of Domino's and the trademark 'swoosh' of Nike.

Financial statements do not report many intangibles. It is not uncommon for an entity's reported carrying amounts to differ from its market value because the financial statements are prepared using the cost principle. Although intangible assets account for most of the value of high-tech or so-called intellectual property entities, they are often not reported on the statement of financial position. Why not? Many intangibles are not recognised as assets because there is no external transaction. Figure 8.21 shows the percentage of intangibles (excluding goodwill) in relation to total assets for some well-known entities.

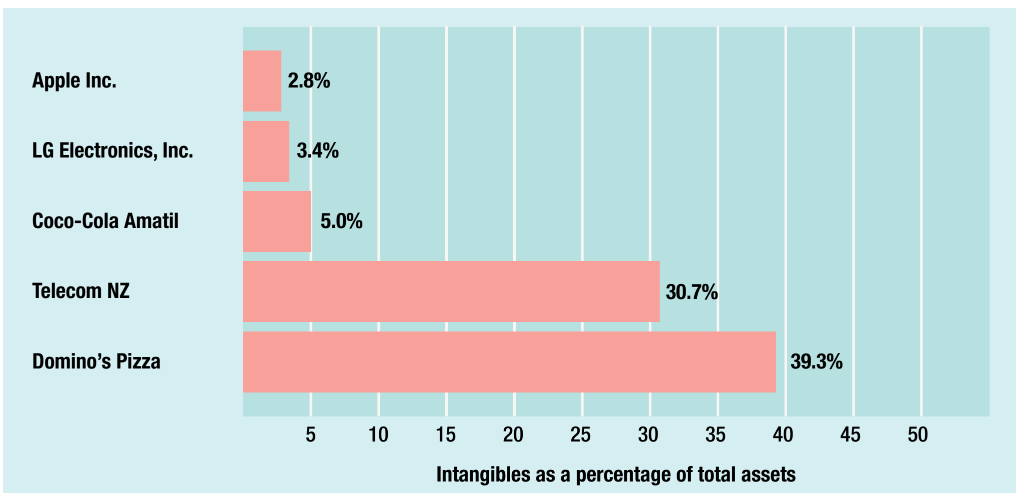


Figure 8.21 Percentage of intangibles in relation to total assets

Apple, LG, and Coca-Cola Amatil reported negligible intangibles on their statements of financial position. However, Telecom NZ has substantial software and goodwill while over 30% of Domino's Pizza's intangible assets are made up of goodwill. Think of the value of the Coco-Cola and Apple brands. Why do you think the intangibles in their statement of financial positions are comparatively low?

ACCOUNTING FOR INTANGIBLE ASSETS

Accounting standard IAS 38/AASB 138 *Intangibles* outlines the accounting rules for intangible assets.

Intangible assets can be separated into identifiable and unidentifiable. *Unidentifiable* intangible assets cannot be separated from the entity itself and are collectively referred to as goodwill. Goodwill can be recognised only if purchased in an external transaction. If an entity chooses not to separately identify an intangible asset, then the asset will be reflected in goodwill. The accounting treatment for goodwill is determined by IFRS 3 *Business Combinations*, which requires that goodwill be classified separately from other intangibles in the statement of financial position.

For an item to meet the criterion of an *identifiable* intangible, it must be capable of being separated or divided from an entity (whether sold, licensed, rented or exchanged), or it must arise from contractual or other legal rights. If an item does not meet the definition of an identifiable intangible then, unless it is part of a business combination, expenditure to acquire it or generate it internally must be recognised as an expense when incurred. Identifiable intangible assets include patents, development costs, copyrights, trademarks, brand names, franchises and licences.

Intangibles must be recognised at cost, the same as PPE assets. However, unlike PPE assets, intangibles cannot be subsequently measured at fair value or revalued unless there is an active market. An **active market** is one where the items traded in the market are homogeneous; willing buyers and sellers can normally be found at any time; and the prices are available to the public. By their nature, most intangibles would not have an active market and therefore would not be permitted to be revalued.

Figure 8.21 demonstrates great variation in the recognition, valuation and reporting of intangibles. If the asset is generated from internal expenditure on research and development, the asset will not be recognised. However, when purchased in an external transaction it is recognised.

Amortisation

The accounting treatment for intangibles is based on their useful life. If the intangible asset has a finite useful life then, as occurs with PPE assets, its cost will be systematically written down. The term used to describe the allocation of the cost of an intangible asset to expense is **amortisation** rather than depreciation. To record amortisation expense, the same accounting treatment applies as is used for depreciation. Intangible assets that are amortised are typically done so on the straight-line basis. For example, the legal life of a patent is 20 years. The cost of the patent should be amortised over its 20-year legal life or its useful life, whichever is shorter. To illustrate the calculation of patent amortisation, assume that National Labs Ltd purchases a patent at a cost of $60 000. If the useful life of the patent is estimated to be 8 years, the annual amortisation expense is $7500 ($60 000 ÷ 8). The following entry records the annual amortisation:

Dec. 31	Amortisation expense	7 500	
	Accumulated amortisation—patents		7 500
	(To record patent amortisation)		

A	= L +	E
−7 500		−7 500

When analysing an entity that has significant intangibles, the reasonableness of the estimated useful life should be evaluated. In determining useful life, the entity should consider obsolescence, inadequacy and other factors. These may cause a patent or other intangible asset to become economically ineffective before the end of its legal life. For example, suppose a computer hardware manufacturer obtained a patent on a new computer chip it had developed. The legal life of the patent is 20 years. From experience,

DECISION MAKING

however, we know that the useful life of a computer chip patent is rarely more than 5 years, because new superior chips are developed so rapidly, and existing chips become obsolete. Consequently, we would question the amortisation expense of an entity if it amortised its patent on a computer chip for longer than a 5-year period. Amortising an intangible over a period that is too long will understate amortisation expense, overstate the entity's profit, and overstate its assets.

Intangibles with indefinite useful lives are not amortised. This is discussed below.

Figure 8.22 contains an extract from the summary of significant accounting policies of the 2013 financial statements of Telecom NZ in which it discloses how it accounts for different types of intangible assets.

TELECOM NEW ZEALAND
Notes to the financial accounts 30 June 2013

Intangible assets

The cost of acquiring an intangible asset with a finite life is amortised from the date the underlying asset is held ready for use on a straight-line basis over its estimated useful life, which is as follows:

Software	2–8 years
Capacity purchases	15–25 years
Spectrum licenses	20 years
Customer contracts	7–8 years
Other intangibles	5–80 years

Where estimated useful lives or recoverable values have diminished due to technological change or market conditions, amortisation is accelerated.

Telecom capitalises the direct costs associated with the development of network and business software for internal use where project success is regarded as probable. Capitalised costs include external direct costs of materials and services consumed, payroll and direct payroll-related costs for employees (including contractors) directly associated with the project and interest costs incurred while developing the software. Software developed for internal use is amortised over its estimated useful life.

Goodwill represents the excess of purchase consideration over the fair value of net assets acquired at the time of acquisition of a business or shares in a subsidiary. Goodwill is allocated to cash-generating units and assessed annually for impairment. An impairment is recognised if it is no longer probable that the value will be recovered from future economic benefits of the related cash-generating unit.

Impairment of assets

Goodwill

Goodwill is not subject to amortisation but is tested for impairment annually or whenever there is an indication that the asset may be impaired. For the purpose of impairment testing, assets are grouped at the lowest levels for which there are separately identifiable cash flows, known as cash-generating units. If the recoverable amount of the cash-generating unit is less than the carrying amount of the unit, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets. Impairment losses recognised for goodwill are not reversed in a subsequent period. The recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate.

Source: Telecom NZ's web site, www.telecom.co.nz, and the 2013 annual report.

Figure 8.22 Accounting policy note in financial statements

Subsequent expenditure

Any subsequent expenditure on intangible assets is rarely capitalised due to the nature of such assets, i.e. it is unlikely that you could replace part of an intangible asset. Therefore most subsequent expenditures are likely to maintain the expected future economic benefits embodied in an existing intangible asset rather than meet the definition of an intangible asset and hence the costs are expensed and not capitalised. IAS 38/AASB 138 requires any subsequent expenditure on brand names, mastheads, publishing titles, customer lists and items similar in substance (whether externally purchased or internally generated) to be recognised in profit or loss as incurred, thereby avoiding the recognition of internally generated goodwill.

Impairment

Intangibles with finite useful lives are subject to asset impairment write-downs using the same methodology described for PPE assets earlier in this chapter. Intangibles (including goodwill) with indefinite useful lives are *not amortised* but are subject to an *annual impairment test*, irrespective of whether any indicators of impairment exist. That is, the recoverable amount of intangibles with indefinite useful lives must be calculated annually. Reversal of impairment write-downs are permitted for identifiable intangibles but not for goodwill.

Amortisation and impairment choices require a high degree of judgement. The following decision-making toolkit outlines an example of the decisions that need to be made when examining entities with high proportions of intangibles and the tools you can use to evaluate, compare and make decisions such as investing, extending credit or job security.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Is the entity's amortisation of intangibles reasonable?	Estimated useful life of intangibles from notes to financial statements of this entity and its competitors	If the entity's estimated useful life significantly exceeds that of competitors or does not seem reasonable in light of the circumstances, the reason for the difference should be investigated.	Too high an estimated useful life will result in understating amortisation expense and overstating profit.

TYPES OF INTANGIBLE ASSETS

LEARNING OBJECTIVE 11
Describe the common types of intangible assets.

PATENTS

A **patent** is an exclusive right granted by IP Australia, a federal government agency that enables the recipient to manufacture, sell or otherwise control an invention for a period of 20 years from the date of the grant. The New Zealand equivalent is IPONZ, a NZ government agency. The initial cost of a patent is the cash or cash equivalent price paid to acquire the patent.

The saying 'A patent is only as good as the money you're prepared to spend defending it' is very true. Many patents are subject to some type of litigation by competitors. If the owner incurs legal costs in successfully defending the patent in an infringement suit, such costs are considered necessary to establish the validity of the patent. Thus, they are added to the Patent account and amortised over the remaining useful life of the patent.

RESEARCH AND DEVELOPMENT COSTS

Research and development costs are expenditures that may lead to patents, copyrights, new processes and new products. Many entities spend considerable sums of money on research and development in an ongoing effort to develop new products or processes. For example, LG spent ₩2.2 billion on research and development in 2013. There are uncertainties in identifying the extent and timing of the future benefits of these expenditures. As a result, research and development costs are usually recorded as an expense when incurred, whether the research and development is successful or not.

Research costs must be expensed when incurred. Development costs are permitted to be capitalised if certain criteria are met which demonstrate that the costs will be recovered in the future by the entity selling or using the intangible asset.

Assume that Laser Scanner Ltd spent $3 million on research and development that resulted in two highly successful patents. Only the development costs may be included in the cost of the patents. However, due to the uncertainty at the time they were incurred, the costs are recorded as an expense.

Many disagree with this accounting approach. They argue that to expense these costs leads to understated assets and understated profit. Others, however, argue that capitalising these costs would lead to highly speculative assets on the statement of financial position.

APPLICATION IN BUSINESS

E-business perspective

The technology giant Apple Inc. generates more revenue from every dollar spent on research and development (R&D) than any other major technology company. In 2013, the company spent just 2.6% of its revenue on R&D, much less than the tech industry average of 14%. Despite the relative low percentage of R&D on revenue, Apple actually had increased its R&D spending by 84% to US$4.5 billion from 2011–13. The increase in R&D spending was accompanied by a 58% increase in revenue to US$170.9 billion. For every dollar increase in R&D since 2011, Apple has created $30.6 million in new revenue as a result of blockbuster sales of trendy products such as the iPhone and iPad. The efficient use of capital, coupled with strong focus on consumer trends and mobile products, are among the reasons Apple overtook Microsoft to become the world's most valuable technology company in 2010.

However, Microsoft and Google have been fighting back to the extent that by 2014 the Google brand increased 40% in value to become the world's most valuable brand while the Apple brand value declined 20%.

Source: Based on information from S. Jones 2010, 'Apple squeezes more from limited R&D spend', *The Australian*, 28 May, www.theaustralian.com.au; Apple's 2013 annual report; and A. Task 2014, 'Google overtakes apple as world's most valuable brand', *Daily Ticker*, 21 May, www.finance.yahoo.com.

COPYRIGHT

Copyright gives the owner the exclusive right to reproduce and sell an artistic or published work. In Australia, copyright extends, in most cases, for the life of the creator plus 70 years. The cost of the copyright consists of the cost of acquiring and defending it. The useful life of a copyright generally is significantly shorter than its legal life. Therefore it should be amortised over its useful life. However, in Australia it is often held at cost and not amortised.

TRADEMARKS AND BRAND NAMES

A **trademark** or **brand name** is a word, phrase, jingle or symbol that distinguishes or identifies a particular business or product. Brand names like Domino's, LG, IKEA, Kleenex, Coca-Cola, Big Mac and iPod create immediate product identification and generally enhance the sale of the product. The creator or original user may obtain the exclusive legal right to the trademark or brand name by registering it with IP Australia. Such registration may be renewed indefinitely as long as the trademark or brand name is in use.

If the trademark or brand name is purchased, the cost is the purchase price. If it is developed by the entity itself, the cost must be expensed as these items cannot be distinguished from the expenditures incurred in developing the business as a whole.

Trademarks and brand names have indefinite useful lives and are not amortised but must be impairment-tested annually.

FRANCHISES AND LICENCES

When you drive down the street in your RAV4 purchased from a Toyota dealer, fill up your petrol tank at the corner Shell service station, eat lunch at Gloria Jean's, pick up a pizza from Domino's or make plans to holiday at a Club Med resort, you are dealing with franchises. A **franchise** is a contractual arrangement under which the franchisor grants the franchisee the right to sell certain products, to render specific services, or to use certain trademarks or brand names, usually within a designated geographic area.

Another type of franchise, granted by a government body, permits the entity to use public property in performing its services. Examples are the use of city streets for a bus service or taxi service; the use of public land for telephone, electric and cable television lines; and the use of airwaves for radio or TV broadcasting. Such operating rights are referred to as **licences**.

Franchises and licences may be granted for a definite period of time, an indefinite period, or perpetually. When costs can be identified with the acquisition of the franchise or licence, an intangible asset should be recognised. Annual payments made under a franchise agreement should be recorded as operating expenses in the period in which they are incurred. Where franchises and licences are for a limited period of time, the cost of a franchise (or licence) should be amortised as operating expense over the useful life.

GOODWILL

Goodwill represents the value of all favourable attributes that relate to an entity and is defined as the future benefits from unidentifiable assets. These include exceptional management, desirable location, good customer relations, skilled employees, high-quality products, fair pricing policies, and harmonious relations with employees. Goodwill is associated with the entity *as a whole* — unlike other assets such as investments, PPE assets and even other intangibles which can be sold *individually* in the marketplace.

If goodwill can be associated only with the entity as a whole, how can it be determined? Certainly, many entities have many of the factors cited above (exceptional management, desirable location and so on). However, to determine the amount of goodwill in these situations would be difficult and very subjective. In other words, to recognise goodwill without an exchange transaction that puts a value on the goodwill would lead to subjective valuations that do not contribute to the reliability of financial statements. Therefore, goodwill is recorded only when there is an exchange transaction that involves the purchase of an entire business entity. When an entire entity is purchased, goodwill is the excess of the cost of acquisition over the fair value of the identifiable net assets (assets less liabilities) acquired.

In recording the purchase of an entity, the net assets are shown at their fair values, cash is credited for the purchase price, and the difference is recorded as the cost of goodwill. Goodwill is not amortised but is subject to an annual impairment test.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. Identify the major types of identifiable intangible assets and the accounting treatment for them.
2. Explain the accounting for research and development costs.
3. What is goodwill? Explain the accounting treatment of goodwill.

OTHER NON-CURRENT ASSETS

LEARNING OBJECTIVE 12
Explain the nature and measurement of agricultural assets.

In this section of the chapter we examine two types of assets related to specific industries: agricultural assets and natural resources.

AGRICULTURAL ASSETS

An important issue for Australia and New Zealand is the accounting treatment of agricultural assets. IAS 41/AASB 141 *Agriculture* prescribes the accounting treatment and disclosures relating to agricultural activity. An **agricultural activity** is the management by an entity of the biological transformation of biological assets for sale, into agricultural produce, or into additional biological assets. A **biological asset** is a living animal or plant. Figure 8.23 (overleaf) provides examples of biological assets, agricultural produce, and products that are the result of processing after harvest.

Biological assets	Agricultural produce	Products that are the result of processing after harvest
Sheep	Wool	Yarn, carpet
Trees in a plantation forest	Logs	Lumber
Plants	Cotton	Thread, clothing
	Harvested cane	Sugar
Dairy cattle	Milk	Cheese
Pigs	Carcass	Sausages, cured hams
Bushes	Leaf	Tea, cured tobacco
Vines	Grapes	Wine
Fruit trees	Picked fruit	Processed fruit

Figure 8.23 Examples of agricultural produce

Source: IAS 41/AASB 141 *Agriculture*, para. 4.

IAS 41/AASB 141 requires *biological assets* to be recognised when the assets can be reliably measured, it is probable that the future economic benefits will eventuate, and the fair value or cost of the asset can be reliably measured. The standard requires biological assets to be measured on initial recognition and at the end of each reporting period at fair value less estimated point-of-sale costs. Point-of-sale costs include commissions to brokers and dealers, charges by commodity exchanges, transfer taxes and duties. However, transport or other costs incurred to get the produce to market are not point-of-sale costs. Any changes in the measurement of biological assets at the end of each reporting period are included in the profit or loss in the period the change arises. Where no active market exists, then one or more of the following, when available, may be used as the best indicator of the fair value: the most recent market transaction price, provided there has been no significant change in economic circumstances between the date of that transaction and the end of the reporting period; market prices for similar assets with adjustment to reflect differences; and/or sector benchmarks such as the value of an orchard expressed per export tray, bushel or hectare, or the value of cattle expressed per kilogram of meat. The change in the value of the asset is reflected in the profit for the period. The journal entry to record the change in value debits (credits) the biological asset account to reflect the increase (decrease) in the value for the period, and credits (debits) a revenue (expense) account.

When harvested, biological assets become **agricultural produce** and are treated as inventory. The deemed cost when applying IAS 2/AASB 102 *Inventories* is the fair value less estimated point-of-sale costs at the point of harvest.

In the 2013 financial statements, Select Harvests disclosed biological assets (almond trees) of $68.4 million. The accounting policy and details of the biological assets are shown in figure 8.24.

SELECT HARVESTS LIMITED
Annual report 2013

(f) Biological assets (Extract only)
Almond trees

Almond trees are classified as a biological asset and valued in accordance with AASB 141 Agriculture.

A fair value review is completed at each period end to ensure compliance with AASB 141. The value of almond trees is measured at fair value using a discounted cash flow methodology.

The discounted cash flows incorporate the following factors:

Almond trees have an estimated 30 year economic life, with crop yields consistent with long term almond industry yield rates;
Selling prices are based on long term average trend prices being $6 per Kg;
Growing, processing and selling costs are based on long term average levels;
Temporary water costs are based on long term average market prices where assets have no permanent water rights attached;
Cash flows are discounted at a post-tax rate of 13%, that takes into account the cost of capital plus a suitable risk factor; and
An appropriate rental charge is included to represent the use of the developed land on which the trees are planted.
Nursery trees are grown by the company for sale to external almond orchard owners and for use in almond orchards owned by the company. Nursery trees are carried at fair value.

Source: Select Harvests web site, www.selectharvests.com.au, and the 2013 annual report.

Figure 8.24 Extract from accounting policy note in financial statements

NATURAL RESOURCES

LEARNING OBJECTIVE 13
Account for the acquisition and depletion of natural resources.

Natural resources or wasting assets are another special type of asset. Unlike agricultural assets, they are not regenerating. Entities in the extractive industries are involved in the search and extraction from the ground of natural substances of commercial value, such as minerals, oil and natural gas. These industries involve large investments and risk, as a viable deposit may not be found, and it can be many years (reporting periods) before the deposits are converted into inventory ready for sale. IFRS 6 *Exploration for and Evaluation of Mineral Resources* prescribes the accounting treatment for costs associated with extraction of natural resources. These include costs such as topographical and geophysical surveys, test drilling and evaluation of the quality of the resource found.

The standard does not prescribe valuation and recognition criteria for the mineral or oil deposits discovered. Although the statement of financial position does not reflect the value of the resources, extensive disclosures are made in annual reports concerning activities of these entities. The requirements of the accounting standard are complex and are covered in more advanced accounting courses. In general, however, the standard does permit, in certain cases, the capitalisation of the pre-production costs, until the resource is extracted. Then these capitalised costs are assigned (apportioned) as part of the inventory cost.

In the 2013 financial statements of Santos Ltd, $1964 million of exploration and evaluation assets were carried forward on the statement of financial position. This represents 9.5% of total assets.

AMORTISATION (DEPLETION)

Once production has begun, the pre-production costs need to be charged to inventory by an appropriate amortisation. **Depletion** or amortisation is the periodic allocation of the cost of natural resources to reflect the units removed. The depletion rate is calculated in the same way as the units-of-production method for depreciation. The following example demonstrates this.

On 1 July 2015, Wallace Tin Mine had capitalised pre-production costs to the value of $150 million with a residual value of $10 million expected at the end of the mine lease. The mine is estimated to contain 7 million tonnes of ore. During the year the mine produced 2 million tonnes and direct production costs were $120 million. The depletable amount is $140 million ($150 million − $10 million). The depletion rate is calculated by dividing the depletable costs by the total estimated production. This rate is then applied to this year's production. Figure 8.25 presents the formula and calculation of depletion for 2016.

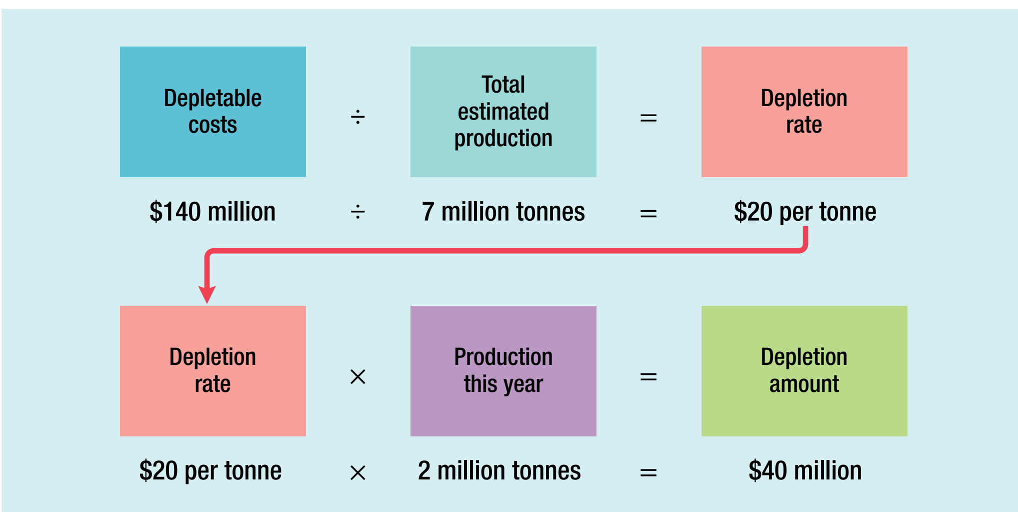


Figure 8.25 Formula for calculating depletion

The journal entry to record the depletion is:

June 30	Inventory of ore	40 000 000	
	Accumulated depletion—tin mine		40 000 000
	(To record the depletion for the year)		

A	=	L	+	E
+40 m				
−40 m				

The pre-production costs are eventually expensed as part of cost of sales when the ore is sold. At the end of 2016, Wallace Tin Mine would show an asset of $110 million ($150 million – $40 million depletion).

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What are agricultural assets and how are they valued in the financial statements?
2. What are natural resources? Explain the accounting treatment of the pre-production costs.

LEARNING OBJECTIVE 14

Indicate how non-current assets are reported in the statement of financial position, and explain the methods of evaluating the use of non-current assets.

REPORTING AND ANALYSING ISSUES

REPORTING NON-CURRENT ASSETS IN THE FINANCIAL STATEMENTS

IAS 1/AASB 101 *Presentation of Financial Statements* determines the minimum classification of assets that must be shown in the statement of financial position. Under the 'non-current assets' heading, property, plant and equipment, intangibles and land agricultural assets/biological assets are listed as separate categories. For an entity in the extractive industry, there would also be a separate line item for the oil and gas assets. There are requirements for extensive note disclosures of accounting policies, and the break-up of the summarised accounts into separate categories.

If an entity has an asset/group of non-current assets, and it is highly probable that the future benefits will be derived from sale rather than from continued use, then depreciation ceases on this asset/group of assets. The asset/group of assets is measured at the lower of its/their carrying amount and fair value less costs of disposal.

DECISION MAKING

ANALYSIS AND DECISION MAKING

Decision makers can use information about PPE assets to analyse the entity's use of those assets. We will use three measures to analyse PPE assets: average useful life, average age of PPE assets, and asset turnover.

Average useful life

By selecting a longer estimated useful life, an entity spreads the cost of its PPE assets over a longer period of time. As a result, the amount of depreciation expense reported in each period is lower and profit is higher. A more conservative entity will choose a shorter estimated useful life and will have a lower reported profit.

Many entities do not provide precise disclosures about the estimated useful life of specific assets in the notes to financial statements. For example, a common disclosure might read: 'Plant and equipment assets are depreciated using the straight-line method over estimated useful lives ranging from 5 to 40 years.' This statement makes it difficult to determine whether an entity is using a conservative approach for depreciation. It is unclear, for example, how many assets are being depreciated using short lives and how many using long lives. To overcome this problem, we can estimate the **average useful life** of assets for an entity and compare it to that of its competitors. Again, we will use the two companies introduced in chapter 1, Fantastic Holdings Limited and Nick Scali Limited. The average useful life is estimated by dividing the average cost of property, plant and equipment by the depreciation expense. The following data are for Fantastic Holdings.

(in thousands)	**Fantastic Holdings Limited**
Total cost of plant, equipment and fixtures and fittings and leasehold improvements assets — 2013	$66 256
Total cost of plant, equipment and fixtures and fittings and leasehold improvements assets — 2012	70 060
Depreciation expense — 2013	7 458

Figure 8.26 presents a calculation of the average useful life of the entity's PPE assets.

During the year there was a $3 804 000 reduction in Fantastic Holdings's PPE assets — a decrease of 5.4%. From this data, we can estimate an average useful life of the entity's PPE assets of 9.1 years. This estimate is consistent with the information published in its notes accompanying the financial statements, as 9.1 years indicates a rate of depreciation of around 11.5%. The estimated useful lives stated in its 2013 annual report indicate the following: buildings 40 years, plant and equipment 3–12 years, fixtures and fittings 5–12 years and leasehold improvements 10 years. Based on these details, the rates of depreciation for Fantastic Holdings' PPE assets range between 2.5% and 33%. The rough calculation indicates that most of the assets are depreciated around 5–10%. We recommend that, when analysing an entity, you use the estimate of the average useful life only as a check on the entity's published depreciable lives. It is a rough approximation at best, but it can be useful when an entity does not provide detailed disclosures for specific assets. Comparison can also be made with competitors in the same industry.

$$\textbf{Average useful life of PPE assets} = \frac{\textbf{Average cost of PPE assets}}{\textbf{Depreciation expense}}$$

Fantastic Holdings Limited ($ in thousands)

$$\frac{\text{Average cost of PPE assets}}{\text{Depreciation expense}} = \frac{(\$66\,256 + \$70\,060)/2}{\$7\,458} = 9.1 \text{ years}$$

Figure 8.26 Average useful life of PPE assets

Using the decision-making toolkit below, management, along with other users such as potential investors, shareholders and lenders, can use this information to determine whether the estimated useful life for calculating depreciation is reasonable, as this will have an impact on the entity's reported profit. From the cost of PPE assets and its estimated useful life, users can evaluate if the estimated life or depreciation rate is within the range stated for the entity and its competitors. Too high an estimated useful life will result in understating depreciation expense and overstating profit.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Is the entity's estimated useful life for depreciation reasonable?	Estimated useful life of assets from notes to financial statements of this entity and its competitors; or cost of PPE assets and depreciation expense	If not provided in notes, average useful life can be estimated as: $\text{Average useful life} = \dfrac{\text{Average cost of PPE assets}}{\text{Depreciation expense}}$	Too high an estimated useful life will result in understating depreciation expense and overstating profit.

Average age of PPE assets

Consider the importance of new equipment to a hospital or new planes to an airline. Not only are newer planes more fuel efficient, but they also require less maintenance and they are safer — key features for an airline, and one of the strengths of Air New Zealand. Comparing the average age of PPE assets gives an indication of the potential effectiveness of an entity's PPE assets relative to others in the industry. Most entities do not report the age of their assets. But because most entities use straight-line depreciation in their financial reporting, the **average age of PPE assets** can be approximated by dividing accumulated depreciation by depreciation expense. For example, if XYZ Ltd has accumulated depreciation of $30 000 and depreciation expense of $10 000, the average age of PPE assets is 3 years ($30 000 ÷ $10 000). The following data are for Fantastic Holdings and Nick Scali for 2013:

(in thousands)	Fantastic Holdings Limited	Nick Scali Limited
Accumulated depreciation	$36 813	$9 873
Depreciation expense	$ 7 548	$1 734

The average age of PPE assets for these two companies is estimated in figure 8.27.

$$\text{Average age of PPE assets} = \frac{\text{Accumulated depreciation}}{\text{Depreciation expense}}$$

Fantastic Holdings Limited ($ in thousands)	Nick Scali Limited ($ in thousands)
$\frac{\$36\,813}{\$7\,548} = 4.9$ years	$\frac{\$9\,873}{\$1\,734} = 5.7$ years

Figure 8.27 Average age of PPE assets

Fantastic Holdings average age of PPE assets is 4.9 years and Nick Scali is 5.7 years. The comparison indicates that Fantastic Holdings PPE assets are newer. Care must be taken when interpreting this ratio because ratios can be informative but also misleading when the PPE assets have different estimated useful lives.

The relevance of the average age of PPE assets to users is shown in the decision-making toolkit below. This information provides an indication of the status of an entity's PPE assets; that is, are they relatively new or are they in need of replacement in the near future? These are potential investment decisions that impact on future cash flows and profitability. By comparing the accumulated depreciation to the depreciation expense, users are able to determine the average age of PPE assets. A high average age relative to competitors may be of concern as it may suggest that the entity's PPE assets are not as efficient, require higher maintenance costs, or are in need of updating or replacement.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Are the entity's PPE assets outdated or in need of replacement?	Depreciation expense and accumulated depreciation	$\text{Average age of PPE assets} = \frac{\text{Accumulated depreciation}}{\text{Depreciation expense}}$	A high average age relative to competitors might suggest that the entity's assets are not as efficient, or that they may be in need of replacement.

Asset turnover

The **asset turnover** indicates how efficiently an entity uses its assets to generate sales. It is calculated by dividing net sales by average total assets. When we compare two entities in the same industry, the one with the higher asset turnover is operating more efficiently as it is generating more sales per dollar invested in assets. The following data are for Fantastic Holdings and Nick Scali:

(in thousands)	Fantastic Holdings Limited	Nick Scali Limited
Total assets — 2013	$184 461	$ 74 164
Total assets — 2012	178 733	53 906
Net sales — 2013	445 190	127 431

The asset turnovers for Fantastic Holdings and Nick Scali for 2013 are calculated in figure 8.28.

$$\text{Asset turnover} = \frac{\text{Net sales}}{\text{Average total assets}}$$

Fantastic Holdings Limited ($ in thousands)	Nick Scali Limited ($ in thousands)
$\frac{\$445\,190}{(\$178\,733 + \$184\,461)/2} = 2.45$ times	$\frac{\$127\,431}{(\$53\,906 + \$74\,164)/2} = 1.99$ times

Figure 8.28 Asset turnover

The asset turnovers tell us that for each dollar invested in assets, Fantastic Holdings generates sales of $2.45 and Nick Scali $1.99. Fantastic Holdings is more efficient in generating sales per dollar invested in assets. For a more comprehensive analysis, you could look at each entity's profit margin and the composition of its assets.

As shown in chapter 1, a review of the profit margins for each entity indicates that in 2013 Nick Scali's profit margin of 9.6% is significantly higher than Fantastic Holdings's profit margin of 3%. Closer examination of the composition of assets reveals that intangibles represent 3.2% of Nick Scali's total assets and 5.1% of Fantastic Holdings's assets. Fantastic Holdings turns its inventory over slightly slower at 3.14 times in comparison to Nick Scali at 3.54 times per annum, as shown in chapter 5. In summary, Nick Scali is slightly less efficient than Fantastic Holdings in using its assets to generate sales; however, its profit margin is significantly higher and its inventory turnover is marginally quicker than Fantastic Holdings. Asset turnovers vary considerably across industries. The asset turnover is comparable only within industries.

Asset turnovers provide users some insight into the productivity of an entity's assets. By calculating the asset turnover using the net sales figures and average total assets, users can determine the entity's level of efficiency in generating sales from its asset base. Due to the substantial investment required in assets, a high level of efficiency is desirable. The relevance of this information is summarised in the decision-making toolkit below.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
How efficient is the entity in generating sales from its assets?	Net sales and average total assets	$\text{Asset turnover} = \frac{\text{Net sales}}{\text{Average total assets}}$	A high value suggests the entity is effective in using its assets to generate sales. The asset turnover indicates the sales dollars generated per dollar of assets.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What is the purpose of knowing the average age of PPE assets? How is this figure calculated?
2. What is the purpose of the asset turnover calculation? How is it calculated?

USING THE DECISION-MAKING TOOLKIT

Bruce Pharmaceuticals Ltd is a rapidly growing entity that acquires, develops and markets pharmaceuticals. In 2016 it reported a substantial increase in profit, after reporting a loss in 2014 and a small profit in 2015. The entity has acquired, rather than developed internally, a number of existing products from other entities. It reports significant intangible assets related to these acquisitions. You have noticed the improvement in Bruce's operating results and are considering investing in the company.

REQUIRED

Review the excerpts shown below and consider the entity's sensitivity to the amortisation of its intangibles and how that might affect your decision on whether to invest. Then answer these questions:

(a) What percentage of total assets are intangibles as at 30 June 2016?
(b) What method does the entity use to amortise intangibles, and over what period are they amortised?
(c) Calculate the average useful life that the entity is using to amortise its intangible assets.
(d) Comment on whether, in your opinion, the entity's intangibles amortisation policy is reasonable.
(e) What would 2016 profit have been if the entity had used a 15-year useful life for amortisation? (*Hint:* Base your calculation on the *average* intangible assets in 2016.)

BRUCE PHARMACEUTICALS LTD
Statement of financial position (assets only)
(in thousands)

Assets	30 June 2016	30 June 2015
Total current assets	$ 157 234	$ 137 987
PPE assets and other non-current assets	53 137	39 144
Intangible assets	315 865	194 317
Total assets	$ 526 236	$ 371 448

BRUCE PHARMACEUTICALS LTD
Profit or loss statement
for the years ended 30 June
(in thousands)

	2016	2015
Total sales and revenue	$175 445	$122 508
Total operating costs and expenses	148 067	123 270
Operating profit (loss)	27 378	(762)
Other revenues, (expenses), gains and (losses)	(10 591)	3 279
Profit (loss)	$ 16 787	$ 2 517

BRUCE PHARMACEUTICALS LTD
Selected notes to the financial statements

Summary of significant accounting policies

Intangible assets: Intangible assets are stated at cost less accumulated amortisation. Amortisation is determined using the straight-line method over the estimated useful lives of the related assets which are estimated to range from 5 to 40 years. It is the company's policy to review periodically and evaluate whether there has been an impairment in the value of intangibles. In the fourth quarter of 2016, the company recorded a charge against profits for an impairment of intangible assets and to expense purchased development products totalling $25.4 million.

Intangible assets

Intangible assets consist of (in thousands):

	30 June 2016	30 June 2015
Product rights acquired	$349 282	$217 919
Less: Accumulated amortisation	33 417	23 602
	$315 865	$194 317

Notes

Amortisation expense for the years ended 30 June 2014, 2015 and 2016 was $6692, $6159 and $9815, respectively.

SOLUTION

(a) As a percentage of the entity's total assets, intangibles represented 60% in 2016 ($315 865 000 ÷ $526 236 000).

(b) The entity uses the straight-line method to amortise intangibles. The notes state that they are amortised over a 5–40-year period.

(c) The average useful life being used to amortise intangible assets can be estimated by dividing the average cost of the intangible assets by the amortisation expense.

$$\frac{(\$349\,282\,000 + \$217\,919\,000) \div 2}{\$9\,815\,000} = 28.9 \text{ years}$$

(d) This is a matter of opinion. However, one factor to consider is that Bruce is purchasing the rights to existing products, so part of their useful life may already be gone. Additionally, because of rapidly changing technology, new drugs appear to be developed at a relatively rapid rate; thus, it seems unlikely that, on average, drugs would have a useful life of 40 years. Also, the notes state that the entity took a $25.4 million write-down in 2016 due to the impairment of its intangibles. This suggests its intangibles were not being amortised fast enough. A 15-year life would seem more appropriate.

(e) In order to estimate amortisation expense using a 15-year life, we would first need to calculate average intangibles for the year to approximate the amortisation:

$$\text{Average intangibles} = \frac{\$349\,282\,000 + \$217\,919\,000}{2} = \$283\,600\,500$$

Amortisation over a 15-year period would be:

$$\frac{\$283\,600\,500}{15} = \$18\,906\,700$$

The reduction in profit from the increased amortisation (revised amortisation minus actual amortisation) would be:

$$\$18\,906\,700 - \$9\,815\,000 = \$9\,091\,700$$

Therefore, with amortisation over a 15-year period, the resulting profit (reported profit minus increase in amortisation) for the year would be:

$$\$16\,787\,000 - \$9\,091\,700 = \$7\,695\,300$$

Conclusion: These calculations make it clear the entity's profit is very sensitive to the assumed useful life. Therefore, before investing, you would want to investigate further the reasonableness of the 5–40-year assumption currently being used.

SUMMARY OF LEARNING OBJECTIVES

1 Describe the business context of non-current assets and the need for decision making for non-current assets.
The business context for non-current assets is very dependent on both internal and external factors in the business environment. The need for, focus and type of decisions are described throughout this chapter.

2 Describe how the cost principle applies to property, plant and equipment assets.
The cost of PPE assets includes all expenditures necessary to acquire the asset and make it ready for its intended use. Cost is measured by fair value of the consideration at the time of the acquisition.

3 Explain the concept of depreciation.
Depreciation is the process of allocating to expense the cost of a PPE asset over its useful (service) life in a rational and systematic manner. Depreciation is not a process of valuation, and it is not a process that results in an accumulation of cash. Depreciation is caused by wear and tear, technical and commercial obsolescence, and legal limit.

4 Calculate depreciation using various methods and contrast the expense patterns of the methods.
The expense patterns of the three main depreciation methods are as follows:

Method	*Annual depreciation pattern*
Straight-line	Constant amount
Diminishing-balance	Decreasing amount
Units-of-production	Varying amount

5 Account for subsequent expenditures.
Ordinary repairs are expenditures that maintain the efficiency and expected productive life of the asset. Additional improvements that increase the operating efficiency or useful life of the asset, if material, are capitalised.

6 Account for asset impairments.
When the asset's carrying amount is greater than the recoverable amount, the asset is said to be impaired and must be written down. Reversals of impairments of PPE assets and certain intangible assets are permitted but only to the extent the asset's carrying value would have been had the asset not been impaired.

7 Account for the revaluation of property, plant and equipment assets.
After initial recognition, property, plant and equipment assets may be measured at cost less accumulated depreciation or fair value. If fair value is chosen, then the valuation must be kept up to date.

8 Account for the disposal of property, plant and equipment assets.
The procedure for accounting for the disposal of an asset through sale or scrapping is: (a) eliminate the carrying amount of the asset at the date of disposal, (b) record cash proceeds, if any, and (c) account for the difference between the carrying amount and the cash proceeds as a gain or a loss on disposal.

9 Describe the use of an asset register.
An asset register is a subsidiary ledger in which individual asset details and depreciation are recorded.

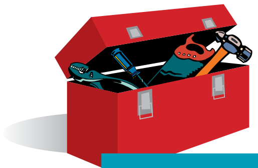
10 Identify the basic issues related to reporting intangible assets.
Identifiable intangible assets are recognised at cost. After initial recognition, intangibles with finite useful lives are amortised. Intangibles with indefinite useful life and goodwill are tested for impairment annually. Intangibles cannot be revalued unless there is an active market.

11 Describe the common types of intangible assets.
Identifiable intangible assets include patents, development costs, copyrights, trademarks and brand names, franchises and licences. Goodwill is an unidentifiable intangible.

12 Explain the nature and measurement of agricultural assets.
Agricultural assets are living animals and plants that are a result of agricultural activity. While they are not in a state ready for sale, they are measured at fair value less estimated point-of-sale costs. Changes in value are reported directly to the statement of profit or loss as either revenue or expense. Once harvested or ready for sale, agricultural assets are classified as agricultural produce and form part of the inventory of an entity.

13 Account for the acquisition and depletion of natural resources.
Pre-production costs for the extractive industries are capitalised and depleted against future production.

14 Indicate how non-current assets are reported in the statement of financial position, and explain the methods of evaluating the use of non-current assets.
PPE assets are usually shown under property, plant and equipment; intangibles are shown under intangible assets. The balances of the major classes of assets, such as land, buildings and equipment, and accumulated depreciation by major classes or in total are disclosed in the notes to the financial statements. The depreciation and amortisation methods used should be described, and the amount of depreciation and amortisation expense for the period should be disclosed. PPE assets may be analysed using average useful life, average age and asset turnover ratios.



DECISION-MAKING TOOLKIT — A SUMMARY

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Is the entity's amortisation of intangibles reasonable?	Estimated useful life of intangibles from notes to financial statements of this entity and its competitors	If the entity's estimated useful life significantly exceeds that of competitors or does not seem reasonable in light of the circumstances, the reason for the difference should be investigated.	Too high an estimated useful life will result in understating amortisation expense and overstating profit.
Is the entity's estimated useful life for depreciation reasonable?	Estimated useful life of assets from notes to financial statements of this entity and its competitors; or cost of PPE assets and depreciation expense	If not provided in notes, average useful life can be estimated as: $\text{Average useful life} = \dfrac{\text{Average cost of PPE assets}}{\text{Depreciation expense}}$	Too high an estimated useful life will result in understating depreciation expense and overstating profit.
Are the entity's PPE assets outdated or in need of replacement?	Depreciation expense and accumulated depreciation	$\text{Average age of PPE assets} = \dfrac{\text{Accumulated depreciation}}{\text{Depreciation expense}}$	A high average age relative to competitors might suggest that the entity's assets are not as efficient, or that they may be in need of replacement.
How efficient is the entity in generating sales from its assets?	Net sales and average total assets	$\text{Asset turnover} = \dfrac{\text{Net sales}}{\text{Average total assets}}$	A high value suggests the entity is effective in using its assets to generate sales. The asset turnover indicates the sales dollars generated per dollar of assets.

GLOSSARY

Accumulated depreciation The amount of depreciation that has been recorded as depreciation expense since the asset was acquired. It is not a cash fund (p. 484).

Active market A market where the items traded in it are homogeneous; willing buyers, and sellers can normally be found at any time; and the prices are available to the public (p. 499).

Additions and improvements Costs incurred to increase the operating efficiency, productive capacity or expected useful life of a PPE asset (p. 491).

Agricultural activity The management by an entity of the biological transformation of biological assets for sale, into agricultural produce, or into additional biological assets (p. 503).

Agricultural produce The harvested product of the entity's biological assets is agricultural produce, which is then classified as inventory (p. 504).

Amortisation The allocation of the cost of an intangible asset to expense (p. 499).

Asset turnover Measure of efficient use of assets, calculated as net sales divided by average total assets (p. 508).

Average age of PPE assets Measure of the age of an entity's PPE assets, calculated as accumulated depreciation divided by depreciation expense (p. 507).

Average useful life A comparative measure of PPE assets, calculated as the average cost of the assets divided by depreciation expense (p. 506).

Biological asset A living animal or plant (p. 503).

Capital expenditure Expenditure that increases the entity's investment in productive facilities (p. 479).

Carrying amount The cost of an asset less accumulated depreciation. This is also referred to as book value (p. 484).

Cash-generating unit The smallest identifiable group of assets that generate cash inflows which are largely independent of the cash inflows from other assets or groups of assets (p. 492).

Class of non-current assets Category of assets having similar nature or function in the operations of the entity. Shown as a single line item in the notes to the statement of financial position without further dissection (p. 493).

Contra account An account which is reported as an offset to or reduction from a related account (p. 484).

Copyright An exclusive right allowing the owner to reproduce and sell an artistic or published work (p. 502).

Cost Consists of the fair value of all expenditures necessary to acquire the asset and make it ready for its intended use (p. 479).

Depletion (amortisation) The periodic allocation of the cost of natural resources to reflect the units removed (p. 505).

Depreciable amount The cost of a PPE asset or other amount substituted at cost less its residual value (p. 486).

Depreciation The process of allocating to expense the cost of an asset over its useful life in a rational and systematic manner (p. 483).

Diminishing-balance method A depreciation method that results in a decreasing charge over the asset's useful life by applying a predetermined rate to the carrying amount of the asset. This is also referred to as accelerated depreciation (p. 487).

Fair value The price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (p. 479).

Finance lease A long-term agreement where the lessor effectively transfers to the lessee substantially all the risks and rewards incidental to ownership of the leased asset. The arrangement is accounted for like a purchase (p. 482).

Franchise A contractual arrangement under which the franchisor grants the franchisee the right to sell certain products, to render specific services or to use certain trademarks or brand names, usually within a designated geographic area (p. 502).

Goodwill The future benefits from unidentifiable assets (p. 503).

Impairment loss The amount by which the carrying amount of an asset or a cash-generating unit exceeds its recoverable amount (p. 492).

Intangible assets Identifiable non-monetary assets that have no physical substance (p. 498).

Lessee A party that has made contractual arrangements to use another party's asset without purchasing it (p. 482).

Lessor A party that has agreed contractually to let another party use its asset (p. 482).

Licences Operating rights to use public property, granted by a government agency to a business (p. 503).

Off-balance-sheet financing A form of financing that is not reported on the statement of financial position (p. 482).

Operating lease An arrangement whereby the lessor effectively retains substantially all the risks and rewards incidental to ownership of a leased asset. The arrangement is accounted for as a rental (p. 482).

Ordinary repairs Expenditures to maintain the operating efficiency and expected productive life of the asset (p. 491).

Patent An exclusive right that enables the recipient to manufacture, sell or otherwise control an invention for a number of years from the date of the grant (p. 501).

Property, plant and equipment Tangible assets that have physical substance, are used in the operations of the business for more than one period, and are not intended for sale to customers (p. 477).

Recoverable amount The higher of an asset or a cash-generating unit's fair value less costs of disposal and its value in use (p. 492).

Research and development costs Expenditures that may lead to patents, copyrights, new processes, and new products (p. 501).

Residual value An estimate of the asset's value at the end of its useful life. This is also called salvage value or trade-in value (p. 485).

Revaluation A reassessment of the fair value of a non-current asset at a particular date (p. 493).

Revenue expenditure Expenditures that do not extend an asset's capacity but merely maintain the asset in its working order (p. 479).

Straight-line method A method in which periodic depreciation is the same for each year of the asset's useful life (p. 486).

Trademark (brand name) A word, phrase, jingle or symbol that distinguishes or identifies a particular enterprise or product (p. 502).

Units-of-production method A depreciation method in which useful life is expressed in terms of the total units of production or use expected from the asset (p. 488).

Useful life An estimate of the expected productive life (also called service life) of the asset to the entity (p. 485).

Value in use The present value of net cash flows expected to be derived from using the asset (p. 492).

DEMONSTRATION PROBLEM 1

DuPage Ltd purchased a factory machine at a cost of $18 000 on 1 January 2015. The machine was expected to have a residual value of $2000 at the end of its 4-year useful life. The entity's reporting period ends on 31 December. For the purposes of this question exclude GST.

REQUIRED

Prepare a depreciation schedule using the straight-line method.

SOLUTION TO DEMONSTRATION PROBLEM 1

DUPAGE LTD
Depreciation schedule — straight-line method

	Calculation					End of year	
Year	Depreciable amount	×	Depreciation rate	=	Annual depreciation expense	Accumulated depreciation	Carrying amount
2015	$16 000		25%		$4 000	$ 4 000	$14 000*
2016	16 000		25		4 000	8 000	10 000
2017	16 000		25		4 000	12 000	6 000
2018	16 000		25		4 000	16 000	2 000

*Cost $18 000 − Year 1 depreciation $4000

Problem-solving strategy

Under the straight-line method, the depreciation rate is applied to the depreciable amount.

DEMONSTRATION PROBLEM 2

(Including GST of 10%)

On 1 January 2015, Skyline Limousine Ltd purchased a vehicle at an acquisition cost of $30 800 (10% GST inclusive). The vehicle has been depreciated by the straight-line method using a 4-year service life and a $4000 residual value. The entity's reporting period ends on 31 December.

REQUIRED

1. Prepare the journal entry to record the purchase of the vehicle on 1 January 2015.
2. Prepare the journal entry or entries to record the disposal of the limousine assuming that it was:
   (a) scrapped with no residual value on 1 January 2019.
   (b) sold for $5500 cash on 1 July 2018.

SOLUTION TO DEMONSTRATION PROBLEM 2

1	Jan. 1 2015	Vehicle	28 000	
		GST paid	2 800	
		Accounts payable		30 800
		(To record purchase of vehicle)		
2 (a)	Jan. 1 2019	Accumulated depreciation—vehicle	24 000	
		Loss on disposal	4 000	
		Vehicle		28 000
		(To record scrapping of vehicle)		
(b)	July 1 2018	Depreciation expense	3 000	
		Accumulated depreciation—vehicle		3 000
		(To record depreciation to date of disposal—$24 000 × 25% × 6 months)		
		Cash	5 500	
		Accumulated depreciation—vehicle	21 000*	
		Loss on disposal	2 000	
		GST collected		500
		Vehicle		28 000
		(To record sale of vehicle)		
		*6000 × 3.5 years = $21 000		

Problem-solving strategy

Accumulated depreciation is equal to depreciation expense per year times the number of years of use when the straight-line method is used.

SELF-STUDY QUESTIONS *Answers are at the end of the chapter.*

(LO2) 1. Corrieten Ltd purchased equipment and these costs were incurred:

Cash price	$18 000
Delivery costs	1 200
Insurance during transit	300
Installation and testing	500
Total costs	$20 000

What amount should be recorded as the cost of the equipment?
(a) $18 000. (c) $19 200.
(b) $19 500. (d) $20 000.

(LO2) 2. Harrington Ltd recently leased a number of trucks from Andre Ltd. In inspecting the books of Harrington Ltd, you notice that the trucks have not been recorded as assets on its statement of financial position. From this you can conclude that Harrington Ltd is accounting for this transaction as:
(a) an operating lease.
(b) a finance lease.
(c) a purchase.
(d) none of the above.

(LO3) 3. Depreciation is a process of:
(a) valuation. (c) cash accumulation.
(b) cost allocation. (d) appraisal.

(LO4) 4. Cuso Ltd purchased equipment on 1 January 2015 at a total invoice cost of $440 000 (including GST of 10%). The equipment has an estimated residual value of $20 000 and an estimated useful life of 5 years. What is the amount of accumulated depreciation at 31 December 2017 if the straight-line method of depreciation is used?
(a) $160 000. (c) $228 000.
(b) $152 000. (d) $240 000.

(LO4) 5. An entity would minimise its depreciation expense in the first year of owning an asset if it used:
(a) a high estimated life, a high residual value, and diminishing-balance depreciation.
(b) a low estimated life, a high residual value, and straight-line depreciation.
(c) a high estimated life, a high residual value, and straight-line depreciation.
(d) a low estimated life, a low residual value, and diminishing-balance depreciation.

(LO4) 6. When there is a change in estimated depreciation:
(a) previous depreciation should be corrected.
(b) current and future years' depreciation should be revised.
(c) only future years' depreciation should be revised.
(d) none of the above.

(LO5) 7. Additions to PPE assets:
(a) are expenses.
(b) increase a Repair Expense account.
(c) increase a Purchases account.
(d) are capital expenditures.

(LO14) 8. Which of the following measures provides an indication of how efficient an entity is in using its assets?
(a) Current ratio.
(b) Average useful life.
(c) Average age of PPE assets.
(d) Asset turnover.

(LO10) 9. Pierce Ltd incurred $150 000 of research and development costs in its laboratory to develop a new product. It spent $20 000 in legal fees for a patent granted on 2 January 2016. On 31 July 2019, Pierce paid $15 000 for legal fees in a successful defence of the patent. What is the total amount that should be debited to Patents up to 31 July 2019? Assume the figures are GST exclusive.
(a) $150 000. (c) $185 000.
(b) $35 000. (d) Some other amount.

(LO10) 10. Indicate which one of these statements is *true*.
(a) Since intangible assets lack physical substance, they need to be disclosed only in the notes to the financial statements.
(b) Goodwill should be reported as a contra account in the equity section.
(c) Totals of major classes of assets can be shown in the statement of financial position, with asset details disclosed in the notes to the financial statements.
(d) Intangible assets are typically combined with PPE assets and natural resources and then shown in the property, plant and equipment section.

(LO10) 11. If an entity reports goodwill as an intangible asset on its books, what is the one thing you know with certainty?
(a) The entity is a valuable company worth investing in.
(b) The entity has a well-established brand name.
(c) The entity purchased another business.
(d) The goodwill will generate a lot of positive business for the entity for many years to come.

(LO4) 12. Kant Ltd purchased a truck for $11 000 on 1 January 2015. The truck will have an estimated residual value of $1000 at the end of 5 years. If you use the units-of-production method, the balance in accumulated depreciation at 31 December 2016 can be calculated by the following formula:
   (a) ($11 000 ÷ Total estimated production) × Units of production for 2016.
   (b) ($10 000 ÷ Total estimated production) × Units of production for 2016.
   (c) ($11 000 ÷ Total estimated production) × Units of production for 2015 and 2016.
   (d) ($10 000 ÷ Total estimated production) × Units of production for 2015 and 2016.

(LO12) 13. In relation to agricultural assets, indicate which of the following statements is *true*.
   (a) The assets include only items purchased in an external transaction.
   (b) The assets remain as agricultural assets until sold.
   (c) The assets at the end of the reporting period are measured at fair value less estimated point-of-sale costs.
   (d) The assets at the end of the reporting period are measured at fair value.

(LO13) 14. In relation to natural resources, indicate which of the following statements is *true*.
   (a) The value of the mineral or oil deposit is reflected on the statement of financial position.
   (b) Similar to agricultural assets, the assets are regenerative.
   (c) Preproduction costs must be expensed as incurred.
   (d) Preproduction costs can be capitalised and depleted to inventory as the mineral or oil is extracted.

(LO14) 15. In relation to evaluating non-current assets indicate which of the following statements is *true*.
   (a) The older the assets are, the better the company is performing.
   (b) Too high a depreciation rate will result in increased reported profits for the period.
   (c) The higher the asset turnover, the more effective a company is in using its resources to generate sales.
   (d) All PPE assets must be depreciated.

QUESTIONS

1. Identify three key decisions involving non-current assets.
2. James Knight is uncertain about how the cost principle applies to PPE assets. Explain this to James.
3. What impact does GST have on accounting for non-current assets?
4. What are the main advantages of leasing?
5. Contrast the effects of the three depreciation methods explained in this chapter on annual depreciation expense.
6. Distinguish between expenses and capital expenditures during an asset's useful life.
7 How is a gain or a loss on the sale of a PPE asset calculated?
8. What are the similarities and differences between depreciation, amortisation and depletion?
9. Goodwill could be described as the value of all favourable attributes that relate to a business as a whole. What types of attributes could result in goodwill?
10. Explain the accounting treatment for revaluation of assets.
11. What are agricultural assets?
12. You are comparing two entities in the same industry. You have determined that Amber Ltd depreciates its PPE assets over a 30-year life, whereas Jonty Ltd depreciates its PPE assets over a 40-year life. Discuss the implications this has for comparing the results of the two entities.

BRIEF EXERCISES

Determine the cost of land. (LO2)

BE8.1 These expenditures were incurred by Knight Ltd in purchasing land: cash price $180 000; rates $10 000; solicitor's fees $9500; real estate agent's commission $8100; clearing and grading $7000, and fencing $5000. What is the cost of the land, assuming all figures:
(a) are GST exclusive
(b) include GST at a rate of 10%
(c) include GST at a rate of 15%?

Calculate straight-line depreciation.
(LO4)

BE8.2 Brianna Ltd acquires a delivery truck at a cost of $96 600 (GST exclusive) on 1 January 2016, the beginning of the company's financial year. The truck is expected to have a residual value of $4000 at the end of its 5-year useful life. Calculate annual depreciation for the first and second years using the straight-line method.

Calculate diminishing-balance depreciation.
(LO4)

BE8.3 Depreciation information for Brianna Ltd is given in BE8.2. Assuming the diminishing-balance depreciation rate is one-and-a-half times the straight-line rate, calculate annual depreciation for the first and second years under the diminishing-balance method.

Journalise entries for disposal of PPE assets.
(LO8)

BE8.4 Prepare journal entries to record the following:

(a) James Ltd scraps its delivery equipment, which cost $59 000. Accumulated depreciation is also $59 000 on this delivery equipment. No residual value is received.
(b) Assume the same information as in part (a), except that accumulated depreciation for James Ltd at the date of disposal is $56 000 instead of $59 000.

Account for intangibles — patents.
(LO10)

BE8.5 Elliot Ltd purchases a patent for $220 000 on 1 July 2015. Its estimated useful life is 10 years. Assume Elliot Ltd's financial year ends on 31 June. Complete requirements (a) and (b) under two scenarios:

(i) assuming no GST
(ii) assuming GST at a rate of 10%.
(a) Prepare journal entries related to the patent for the year ending 31 June 2016
(b) Show how this patent is reported on the statement of financial position as at 31 June 2016.

Calculate average life, average age of non-current assets, and asset turnover.
(LO1,14)

BE8.6 In its 2016 annual report, Fish Ltd reports beginning total assets of $37.42 billion; ending total assets of $35.58 billion; beginning property, plant and equipment (at cost) of $40.8 billion; ending property, plant and equipment (at cost) $39.2 billion; ending accumulated depreciation of $9.6 billion; depreciation expense of $1600 million; and net sales of $21.17 billion.

(a) Calculate the average useful life of Fish's property, plant and equipment.
(b) Calculate the average age of Fish's property, plant and equipment.
(c) Calculate Fish's asset turnover.

Prepare a partial statement of financial position.
(LO14)

BE8.7 Irish Ltd reported the following property, plant and equipment and intangibles for the year ended 31 March 2017 (in thousands): land and buildings $782.4; plant and equipment $3294.6; goodwill $520.4; other intangibles $145.9; accumulated depreciation $2160.1; impairment of goodwill $321.5; accumulated amortisation $86.5. Prepare a partial statement of financial position for Irish Ltd for these items.

EXERCISES

Determine cost of PPE acquisitions.
(LO2)

E8.1 The following expenditures relating to PPE assets were made by Sunny Ltd during the first 2 months of 2017:

1. Paid $6000 of accrued land taxes at time factory site was acquired.
2. Paid $750 airconditioning on new delivery truck.
3. Paid $18 000 for parking lots and driveways on new factory site.
4. Paid $900 for a 1-year accident insurance policy on new delivery truck.
5. Paid $350 to have company name and advertising slogan painted on new delivery truck.
6. Paid $7600 for installation of new factory machinery.
7. Paid $750 motor vehicle registration fee on new truck.
8. Paid $250 insurance to cover possible accident loss on new factory machinery while the machinery was in transit.

Required

(a) Explain the application of the cost principle in determining the acquisition cost of PPE assets.
(b) List the numbers of the foregoing transactions, and opposite each indicate the account name to which each expenditure should be debited.

E8.2 Tops Ltd purchased a new machine on 1 October 2015 at a cost of $228 000. The entity estimated that the machine has a residual value of $28 000. The machine is expected to be used for 40 000 working hours during its 10-year life. Assume a 31 December year-end.

Calculate straight-line, diminishing-balance and units-of-production depreciation. (LO4)

Required

Calculate the depreciation expense using the following methods in the year indicated:

(a) The straight-line method for 2015 and 2016.

(b) The diminishing-balance method using double the straight-line rate for 2015 and 2016.

(c) The units-of-production method for 2015, assuming the machine usage was 1800 hours.

E8.3 AJ Bus Ltd uses the units-of-production method in depreciating its buses. One bus was purchased on 1 January 2015 at a cost of $268 000. Over its 5-year useful life, the bus is expected to be driven 120 000 kilometres. Residual value is expected to be $10 000.

Calculate depreciation under units-of-production method. (LO4)

Required

(a) Calculate the depreciation cost per unit.

(b) Prepare a depreciation schedule assuming actual distance travelled was: 2015, 29 000 km; 2016, 28 000 km; 2017, 30 000 km; 2018, 20 000 km; and 2019, 13 000 km.

E8.4 Lion Ltd purchased equipment on 1 January 2016 at a cost of $180 000. It had an estimated useful life of 8 years and an estimated residual value of $20 000. Each year $1000 is spent on the maintenance of the equipment. On 1 July 2018, Lion paid $8800 cash for a major overhaul of the equipment after which it had an expected useful life of 5 more years and nil residual value. The entity's reporting period ends on 30 June and it uses straight-line depreciation.

Account for subsequent expenditure and revised depreciation. (LO4,5)

Required

(a) Calculate the depreciation expense for 2016 and 2017.

(b) Prepare the journal entry for the $8800 paid for the overhaul of the equipment, assuming:
  (i) no GST
  (ii) GST of 10%.

(c) Calculate the depreciation expense for 2019 based on assumption (i) in (b) above.

E8.5 Able Ltd purchased machinery on 1 November 2016 for $160 000. The estimated useful life of the machinery is 8 years, with an estimated residual of $10 000. The entity's reporting period ends on 30 June, and it uses the straight-line method of depreciation. On 1 July 2017, the value in use was estimated to be $90 000 and the net selling price was $98 750.

Journalise entries for asset impairment. (LO6)

Required

Prepare the journal entries in relation to the equipment from the date of acquisition.

E8.6 On 1 January 2015, Wall Ltd purchased equipment for a total cost of $55 000. The estimated useful life of the equipment was 8 years, with an estimated residual value of $5000. The entity's reporting period ends on 30 June, and it uses straight-line depreciation. On 1 July 2017, Wall Ltd revalued the equipment upwards to reflect the fair value of $70 000. The revised useful life was 7 years and residual value was estimated at $nil. On 1 January 2019, Wall Ltd sold the equipment for $56 500.

Revaluation and disposal of non-current assets. (LO7,8)

Required

(a) Prepare the journal entries in relation to the equipment from the date of acquisition to the date of disposal assuming no GST.

(b) Prepare the journal entries in relation to the equipment from the date of acquisition to the date of disposal assuming GST at a rate of 10%.

E8.7 On 1 July 2014, Capers Ltd purchased equipment for a total cost of $220 000 including 10% GST. The estimated useful life of the equipment was 10 years, with an estimated residual value of $15 000. The entity's reporting period ends on 30 June, and it uses straight-line depreciation. On 1 July 2016, the entity revalued the equipment upwards by $17 000 to reflect the fair value. The revised useful life was 8 years and residual value was estimated at $10 000. On 1 January 2018, Warren Ltd revalued the equipment downwards by $20 000 to reflect the fair value.

Revaluation, depreciation and reversal of PPE asset. (LO4,7)

Required

(a) Prepare the journal entries in relation to the equipment from the date of acquisition.
(b) Calculate the new carrying value of the equipment immediately after the revaluation downwards.

Journalise entries for disposal of PPE assets.
(LO8)

E8.8 Presented here are selected transactions for Zhou Ltd for the year ended 31 December 2016:

Jan.	1	Scrapped a piece of machinery that was purchased on 1 January 2006 at a cash price of \$66 000. The machinery had a useful life of 10 years with no residual value.
June	30	Sold a computer that was purchased on 1 January 2013 for \$33 000 cash. It had a useful life of 6 years with no residual value. The computer was sold for \$13 200 cash.
Dec.	31	Discarded a delivery truck that was purchased on 1 January 2012 for \$22 000 cash and was depreciated based on a 6-year useful life with a \$2000 residual value.

Required

Journalise all entries required on the listed dates, including entries to update depreciation, where applicable, on assets disposed of. Zhou Ltd uses straight-line depreciation. (Assume depreciation is up to date as of 31 December 2015 and the GST rate is 10%.)

Prepare entries to set up appropriate accounts for different intangibles; calculate amortisation.
(LO10)

E8.9 Wilkins Ltd, incorporated in 2015, has these transactions related to intangible assets in that year:

Jan.	1	Purchased patent (10-year life), \$440 000.
July	1	Acquired an existing 10-year franchise; expiration date 1 July 2021, \$330 000.
Sept.	1	Research and development costs, \$155 000.

Required

Prepare the necessary entries to record these transactions. All costs incurred were for cash and included GST of 10%. Make the entries for 31 December 2015, the end of Wilkins Ltd's financial year, recording any necessary amortisation and indicating what the balances should be on 31 December 2015. Include any assumptions you made concerning the above expenditures.

Answer questions on depreciation and intangibles.
(LO4,10,11,14)

E8.10 The questions listed below are independent of one another.

Required

Provide a brief answer to each question.
(a) Why should an entity depreciate its buildings?
(b) How can an entity have a building that has a reported carrying amount of nil but a substantial market value?
(c) What are some examples of intangibles that you might find on the statement of financial position of your university?
(d) Give some examples of company or product trademarks or brand names. Are brand names and trademarks reported on an entity's statement of financial position?

Discuss implications of amortisation period.
(LO10)

E8.11 MouseTrap Ltd in Canada noted in its 2016 annual report that, beginning that year, it changed the estimated life of its computer software for amortisation purposes from a 3-year life to a 12-year life.

Required

Write a short memo explaining the implications this has for the analysis of MouseTrap Ltd's results. Also, discuss whether this estimated life seems reasonable.

Calculate average useful life, average age of property, plant and equipment, and asset turnover ratio.
(LO14)

E8.12 For the year ended 31 January 2015, Beta Ltd reported the following information (in thousands): net sales \$1 663 970, profit \$21 935, depreciation expense \$6399. The statement of financial position showed total assets of \$609 041 at the beginning of the year, and \$515 357 at the end of the year; property, plant and equipment of \$105 282 (cost) at the beginning of the year and \$90 861 (cost) at the end of the year; and accumulated depreciation at year-end of \$38 797.

Required

Calculate the following:

(a) average useful life of PPE assets.

(b) average age of PPE assets.

(c) asset turnover ratio.

(d) Comment on how to interpret these ratios.

PROBLEM SET A

Determine acquisition costs of land and building. (LO2)

PSA8.1 Cameron Ltd commenced business on 1 April. During the first year of operations, the following property, plant and equipment asset expenditures and receipts were recorded in random order:

Debits

1.	Cost of real estate purchased as a factory site (land \$180 000 and building \$70 000)	\$ 250 000
2.	Installation of fences around property	4 900
3.	Cost of demolishing building to make land suitable for construction of new building	27 000
4.	Cost of filling and grading the land	7 270
5.	Excavation costs for new building	21 900
6.	Architects' fees on building plans	51 000
7.	Full payment to building contractor	629 500
8.	Cost of parking lots and driveways	31 800
9.	Land taxes paid for the current year on land	5 320
		\$1 028 690

Credits

10.	Proceeds from residual of demolished building	\$ 12 700

Required

Analyse the transactions using the table column headings provided here.

Item	Land	Building	Other accounts

Enter the number of each transaction in the Item column, and enter the amounts in the appropriate columns. For amounts in the Other Accounts column, also indicate the account name.

Journalise equipment transactions related to purchase, sale, scrapping and depreciation. (LO2,4,8,14)

PSA8.2 At 30 June 2015, Porter Ltd reported the following PPE assets.

Land		\$ 4 000 000
Buildings	\$28 500 000	16 400 000
Less: Accumulated Depreciation—Buildings	12 100 000	
Equipment	48 000 000	
Less: Accumulated Depreciation—Equipment	5 000 000	43 000 000
Total PPE assets		\$63 400 000

During the financial year ending 30 June 2016, the following selected cash transactions occurred:

Aug. 1	Purchased land for \$2 630 000.
Oct. 1	Sold equipment that cost \$675 000 cash when purchased on 1 January 2009. The equipment was sold for \$350 000 cash.
Dec. 1	Sold land purchased on 1 June 2001, for \$1 800 000. The land cost cash \$300 000.
Jan. 1	Purchased equipment for \$1 000 000.
June 30	Scrapped equipment that cost \$470 000 (GST exclusive) when purchased on 31 December 2004. No residual value was received.

Required

(a) For the transactions complete the following.

1. Journalise the transactions. (*Hint:* You may wish to set up T accounts, post beginning balances, and then post 2015–16 transactions.) Porter uses straight-line depreciation for buildings and equipment. The buildings are estimated to have a 40-year useful life and no residual value; the equipment is estimated to have a 10-year useful life and no residual value. Update depreciation on assets disposed of at the time of sale or retirement.
2. Record adjusting entries for depreciation for 2015–16.
3. Prepare the PPE assets section of Porter Ltd's statement of financial position at 30 June 2016.

(b) Repeat requirement (a) assuming GST of 10% applied to all relevant transactions. (You should not need to repeat the T accounts, but could do so, adding GST accounts.)

Journalise entries for disposals of PPE assets.
(LO8)

PSA8.3 Presented here are selected transactions for CupCake Ltd for 2015.

Jan.	1	Scrapped a piece of machinery that was purchased on 1 January 2005. The machine cost \$52 000 and had a useful life of 10 years with no residual value.
June	30	Sold a computer that was purchased on 1 January 2012. The computer cost \$49 000 and had a useful life of 7 years with no residual value. The computer was sold for \$31 000.
Dec.	31	Discarded a delivery truck that was purchased on 1 January 2011. The truck cost \$27 000 and was depreciated based on an 8-year useful life with a \$3000 residual value.

Required

Ignore GST. Journalise all entries required on the above dates, including entries to update depreciation on assets disposed of, where applicable. CupCake Ltd uses straight-line depreciation. The reporting period ends on 31 December.

Prepare the entries to record revaluation, depreciation and disposal.
(LO4,7,8)

PSA8.4 On 1 July 2015, Jupiter Ltd purchased land for \$400 000 and buildings for \$250 000. The estimated useful life of the buildings was 20 years, with a residual value of nil. On 1 October 2015, machinery was purchased at a total cost of \$120 000. The estimated useful life of the machinery was 4 years with an estimated residual value of \$9000. Jupiter Ltd uses straight-line depreciation for buildings and the diminishing-balance method for machinery. The entity's reporting period ends 30 June.

Required

(a) Prepare journal entries to record the purchase of the land, buildings and machinery during the year.

(b) Prepare journal entries to record the depreciation expense for the year ended 30 June 2016.

(c) Assume that on 1 July 2016 the entity revalued the land upwards by \$80 000 and the buildings downwards by \$50 000. Prepare the journal entries for the revaluations.

(d) On 31 December 2016, owing to a change in product mix, the machinery was sold for \$50 000. Prepare journal entry(ies) to dispose of the machinery.

Prepare journal entries for asset impairments and reversals.
(LO6)

PSA8.5 On 1 July 2015, Shark Ltd purchased three machines, each used in a different production process in the factory. On 30 June 2016, there was an indication that the machines could be impaired due to a new competitor entering the market, so Shark Ltd calculated the recoverable amounts of the machines. Twelve months later this threat no longer existed and the recoverable amount was reassessed. Information concerning the machines is summarised in the table opposite. Shark Ltd uses straight-line depreciation over a 5-year period for all machinery. Assume that all three machines had nil residual values at the end of their useful lives.

Machine	Cost 1/7/15	Value in use 30/6/16	Net selling price 30/6/16	Value in use 30/6/17	Net selling price 30/6/17
1	$10 000	$ 7 500	$ 9 000	$ 6 000	$ 6 500
2	25 000	13 000	12 000	16 000	17 000
3	15 000	13 000	11 000	9 500	9 200
	50 000				

Required

(a) Prepare the journal entry to record depreciation for the year ended 30 June 2016.
(b) Prepare the journal entry to record any asset impairment at 30 June 2016.
(c) Prepare the journal entry to record depreciation for the year ended 30 June 2017.
(d) Prepare the journal entry to record any asset impairment or reversal at 30 June 2017.

PSA8.6 Toy Ltd has the following land and buildings in its accounts as at 30 June 2015:

Prepare journal entries for asset revaluation, depreciation over periods increases and decreases.
(LO4,7)

	$000
Land in Wellington, at cost	100
Land in Auckland, at valuation 2012	2000
Buildings on land in Auckland, at valuation 2012	1000
Accumulated depreciation	(150)

At 30 June 2015, the balance of the Revaluation Surplus is $800 000, of which $700 000 relates to the land in Auckland and $50 000 relates to the buildings (the balance relates to other PPE assets). An independent valuation carried out on this day determined the following fair values: land in Wellington $1 500 000, land in Auckland $2 400 000, buildings $750 000. The estimated remaining useful life of the buildings is 15 years with nil residual.

Required

(a) Record all entries relating to the revaluation of the assets on 30 June 2015.
(b) Record the depreciation for the year ended 30 June 2016.

PSA8.7 In recent years Button Ltd has purchased three machines. Because of frequent employee turnover in the accounting department, a different accountant was in charge of selecting the depreciation method for each machine, and various methods have been used. Information concerning the machines is summarised in the table below.

Calculate depreciation under different methods.
(LO4)

Machine	Acquired	Cost	Residual value	Useful life (in years)	Depreciation method
1	1 Jan. 2012	$54 000	$10 500	10	Straight-line
2	1 Jan. 2013	38 400	9 000	8	Diminishing-balance*
3	1 Jan. 2013	26 000	6 000	5	Units-of-production

*Using 1½ times the straight-line rate

For the units-of-production method, total machine hours are expected to be 10 000. Actual hours of use in the first 3 years were: 2013, 1000; 2014, 3000; and 2015, 4000.

Required

(a) Calculate the amount of accumulated depreciation on each machine at 31 December 2015.
(b) For Machine 3 in 2015, which depreciation method is the preferred method for tax purposes? Explain why.
(c) If you are the manager of Button Ltd and your bonus is linked to profit of the company, which depreciation method do you prefer for Machine 3 in 2015? Explain why in point form.

Calculate depreciation under different methods.
(LO4)

PSA8.8 Carpet Ltd purchased machinery on 1 January 2015, at a cost of $400 000. The estimated useful life of the machinery is 4 years, with an estimated residual value at the end of that period of $40 000. The entity is considering different depreciation methods that could be used for financial reporting purposes for the year ended 31 December 2015.

Required

(a) Prepare separate depreciation schedules for the machinery using the straight-line method, and the diminishing-balance method. Round to the nearest dollar.

(b) Which method would result in the higher reported profit in 2015? in the higher total reported profit over the 4-year period?

Prepare entries to record transactions related to acquisition and amortisation of intangibles; prepare the financial statement disclosures.
(LO10)

PSA8.9 The intangible assets information of Wang Ltd as at 30 June 2015 is presented here:

Patent ($80 000 cost less $10 000 amortisation)	$70 000
Copyright ($36 000 cost less $14 400 amortisation)	21 600
Total	$91 600

The patent was acquired in July 2014 and has a useful life of 8 years. The copyright was acquired in July 2011 and has a useful life of 10 years. The following cash transactions may have affected intangible assets during the year ending 30 June 2016:

Jul.	1	Paid $25 000 legal costs to successfully defend the patent against infringement by another entity.
Jul.–Dec.		Developed a new product, incurring $100 000 in development costs. A patent was granted for the product on 1 January 2016, and it is estimated that its useful life is equal to its legal life of 10 years.
Apr.	1	Incurred $30 000 to develop a brand for the new product.
May	1	Acquired a copyright for $250 000. The copyright has a useful life of 50 years.

Required

(a) Prepare journal entries to record the transactions for the year ending 30 June 2016.

(b) Prepare journal entries to record the 2016 amortisation expense for intangible assets.

(c) Calculate the carrying amount of the intangible assets reported in the statement of financial position at 30 June 2016.

(d) Prepare the note to the financial statements on Wang Ltd's intangible assets as of 30 June 2016.

Calculate and comment on average age, average useful life of PPE assets, and asset turnover.
(LO14)

PSA8.10 Ross Ltd and Yang Ltd, two entities of roughly the same size, are both involved in the manufacture of dancing shoes. Each entity depreciates its PPE assets using the straight-line approach. An investigation of their financial statements reveals this information:

	Ross Ltd	Yang Ltd
Profit	$ 560 000	$ 900 000
Sales	10 300 000	12 600 000
Total assets (average)	4 480 000	3 750 000
PPE assets (average)	3 360 000	2 000 000
Accumulated depreciation	1 420 000	937 500
Depreciation expense	420 000	130 000
Intangible assets (goodwill)	300 000	—
Amortisation expense	60 000	—

Required

(a) For each entity, calculate these values:
1. average age of PPE assets.
2. average useful life.
3. asset turnover.

(b) Based on your calculations in part (a), comment on the relative effectiveness of the two entities in using their assets to generate sales. What factors complicate your ability to compare the two entities?

PROBLEM SET B

PSB8.1 Box Ltd was incorporated on 1 January. During the first year of operations, the following PPE asset expenditures and receipts were recorded in random order:

Determine acquisition costs of land and building. (LO2)

Debits

1.	Cost of real estate purchased as a factory site (land \$235 000 and building \$25 000)	\$260 000
2.	Installation cost of fences around property	6 750
3.	Cost of demolishing building to make land suitable for construction of new building	19 000
4.	Excavation costs for new building	23 000
5.	Accrued land taxes paid at time of purchase of real estate	2 179
6.	Cost of parking lots and driveways	29 000
7.	Architects' fees on building plans	40 000
8.	Land taxes paid for the current year on land	6 500
9.	Full payment to building contractor	600 000
		\$986 429

Credits

10.	Proceeds from residual of demolished building	\$ 5 000

Required

Analyse the foregoing transactions using the following table column headings:

Item	Land	Building	Other accounts

Enter the number of each transaction in the Item column, and enter the amounts in the appropriate columns. For amounts in the Other Accounts column, also indicate the account name.

PSB8.2 At 31 December 2015, King Ltd reported these PPE assets:

Journalise equipment transactions related to purchase, sale, scrapping and depreciation. (LO2,4,8)

Land		\$ 3 600 000
Buildings	\$31 800 000	
Less: Accumulated Depreciation—Buildings	14 520 000	17 280 000
Equipment	48 000 000	
Less: Accumulated Depreciation—Equipment	6 000 000	42 000 000
Total PPE assets		\$62 880 000

During 2016, the following selected cash transactions occurred:

Apr.	1	Purchased land for \$2 400 000.
May	1	Sold equipment that cost \$720 000 when purchased on 1 January 2012. The equipment was sold for \$420 000.
June	1	Sold land for \$1 800 000. The land cost \$500 000.
July	1	Purchased equipment for \$2 000 000.
Dec.	31	Scrapped equipment that cost \$500 000 when purchased on 31 December 2006. No residual value was received.

Required

(a) For the transactions complete the following.
1. Journalise the transactions. (*Hint:* You may wish to set up T accounts, post beginning balances, and then post 2016 transactions.) King Ltd uses straight-line depreciation for buildings and equipment. The buildings are estimated to have a 40-year useful life and no residual value; the equipment is estimated to have a 10-year useful life and no residual value. Update depreciation on assets disposed of at the time of sale or scrapping.
2. Record adjusting entries for depreciation for 2016.
3. Prepare the PPE assets section of King Ltd's statement of financial position as at 31 December 2016.

(b) Repeat requirement (a) above assuming GST of 10% applies to all relevant transactions.

Journalise entries for disposals of PPE assets. (LO8)

PSB8.3 Presented here are selected transactions for Cox Ltd for 2016.

Jan.	1	Scrapped a piece of machinery that was purchased on 1 January 2006. The machine cost $78 000 and had a useful life of 10 years with no residual value.
Jun.	30	Sold office equipment that was purchased on 1 January 2013. The equipment cost $73 500 and had a useful life of 5 years with no residual value. The office equipment was sold for $30 000.
Dec.	31	Discarded a delivery truck that was purchased on 1 January 2012. The truck cost $40 500 and was depreciated based on an 8-year useful life with a $4500 residual value.

Required

Journalise all entries required on the above dates, including entries to update depreciation on assets disposed of, where applicable. Cox Ltd uses straight-line depreciation. The financial year-end is 31 December.

Prepare the entries to record revaluation, depreciation and disposal. (LO4,7,8)

PSB8.4 On 1 July 2015, Mars Ltd purchased land $1 200 000 and buildings $500 000. The estimated useful life of the buildings was 40 years, with a residual value of nil. On 1 October 2015, machinery was purchased at a total cost of $120 000. The estimated useful life of the machinery was 4 years with an estimated residual value of $9000. Mars Ltd uses straight-line depreciation for buildings and the diminishing-balance method for machinery at a rate of 48%. The entity's reporting period ends on 30 June.

Required

(a) Prepare journal entries to record the purchase of the land, buildings and machinery during the year.
(b) Prepare journal entries to record the depreciation expense for the year ended 30 June 2016.
(c) Assume that on 1 July 2016 the entity revalued the land upwards by $200 000 and the buildings downwards by $25 000. Prepare the journal entries for the revaluations.
(d) On 31 December 2016, owing to a change in product mix, the machinery was sold for $50 000. Prepare the journal entry(ies) to dispose of the machinery.

Prepare journal entries for asset impairments and reversals. (LO6)

PSB8.5 On 1 July 2015, Fox Ltd purchased equipment for $85 000 to manufacture a new product for sale overseas. The estimated useful life was 8 years, with a residual value of $5000. Fox Ltd uses straight-line depreciation. On 30 June 2016 there was an indication that the machine could be impaired due to fluctuations in the exchange rate, and Fox Ltd calculated the recoverable amount of the machine. The net selling price was $61 000 and the value in use was estimated to be $45 000. Twelve months later this threat no longer existed and the recoverable amount was reassessed. The net selling price was $70 000 and the value in use was estimated to be $65 000. Assume that the estimated residual value was $5000 throughout.

Required

(a) Prepare the journal entry to record the purchase of the machine and the depreciation for the year ended 30 June 2016.
(b) Prepare the journal entry to record any asset impairment at 30 June 2016.
(c) Prepare the journal entry to record depreciation for the year ended 30 June 2017.
(d) Prepare the journal entry to record any asset impairment or reversal at 30 June 2017.

Prepare journal entries for asset revaluation increases and decreases and depreciation over periods. (LO4,7)

PSB8.6 Red Ltd has the following land and buildings in its accounts as at 30 June 2016:

	$000
Land in Darwin, at valuation 2013	400
Land in Perth, at valuation 2013	1200
Buildings in Perth, at valuation 2013	800
Accumulated Depreciation	(150)

An independent valuation carried out on 30 June 2016 determined the following fair values: land in Darwin $600 000, land in Perth $1 000 000, buildings $500 000. At 30 June 2016, prior to the independent valuation, the balance of the Revaluation Surplus account was $400 000, of which $300 000 related to the land in Perth and $100 000 related to the buildings. Assume depreciation has been recorded for the year ending 30 June 2016.

Required
Record all entries relating to the revaluation of the assets on 30 June 2016.

Calculate depreciation under different methods. (LO4)

PSB8.7 In recent years Winter Ltd has purchased three machines. Because of frequent employee turnover in the accounting department, a different accountant was in charge of selecting the depreciation method for each machine, and various methods have been used. Information concerning the machines is summarised in the table below.

Machine	Acquired	Cost	Residual value	Useful life (in years)	Depreciation method
1	1 Jan. 2012	$135 000	$26 250	10	Straight-line
2	1 Jan. 2013	96 000	22 500	8	Diminishing-balance*
3	1 Jan. 2013	65 000	15 000	5	Units-of-production

*Using 1½ times the straight-line rate

For the units-of-production method, total machine hours are expected to be 10 000. Actual hours of use in the first 3 years were: 2013, 1000; 2014, 3000; and 2015, 4000.

Required
(a) Calculate the amount of accumulated depreciation on each machine at 31 December 2015.
(b) For Machine 3 in 2015, which depreciation method is the preferred method for tax purposes? Explain why.
(c) If you are the manager of Winter Ltd and your bonus is linked to profit of the company, which depreciation method do you prefer for Machine 3 in 2015? Explain why in point form.

Calculate depreciation under different methods. (LO4)

PSB8.8 Buttercup Ltd purchased machinery on 1 January 2015, at a cost of $310 000. The estimated useful life of the machinery is 5 years, with an estimated residual value at the end of that period of $40 000. The entity is considering different depreciation methods that could be used for financial reporting purposes.

Required
(a) Prepare separate depreciation schedules for the machinery using the straight-line method, and the diminishing-balance method. Round to the nearest dollar.
(b) Which method would result in the higher reported profit in 2015? In the higher total reported profit over the 5-year period?

Prepare entries to record transactions related to acquisition and amortisation of intangibles; prepare the financial statement disclosures. (LO10)

PSB8.9 The intangible assets information of Future Ltd as at 31 December 2016 is presented here:

Patent ($80 000 cost less $8000 amortisation)	$ 72 000
Copyright ($64 000 cost less $25 600 amortisation)	38 400
Total	$110 400

The patent was acquired in January 2016 and has a useful life of 10 years. The copyright was acquired in January 2010 and also has a useful life of 10 years. The following cash transactions may have affected intangible assets during 2017:

Jan.	1	Paid $13 500 legal costs to successfully defend the patent against infringement by another company.
Jan.–June		Developed a new product, incurring $180 000 in development costs.
July	1	A patent was granted for the new product. The patent's useful life is equal to its legal life of 20 years.
Sept.	1	Paid $45 000 to a rugby player to appear in commercials advertising the entity's products. The commercials will air in September and October.
Oct.	1	Acquired a copyright for $200 000. The copyright has a useful life of 50 years.

Required

(a) Prepare journal entries to record the transactions.
(b) Prepare journal entries to record the 2017 amortisation expense for intangible assets.
(c) Calculate the carrying amount of the intangible assets reported in the statement of financial position at 31 December 2017.
(d) Prepare the note to the financial statements on Future Ltd's intangible assets as of 31 December 2017.

Calculate and comment on average age, average useful life of PPE assets, and asset turnover. (LO14)

PSB8.10 Zhou Ltd and Wang Ltd, two entities of roughly the same size, are both involved in the manufacture of canoes and kayaks. Each entity depreciates its PPE assets using the straight-line approach. An investigation of their financial statements reveals the following information.

	Zhou Ltd	**Wang Ltd**
Profit	$ 480 000	$ 720 000
Sales	3 680 000	3 440 000
Total assets (average)	2 840 000	2 000 000
PPE assets (average)	1 410 000	1 160 000
Accumulated depreciation	360 000	750 000
Depreciation expense	160 000	124 000
Intangible assets (goodwill)	360 000	—
Amortisation expense	72 000	—

Required

(a) For each entity, calculate these values:
1. average age of PPE assets.
2. average useful life.
3. asset turnover.

(b) Based on your calculations in part (a), comment on the relative effectiveness of the two entities in using their assets to generate sales. What factors complicate your ability to compare the two entities?

FINANCIAL REPORTING AND ANALYSIS

FINANCIAL REPORTING PROBLEM: *Domino's Pizza Enterprises Ltd*

BBS8.1 Refer to the financial statements and the notes to the financial statements of Domino's in the appendix at the back of the book.

Required

Answer the following questions:

(a) What were the total cost and book value of property, plant and equipment at 4 July 2013?

(b) What methods of depreciation are used by Domino's for financial reporting purposes?

(c) What were the amounts of depreciation and amortisation expense for 2012 and 2013?

(d) What were the amounts of additions to plant and equipment, goodwill and other intangible assets in 2012 and 2013?

(e) Read notes 27 and 38 on leases. Does the entity engage mainly in finance or operating leases? What are the implications for analysis of its financial statements?

COMPARATIVE ANALYSIS PROBLEMS

BBS8.2 Below are data from the 2013 annual reports of CSR Ltd and Boral Ltd.

($ in millions)	CSR Ltd	Boral Ltd
Total cost of plant and equipment, beginning of year	$ 1 403.4	$ 4 607.9
Total cost of plant and equipment, end of year	1 281.7	4 594.7
Depreciation expense	85.7	263.5
Accumulated depreciation	702.0	2 627.6
Total assets, end of year	2 032.7	6 316.4
Total assets, beginning of year	2 245.5	6 499.1
Net sales	1 682.4	5 209.4

Required

(a) Based on the above information, calculate:
   1. average useful life of the PPE assets.
   2. average age of the PPE assets.
   3. asset turnover ratio.

(b) What conclusions concerning the management of PPE assets can be drawn from these data?

BBS8.3 Meds4U Ltd and Hope Ltd are two leading producers of pharmaceutical drugs. Each has considerable assets and expends considerable funds each year in developing new products. The development of a new pharmaceutical drug is often very expensive and risky. New products must often undergo considerable testing before they are approved for distribution to the public. For example, it took Hope Ltd 5 years and $800 million to develop a new blood pressure drug.

Here are some basic data compiled from the 2016 financial statements of these entities:

($ in millions)	Meds4U Ltd	Hope Ltd
Total assets	$ 54 422	$63 706
Total revenue	47 314	53 796
Profit	6 118	10 496
Research and development expense	4 866	3 642
Intangible assets	14 418	16 574

Required

(a) What kinds of intangible assets might a pharmaceutical company have? Does the composition of these intangible assets matter to investors? That is, would Hope Ltd be perceived differently if all of its intangibles were goodwill instead of patents?

(b) Using the asset turnover, determine which entity is using its assets more effectively. (*Note:* In 2015 total assets were $51 472 million for Hope Ltd and $42 906 million for Meds4U Ltd.)

(c) Suppose that, by eliminating research and development expenditures, Hope Ltd could have reported $3.6 billion more in profit in 2016. Much of the research never results in a product or the products take years to develop, but shareholders are eager for higher returns. Therefore the entity is considering eliminating research and development expenditures for at least a couple of years. What would you advise?

(d) The notes to Hope Ltd's financial statements indicate that Hope Ltd has goodwill of $8.6 billion. Where does recorded goodwill come from? Is it necessarily a good thing to have a lot of goodwill in the financial statements?

FINANCIAL ANALYSIS ON THE WEB

BBS8.4 ***Purpose:*** Use an annual report and identify a company's non-current assets and the depreciation and amortisation methods used.

Address: www.asx.com.au

Steps:

1. On the Australian Securities Exchange (ASX) home page, you will notice a menu on the left-hand side. Click on **Prices and Research** and then on **Company information** from the drop-down menu.
2. You will now see the listed company directory. Click on a letter of the alphabet and select a particular company by clicking on the ASX code (don't just choose the first company).
3. On the page that appears, scroll down to the internet address and click on the address, which will take you to the company's web site.
4. On that web site, search around and find the latest annual report.

OR

Address: www.nzx.com

Steps:

1. Click on **Markets** on the top bar.
2. Then click on **NZX Main Board** from the drop down menu.
3. Then, click on **All Securities**.
4. You will now see the listed company directory. Select a particular company by clicking on the NZX code (don't just choose the first company).
5. Click on the name of the entity (usually towards the top right hand corner of the page).
6. That should take you to a second page with their web site under contact information.
7. Click on the web site and search around and find the latest annual report.

Required

Answer the following questions:

(a) What is the company's name?

(b) What is the internet address of the annual report?

(c) From the statement of financial position, what is the net amount of property, plant and equipment?

(d) Does the company have any intangibles? List the intangibles by name.

(e) What is the accumulated depreciation, depreciation expense and amortisation expense?

(f) Does the company have any agricultural assets or natural resources?

(g) Outline the method of accounting for the various categories of non-current assets, including a description of the depreciation and amortisation methods.

CRITICAL THINKING

COMMUNICATION ACTIVITY

BBS8.5 This chapter has presented the current rule relating to the reporting of intangible assets. This rule prohibits internally generated brands, mastheads, publishing titles, customer lists and items similar in substance from being recognised as intangible assets, yet these are valuable assets that can be separately identified and sold. Applying this rule results in inconsistent treatment when two entities operate in the same industry with similar intangibles, but have statements of financial position that are not comparable because the intangible assets recognised depend on whether they were 'purchased' or 'internally generated'.

Required

Assume you are either (a) the CEO of an entity that has a large proportion of intangible assets and you find the current accounting rules not logically sound, or (b) an International Standard Setting Board member defending the current status of regulation regarding intangibles. Write a short report to the Standard Setting Board, putting forward an argument in favour of your views. (You may wish to include a discussion of goodwill.)

ETHICS CASE

BBS8.6 Glass Ltd is suffering declining sales of its principal product, biodegradable recycled cardboard cartons. The managing director, Angela Smith, instructs the accountant, Jonty Upright, to lengthen asset lives to reduce depreciation expense. A processing line of automated cardboard pulping equipment, purchased for $7 million in January 2015, was originally estimated to have a useful life of 8 years and a residual value of $600 000. Depreciation has been recorded for 2 years on that basis. Angela wants the estimated life changed to 14 years total and the straight-line method continued. Jonty is hesitant to make the change, believing it is unethical to increase profit in this manner. Angela says, 'The life is only an estimate, and I've heard that our competition uses a 14-year life on their production equipment.'

Required

(a) Who are the stakeholders in this situation?
(b) Is the proposed change in asset life unethical, or is it simply a good business practice by an astute managing director?
(c) What is the effect of Angela Smith's proposed change on profit in the year of change?

GROUP DECISION CASE

BBS8.7 Auckland Ltd and Wellington Ltd are two entities that are similar in many respects except that Auckland Ltd uses the straight-line method and Wellington Ltd uses the diminishing-balance method at double the straight-line rate. On 2 January 2015, both entities acquired identical depreciable assets listed in the table below.

Asset	Cost	Residual	Useful life
Building	$460 000	$60 000	50 years
Equipment	200 000	15 000	8 years

Including the appropriate depreciation charges, annual profit for the entities in the years 2015, 2016 and 2017 was as follows:

	2015	2016	2017	Total
Auckland Ltd	$126 000	$123 800	$117 500	$367 300
Wellington Ltd	102 000	114 000	127 500	343 500

At 31 December 2017, the statements of financial position of the two entities are similar except that Wellington Ltd has more cash than Auckland Ltd.

Brianna James is interested in investing in one of the entities, and she comes to you for advice.

Required

With the class divided into groups, answer the following:

(a) Determine the annual and total depreciation recorded by both companies during the 3 years.

(b) Assuming that Wellington Ltd also uses the straight-line method of depreciation instead of the diminishing-balance method (i.e. Wellington's depreciation expense would equal Auckland's), prepare comparative profit data for the 3 years.

(c) Which entity should Brianna James invest in? Why?

SUSTAINABILITY

BBS8.8 The following is an extract from the Fonterra Co-operative Group's web site, www.fonterra.com.

> Sustainability is one of the defining business, political and social issues of the 21st century. Fonterra's business is based on natural resources, so protecting the environment is integral to our growth strategy.
>
> We are taking steps to improve our environmental performance in every part of our business, not only because the public demand it, but because our future as an industry depends on it. We want to minimise the risks of injuring our people and he public, and to be a good neighbour and citizen. Our communities, our people, their families and our shareholders expect nothing else.

Required

(a) What is meant by the term sustainability?

(b) Access Fonterra's latest sustainability information (www.fonterra.com and then click on sustainability or search the site for sustainability) and complete the following requirements.

1. Outline Fonterra's approach to sustainability and why it is important for the business.
2. Summarise Fonterra's achievements and include a discussion of goals and how these achievements are measured in two of the following four areas: water, waste, resources and energy use, and climate change.

(c) How could climate change impact on the traditional financial reporting of non-current assets?

Answers to self-study questions

1. d 2. a 3. b 4. c 5. c 6. b 7. d 8. d 9. b 10. c
11. c 12. d 13. c 14. d 15. c

Answer to Review It question 3, p. 485

Plant and equipment lives vary from 1 to 5 years and equipment under finance leases vary from 3 to 10 years. (Refer to Note 3.15.)

CHAPTER 9

REPORTING AND ANALYSING LIABILITIES

LEARNING OBJECTIVES

After studying this chapter, you should be able to:

1. Explain the differences between current and non-current liabilities.
2. Identify common types of current liabilities and explain how to account for them.
3. Identify common types of non-current liabilities, such as debentures and unsecured notes, and explain how to account for them.
4. Prepare journal entries for loans payable by instalment and distinguish between current and non-current components of long-term debt.
5. Identify the advantages of leasing and explain the difference between an operating lease and a finance lease.
6. Complete basic journal entries for accounting for leases and explain how to report leases.
7. Explain the differences between provisions, contingencies and other types of liabilities.
8. Explain how to report contingent liabilities.
9. Prepare entries to record provisions for warranties.
10. Evaluate an entity's liquidity and solvency.

BUILDING NEW GROWTH BUSINESSES

Technological advancements in recent years have meant that telecommunication companies such as Telstra and Telecom New Zealand have to make substantial capital investment to sustain and build new growth businesses. For instance, Telstra entered into agreements with NBN Co and the Commonwealth of Australia Government in 2012 for the rollout of the National Broadband Network (NBN), involving capital expenditure in the tens of billions. The company has also started designing Australia's largest national public Wi-Fi access network as part of a five year $100 million project. Across the Tasman, similar large-scale investments are being undertaken by Telecom New Zealand. There are government-sponsored rollouts of large networks, in Ultra Fast Broadband (UFB) and the Rural Broadband Initiative (RBI), all of which involve significant capital investments by the company.

When entities wish to expand or take advantage of investment opportunities, their managers can choose from a range of funding alternatives. For example, they may wish to borrow money from a bank or other financial institution. This is referred to as debt finance because the party providing the funds is a creditor, not an owner of the entity. The entity must pay interest for the use of the borrowed funds.

Alternatively, the entity may choose to raise funds by issuing shares to new or existing shareholders. This is called equity finance.

Debt finance is very attractive because it can be more easily adapted to temporary needs. For instance, if money is needed for 5 years, a loan can be arranged for that period of time. If the entity finds it has surplus funds, debt finance can often be repaid. Ordinary shares, on the other hand, are generally permanent.

Although debt finance is attractive, an entity can have 'too much of a good thing'. Excessive levels of debt (liabilities) can put the entity and its creditors at risk. Interest payments and loan repayments can put a lot of pressure on an entity's cash flows. Missing interest payments or loan repayments can have far worse consequences than non-payment of dividends. Shareholders might not like missing out on dividends, but they are not able to demand payment. Creditors, conversely, can demand that assets be sold to pay outstanding liabilities.

It is not uncommon for banks and other financial institutions to include terms in the loan agreement that restrict the amount of liabilities. Borrowing restrictions are often expressed in terms of the ratio of debt to total assets. For instance, an entity might be subject to a maximum debt to total assets ratio of 65%. So, if an entity had already borrowed to the maximum, any further expansion would need to be financed by additional equity.

On the World Wide Web Telstra: www.telstra.com.au; Telecom New Zealand: www.telecom.co.nz

PREVIEW OF CHAPTER 9

Large entities like Domino's Pizza, Telstra and Telecom New Zealand, and even many small entities, do not rely solely on shareholders to finance their operations and investments. They also rely on debt to finance some of their operations. In this chapter we will look at different types of liabilities, how to account for liabilities, and the implications of alternative methods of finance for liquidity and solvency.

The content and organisation of this chapter are as follows.

REPORTING AND ANALYSING LIABILITIES

Current liabilities	Non-current liabilities	Loans payable by instalment	Leasing	Accounting for leases	Provisions and contingent liabilities	Financial statement analysis
• Notes payable • Payroll and payroll deductions payable • Revenues received in advance	• Why issue unsecured notes or debentures? • Determining the market value of unsecured notes and debentures • Accounting for issues of unsecured notes and debentures • Redeeming unsecured notes and debentures at maturity • Redeeming unsecured notes and debentures before maturity	• Accounting for loans payable by instalment • Current and non-current components of long-term debt	• What is a lease?	• Operating leases • Finance leases • Reporting leases	• Recording provisions for warranties • Reporting provisions for warranties	• Liquidity ratios • Solvency ratios

LEARNING OBJECTIVE 1

Explain the differences between current and non-current liabilities.

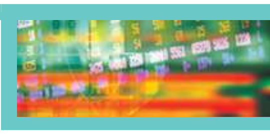
CURRENT LIABILITIES

As explained in chapter 1, liabilities are defined in the *Conceptual Framework* as future sacrifices of economic benefits that the entity is currently obliged to make as a result of a past transaction or other past events. The same definition is provided in IAS 37/AASB 137 *Provisions, Contingent Liabilities and Contingent Assets*. These obligations must be settled or paid at some time in the future by the transfer of assets or services. The future date on which they are due or payable (the maturity date) is a significant feature of liabilities.

A **current liability** is an obligation that can reasonably be expected to be paid within 1 year or within the operating cycle, whichever is the longer. Liabilities that do not meet this criterion are classified as non-current.

Financial statement users want to know whether an entity's obligations are current or non-current. An entity, for example, that has more current liabilities than current assets often lacks liquidity, or short-term debt-paying ability. In addition, users want to know the types of liabilities an entity has. If an entity becomes insolvent, i.e. unable to pay its debts as and when they fall due, then a specific, predetermined order of payment to creditors will have to be served. Thus, the amount and type of liabilities are of critical importance.

The different types of current liabilities include notes payable, accounts payable, revenue received in advance and accrued liabilities such as taxes, salaries and wages, provisions and interest. Many of these terms are already familiar to you. You may recall that in chapter 2 we introduced how to record the journal entries for borrowing money from the bank, for purchasing supplies on credit and for revenues received in advance. In chapter 3, the adjusting entries for some current liabilities were explained, including entries to record accrued expenses for interest payable and salaries payable. Chapters 4 and 5 focused on the accounting entries for recording trade accounts payable for the purchase inventories on credit. In this section we discuss in more detail a number of the common and more important types of current liabilities.



APPLICATION IN BUSINESS

Investor perspective

Understanding a company's short- and long-term debt paying ability is important for investors and creditors. Telecom New Zealand's 2013 statement of financial position reported NZ$3493 million in assets and NZ$2080 million in liabilities, resulting in net assets of NZ$1413 million. These figures reveal that the company's assets exceeded its liabilities. Although this is a good indicator of solvency, it is still important to look at the composition of assets and liabilities in relation to being current and non-current to obtain a clearer picture of short-term ability to meet debts and long-term solvency. Most companies disclose the current and non-current amounts of their assets and liabilities, which makes the calculations straightforward. Under IAS 1/AASB 101 *Presentation of Financial Statements*, in disclosing assets and liabilities, an entity must normally present a classified statement of financial position, separating current and non-current assets and liabilities, unless presentation based on liquidity provides information that is more useful to decision makers.

Source: Based on information from Telecom New Zealand's web site, www.telecom.co.nz, and its 2013 annual report.

NOTES PAYABLE

LEARNING OBJECTIVE 2
Identify common types of current liabilities and explain how to account for them.

Obligations in the form of written promissory notes are recorded as **notes payable**. When purchasing inventory on credit, notes payable are sometimes used instead of accounts payable because they give the lender written documentation of the obligation in case legal avenues are needed to collect the debt. Another common use for promissory notes is in obtaining short-term finance, i.e. they may also be issued for cash. Notes payable usually require the borrower to pay **interest** and frequently are issued to meet short-term financing needs. Interest is a cost of borrowing money. It is also referred to as **borrowing costs** or finance costs.

Notes are issued for varying periods of time. Those due for payment within 1 year of the end of the reporting period are usually classified as current liabilities. For example, Telstra recently reported $365 million for promissory notes payable. Most notes are interest-bearing.

To illustrate the accounting for notes payable, assume that West State Bank agrees to lend $100 000 on 1 March 2016 if Williams Ltd signs a $100 000, 12%, 4-month note. With an interest-bearing note, the amount of cash received when the note is issued generally equals the note's **face value**, i.e. the principal payable at maturity. Williams Ltd therefore will receive $100 000 cash and will make the following journal entry:

Mar.	1	Cash	100 000	
		Notes payable		100 000
		(To record issue of 12%, 4-month note to West State Bank)		

A	=	L	+	E
+100 000		+100 000		

Interest accrues over the life of the note and must be recorded periodically. If Williams Ltd's year-end is 30 June, an adjusting entry is required to recognise interest expense and interest payable of $4000 ($100 000 × 12% × 4/12) at 30 June. The adjusting entry is:

June	30	Interest expense	4 000	
		Interest payable		4 000
		(To accrue interest for 4 months on West State Bank note)		

A	=	L	+	E
		+4 000		−4 000

In the 30 June financial statements, the current liabilities section of the statement of financial position will include notes payable $100 000 and interest payable $4000. In addition, interest expense of $4000 will be reported in the statement of profit or loss.

At maturity, that is, when the principal payment is due (1 July), Williams Ltd must pay the face value of the note ($100 000) plus $4 000 interest ($100 000 × 12% × 4/12). The entry to record payment of the note and accrued interest is:

A	=	L	+	E
−104 000		−100 000		
		−4 000		

July	1	Notes payable	100 000	
		Interest payable	4 000	
		Cash		104 000
		(To record payment of West State Bank interest-bearing note and accrued interest at maturity)		

Helpful hint

In Australia the taxation authority is the Australian Taxation Office (ATO), and in New Zealand it's the NZ Inland Revenue (IR).

PAYROLL AND PAYROLL DEDUCTIONS PAYABLE

Telstra, like every employer, incurs liabilities relating to employees' salaries and wages. The employer deducts amounts from employees' wages if they are required to be paid to other parties. For example, the employer is required by law to deduct tax from employees' gross pay and remit it to the taxation authority. Other payroll deductions include amounts paid to medical funds for health insurance and trade unions on behalf of employees. Until these payroll deductions, such as pay-as-you-go (PAYG) withheld tax, are remitted to the appropriate parties, they are recorded as increases (credited) to appropriate liability accounts. For example, accrual and payment of a $100 000 payroll on which an entity withholds tax from its employees' wages and salaries would be recorded as follows:

A	=	L	+	E
		+32 036		−100 000
		+67 964		

A	=	L	+	E
−67 964		−67 964		

Mar.	7	Salaries and wages expense	100 000	
		Pay-as-you-go withheld tax payable		32 036
		Salaries and wages payable		67 964
		(To record payroll and withheld taxes for the week ending 7 March)		
		Salaries and wages payable	67 964	
		Cash		67 964
		(To record payment of the 7 March payroll)		

When the payments are subsequently made, the payroll deduction liability accounts should be debited as follows:

A	=	L	+	E
−32 036		−32 036		

Apr.	6	Pay-as-you-go withheld tax payable	32 036	
		Cash		32 036
		(To record payment of withheld taxes for March)		

Taxation authorities impose substantial fines and penalties on employers if the taxes are not calculated correctly and paid on time.

In addition to PAYG withheld tax payable, a number of common payroll deductions may occur. These are illustrated in figure 9.1. Employers may deduct amounts from employees' wages for private health insurance to be paid to medical funds on behalf of their employees. For example, you may have heard of the medical funds such as Bupa and Medibank. Superannuation contributions are payments made to a superannuation fund. Superannuation contributions are required by law. The aim is provide employees with a lump sum and/or regular payments on retirement. Other deductions may include payment of union fees if the employee is a member of a union or donations to charitable and other organisations such as the Heart Foundation, Australian Cancer Research Foundation, Guide Dogs Australia and the Salvation Army.

The payroll liability accounts are classified as current liabilities because they must be paid to employees or remitted to taxation authorities and other parties in the short term.

Figure 9.1 Examples of payroll deductions that may occur

Recording the accrual and payment of the payroll deduction liabilities is illustrated using a simple example below. The general journal entry to record the various liabilities is:

Mar. 7	Salaries and wages expense	37 000	
	Pay-as-you-go withheld tax payable		32 000
	Superannuation payable		4 000
	Union fees payable		1 000
	(To record withheld taxes and deductions for the week ending 7 March)		

A	=	L	+	E
		+32 000		−37 000
		+ 4 000		
		+ 1 000		

The entry in the cash payments journal to record the payment of the accrued liabilities is:

CASH PAYMENTS JOURNAL

Date	Description	Chq no.	Post ref.	Other accounts	Cash
Mar. 31	Pay-as-you-go withheld Tax payable—Australian Taxation office	101		32 000	32 000
	Superannuation payable—AMP	102		4 000	4 000
	Union fees payable—NTEU	103		1 000	1 000

Finally, employers may also incur other costs in relation to their employees such as annual leave, workers compensation, parental leave, sick leave and long service leave. Some of these costs are mandatory as required by legislation or specified in salary and wage awards and contracts. Employees are generally entitled to a number of paid weeks annual leave and a number of days of sick leave. As employees only become entitled to these benefits on a pro-rata basis as they work throughout the year, the employer generally accrues the liability at regular intervals. Workers compensation, on the other hand, is usually paid as a yearly premium as it is an insurance scheme to compensate employees for injuries or death at work. Long service leave is another substantial expense for an employer. It is generally granted after 10 years of service but is accrued only after the employees have completed a number of years of service. Long service leave may have a component that is classified as a current liability (i.e. for the portion to be paid within less than one year) and a non-current component (i.e. the amount to be paid after one year).

Helpful hint

Long service leave is discussed further in the section on provisions and contingent liabilities.

REVENUES RECEIVED IN ADVANCE

A magazine publisher such as *Business Review Weekly* may receive a customer's payment when a customer subscribes for a period, such as a year. Qantas often receives cash when it sells tickets for future flights. How do these entities account for revenues that are received before goods are delivered or services are rendered?

Alternative terminology

Revenues received in advance is also referred to as *unearned revenue*.

1. When the advance is received, cash is increased (debited) and a current liability account identifying the source of the revenue received in advance is also increased (credited). The revenue received in advance account is a liability.
2. When the service is performed or the goods are delivered, the revenue received in advance account is decreased (debited) and a revenue account is increased (credited).

To illustrate, assume that Suncorp Stadium Ltd sells 10 000 season football tickets at $50 each for its five-game home schedule. The entry for the sales of season tickets and receipt of cash on 6 August is:

A	=	L	+	E
+500 000		+500 000		

Aug.	6	Cash	500 000	
		Ticket revenue received in advance		500 000
		(To record sale of 10 000 season tickets)		

As each game is completed, this entry is made:

A	=	L	+	E
		−100 000		+100 000

Sept.	5	Ticket revenue received in advance	100 000	
		Football ticket revenue		100 000
		(To record football ticket revenues)		

The account ticket revenue received in advance represents revenue that belongs to a future period and is reported as a current liability in the statement of financial position. The cash received is accounted for as a liability because the entity has an obligation to provide the services paid for by the ticket holders. However, when the services have been performed, and subject to the criteria explained in chapter 3, the revenue is recognised and a transfer from revenue received in advance to revenue account occurs. Revenue received in advance is substantial for some entities.

Figure 9.2 shows specific revenue received in advance and revenue accounts used in selected types of businesses.

	Account name	
Type of business	**Revenue received in advance**	**Revenue**
Airline	Air fares received in advance	Air fare revenue
Magazine publisher	Subscriptions received in advance	Subscription revenue
Hotel	Rent received in advance	Rent revenue

Figure 9.2 Revenue received in advance and revenue accounts

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What is a current liability?
2. What are some examples of current liabilities?
3. What are some items generally withheld from employees' wages or salaries?
4. Identify three examples of revenue received in advance.

>> DO IT

Waffle Ltd's payroll for March 2017 was $120 000. Waffle's pay week ended on 28 March 2017. The $120 000 payroll includes $10 000 for accrued wages since 28 March. Payroll deductions from amounts paid during March were as follows:

Healthcare fund deductions	$ 4 000
Pay-as-you-go withheld tax deductions	$22 000

State the current liabilities relating to Waffle Ltd's payroll as at 31 March 2017.

REASONING: The unpaid wages and payroll deductions are current liabilities of Waffle Ltd.

SOLUTION:

Unpaid wages	$10 000
Payroll deductions:	
Pay-as-you-go withheld tax	22 000
Healthcare fund	4 000
Current liabilities for payroll	$36 000

Large entities like Telecom New Zealand and JB Hi-Fi as well as smaller businesses like online compliance systems need to account for transactions involving both current and non-current liabilities. In the previous section we explored the nature of and the recording of common current liabilities. In this section we explore non-current liabilities or, as they are sometimes called, long-term liabilities.

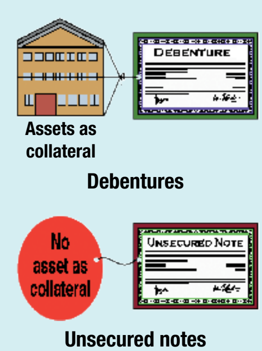
NON-CURRENT LIABILITIES

LEARNING OBJECTIVE 3

Identify common types of non-current liabilities, such as debentures and unsecured notes, and explain how to account for them.

Non-current liabilities are obligations that are expected to be paid after 1 year or outside the normal operating cycle. The normal operating cycle for payables is the time it takes from the purchase of inventory on credit to the payment of the liability. In this section we explain the accounting for the main types of obligations reported in the non-current section of the statement of financial position. These obligations are often in the form of bank loans or long-term notes.

Public companies may raise debt finance from the public. This can take the form of notes issued in small denominations (usually $1000 or multiples of $1000). Notes that are not subject to a security over assets of the issuing company are referred to as **unsecured notes**. Notes that are subject to a secured charge over some of the issuer's assets are called **debentures**. A security over assets is a right to have the assets liquidated to recover unpaid amounts of a debt if the debtor defaults on payment. Convertible notes are able to be converted into shares instead of being repaid at maturity.



WHY ISSUE UNSECURED NOTES OR DEBENTURES?

A company may use long-term financing, such as bank loans and leasing, other than unsecured notes or debentures. Both public and private companies may borrow money in this way. However, these other forms of financing involve an agreement between the company and an individual, creditor company, or financial institution.

From the standpoint of the company seeking long-term financing, notes offer advantages over shares as shown in figure 9.3.

DECISION MAKING

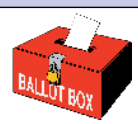
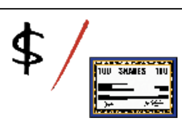
Debt financing	Advantages
	1. **Shareholder control is not affected.** Noteholders do not have voting rights, so current owners (shareholders) retain full control of the company.
	2. **Tax savings result.** Interest is deductible for tax purposes; dividends on shares are not.
	3. **Earnings per share may be higher.** Although interest expense reduces profit, earnings per share is often higher under debt financing because no additional shares are issued.

Figure 9.3 Advantages of debt financing over issuing ordinary shares

Alternative terminology

Another term for notes is *bonds*.

The major disadvantage resulting from the use of unsecured notes or debentures is that the company locks in fixed payments that must be made in good times and bad. Interest must be paid on a periodic basis and the principal (face value) of the notes must be paid at maturity. A company with fluctuating earnings and a relatively weak cash position may experience great difficulty in meeting interest requirements in periods of low earnings. In the extreme, this can result in insolvency. With equity financing, on the other hand, the company can decide to pay low (or no) dividends if earnings are low.

Comparative analysis of debt and equity as alternative sources of finance will be considered in chapter 10 when you are more familiar with accounting for transactions with shareholders.

DETERMINING THE MARKET VALUE OF UNSECURED NOTES AND DEBENTURES

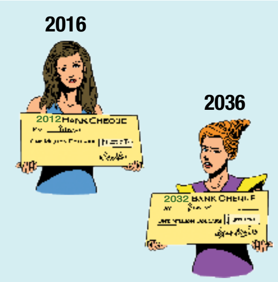
The market value of a note may differ from its face value. The face value of a note is the amount due at maturity, also referred to as the *principal*. The face value may differ from the **issue price**, which is the amount paid for the note by the investor (lender) at the time of issue. Throughout the term of the note its **market value**, which is the price at which it is traded by willing parties, may vary.

The **contract interest rate** is the rate used to determine the amount of interest the borrower pays and the investor receives. Usually the contract rate is stated as an annual rate, and interest is usually paid half-yearly.

Alternative terminology

The contract interest rate is often referred to as the *stated interest rate*.

If you were an investor interested in purchasing a note, how would the amount you pay for the note be determined? To be more specific, assume that Coronet Ltd issues a zero-interest debenture (pays no interest) with a face value of $1 million due in 20 years. For this debenture, the only cash you receive is $1 million at the end of 20 years. Would you pay $1 million for this debenture? We hope not, because $1 million received 20 years from now is not the same as $1 million received today. The reason you should not pay $1 million relates to what is called the *time value of money*. If you had $1 million today, you could invest it and earn interest such that at the end of 20 years your investment would be worth much more than $1 million. Thus, if someone will pay you $1 million 20 years from now, you would want to find its equivalent today, or its **present value**. In other words, you would want to determine how much must be invested today at current interest rates to have $1 million in 20 years.



Same dollars at different times are not equal.

The current market value (present value) of a debenture is therefore a function of three factors: (1) the dollar amounts to be received, (2) the length of time until the amounts are received, and (3) the market rate of interest. The **market interest rate** is the rate investors demand for lending funds to the entity. This, in turn, will depend on the risk-free interest rate (the rate that could be earned by investing in government bonds) and the risk of investing in the specific corporate bond or debenture. The process of finding the present value is referred to as **discounting** the future amounts.

To illustrate, assume that on 1 January 2016 Coronet Ltd issues $100 000 of 9% unsecured notes, due in 5 years, with interest payable annually at year-end. The purchaser of the notes would receive the following cash payments: (1) *principal* of $100 000 to be paid at maturity, and (2) five $9 000 *interest payments* ($100 000 × 9%) over the term of the notes. A time diagram depicting both cash flows is shown in figure 9.4.

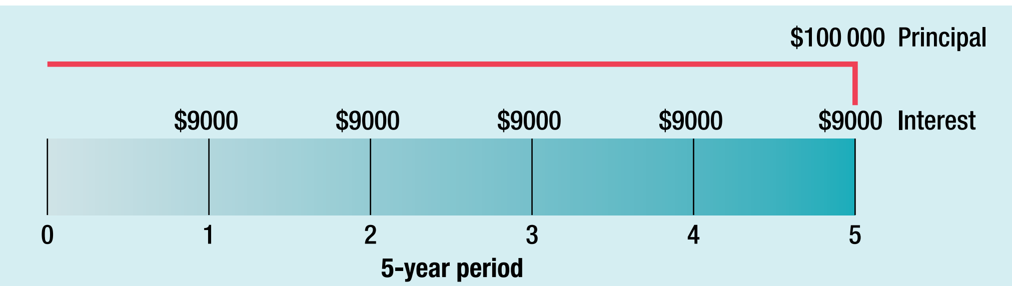


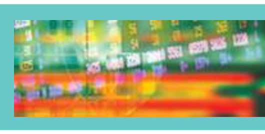
Figure 9.4 Time diagram depicting cash flows

The current market value of an unsecured note or debenture is equal to the present value of all the future cash payments promised by the note. We will assume that the market interest rate for the notes is 9%. The present values of these amounts are listed in figure 9.5.

Present value of $100 000 received in 5 years	$ 64 993
Present value of $9000 received annually for 5 years	35 007
Market price of notes	**$100 000**

Figure 9.5 Calculation of present value of future payments

The contract interest rate on an issue of notes is not always the same as their market interest rate. For example, if the notes had zero interest and the market rate of interest were 9%, investors would have been prepared to pay only $64 993 for the right to receive $100 000 5 years later. Tables are available to provide the present value factors to be used, or these values can be determined mathematically.*



APPLICATION IN BUSINESS

Investor perspective

Determining the market value of bonds depends on many factors, including expected rates of inflation, the maturity dates of the bonds, current and projected interest rates of other types of securities, and the perceived level of risks of the bonds. Credit rating agencies are organisations that estimate the creditworthiness of an individual, corporation or even a country by evaluating a potential borrower's ability to repay debt. A credit rating is a financial indicator to potential investors of the perceived risks and therefore the quality of the bonds. Standard & Poor's is one of the major credit rating agencies that rate many Australian corporations, financial institutions, and structured and sovereign issuers for their long-term and short-term debts. The Standard & Poor's rating scale, from excellent to poor is: AAA, AA+, AA, AA−, A+, A, A−, BBB+, BBB, BBB−, BB+, BB, BB−, B+, B, B−, CCC+, CCC, CCC−, CC, C, D. Anything lower than a BBB- rating is considered a speculative or junk bond. As credit rating is one of the most important indicators of a bond's creditworthiness, an upgrade or downgrade in credit rating can significantly influence a bond's market value.

Source: Based on information from Standard & Poor's web site, www.standardandpoors.com.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What are the advantages of unsecured notes and debentures versus equity financing?
2. Explain the terms *face value*, *contractual interest rate* and *market interest rate*.
3. Explain why you would prefer to receive $1 million today rather than 5 years from now.

ACCOUNTING FOR ISSUES OF UNSECURED NOTES AND DEBENTURES

When a company receives payment for its unsecured notes and debentures, it makes journal entries to record their issue. If a note holder sells a note to another investor, the issuing company receives no further money on the transaction, nor is the transaction journalised by the issuing company.

The issue of debentures and unsecured notes at an amount different from their face value is quite common. By the time a company prints the certificates for the notes and markets them, it will be a coincidence if the market rate and the contractual rate are the

*For those knowledgeable in the use of present value tables, the calculations in this example are: $100 000 × 0.649 93 = $64 993 and $9000 × 3.889 65 = $35 007 (rounded).

same. Thus the issue of notes at a discount (below face value) does not mean that the financial position of the issuer has declined. Likewise, the issue of notes at a premium (above face value) does not indicate that the financial strength of the issuer is exceptional. Prices for both new issues and existing issues are quoted as a percentage of the face value of the note, which is usually $1000. Thus, a $1000 unsecured note with a quoted price of 97 means that the selling price of the note is 97% of face value, or $970 in this case.

In this text we will consider only the issue of notes at face value. Accounting for issues at a premium or discount requires an understanding of present value calculations.

To illustrate the accounting for debentures issued at face value, assume that Devor Ltd issues 1000, 10-year, 10%, $1000 debentures on 30 June 2016 at 100 (100% of face value). The entry to record the $1 000 000 ($1000 × 1000) issue is:

A	=	L	+ E
+1 000 000		+1 000 000	

June 30	Cash	1 000 000	
	Debentures payable		1 000 000
	(To record issue of debentures at face value)		

Debentures payable are usually reported in the non-current liabilities section of the statement of financial position because the maturity date is more than one year away. They are reclassified as current liabilities when maturity is within one year.

Over the term (life) of the debentures, entries are required for interest. Interest payable on debentures is calculated by multiplying the face value of the debenture by the interest rate stated in the contract. If it is assumed that interest is payable half-yearly on 31 December and 30 June on the debentures described above, interest of $50 000 ($1 000 000 × 10% × 6/12) must be paid on 31 December 2016. The entry for the payment, assuming no previous accrual of interest, is as shown below:

A	=	L	+	E
−50 000				−50 000

Dec. 31	Interest expense (borrowing costs)	50 000	
	Cash		50 000
	(To record payment of debenture interest)		

If interest payments do not coincide with the end of the reporting period, an end-of-period adjustment must be made to accrue unpaid interest. For instance, if the above interest payment were scheduled for 1 January, interest of $50 000 should be accrued by crediting interest payable instead of cash.

Interest payable is classified as a current liability because it is scheduled for payment within the next year.

REDEEMING UNSECURED NOTES AND DEBENTURES AT MATURITY

Notes are redeemed when they are purchased (repaid) by the issuing company. Regardless of the issue price of notes, the carrying amount of the notes at maturity will equal their face value. Assuming that the interest for the last interest period is paid and recorded separately, the entry to record the redemption of debentures payable of $1 000 000 on 30 June 2026 is:

A	=	L	+ E
−1 000 000		−1 000 000	

2026			
June 30	Debentures payable	1 000 000	
	Cash		1 000 000
	(To record redemption of debentures at maturity)		

Helpful hint

If a debenture is redeemed before its maturity date and its carrying amount exceeds its redemption price, will the redemption result in a gain or a loss?
Answer: Gain.

REDEEMING UNSECURED NOTES AND DEBENTURES BEFORE MATURITY

Notes may be redeemed before maturity. A company may decide to redeem notes before maturity to reduce interest cost and remove debt from its statement of financial position. A company should redeem debt early only if it has sufficient cash resources. When notes are redeemed before maturity, it is necessary to: (1) eliminate the carrying amount of the notes at the redemption date, (2) record the cash paid, and (3) recognise the gain or loss on redemption. To illustrate, assume that Alpha Ltd issued debentures with a face value of $1 000 000 maturing on 30 June 2018. After paying interest for the year, Alpha Ltd redeems its debentures at 103 on 30 June 2015. The carrying amount of the debentures at the redemption date is $1 000 000. The amount that Alpha must pay is $1 030 000, being 103% of the face value. To record the redemption of the debentures on 30 June 2015, the entry is:

2015			
June 30	Debentures payable	1 000 000	
	Loss on redemption of debentures	30 000	
	Cash		1 030 000
	(To record redemption of debentures at 103)		

A	=	L	+	E
−1 030 000		−1 000 000		−30 000

Note that the loss of $30 000 is the difference between the cash paid of $1 030 000 and the carrying amount of the debentures of $1 000 000.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What entry is made to record the issue of unsecured notes payable of $1 million at 100?
2. Why are notes issued at a discount? at a premium? at face value?
3. Explain the accounting for redemption of unsecured notes at maturity and before maturity by payment in cash.

>> DO IT

Beta Ltd issued 500 $1000 unsecured notes at face value, maturing on 30 June 2015. On 30 June 2015, after payment of interest, the unsecured notes were redeemed at 96. Prepare the journal entry to record the redemption of the unsecured notes on 30 June 2015.

REASONING: The journal entry should eliminate the carrying amount of the notes, record the payment of cash and recognise the resulting gain. Cash paid is 96% of face value.

SOLUTION:

2015			
June 30	Debentures payable	500 000	
	Gain on redemption of debentures		20 000
	Cash		480 000
	(To record redemption of notes at 96)		

LOANS PAYABLE BY INSTALMENT

LEARNING OBJECTIVE 4
Prepare journal entries for loans payable by instalment and distinguish between current and non-current components of long-term debt.

In addition to, or instead of, raising money by issuing debentures and unsecured notes to a large number of note holders, entities may borrow money from a single borrower in the form of a loan. It is common for loans, such as mortgages, to be repayable by instalment. A **mortgage** is a loan secured by a charge over property. If the borrower (mortgagor) is unable to repay the loan, the lender (mortgagee), may sell the property and use the proceeds to repay the loan. While the conditions of the loan may vary, mortgages usually require regular repayments of the principal (amount borrowed) and interest over the term of the loan.

When all the mortgage payments are added together over the term of the loan, the amount repaid exceeds the amount originally borrowed. The excess of payments over the original amount borrowed is interest. That is, not all of the money repaid is a reduction of the loan; a portion of the payments is interest expense. Interest expense is often referred to as 'borrowing costs' or 'finance costs' in published financial statements.

APPLICATION IN BUSINESS

International perspective

Owning your own home is said to be the great Aussie dream and it is a dream shared by people all over the world — but it can be a costly dream. Many families, including those who have low creditworthiness, take out a mortgage when purchasing their home. The so called subprime mortgage crisis was a direct result of banks lending excessively to people who did not possess strong borrowing and repayment capacity. The banks then bundled these low-quality mortgages into financial derivatives, the most well-known of which are collateralised debt obligations or CDOs. These are a kind of bond designed to spread the risk of mortgage lending. CDO originators pool mortgages together, split the bundle by different degrees of risk and sell those bits on to different investors with a share in the repayment stream. When the US house prices started to fall in late 2006, many homeowners defaulted on their mortgage repayments. The large-scale default triggered the credit crunch which affected banks and investors in different parts of the world with investments in CDOs. This was the beginning of the global financial crisis which saw countries suffering the worst economic conditions since the Great Depression in the 1920s. Who would have thought that a dream to own one's home would have such a dire consequence to the world economy?

Source: Based on information from K. Chinnery 2008, 'Anatomy of a disaster', *Business Review Weekly*, 27 November, www.brw.com.au.

ACCOUNTING FOR LOANS PAYABLE BY INSTALMENT

Each time the borrower makes a mortgage payment, it must be allocated between interest expense and a reduction of the loan liability. The reduction of the mortgage liability is also referred to as the reduction of the principal of the loan, or just the reduction of the principal. The effect of a mortgage payment on the accounting equation is as follows:

A	=	**L**	+	**E**
Cash ↓		Loan ↓		E ↓ (interest expense)

This would be recorded by debiting the loan payable account and interest expense account and crediting the cash at bank account.

Consider the effect on the accounting equation of a loan payment of $10 000:

A	=	**L**	+	**E**
−$10 000		−$?		−$?

How much of the payment should be allocated to interest expense and how much to the reduction of the principal of the loan?

Interest is the cost of borrowing money: the more that is borrowed, the greater the amount of interest expense. Interest expense is greater at the beginning of the loan than towards the end of the loan. This is because the amount of the loan outstanding is greater at the commencement of the loan. As more repayments are made, the loan principal is reduced and so is the interest. Thus the carrying amount of the liability is reduced progressively throughout the period of the loan. Measuring liabilities this way is known as the *amortised cost method using the effective interest rate*.

The interest expense for each period is determined by multiplying the balance of the loan at the beginning of the period by the interest rate for the period. The product is the amount of interest expense for the period. When recording the mortgage payment for the period, a debit entry is made to interest expense as calculated, and the balance of the payment is debited to the loan payable account.

For example, assume that CAS Ltd has a mortgage on which interest is payable at 12% per annum, with monthly payments of $10 000. At the beginning of March 2016, the balance of the loan payable account was $100 000. To record the payment of $10 000 in March, the accountant must determine how much should be interest expense and how much should be a reduction of the principal of the loan. This is calculated as follows:

Interest expense = Balance at the beginning of the period × interest rate

The interest rate for one month is equal to the annual interest rate divided by 12. In this example, 12% ÷ 12 = 1% for the month. Thus the interest expense for March 2016 can be calculated as:

Interest expense = $100 000 × 1% = **$1 000**

The payment of $10 000 in March should be accounted for as an interest expense of $1000 and a $9000 reduction in the principal of the loan. The payment would be recorded as follows:

31 March	Interest expense	1 000	
	Loan payable	9 000	
	Cash at bank		10 000
	(To record the loan payment for March)		

A	=	L	+	E
−10 000		−9000		−1000

This entry would usually be made in the cash payments journal if specialised journals are used. For simplification, the general journal form is used in the illustrations presented here.

Instead of performing this calculation every time a repayment is made, it is helpful to prepare a mortgage schedule. A mortgage schedule shows how much of each payment should be accounted for as an interest expense, and how much should be accounted for as a reduction in the principal of the loan.

The mortgage schedule in figure 9.6 (overleaf) is for a $106 220 loan obtained to purchase property that has been offered as security for the loan. Repayments of $5000 are made at the end of each month for two years. The interest rate is 12% per annum.

The first column lists the date of each payment. The second column lists the balance of the mortgage liability at the beginning of the period. The length of each period is determined by the frequency of the mortgage payments; payments are made at the end of each month in figure 9.6. Thus, at the beginning of the period, the balance of the mortgage in the second column is the balance of the loan at the beginning of each month. The third column lists the amount of each payment. The fourth column shows the amount of interest expense for each period. This is the amount of interest expense for each month because payments are made monthly. The interest is calculated by multiplying the mortgage's beginning-of-period balance (in the second column) by the interest rate for the period (i.e. the annual interest rate divided by the number of periods in the year). The fifth column lists the amount of each payment allocated to reducing the principal of the loan. It is the portion of the payment that is not interest. The amount in this column is determined by subtracting the interest expense (in the fourth column) from the mortgage payment in the third column. The last column lists the balance of the loan liability after each payment. The amount in this column is derived by subtracting the reduction of principal (in the fifth column) from the beginning-of-period balance in the second column. The closing balance of one month becomes the beginning balance of the next month. You should work through enough rows in figure 9.6 to ensure that you understand the calculations.

Month ending	Beginning balance $	Payment $	Interest $	Reduction of principal $	Closing balance $
31.01.16	106 220	5 000	1 062	3 938	102 282
28.02.16	102 282	5 000	1 023	3 977	98 305
31.03.16	98 305	5 000	983	4 017	94 288
30.04.16	94 288	5 000	943	4 057	90 231
31.05.16	90 231	5 000	902	4 098	86 133
30.06.16	86 133	5 000	861	4 139	81 994
31.07.16	81 994	5 000	820	4 180	77 814
31.08.16	77 814	5 000	778	4 222	73 592
30.09.16	73 592	5 000	736	4 264	69 328
31.10.16	69 328	5 000	693	4 307	65 021
30.11.16	65 021	5 000	650	4 350	60 671
31.12.16	60 671	5 000	607	4 393	56 278
31.01.17	56 278	5 000	563	4 437	51 841
28.02.17	51 841	5 000	518	4 482	47 359
31.03.17	47 359	5 000	474	4 526	42 833
30.04.17	42 833	5 000	428	4 572	38 261
31.05.17	38 261	5 000	383	4 617	33 644
30.06.17	33 644	5 000	336	4 664	28 980
31.07.17	28 980	5 000	290	4 710	24 270
31.08.17	24 270	5 000	243	4 757	19 513
30.09.17	19 513	5 000	195	4 805	14 708
31.10.17	14 708	5 000	147	4 853	9 855
30.11.17	9 855	5 000	99	4 901	4 954
31.12.17	4 954	5 000	46	4 954	0

Figure 9.6 Mortgage schedule

The mortgage schedule can be prepared quickly in an electronic spreadsheet. For example, we could view figure 9.6 as an Excel spreadsheet, as illustrated in figure 9.7. The column of dates in the figure would become column A in the spreadsheet, and the first row of numbers in the figure would become row 3 in the spreadsheet, with the headings in row 1 and the dollar signs in row 2. The formula for the interest column would take the form '=+B3*.01'. The formula for the reduction of principal in the fifth column would take the form '=+C3−D3', and the formula for the ending balance would be '=+B3−E3'.

Figure 9.6 adopts a comprehensive form of the mortgage schedule for illustrative purposes. Simpler forms of the mortgage schedule can be used. Some of the columns do not need to be displayed. For example, the closing balance column could be omitted because it is reproduced as the opening balance for the next period.

	A	B	C	D	E	F
1	Month ending	Beginning balance	Payment	Interest	Reduction of principal	Closing balance
2		$	$	$	$	$
3	31.1.16	106 220	5 000	1062	3938	102 282
4	28.2.16	102 282	5 000	1023	3977	98 305
5	31.3.16	98 305	5 000	983	4017	94 288
6	30.4.16	94 288	5 000	943	4057	90 231
7	31.5.16	90 231	5 000	902	4098	86 133
8	30.6.16	86 133	5 000	861	4139	81 994
9	31.7.16	81 994	5 000	820	4180	77 814
10	31.8.16	77 814	5 000	778	4222	73 592

Figure 9.7 Mortgage schedule as an electronic spreadsheet

The mortgage schedule forms the workings for the journal entry to record each mortgage payment. The first row in figure 9.6 provides the details needed to record the first mortgage payment on 31 January 2016. Of the first $5000 payment, $1062 should be recorded as interest expense and $3938 as a reduction in the mortgage liability. The journal entry to record the payment is:

2016			
Jan. 31	Interest expense	1 062	
	Loan payable	3 938	
	Cash at bank		5 000
	(To record the loan payment for January)		

A	=	L	+	E
−5000		−3938		−1062

The journal entry to record the payment for February is:

2016			
Feb. 28	Interest expense	1 023	
	Loan payable	3 977	
	Cash at bank		5 000
	(To record the loan payment for February)		

A	=	L	+	E
−5000		−3977		−1023

Rounding errors at the end of the mortgage schedule are very common. Rounding errors should be adjusted against the interest expense in the final period, rather than leaving a small debit or credit balance in the loan account. In figure 9.6 a rounding error of $4 has been adjusted against interest in the allocation of the last payment. The calculated interest expense is $50 (1% × $4954), with a reduction of principal, ($4950). This would leave a balance of $4 in the mortgage liability after all repayments have been made. This rounding error has been corrected by increasing the allocation to reduction of principal to $4954 and reducing the allocation to interest to $46.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What is the difference between the amount borrowed on a mortgage and the amount repaid?
2. How is the interest expense calculated on a mortgage for each period?

>> DO IT

Using the mortgage schedule in figure 9.6 (p. 548), prepare the journal entry to record the mortgage payment on 31 March 2016.

REASONING: The difference between the amount borrowed and the amount repaid is interest. The interest component of each repayment is calculated by multiplying the opening balance by the interest rate for the period. The interest should be recorded as an expense. The remainder of the payment should be recorded as a reduction in the principal of the mortgage.

SOLUTION:

2016			
Mar. 31	Interest expense	983	
	Loan payable	4 017	
	Cash at bank		5 000
	(To record the loan payment for March)		

CURRENT AND NON-CURRENT COMPONENTS OF LONG-TERM DEBT

Liabilities are classified as current if they are due within one year or within the period of the entity's normal operating cycle. Entities often have a portion of long-term debt that falls due within the coming year (or operating cycle). For liabilities such as loans payable by instalment, a portion is usually due within one year of the financial statements in which they are reported. In the case of liabilities not paid by instalment, such as debentures and unsecured notes, the entire principal may be due within one year as the debt approaches maturity.

To the extent that long-term debt is payable within the same period as current liabilities, it should be classified as a current liability. For example, assume that during 2016 Charlie's Constructions Ltd entered into several long-term loans, two of which mature at the end of 2018, with the remainder maturing in later periods. In the statement of financial position as at 31 December 2016, all of the long-term loans would be classified as non-current. However, when the statement of financial position is prepared for 31 December 2017, the two loans that are due to be paid at the end of 2018 must be classified as current liabilities.

The calculation of the current portion of a liability payable by instalment is more complicated. Consider the example of a mortgage. The portion of the mortgage that falls due within one year (or operating cycle) of the end of the reporting period should be classified as a current liability in the statement of financial position. For example, assume that the entity with the mortgage schedule in figure 9.6 (p. 548) has a year-end of 31 March. The mortgage liability (see closing balance column) is $94 288 as at 31 March 2016. How much should be classified as current and how much as non-current at this date? The total liability of $94 288 represents the remaining amount of the principal borrowed that has not been repaid at that date. The amount to be reported as a current liability is the reduction in principal that occurs up to and including 31 March 2017. The reduction in principal after 31 March 2017 is the non-current portion of the mortgage liability.

Applying this technique to the mortgage liability in figure 9.6 (p. 548) as at 31 March 2016, the classification of the mortgage liability is calculated in figure 9.8.

	Current portion of mortgage liability as at 31 March 2016		**Non-current portion of mortgage liability as at 31 March 2016**
	$ 4 057		$ 4 572
	4 098		4 617
	4 139		4 664
	4 180		4 710
	4 222		4 757
	4 264		4 805
	4 307		4 853
	4 350		4 901
	4 393		4 954
	4 437		
	4 482		
	4 526		
Current liability	$51 455	Non-current liability	$42 833

Figure 9.8 Calculation of current and non-current portions of mortgage liability

Rather than adding long columns of figures, we can calculate the current portion of the mortgage liability as the reduction in the principal that occurs within the remaining year. In this example it is the difference between the amount of the liability at 31 March 2016 and 31 March 2017 ($94 288 − $42 833 = $51 455). Note that at 31 March 2016, the non-current portion of the mortgage liability is the sum of reductions in principal after 31 March 2017. This is equal to the closing amount of the liability at 31 March 2017, which is shown in figure 9.6 (p. 548) as $42 833.

It is not necessary to prepare an adjusting entry to recognise the current maturity of the mortgage liability. The proper classification of each account is recognised when the statement of financial position is prepared for external financial reporting.

LEASING

LEARNING OBJECTIVE 5

Identify the advantages of leasing and explain the difference between an operating lease and a finance lease.

Mortgages are not the only liabilities payable by instalment. Leases are also liabilities payable by instalment. You may recall that we already introduced leases in chapter 8 when we discussed non-current assets. Leases are explored further in the following sections.

WHAT IS A LEASE?

Leasing is a popular way to acquire property, plant and equipment. Many assets including motor vehicles, aircraft, land, buildings and machinery can be leased. A **lease**, according to IAS 17/AASB 117 *Leases*, is an agreement where the lessor conveys to the lessee the right to use an asset for an agreed period of time in return for a payment or a series of payments. The **lessee** is the entity which has leased an asset from the lessor and the **lessor** is the entity which has leased an asset to the lessee. Both the lessor and the lessee must account for transactions involving assets leased between the entities.

Advantages of leasing

Leasing has become a common way of acquiring many non-current assets. The reason for its growth in popularity is that it offers numerous advantages to the lessee. For example, leasing provides the lessee with access to a wide variety of non-current assets and lease payments are a deductible expense for taxation purposes. Further, the risk of obsolescence of the non-current asset remains with the lessor, as some lease agreements allow the lessee to return old leased equipment in exchange for new equipment by cancelling the old lease and signing a new one. Another advantage is that lease contracts may be structured in a way so that they are less restrictive than many debt agreements for the lessee and, finally, some lease liabilities are not required to be reported on the statement of financial position. This is advantageous for companies that do not want the liability to affect their financial ratios and borrowing capacity.

A central issue surrounding accounting for leases is whether the assets and the liabilities associated with leasing assets should be reported on the lessee's statement of financial position. This is where understanding the distinction between a finance lease and an operating lease is important.

Alternative terminology

When leases are not reported on the statement of financial position of the lessee, this can be referred to as *off-balance-sheet financing*.

Finance and operating leases

DECISION MAKING

During the term of the lease agreement the lessee acquires and uses the asset. However, the legal title to the asset remains with the lessor. The question is, should the lack of transfer of legal title or ownership preclude the lessee reporting the leased assets and the related liabilities on the statement of financial position when the lessee actually acquires and uses the asset for the term of the lease agreement?

Whether a leased asset is required to be reported on the statement of financial position of the lessee or the lessor depends on who substantially retains the *risks and rewards* of ownership or *control* over the asset's use and the future economic benefits of the asset. IAS 17/AASB 117 *Leases* requires both the lessee and the lessor to classify their leases into one of two categories. An **operating lease** is where the *lessor* effectively retains the risks and rewards of owning an asset and, consequently, operating leases are reported in the statements of financial position of the lessor. A **finance lease**, on the other hand, is where the substantial *risks and rewards of ownership* of the asset are effectively transferred to the lessee even though the *ownership remains with* the lessor. In essence, then, a finance lease is simply another way to finance the purchase of an asset and, hence, the asset and the liability should be reported on the statement of financial position of the lessee as they would have been if the entity had borrowed funds to finance the asset's purchase. Consequently, all finance leases are reported on the lessee's statement of financial position.

It is important to note that leasing is a complex and challenging area of accounting and is generally dealt with in some detail in later year accounting studies. This section is intended to provide an introduction to the topic area as opposed to an in-depth exploration. Simple examples illustrating how to account for leases are provided overleaf.

APPLICATION IN BUSINESS

Ethical and governance perspective

Leasing has become a popular option for managing local and state governments' finances in recent years. The Queensland government, for instance, has formulated a long-term leasing plan of the so-called 'poles and wires' for its power distribution and transmission networks. The plan, which was announced in the June budget, would involve the government selling or issuing 99-year leases on its electricity generators. About $33.6 billion is planned to be raised from the lease, sale or equity deals, with $25 billion of the money raised to pay down the government's debt. The rationale for such an arrangement is that the government could keep some control over public assets if they were leased and not sold and thus would be more appealing for Queenslanders.

Source: Based on information from C. O'Brien 2014, 'Leasing Queensland assets rather than selling would be trickery, unions say', *ABC News*, 17 September, www.abc.net.au.

LEARNING OBJECTIVE 6

Complete basic journal entries for accounting for leases and explain how to report leases.

ACCOUNTING FOR LEASES

OPERATING LEASES

Assets that are acquired under operating lease agreements are recorded in the accounts when the lease payment is due to be paid or is paid to the lessor by the lessee. To illustrate, on 1 June Dome Pty Ltd (lessee) signed an 18-month lease agreement with U Bute Cars Ltd (lessor) to lease a car for $2000 per month. Payments are due every 3 months on the last day of the month. Both parties have a 30 June year-end. The first two journal entries, i.e. the lease accrual and the first lease payment, would be recorded as follows in the books of the lessee and the lessor:

Lessee — Dome Pty Ltd

A	=	L	+	E
		+2000		−2000

June 30	Car lease expense	2 000	
	Car lease payable—U Bute Cars Ltd		2 000
	(To accrue the car lease expense incurred but not yet paid and lease liability as at 30 June)		

A	=	L	+	E
−6000		−2000		−4000

Aug. 31	Car lease payable—U Bute Cars Ltd	2 000	
	Car lease expense	4 000	
	Cash		6 000
	(Lease payment to pay the amount accrued at 30 June and the current period car lease expense)		

Lessor — U Bute Cars Ltd

A	=	L	+	E
+2000				+2000

June 30	Car lease receivable—Dome Pty Ltd	2 000	
	Car lease revenue		2 000
	(To accrue the car lease revenue earned but not yet received and lease payment receivable as at 30 June)		

A	=	L	+	E
+6000				+4000
−2000				

Aug. 31	Cash	6 000	
	Car lease receivable—Dome Pty Ltd Car		2 000
	Car lease revenue		4 000
	(Receipt of lease revenue for the amount accrued at 30 June and the current period car lease revenue)		

FINANCE LEASES

The accounting for finance leases is more complex than for operating leases. For example, the lessee is required at the beginning of the lease to recognise both the asset and the liability for the leased assets at amounts equal to their fair value or, if lower, the present value of the minimum lease payments. Where possible, the implicit interest rate in the lease is used to calculate the present value of the minimum lease payments. When the implicit interest rate cannot be determined, the lessee's incremental borrowing rate should be used. The **implicit interest rate** is the discount rate that results in the aggregate present value of the leased asset being equal to the fair value of the leased asset of the lessor at the inception of the lease. The **incremental borrowing rate** on the other hand is the rate of interest the lessee would have to pay to lease a similar asset or the interest rate that would be incurred by the lessee to borrow funds and purchase the asset outright.

These definitions may appear complex; however, to explain in simpler terms, a lessor purchases an asset and subsequently leases it to the lessee in order to make a profit. Therefore, in an uncomplicated finance lease, the lease payments are structured to include both the repayment of the cost price of the asset plus interest to provide the lessor with a rate of return. Otherwise there is no benefit to the lessor to be a part of the arrangement. As this chapter aims to present accounting for leases at the introductory level, the fair value of leased assets will be provided in all illustrations and questions. These calculations are generally explored in detail in intermediate accounting units.

To further complicate matters, in the books of the lessor, leases can be accounted for using the gross method or the net method. The net method is illustrated overleaf as it is the most commonly used. The net method records the lease receivable at its present value. Unlike the gross method, it does not create an unearned interest revenue account (contra account). The balance of the lease receivable recorded under the net method will be equal to the balance of the lease receivable less the unearned interest revenue recorded under the gross method.

A simple example is provided below to illustrate the initial recording of a finance lease using the net method.

An asset was leased on 1 July 2016 at a fair value of \$50 000. In this example, we ignore GST implications and the direct lease costs and assume the lease is non-cancellable. The initial journal entry to record the lease in the books of both parties is as follows:

Lessee

July	1	Leased asset	50 000	
		Lease liability		50 000
		(To record the asset and the liability related to the leased asset at the beginning of the lease)		

A	=	L	+	E
+50 000		+50 000		

Lessor

July	1	Lease receivable	50 000	
		Leased asset		50 000
		(To remove the leased asset and record the receivable related to the leased asset at the beginning of the lease)		

A	=	L	+	E
+50 000				
−50 000				

Assume that the lesser requires a rate of return of 10% on the leased asset over 4 years. Once each lease payment is made, the lessee records the lease expense and the lessor recognises the lease revenue. Lease payments consist of both interest and principal so the entries are similar to those illustrated in this chapter for mortgage payments and notes payable.

To illustrate, figure 9.9 (overleaf) presents the lease repayment schedule where each lease payment includes a repayment of principal and interest.

Helpful hint

The interest calculation is the balance of the lease obligation multiplied by the interest rate. The principal reduction is the lease payment less the interest for the period.

Date	Lease payment $	Interest 10%	Principal reduction $	Balance lease obligation $
01.07.16				50 000.00
30.06.17	15 773.50	5 000.00	10 773.50	39 226.50
30.06.18	15 773.50	3 922.65	11 850.85	27 375.65
30.06.19	15 773.50	2 737.57	13 035.93	14 339.72
30.06.20	15 773.50	1 433.78	14 339.72	0.00
Total over 4 years	63 094.00	13 094.00	50 000.00	

Figure 9.9 Lease repayment schedule

The lease payments in the books of both the lessee and lessor are provided below:

Lessee

A	=	L	+	E
−15 773.50		−10 773.50		−5 000

June 30	Lease liability	10 773.50	
	Interest expense	5 000.00	
	Cash		15 773.50
	(To record a lease payment)		

Lessor

A	=	L	+	E
+15 773.50				+5 000
−10 773.50				

July 1	Cash	15 773.50	
	Lease receivable		10 773.50
	Interest revenue		5 000.00
	(To record the receipt of a lease payment)		

Further, at the end of the year (30 June), in the books of the lessee only, the leased asset is amortised in the same way we depreciate other property, plant and equipment (PPE) assets, as illustrated in chapter 8. The leased asset is amortised over the economic life of the asset or over the period of the lease. Assume straight-line amortisation with no residual value. Hence the annual expense will be $12 500 (50 000 ÷ 4).

Lessee

A	=	L	+	E
−12 500				−12 500

June 30	Lease amortisation expense	12 500	
	Accumulated amortisation		12 500
	(To record the lease amortisation expense at the end of the period)		

Over the lease period there will be four such payments as given above. The total interest paid and received will be $13 094 (the return to the lessor) and the total amortisation will be $50 000.

APPLICATION IN BUSINESS

Management perspective

Some organisations have in recent years put in place salary packaging (also referred to as salary sacrificing) arrangements as part of their remuneration and benefits framework. Salary packaging allows eligible employees to arrange their salary so that a number of allowable benefits that would normally be purchased from post-tax earnings are paid out of their pre-tax salary. One of the most common types of salary packaging is a novated lease of vehicles. A novated lease is a three-way agreement between the employee, the employer and the financier. In simple terms, a novated lease is a finance lease between an individual and a finance company combined with a novation agreement which means the individual's employer is responsible for the lease obligations while the individual is employed. The benefits of a novated lease for the employee include the ability to drive a vehicle of choice and to use pre-tax dollars (salary sacrifice) to pay for finance and all running costs of the vehicle. The benefits of a novated lease for the employer include staff retention. A novated lease can be an operating lease or a finance lease.

Source: Based on information from Package Plus, www.packageplus.com.au.

REPORTING LEASES

In the statement of financial position the lessee is required to report the net amount of leased assets as well as both current and non-current portions of the lease liability (rounded figures) as illustrated in figure 9.10. The balance of the current and non-current portions of the lease are obtained from figure 9.9.

Statement of financial position as at 30 June 2017	
Non-current assets	
Leased asset	50 000
Less accumulated amortisation	(12 500)
	37 500
Current liabilities	
Lease liability	11 851
Non-current liabilities	
Lease liability	27 375

Figure 9.10 Statement of financial position — selected figures in relation to leases

IAS 17/AASB 117 *Leases* also requires numerous note disclosures to be made by the lessee. These are not discussed here. However, if you continue your accounting studies, in later years you will study accounting for leasing in more depth and learn about how to account for the complexity of finance leases.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What is a lease?
2. List the advantages of leasing.
3. Explain the difference between an operating lease and a finance lease.

PROVISIONS AND CONTINGENT LIABILITIES

LEARNING OBJECTIVE 7
Explain the differences between provisions, contingencies and other types of liabilities.

LEARNING OBJECTIVE 8
Explain how to report contingent liabilities.

You may recall that liabilities are defined as future sacrifices of economic benefits that the entity is presently obliged to make to other entities as a result of past transactions or other past events. **Provisions** are defined as liabilities for which the amount of the future sacrifice is uncertain. That is, whether a liability is a provision or some other type of liability (e.g. borrowings, trade creditors, accruals) depends upon the extent of uncertainty associated with the amount of the future sacrifice. For borrowings such as debentures, leases, unsecured notes and mortgages, the amount of the future sacrifice (i.e. the repayment) can be predicted with a high level of certainty. Similarly, the amount of the future sacrifice for trade creditors can be measured with a high level of certainty because it is quantified on the supplier's invoice. The uncertainty associated with the amounts of future sacrifice varies along a continuum ranging from very low uncertainty to very high uncertainty as indicated in figure 9.11 (overleaf).

Helpful hint

To revise the accrual of expenses, refer to chapter 3 of this book.

Accruals are liabilities to pay for goods or services that have been provided but for which a supplier's invoice has not yet been recorded as an account payable. Accruals often involve estimation, such as the amount of the next electricity bill or telephone account. Although higher than borrowings and trade creditors, the level of uncertainty of accruals is typically low because they are often for recurring services such as telephone connections, electricity usage and interest.

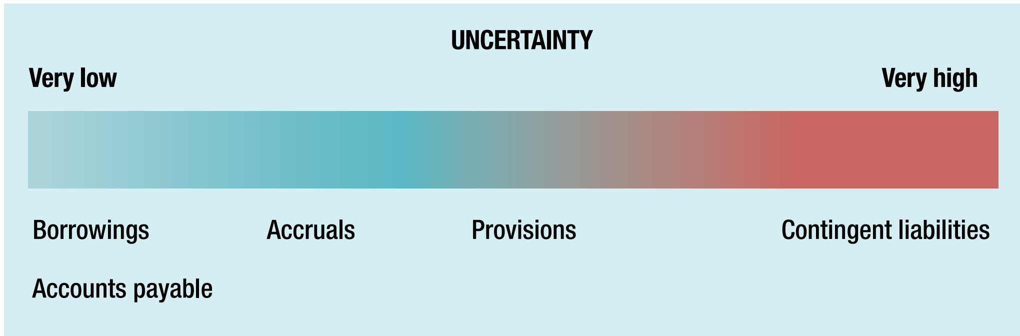


Figure 9.11 Classification of liabilities based on uncertainty

Provisions are liabilities for which there is significant uncertainty about the amount of the future sacrifice but which are considered able to be measured reliably by estimation. Examples include provisions for warranties, and provisions for employee entitlements such as long service leave. A **warranty** is an obligation of the supplier of goods or services to the purchaser that the product will be functional or that the work performed will remain satisfactory for a stated period after the sale of goods or the provision of services. There is significant uncertainty in the measurement of the future sacrifices that will be needed to satisfy existing warranties. This is due to two reasons:

1. The future sacrifice is conditional upon the customer making a claim.
2. The costs of satisfying claims vary with the nature of the fault. Some warranty claims may require the replacement of a small part, while other warranty claims may require replacement of the goods sold to the customer.

There is significant uncertainty about the future sacrifice required for employee entitlements, such as long service leave, because the amount payable is affected by the following:

Helpful hint

Recognition in accounting means *recording* the transaction in the accounts. Hence, the amount of the liability is reported in the statement of financial position.

- whether employees stay with the employer long enough to become entitled to long service leave
- when employees take long service leave
- the extent to which the employee is promoted before taking long service leave
- increases in general salaries between the time the liability is recorded and when it is paid.

The *Framework* not only defines liabilities but also sets out recognition criteria. For a liability to be reported in the statement of financial position, the future sacrifice of economic benefits must be *probable* and must be able to be *reliably* measured.

Liabilities for which the amount of the future sacrifice is so uncertain that it cannot be measured reliably are classified as **contingent liabilities**. Liabilities are also classified as contingent if they do not satisfy the probability criterion, or if they are dependent upon the occurrence of an uncertain future event outside the control of the entity. Examples include an unresolved lawsuit brought against the entity and the potential liability resulting from a tax audit in progress. Contingent liabilities are not recognised because they are not probable or are unable to be measured reliably, or both, i.e. they do not satisfy the probability criterion and the measurement criterion for the recognition of liabilities. However, information about contingent liabilities must be disclosed in the notes to the financial statements. The required disclosures include a description of their nature, an indication of the uncertainties associated with the amount or timing of any future sacrifice, the estimated financial effect (if practical) and the existence of any possible recovery of the future sacrifice.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. How is a provision different from other liabilities, such as accounts payable?
2. Why are contingent liabilities not recognised?

>> DO IT

Match each item with a type of liability.

Liability	Type of liability
1. Debentures payable	A. Accounts payable and accruals
2. Legal proceedings against the entity for injuries from the use of its product	B. Interest-bearing liabilities (borrowings)
3. Trade creditors	c. Contingent liabilities
4. Warranties (unclaimed)	d. Provisions

REASONING: Liabilities are classified as provisions if there is significant uncertainty about the amount of the future sacrifice of economic benefits. Liabilities are classified as contingent if they are conditional upon an uncertain future event outside the control of the entity or if they do not satisfy either or both of the recognition criteria for liabilities.

SOLUTION: 1B, 2C, 3A, 4D.

RECORDING PROVISIONS FOR WARRANTIES

LEARNING OBJECTIVE 9
Prepare entries to record provisions for warranties.

Manufacturers of certain types of goods provide a warranty with their sale to a consumer. Recall that a warranty is a promise in a contract that the goods will function properly for a stated period of time. For example, if you buy a new television, it will probably come with a one-year or two-year warranty from the manufacturer. Warranties may also be offered for the provision of services. For example, it is not uncommon for a tradesperson to provide a 3-month warranty for work performed.

From the manufacturer's point of view, providing a warranty creates an obligation to repair or replace the goods (free of charge) if certain faults arise within the warranty period. Unexpired warranties at the end of the reporting period are a liability from the manufacturer's point of view because they are a present obligation to make a future sacrifice (the repair or replacement of faulty goods) resulting from a past transaction (the sale of goods). Similarly, a service provider, such as a mechanic, may have a liability for unexpired warranty contracts because there is an obligation for future sacrifice (to repair work found to be faulty) resulting from a past transaction (the original provision of services).

Warranty liabilities are provisions because the amount of the future sacrifice is uncertain. It will vary with the amount of claims made and the cost of servicing warranty claims. Reporting entities that provide warranties estimate the cost of servicing unexpired warranty contracts at the end of the reporting period and record the amount in the warranty provisions account. Some entities use a heuristic (or rule-of-thumb) approach to estimating the warranty liabilities, such as a percentage of the current year's sales.

To illustrate: Electrobuz Ltd sells electronic equipment with a 12-month warranty. Its year-end is 30 June. At 30 June 2016, warranty contracts for sales made during the year have not expired. Electrobuz estimates from past experience that the cost of servicing outstanding warranties will be \$200 000. This reflects the percentage of sales resulting in warranty claims and the average cost of servicing warranty claims in the past. To record the liability for outstanding warranties, Electrobuz would make the following entry:

June 30	Warranty expense	200 000	
	Warranty provision		200 000
	(To record the liability for warranty contracts outstanding at year-end)		

A	=	L	+	E
		+200 000		−200 000

In the following year, the costs of servicing warranty claims are charged against the warranty provision account, e.g. on 12 July 2016, Electrobuz replaced goods under warranty at a cost of $1000 using goods from its own inventory. To record this transaction, the following entry is made:

A	=	L	+	E
−1000		−1000		

July 12	Warranty provision	1 000	
	Inventory		1 000
	(To record replacement of goods under warranty)		

The preceding example was simplified by assuming that Electrobuz Ltd did not already have a provision for warranty contracts when the liability was first recognised on 30 June 2016. Now let us assume that at 30 June 2017, after warranty claims have been made during the year, Electrobuz Ltd's warranty provision account has a credit balance of $5000. Electrobuz estimates that the cost of servicing unexpired warranty contracts will be $210 000. The warranty provision should be $210 000. To increase the credit balance in the account from $5000 to $210 000, Electrobuz needs to make the following entry:

A	=	L	+	E
		+205 000		−205 000

June 30	Warranty expense	205 000	
	Warranty provision		205 000
	(To adjust the liability for warranty provision account to total estimated liability for contracts outstanding at year-end)		

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

What does the balance of the warranty provision account represent?

>> DO IT

Wentworth Watches Ltd manufactures and sells watches with a 2-year warranty. The warranty provision account had a debit of $2000 before adjusting entries on 31 December 2015, which is Wentworth Watches' year-end. The estimated cost of servicing outstanding warranties is $25 000 at 31 December 2015. Prepare the adjusting journal entry to record the warranty provision as at 31 December 2015.

REASONING: A provision of $25 000 is needed. A credit entry of $27 000 is needed to increase the warranty provision account from $2000 debit to $25 000 credit.

SOLUTION:

Dec. 31	Warranty expense	27 000	
	Warranty provision		27 000
	(To adjust the liability for warranty provision account to total estimated liability for contracts outstanding at year-end)		

REPORTING PROVISIONS FOR WARRANTIES

The warranty provision is reported in the liabilities section of the statement of financial position. Provisions are classified as current or non-current, depending on the expected timing of the future sacrifice. Electrobuz Ltd reports its warranty provision as current because the warranty contracts expire within one year. Entities that offer longer warranty contracts need to distinguish between current and non-current components of the warranty provision. Most entities classify liabilities as current if they are likely to be paid within one year of the end of the reporting period. In this case, an entity offering warranty periods longer than one year must estimate the amount of the warranty claims that are likely to occur within one year of the end of the reporting period and the amount expected to occur later than one year from the end of the reporting period.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

Refer to the statement of financial position of Domino's Pizza Enterprises Ltd in the appendix at the back of this book to answer the following questions.

1. What amount is reported for current provisions?
2. What amount is reported for non-current provisions?

FINANCIAL STATEMENT ANALYSIS

LEARNING OBJECTIVE 10

Evaluate an entity's liquidity and solvency.

In this chapter, liquidity and solvency evaluation will focus on items reported in the statement of financial position.

LIQUIDITY RATIOS

DECISION MAKING

Liquidity ratios measure the short-term ability of an entity to pay its maturing obligations and to meet unexpected needs for cash. Two measures of liquidity were examined in chapter 1 — working capital (Current assets − Current liabilities) and the current ratio (Current assets ÷ Current liabilities). In this section we add a third useful measure of liquidity, the quick ratio. In chapter 11 we will use cash flow measures to evaluate liquidity.

The current ratio is a frequently used ratio, but it can be misleading. Consider the current ratio's numerator, which can include some items in current assets that are not very liquid. For example, when an entity is having a difficult time selling its goods, its inventory increases. This will cause its current ratio to increase, even though the entity's liquidity has actually declined. Similarly, prepaid expenses are considered current assets, but generally cannot be sold and therefore do not contribute to liquidity. Consequently, the current ratio is often supplemented with the quick ratio.

The **quick ratio** is a measure of an entity's immediate short-term liquidity. It is calculated by dividing the sum of cash, marketable securities such as shares in listed companies, and net receivables by current liabilities. Marketable securities, also called short-term investments, are investments that have a ready market and are intended to be sold within the next year. Cash, marketable securities and net receivables are usually highly liquid compared with inventory and prepaid expenses. Thus, because it measures *immediate* liquidity, the quick ratio should be calculated along with the current ratio. The 2013 statement of financial position for Telstra is shown in figure 9.12. Using this data from Telstra, working capital, current ratios and quick ratios have been calculated and are provided in figure 9.13 (overleaf).

Alternative terminology

The quick ratio is often referred to as the *acid test*.

Figure 9.12 Statement of financial position for Telstra Group from 2013 annual report

TELSTRA GROUP
Statement of financial position
as at 30 June 2013

	Note	2013 $m	2012 $m
Current assets			
Cash and cash equivalents	20	2 479	3 945
Trade and other receivables	10	4 557	4 346
Inventories	11	431	260
Derivative financial assets	17(f)	43	32
Current tax receivables		79	363
Prepayments		314	250
Assets classified as held for sale	12	—	754
Total current assets		7 903	9 950

(continued)

Figure 9.12 *(continued)*

	Note	2013 $m	2012 $m
Non-current assets			
Trade and other receivables	10	943	851
Inventories	11	27	24
Investments—accounted for using the equity method	26	18	12
Investments—other		38	19
Property, plant and equipment	13	20 326	20 504
Intangible assets	14	8 202	7 421
Derivative financial assets		1 062	658
Non-current tax receivables	17(f)	—	80
Deferred tax assets	9	5	6
Defined benefit assets	24	3	—
Total non-current assets		30 624	29 575
Total assets		38 527	39 525
Current liabilities			
Trade and other payables	15	4 241	4 131
Provisions	16	918	942
Borrowings	17(a)	751	3 306
Derivative financial liabilities	17(f)	44	299
Current tax payables		444	731
Revenue received in advance		1 124	1 170
Liabilities classified as held for sale	12	—	105
Total current liabilities		7 522	10 684
Non-current liabilities			
Other payables	15	163	174
Provisions	16	276	264
Borrowings	17(a)	14 313	11 958
Derivative financial liabilities	17(f)	1 625	2 349
Deferred tax liabilities	9	1 330	1 107
Defined benefit liability	24	42	831
Revenue received in advance		381	469
Total non-current liabilities		18 130	17 152
Total liabilities		25 652	27 836
Net assets		12 875	11 689
Equity			
Share capital	19	5 711	5 635
Reserves		(619)	(867)
Retained profits		7 519	6 712
Equity available to Telstra Entity shareholders		12 611	11 480
Non-controlling interests		264	209
Total equity		12 875	11 689

Figure 9.13 Liquidity measures

Ratio	Formula	Telstra Group	
($ in millions)		2013	2012
Working capital	Current assets − Current liabilities	\$7 903 − \$7 522 = \$381	\$9 950 − \$10 684 = −\$734
Current ratio	$\frac{\text{Current assets}}{\text{Current liabilities}}$	$\frac{\$7\,903}{\$7\,522} = 1.05{:}1$	$\frac{\$9\,950}{\$10\,684} = 0.93{:}1$
Quick ratio	$\frac{\text{Cash + Marketable securities + Net receivables}}{\text{Current liabilities}}$	$\frac{(\$2\,479 + \$4\,557)}{\$7\,522} = 0.94{:}1$	$\frac{(\$3\,945 + \$4\,346)}{\$10\,684} = 0.78{:}1$

According to our calculations in figure 9.13, Telstra's working capital was positive in 2013 as its current assets exceeded its current liabilities by $381 million. This is a significant improvement from the negative working capital of $734 million in 2012. These results are reflected in Telstra's current ratio for these respective periods. The positive working capital of $381 million in 2013 can be expressed as a current ratio of 1.05:1, which indicates that Telstra had $1.05 in current assets to cover each $1 in current liabilities. In contrast, the negative working capital of $734 million in 2012 can be expressed as a current ratio of 0.93:1, which indicates that Telstra had only $0.93 in current assets to cover each $1 in current liabilities. Telstra's quick ratio calculated increased substantially from 0.78:1 in 2012 to 0.94:1 in 2013. Note that only cash and cash equivalents and accounts receivable (net receivables) are included in the numerator as Telstra did not have any short-term investments in marketable securities during this period.

Both the current ratio and quick ratio calculated suggest that Telstra's liquidity has improved in 2013. It is important to note that an analysis of liquidity is incomplete without consideration of cash flows. Telstra is able to operate with low or negative working capital because it has a healthy cash flow, aided by its ability to collect accounts receivable promptly.

Further insights about the company's ability to repay debt can also be found in its 2013 annual report. For example, in the statement of cash flows under cash flows from operating activities, it can be seen that receipts from customers increased by $397 million to $28 585 million in 2013.

Recall from chapter 1 that Nick Scali and Fantastic Holdings had much higher ratios compared to Telstra's. In 2013, Fantastic Holdings' current ratio of 2.02:1 indicates that it had $2.02 of current assets for each $1 in current liabilities and had the capacity to pay debts as they fell due. Compared with Nick Scali's 2013 current ratio of 1.70:1 and Telstra's 2013 ratio of 1.05:1, Fantastic Holdings appears to have the highest level of liquidity. What is considered to be an *acceptable* ratio varies from industry to industry, so it would be helpful to compare Telstra's ratios to those of other similar companies in the telecommunications industry, as illustrated in the 'Using the decision-making toolkit' section of this chapter. However, a current ratio of 1:1 is generally considered an acceptable benchmark for most industries.

Using the decision-making toolkit below, management along with other users such as potential investors, shareholders and creditors can use this information to determine an entity's ability to pay its short-term obligations. One measure of liquidity is working capital, which represents the difference between an entity's current assets and current liabilities. A positive working capital is preferable as this means that the current assets are greater than the current liabilities. An alternative measure is the current ratio, which divides current assets by current liabilities. A current ratio above 1:1 means current assets exceed liabilities — a higher current ratio indicates a higher level of liquidity. The most rigorous measure of liquidity ratio is the quick ratio which focuses on those assets that are most quickly converted into cash; cash, marketable securities, and receivables. These quick assets are compared to current liabilities. Inventory is not included as it is generally more difficult to convert into cash on a shorter-term basis. A higher quick ratio indicates a higher level of short-term liquidity.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Can the entity meet its current obligations?	Cash, accounts receivable, marketable securities, other current assets, current liabilities	Working capital = Current assets − Current liabilities	A positive working capital indicates that current assets are available to meet current liabilities.
		$\text{Current ratio} = \dfrac{\text{Current assets}}{\text{Current liabilities}}$	A current ratio above 1:1 means current assets exceed liabilities — a higher current ratio indicates a higher level of liquidity. Ratio should be compared with others in the same industry.
		$\text{Quick ratio} = \dfrac{\text{Cash} + \text{Marketable securities} + \text{Net receivable}}{\text{Current liabilities}}$	The quick ratio focuses on assets that are quickly converted into cash. A higher quick ratio indicates a higher level of short-term liquidity. The ratio should be compared with the others in the same industry.

SOLVENCY RATIOS

Alternative terminology

Another name for times interest earned is *interest coverage*.

Solvency ratios measure the ability of an entity to survive over a long period of time.

In chapter 1 you learned that one measure of an entity's solvency is the debt to total assets ratio. This ratio indicates the extent to which an entity's debt could be repaid by liquidating its assets. Other measures can also be useful. One such measure is **times interest earned**, which provides an indication of an entity's ability to meet interest payments as they become due. It is calculated by dividing earnings before interest and tax (commonly abbreviated to EBIT) by interest expense (finance costs). This ratio uses EBIT as this represents the amount available to cover interest. Some companies report the EBIT figure as a line item in the statement of profit or loss. If this figure is not provided, it can be calculated using the profit before income tax and adding back interest expense to approximate EBIT. Note that although there are some variations to this calculation, most companies generally use either interest expense or net finance costs as the denominator.

It is not uncommon for banks and other financial institutions to include terms in the loan agreement that restrict the amount of liabilities. Borrowing restrictions are often expressed in terms of the ratio of debt to total assets. For instance, an entity might be subject to a maximum debt to total assets ratio of 65%. So, if an entity had already borrowed to the maximum, any further expansion would need to be financed by additional equity.

We can use the information in figure 9.12 (pp. 559–60) and the additional information below to calculate solvency ratios for Telstra Group.

($ in millions)	2013	2012
Profit before income tax	5 482	4 934
Interest expense (finance costs)	1 128	1 022

The debt to total assets ratios and times interest earned for Telstra Group are shown in figure 9.14.

Ratio	Formula	Telstra Group	
($ in thousands)		2013	2012
Debt to total assets ratio	$\frac{\text{Total liabilities}}{\text{Total assets}}$	$\frac{\$25\,652}{\$38\,527} = 0.67{:}1$	$\frac{\$27\,836}{\$39\,525} = 0.70{:}1$
Times interest earned	$\frac{\text{Profit before income tax} + \text{Interest expense}}{\text{Interest expense}}$	$\frac{(\$5\,482 + \$1\,128)}{\$1\,128} = 5.86$ times	$\frac{(\$4\,934 + \$\,1022)}{\$\,1022} = 5.83$ times

Figure 9.14 Solvency measure

The debt to total assets ratio decreased slightly from 0.70:1 to 0.67:1 in 2013. The 2013 ratio of 0.67:1 indicates that 67 cents of each $1 invested in assets by Telstra was provided by its creditors. The higher the ratio, the lower the equity 'buffer' available to creditors if the company becomes insolvent, i.e. the less chance the creditors might have their debts repaid out of shareholders' funds if the company goes into liquidation. Therefore from the creditors' point of view, a high ratio of debt to total assets is undesirable. If we compare Telstra's debt to total assets ratio of 0.67:1 to that of Fantastic Holdings' ratio of 0.41:1 and Nick Scali's ratio of 0.51:1 in 2013 as calculated in chapter 1, we can see that Telstra's reliance on debt finance appears to be significantly higher than these companies and higher than many other Australian companies. However, the adequacy of this ratio is often judged in light of the entity's profits and cash flows. Generally, entities with relatively stable profit can support higher debt to total assets ratios than can cyclical entities with widely fluctuating profits, such as many high-tech companies. Telstra's times interest earned increased slightly from 5.83 to 5.86 times in 2013. Creditors generally prefer the times interest earned exceeding 3.0 times and Telstra's interest coverage is well above this benchmark.

Once again, it is important to note that what is considered to be *acceptable* solvency ratios varies from industry to industry, so it would be helpful to compare Telstra's ratios with those of other similar companies. This is illustrated in the next section of this chapter.

Using the decision-making toolkit below, management along with other users such as potential investors, shareholders and creditors can use this information to determine an entity's ability to pay back debt. One measure of solvency is the debt to total assets ratio, which measures total liabilities as a percentage of total assets. A lower debt ratio is preferable as it implies a more stable business as less debt finance is used. Each industry has its own benchmarks for debt; however, a debt to total assets ratio of 50% is considered reasonable. Another indicator of solvency is the times interest earned ratio, which indicates how many times an entity can pay its interest expense with its profit before tax. It is preferable that this ratio should exceed 3 times as a higher interest coverage indicates that the entity has a greater capacity to pay its interest expense as it falls due.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Can the entity meet its obligations in the long term?	Total liabilities, total assets	Debt to total assets ratio $= \dfrac{\text{Total liabilities}}{\text{Total assets}}$	This ratio indicates the extent to which the entity's assets are financed by creditors. A low debt to total assets ratio is preferable.
	Interest expense, profit before income tax	Times interest earned $= \dfrac{\text{Profit before income tax + Interest expense}}{\text{Interest expense}}$	This ratio should exceed 3 times — a higher interest coverage implies a greater capacity to meet interest payments.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What does the quick ratio measure, and how is it calculated?
2. What is meant by solvency?
3. What information does the times interest earned ratio provide and how is it calculated?

USING THE DECISION-MAKING TOOLKIT

Telecom Corporation of New Zealand Ltd operates in the telecommunications industry and has similar operations to Telstra Group. Telecom Corporation of New Zealand had profit before income tax of $341 million for 2013 and $423 million for 2012. Interest expense was $74 million in 2013 and $106 million in 2012. Telecom Corporation of New Zealand's statement of financial position as at 30 June 2013 with comparative figures for 2012 is provided overleaf. Additional disclosures in the notes indicate the short-term receivables were $369 million in 2013 and $422 million in 2012.

REQUIRED

(a) Evaluate Telecom New Zealand's liquidity using appropriate measures and compare with those of Telstra Group reported in figure 9.13 (p. 560).

(b) Evaluate Telecom New Zealand's solvency using appropriate ratios and compare with those of Telstra Group reported in figure 9.14 (p. 562).

TELECOM NEW ZEALAND
Statement of financial position
as at 30 June 2013 and 2012

($ in NZ millions)	Notes	2013 NZ$m	2012 NZ$m
Current assets			
Cash		118	185
Short-term derivative assets	12	5	1
Receivables and prepayments	13	658	684
Taxation recoverable		4	53
Inventories	14	53	49
Total current assets		838	972
Non-current assets			
Long-term investments	15	77	57
Long-term receivables and prepayments	13	159	222
Long-term derivative assets	12	1	1
Intagible assets	16	1 071	900
Property, plant and equipment	17	1 347	1 515
Total non-current assets		2 655	2 695
Total assets		**3 493**	**3 667**
Current liabilities			
Accounts payable and accruals	18	819	775
Taxation payable		6	6
Short-term derivative liabilities	12	1	3
Short-term provisions	19	35	13
Debt due within one year	20	225	407
Total current liabilities		1 086	1 204
Non-current liabilities			
Deferred tax liabilities	21	146	159
Long-term derivative liabilities	12	22	23
Long-term payables and accruals	18	30	30
Long-term provisions	19	45	20
Long-term debt	22	751	605
Total non-current liabilities		994	837
Total liabilities		**2 080**	**2 041**
Equity			
Share capital	23	899	990
Reserves	23	(504)	(495)
Retained earnings		1 012	1 126
Total equity attributable to equity holders of the company		1 407	1 621
Non-controlling interests		6	5
Total equity		1 413	1 626
Total liabilities and equity		**3 493**	**3 667**

SOLUTION

(a) Telecom New Zealand's liquidity can be measured using the working capital, current ratio and quick ratio.

Ratio	Formula	Telecom New Zealand		Telstra Group
($ in NZ millions)		2013	2012	2013
Working capital	Current assets − Current liabilities	$838 − $1 086 = −$248	$972 − $1 204 = −$232	$7 903 − $7 522 = $381
Current ratio	$\frac{\text{Current assets}}{\text{Current liabilities}}$	$\frac{\$838}{\$1\,086} = 0.77{:}1$	$\frac{\$972}{\$1\,204} = 0.81{:}1$	$\frac{\$7\,903}{\$7\,522} = 1.05{:}1$
Quick ratio	$\frac{\text{Cash + Marketable securities + Net receivables}}{\text{Current liabilities}}$	$\frac{(\$118 + \$5 + \$369)}{\$1\,086} = 0.45{:}1$	$\frac{(\$185 + 1 + \$422)}{\$1\,204} = 0.50{:}1$	$\frac{(\$2\,479 + \$4\,557)}{\$7\,522}$ $= 0.94{:}1$

Telecom New Zealand's working capital was negative in both years and by 2013 this amount had decreased a further $16 million. In contrast, Telstra recorded a positive working capital of $381 million for 2013 and a negative $734 million in 2012. Telecom New Zealand's current ratio, which was less than 1:1 over the same period, indicates that its current liabilities are greater than its current assets. In 2013, it had 77 cents of current assets to cover each $1 of current liabilities, which is slightly lower than the 81 cents in 2012. Both figures are substantially lower than Telstra's current ratio of $1.05 in 2013. A similar trend can be seen in the quick ratio. In 2013, Telecom New Zealand's quick ratio declined from 45 cents of quick assets to cover each $1 of current liabilities, which is slightly lower than the 50 cents in 2012. Both figures are substantially lower than Telstra's quick ratio of 94 cents in 2013. A comparison of each entity's working capital, current ratio and quick ratio indicates that Telstra's liquidity is considerably better than Telecom New Zealand's across each of these measures. The decline in Telecom New Zealand's liquidity is due to the decrease in current and quick assets, which is proportionately larger than decrease in current liabilities.

(b) Telecom New Zealand's solvency can be measured with the debt to total assets ratio and times interest earned.

Ratio	Formula	Telecom New Zealand		Telstra Group
($ in NZ millions)		2013	2012	2013
Debt to total assets ratio	$\frac{\text{Total liabilities}}{\text{Total assets}}$	$\frac{\$2\,080}{\$3\,493} = 0.60{:}1$	$\frac{\$2\,041}{\$3\,667} = 0.56{:}1$	$\frac{\$25\,652}{\$38\,527} = 0.67{:}1$
Times interest earned	$\frac{\text{Profit before income tax + Interest expense}}{\text{Interest expense}}$	$\frac{(\$341 + \$74)}{\$74}$ $= 5.61$ times	$\frac{(\$423 + \$106)}{\$106}$ $= 4.99$ times	$\frac{(\$5\,482 + \$1\,128)}{\$1\,128}$ $= 5.86$ times

Telecom New Zealand's reliance on debt increased slightly over the 2-year period. In 2013, the debt to total assets ratio shows that it used 60 cents of debt finance for each $1 invested in assets, which is higher than the 56 cents in 2012. Telstra's debt to total assets ratio of 67 cents in 2013 suggests that it relies slightly more heavily on debt financing than Telecom New Zealand. The higher the ratio, the lower the equity 'buffer' available to creditors if the company becomes insolvent. Despite the slightly higher reliance on debt finance, Telecom New Zealand's times interest earned improved considerably from 4.99 times in 2012 to 5.61 times in 2013, which is similar to Telstra's coverage of 5.86 times. This was mainly attributed to the substantial decrease in interest expense which offset the decrease in profit before tax. Creditors prefer times interest earned exceeding 3.0 times — both Telecom New Zealand and Telstra are well above this benchmark.

SUMMARY OF LEARNING OBJECTIVES

1 Explain the differences between current and non-current liabilities.
A current liability is an obligation that can reasonably be expected to be paid within 1 year or the normal operating cycle, whichever is the longer. A non-current liability is an obligation that is expected to be paid after 1 year or outside the normal operating cycle.

2 Identify common types of current liabilities and explain how to account for them.
The common types of current liabilities include notes payable, accounts payable, payroll and payroll deductions payable, and revenue received in advance. When a note is interest-bearing, the amount of cash received upon the issue of the note is generally equal to the face value of the note, and interest expense is accrued over the life of the note. At maturity, the amount paid is equal to the face value of the note plus accrued interest. Employee PAYG withheld tax and other payroll deductions are credited to appropriate liability accounts when recording the payroll. Revenues received in advance are initially recorded in a liability account. They are transferred from the liability account to revenue when the recognition criteria for revenue are satisfied.

3 Identify common types of non-current liabilities, such as debentures and unsecured notes, and explain how to account for them.
When unsecured notes and debentures are issued at face value, cash is debited and unsecured notes or debentures payable is credited for the face value of the issue. Interest payments are recognised as an expense. Interest is accrued if payment does not coincide with the end of the reporting period. When unsecured notes or debentures are redeemed at maturity, cash is credited and unsecured notes or debentures payable is debited for the face value of the issue. When unsecured notes or debentures are redeemed before maturity, it is necessary to (a) eliminate the carrying amount of the liability at the redemption date, (b) record the cash paid, and (c) recognise the gain or loss on redemption for the difference between the carrying amount of the unsecured notes or debentures and the amount paid to redeem them.

4 Prepare journal entries for loans payable by instalment and distinguish between current and non-current components of long-term debt.
When accounting for loans payable by instalment, each payment must be allocated between interest expense and the reduction in the liability (i.e. in the principal of the loan). A mortgage schedule may be prepared to facilitate calculation of the interest and principal component of each payment. The current component of the liability can be identified from the schedule as the sum of amounts allocated to the reduction of the principal during the first year (or operating cycle) after the end of the reporting period.

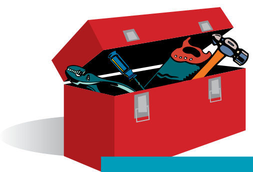
5 Identify the advantages of leasing and explain the difference between an operating lease and a finance lease.
A lease is an agreement where the lessor conveys to the lessee the right to use an asset for an agreed period of time in return for a payment or a series of payments. The advantages of leasing for the lessee include access to a wide variety of non-current assets, tax deductibility of lease payments, the risk of obsolescence of the non-current asset remains with the lessor, lease contracts may be less restrictive than many debt agreements, and some lease liabilities are not required to be reported on the statement of financial position. An operating lease is where the *lessor* effectively retains the risks and rewards of owning an asset and, consequently, the leased asset is reported in the statement of financial position of the lessor. A finance lease is where the substantial *risks and rewards of ownership* of the asset are effectively transferred to the lessee even though the *ownership remains with* the lessor. Consequently, the leased asset is reported in the statement of financial position of the lessee.

6 Complete basic journal entries for accounting for leases and explain how to report leases.
Assets that are acquired under operating lease agreements are recorded in the accounts of both the lessee and the lessor when the lease payment is due to be paid or is paid to the lessor by the lessee. The lessee records the lease expense and cash payment (or liability) and the lessor records the cash received (or receivable) and the lease revenue. Accounting for finance leases is more complex than operating leases and is covered in more depth in the later years of accounting studies. Simply put, at the beginning of the lease, the lessee is required to recognise both the asset and the liability for the leased assets at amounts equal to their fair value or, if lower, the present value of the minimum lease payments. Further, the lessee is required to record amortisation on the leased asset as well as the lease payments. The lessor records the lease receivable and the receipt of payments from the lessee.

7 Explain the differences between provisions, contingencies and other types of liabilities.
Provisions are liabilities for which the amount of the future sacrifice is uncertain. Whether a liability is a provision or some other type of liability (e.g. borrowings, trade creditors, accruals) depends upon the extent of uncertainty associated with

the amount of the future sacrifice. Liabilities are classified as contingent if they are conditional upon an uncertain future event outside the control of the entity, or if they do not satisfy either or both of the recognition criteria for liabilities.

8 Explain how to report contingent liabilities. Contingent liabilities are not recognised because they are not probable or are unable to be measured reliably, or both. Information about contingent liabilities must be disclosed in the notes to the financial statements. The required disclosures include a description of their nature, an indication of the uncertainties associated with the amount or timing of any future sacrifice, the estimated financial effect (if practical) and the existence of any possible recovery of the future sacrifice.



9 Prepare entries to record provisions for warranties. Unexpired warranties at the end of the reporting period are a liability. The estimated cost of servicing unexpired warranty contracts at the end of the reporting period is reported as a warranty provision. Any existing balance in the warranty provision account is increased (or decreased) so that the amount of the provision equals the estimated cost of servicing warranties that have not expired at the end of reporting period. To increase the warranty provision account, warranty expense is debited and warranty provision is credited. Subsequent expenditure in servicing warranty claims is debited to the warranty provision account.

10 Evaluate an entity's liquidity and solvency. The liquidity of an entity can be analysed using working capital, the current ratio and the quick ratio. The long-term solvency of an entity may be analysed by calculating the debt to total assets ratio and times interest earned. The relevance of these liquidity and solvency ratios in the decision-making process is summarised in the decision-making toolkit below.

DECISION-MAKING TOOLKIT — A SUMMARY

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Can the entity meet its current obligations?	Cash, accounts receivable, marketable securities, other current assets, current liabilities	Working capital = Current assets − Current liabilities	A positive working capital indicates that current assets are available to meet current liabilities.
		$\text{Current ratio} = \dfrac{\text{Current assets}}{\text{Current liabilities}}$	A current ratio above 1:1 means current assets exceed liabilities — a higher current ratio indicates a higher level of liquidity. Ratio should be compared with others in the same industry.
		$\text{Quick ratio} = \dfrac{\text{Cash} + \text{Marketable securities} + \text{Net receivable}}{\text{Current liabilities}}$	The quick ratio focuses on assets that are quickly converted into cash. A higher quick ratio indicates a higher level of short-term liquidity. The ratio should be compared with others in the same industry.
Can the entity meet its obligations in the long term?	Total liabilities, total assets	$\text{Debt to total assets ratio} = \dfrac{\text{Total liabilities}}{\text{Total assets}}$	This ratio indicates the extent to which the entity's assets are financed by creditors. A low debt to total assets ratio is preferable.
	Interest expense, profit before income tax	$\text{Times interest earned} = \dfrac{\text{Profit before income tax} + \text{Interest expense}}{\text{Interest expense}}$	This ratio should exceed 3 times — a higher interest coverage implies a greater capacity to meet interest payments.

GLOSSARY

Borrowing costs Costs of borrowing money (p. 537).

Contingent liabilities Liabilities for which the amount of the future sacrifices (obligations) are dependent upon a future event (such as a law suit) or are so uncertain that their amount cannot be reliably measured (p. 556).

Contract interest rate Rate used to determine the amount of interest the borrower pays and the investor receives (p. 542).

Current liability An obligation that can reasonably be expected to be paid within 1 year or the operating cycle (p. 536).

Debentures Notes issued with security over some assets of the issuer (p. 541).

Discounting A reduction in value of a future amount to its present value reflecting the time value of money (p. 542).

Face value Amount of principal due at the maturity date of the note (p. 537).

Finance lease Where the substantial risks and rewards of ownership of an asset are effectively transferred to the lessee even though the ownership remains with the lessor. Consequently, finance leases are reported in the statement of financial position of the lessee (p. 551).

Implicit interest rate The discount rate that results in the aggregate present value of the leased asset being equal to the fair value of the leased asset of the lessor at the inception of the lease (p. 553).

Incremental borrowing rate The rate of interest the lessee would have to pay to lease a similar asset or the interest rate that would be incurred by the lessee to borrow funds and purchase the asset outright (p. 553).

Interest Cost of borrowing money (p. 537).

Issue price Amount paid by the investor on issue of a debenture or unsecured note (p. 542).

Lease An agreement where the lessor conveys to the lessee the right to use an asset for an agreed period of time in return for a payment or a series of payments (p. 551).

Lessee The entity which has leased an asset from the lessor (p. 551).

Lessor The entity which has leased an asset to the lessee (p. 551).

Market interest rate The rate investors demand for lending funds to the entity (p. 542).

Market value The amount obtainable from the sale, or payable on the acquisition, of a financial instrument in an active market (p. 542).

Mortgage A loan secured by a charge over property (p. 545).

Non-current liability An obligation that is not classified as a current liability, i.e. an obligation expected to be paid after 1 year or outside the normal operating cycle (p. 541).

Notes payable A liability evidenced by notes (p. 537).

Operating lease Where the lessor effectively retains the risks and rewards of owning an asset. Consequently, operating leases are reported in the statement of financial position of the lessor (p. 551).

Present value The value today of an amount to be paid or received at some date in the future after taking into account current interest rates (p. 542).

Provision A liability for which the amount is uncertain but able to be measured reliably by estimation (p. 555).

Quick ratio A measure of an entity's immediate short-term liquidity, calculated by dividing the sum of cash, marketable securities and net receivables by current liabilities; also called the acid test (p. 559).

Times interest earned A measure of solvency calculated by dividing profit before income tax plus interest expense by interest expense (p. 562).

Unsecured notes Notes issued against the general credit of the issuer, i.e. not subject to any secured charge over assets (p. 541).

Warranty An obligation of the supplier of goods and services to the purchaser that the product will be functional or that work performed will remain satisfactory for a stated period after the sale of goods or the provision of services (p. 556).

DEMONSTRATION PROBLEM

On 1 July 2015, Birds-Aflight Pet Store Ltd entered into a mortgage loan. The amount borrowed was $449 550, with $10 000 repayable at the end of each month over a 5-year period. The interest rate was 12% per annum.

REQUIRED

(a) Prepare a mortgage schedule for the loan.
(b) Use the information in the schedule to prepare journal entries to record mortgage payments on 31 July 2015 and 31 August 2015.
(c) Assuming Birds-Aflight Pet Store has a year-end of 30 June, calculate the amount of the liability as at 30 June 2016 that should be reported as current, and the amount that should be reported as non-current.

SOLUTION TO DEMONSTRATION PROBLEM

(a) Mortgage schedule

Month ending	Beginning balance $	Payment $	Interest $	Reduction of principal $	Closing balance $
31.07.15	$449 550	$10 000	$4 496	$5 504	$444 046
31.08.15	444 046	10 000	4 440	5 560	438 486
30.09.15	438 486	10 000	4 385	5 615	432 871
31.10.15	432 871	10 000	4 329	5 671	427 200
30.11.15	427 200	10 000	4 272	5 728	421 472
31.12.15	421 472	10 000	4 215	5 785	415 687
31.01.16	415 687	10 000	4 157	5 843	409 844
28.02.16	409 844	10 000	4 098	5 902	403 942
31.03.16	403 942	10 000	4 039	5 961	397 981
30.04.16	397 981	10 000	3 980	6 020	391 961
31.05.16	391 961	10 000	3 919	6 081	385 880
30.06.16	385 880	10 000	3 859	6 141	379 739
31.07.16	379 739	10 000	3 797	6 203	373 536
31.08.16	373 536	10 000	3 735	6 265	367 271
30.09.16	367 271	10 000	3 673	6 327	360 944
31.10.16	360 944	10 000	3 609	6 391	354 553
30.11.16	354 553	10 000	3 546	6 454	348 099
31.12.16	348 099	10 000	3 481	6 519	341 580
31.01.17	341 580	10 000	3 416	6 584	334 996
28.02.17	334 996	10 000	3 350	6 650	328 346
31.03.17	328 346	10 000	3 284	6 716	321 630
30.04.17	321 630	10 000	3 216	6 784	314 846
31.05.17	314 846	10 000	3 148	6 852	307 994
30.06.17	307 994	10 000	3 080	6 920	301 074
31.07.17	301 074	10 000	3 011	6 989	294 085
31.08.17	294 085	10 000	2 941	7 059	287 026
30.09.17	287 026	10 000	2 870	7 130	279 896
31.10.17	279 896	10 000	2 799	7 201	272 695
30.11.17	272 695	10 000	2 727	7 273	265 422
31.12.17	265 422	10 000	2 654	7 346	258 076
31.01.18	258 076	10 000	2 581	7 419	250 657
29.02.18	250 657	10 000	2 507	7 493	243 164
31.03.18	243 164	10 000	2 432	7 568	235 596
30.04.18	235 596	10 000	2 356	7 644	227 952
31.05.18	227 952	10 000	2 280	7 720	220 232
30.06.18	220 232	10 000	2 202	7 798	212 434
31.07.18	212 434	10 000	2 124	7 876	204 558
31.08.18	204 558	10 000	2 046	7 954	196 604
30.09.18	196 604	10 000	1 966	8 034	188 570
31.10.18	188 570	10 000	1 886	8 114	180 456
30.11.18	180 456	10 000	1 804	8 196	172 260
31.12.18	172 260	10 000	1 723	8 277	163 983
31.01.19	163 983	10 000	1 640	8 360	155 623
28.02.19	155 623	10 000	1 556	8 444	147 179
31.03.19	147 179	10 000	1 472	8 528	138 651
30.04.19	138 651	10 000	1 386	8 614	130 037
31.05.19	130 037	10 000	1 300	8 700	121 337
30.06.19	121 337	10 000	1 213	8 787	112 550

(continued)

Month ending	Beginning balance $	Payment $	Interest $	Reduction of principal $	Closing balance $
31.07.19	$112 550	$10 000	$1 125	$8 875	$103 675
31.08.19	103 675	10 000	1 037	8 963	94 712
30.09.19	94 712	10 000	947	9 053	85 659
31.10.19	85 659	10 000	857	9 143	76 516
30.11.19	76 516	10 000	765	9 235	67 281
31.12.19	67 281	10 000	673	9 327	57 954
31.01.20	57 954	10 000	580	9 420	48 534
28.02.20	48 534	10 000	485	9 515	39 019
31.03.20	39 019	10 000	390	9 610	29 409
30.04.20	29 409	10 000	294	9 706	19 703
31.05.20	19 703	10 000	197	9 803	9 900
30.06.20	9 900	10 000	100	9 900	0

(b) Journal entries

2015			
July 31	Interest expense	4 496	
	Loan payable	5 504	
	Cash at bank		10 000
	(To record the loan payment for July)		
2015			
Aug. 31	Interest expense	4 440	
	Loan payable	5 560	
	Cash at bank		10 000
	(To record the loan payment for August)		

(c) Current and non-current portions of mortgage liability at 30.06.16:

	$ 6 203
	6 265
	6 327
	6 391
	6 454
	6 519
	6 584
	6 650
	6 716
	6 784
	6 852
	6 920
Current portion of mortgage liability at 30.06.16	**$ 78 665**
Total mortgage liability at 30.06.16	$ 379 739
Less: Current portion of mortgage loan	78 665
Non-current portion of mortgage liability at 30.06.16	**$ 301 074**

SELF-STUDY QUESTIONS *Answers are at the end of the chapter.*

(LO1) 1. To be classified as a current liability, a debt must be expected to be paid:
(a) within 1 year.
(b) within the operating cycle.
(c) within 2 years.
(d) Either (a) or (b).

(LO1) 2. Which of the following is *not* a current liability?
(a) Allowance for doubtful debts.
(b) Revenue received in advance.
(c) Current portion of long-term debt.
(d) Payroll deduction not yet remitted.

(LO10) 3. Which of the following would *not* be included in the numerator of the quick ratio?
(a) Inventory.
(b) Cash.
(c) Short-term investments.
(d) Accounts receivable.

(LO2) 4. Amounts deducted from employees' wages but not yet paid to a third party are recognised as:
(a) an asset.
(b) an expense.
(c) a liability.
(d) none of the above; they are not recognised.

(LO3) 5. An obligation for long service leave payable 6 years from now is recognised as:
(a) a contingent liability.
(b) a non-current provision.
(c) a current provision.
(d) none of the above; it is not recognised.

(LO10) 6. Which of the following is *not* a measure of liquidity?
(a) Debt to total assets ratio.
(b) Working capital.
(c) Current ratio.
(d) Quick ratio.

(LO3) 7. Karson Ltd issues 10-year unsecured notes with a maturity value of \$200 000. If the notes are issued at a premium, this indicates that:
(a) the face value exceeds the amount received.
(b) the issue price exceeds the face value.
(c) the contractual interest rate and the market interest rate are the same.
(d) no relationship exists between the contractual and market interest rates.

(LO3) 8. Gester Ltd redeems its \$100 000 face value debentures at 105 on 31 January, following the payment of half-yearly interest. The carrying amount of the debentures at the redemption date is \$100 000. The entry to record the redemption will include a:
(a) credit of \$5000 to Gain on Redemption of Debentures.
(b) debit of \$5000 to Loss on Redemption of Debentures.
(c) credit of \$100 000 to Cash.
(d) debit of \$105 000 to Debentures Payable.

(LO10) 9. In a recent year Kennedy Ltd had profit after tax of \$150 000, interest expense of \$30 000, and tax expense of \$20 000. What was Kennedy Ltd's times interest earned for the year?
(a) 5.00. (c) 6.67.
(b) 4.00. (d) 7.50.

(LO10) 10. Adelaide Boats Ltd had current liabilities of \$5 million, non-current liabilities of \$10 million and total assets of \$20 million. What is Adelaide Boats Ltd's debt to total assets ratio?
(a) 1.3:1. (c) 0.75:1.
(b) 0.5:1. (d) 0.25:1.

(LO8) 11. Which of the following is *true* with regard to contingent liabilities?
(a) Can be measured reliably.
(b) Are recognised in the statement of financial position.
(c) Are disclosed in the notes to the financial statements.
(d) Are based on a past transaction or event.

(LO5) 12. Which of the following are considered to be advantages of operating leases for the lessee?
(a) Access to a wide variety of non-current assets.
(b) Tax deductibility of lease payments.
(c) The risk of obsolescence of the non-current asset remains with the lessor.
(d) All of the above.

(LO5) 13. Which of the following is *not* true in relation to leases?
(a) An operating lease is where the *lessee* effectively retains the risks and rewards of owning an asset.
(b) An operating lease is where the *lessor* effectively retains the risks and rewards of owning an asset.
(c) A finance lease is where the substantial risks and rewards of ownership of the asset are *not* transferred to the lessee.
(d) A finance lease is where the ownership is transferred to the *lessee*.

On 1 December, Braco Bros Pty Ltd (lessee) signed an 18-month operating lease agreement with U Bute Boats Ltd (lessor) to lease a boat for $100 per month. Payments are due every 3 months on the last day of the month. Both parties have a December year-end. Using this information, answer questions 14 and 15.

(LO6) 14. The entry to account for the lease payment accrual at the end of the period in the records of the lessee would be:

(a) No accrual required, the transaction would be recorded on the date the lease payment was made.

(b)

June 30	Lease Expense	100	
	Lease Payable		100

(c)

Dec. 31	Lease Expense	100	
	Lease Payable		100

(d)

Dec. 31	Lease Expense	100	
	Cash		100

(LO6) 15. Assuming the required lease accrual was made at 31 December, the payment of the first lease payment would be recorded as follows in the books of the lessee:

(a)

Feb. 28	Lease Payable	100	
	Lease Expense	200	
	Cash		300

(b)

Feb. 28	Lease Payable	200	
	Lease Expense	100	
	Cash		300

(c)

Feb. 28	Lease Expense	200	
	Cash		200

(d)

Feb. 28	Lease Expense	300	
	Lease Payable		300

QUESTIONS

1. Simon Harris believes a current liability is a debt that can be expected to be paid in 1 year. Is Simon correct? Explain.
2. Wellington University sold 5000 season football tickets at $50 each for its 5-game home schedule. What entries should be made (a) when the tickets are sold and (b) after each game?
3. Sandra Leung and Nikki Young are discussing how the market price of an unsecured note is determined. Nikki believes that the market price of a note is solely a function of the amount of the principal payment at the end of the term of a note. Is she right? Discuss.
4. Northumbria Ltd issued a $50 000, 8%, 3-month note on 1 October. Interest is payable on 1 January. How much interest should be accrued as at 31 December in relation to the note?
5. Explain the difference between a provision and other types of liabilities recognised on the statement of financial position.
6. Explain the difference between a provision and a contingent liability.
7. Ms Dwyer, the manager of Dwyer's Dryers, thinks that warranty liabilities should be recognised only when the customer makes a warranty claim. Is this consistent with generally accepted accounting principles?
8. What are the main features of a mortgage loan? How should a mortgage liability be reported on the statement of financial position?
9. Gotham Ltd has a current ratio of 1.25:1. Bruce Wayne has always been told that an entity's current ratio should exceed 2:0. Gotham Ltd argues that its ratio is low because it has a minimal amount of inventory on hand so as to reduce operating costs. What other measures might Bruce check to evaluate liquidity?
10. Explain the difference between a finance lease and an operating lease.

BRIEF EXERCISES

Identify whether obligations are current liabilities. (LO1,4)

BE9.1 Alvin Ltd has these obligations at 31 December: (a) a note payable for $50 000 due in 2 years, (b) a 10-year mortgage payable of $100 000 payable in ten $10 000 annual payments, (c) interest payable of $5000 on the mortgage, and (d) accounts payable of $60 000. For each obligation, indicate whether it should be wholly or partly classified as a current liability, or wholly classified as a non-current liability. Alvin Ltd has a 1-year operating cycle.

BE9.2 Admiralty Pty Ltd borrows $160 000 on 1 July from the bank by signing a $160 000, 10%, 1-year note payable. Prepare the journal entries to record (a) the proceeds of the note and (b) accrued interest at 31 December, assuming adjusting entries are made only at the end of the year (31 December).

Prepare entries for an interest-bearing note payable. (LO2)

BE9.3 Using the mortgage schedule in figure 9.6 (p. 548), prepare the journal entry to record the mortgage payment on 31 May 2016.

Prepare journal entries for loans payable by instalment. (LO4)

BE9.4 Using the mortgage schedule in figure 9.6 (p. 548), prepare the journal entry to record the mortgage payment on 30 September 2016.

Prepare journal entries for loans payable by instalment. (LO4)

BE9.5 Trish's Toasters Pty Ltd sells toasters with a 1-year warranty. At 30 June, it is estimated that the liability for unexpired warranties is $35 000. The Warranty Provision account has a debit balance of $1000. Prepare the adjusting entry to record the warranty provision at 30 June.

Prepare entries to record provisions for warranties. (LO9)

BE9.6 Mac's Auto Repairs Pty Ltd provides a 3-month warranty for repairs. Mac's Auto Repairs estimates its warranty liabilities as 4% of the service revenue for the preceding quarter. For the 3 months from April to June, Mac's Auto Repairs' service revenue was $250 000. The Warranty Provision account has a credit balance of $700. Prepare the adjusting entry to record the warranty provision at 30 June.

Prepare entries to record provisions for warranties. (LO9)

BE9.7 Eccencia Ltd issued 2000 8%, 5-year, $1000 debentures dated 1 January 2017 at 100.
(a) Prepare the journal entry to record the issue of these debentures on 1 January 2017.
(b) Prepare the journal entry to record the first interest payment on 1 July 2017 (interest payable half-yearly), assuming no previous accrual of interest.
(c) Prepare the adjusting journal entry on 31 December 2017, to record interest expense.

Prepare journal entries for debentures issued at face value. (LO3)

BE9.8 David Jones Ltd's 2013 financial statements contain the following selected data (in $ thousands).

Current assets	$ 294 705
Total assets	1 237 785
Current liabilities	301 830
Total liabilities	436 689
Cash	13 877
Short-term financial assets	941
Accounts receivable	19 092

Analyse liquidity and solvency. (LO10)

Required
Calculate these values for David Jones Ltd:
(a) Working capital.
(b) Current ratio.
(c) Quick ratio.
(d) Debt to total assets ratio.

BE9.9 On 1 June, Fresh Flowers Ltd (lessee) signed a 2-year operating lease agreement with Trucks R Us Pty Ltd (lessor) to lease a delivery truck for $100 per month. Payments are due every 3 months on the last day of the month. Trucks R Us Pty Ltd has a June year-end. In the books of Trucks R Us Pty Ltd, prepare the journal entries to record the accrued lease revenue at year-end and the receipt of the first lease payment.

Prepare journal entries for leases. (LO10)

EXERCISES

E9.1 Ellie and Brad Nowland borrowed $12 000 on an 8-month, 10% note from a financial institution to open their business, EB's Café. The money was borrowed on 1 May 2016.

Prepare entries for interest-bearing notes. (LO2)

Required
(a) Prepare the entry to record the receipt of the funds from the loan.
(b) Prepare the entry to accrue the interest on 31 May.

(c) Assuming adjusting entries are made at the end of each month, what is the balance in the interest payable account at 31 December 2016.
(d) Prepare the entry required on 1 January 2017 when the loan is paid back.

Journalise payroll entries. (LO2)

E9.2 During the month of June, Transfield Pty Ltd's employees earned wages of $105 000. Payroll deductions related to these wages were $6750 for General Health Fund, $11 250 for PAYG withheld tax, $9450 for superannuation, and $2000 for union fees.

Required
Prepare the necessary 30 June journal entry to record payroll. Assume that wages earned during June will be paid during July.

Prepare journal entries for issue of notes and payment and accrual of interest. (LO3)

E9.3 On 1 January Fairy Wren Ltd issued $100 000, 10%, 10-year unsecured notes at face value. Interest is payable half-yearly on 1 July and 1 January. Interest is not accrued on 30 June. Fairy Wren Ltd's year-end is 31 December.

Required
Prepare journal entries to record these events:
(a) the issue of the unsecured notes.
(b) the payment of interest on 1 July.
(c) the accrual of interest on 31 December.

Prepare journal entries for redemption of debentures. (LO3)

E9.4 The situations presented below are independent.

Required
For each situation prepare the appropriate journal entry for the redemption of the debentures.
(a) Whitewater Rafting Ltd redeemed $130 000 face value, 12% debentures on 30 June 2016 at 102. The carrying amount of the debentures at the redemption date was $130 000. The debentures pay half-yearly interest, and the interest payment due on 30 June 2016 has been made and recorded.
(b) Coopers Ltd redeemed $180 000 face value, 12.5% debentures on 30 June 2017 at 98. The carrying amount of the debentures at the redemption date was $180 000. The debentures pay half-yearly interest, and the interest payment due on 30 June 2017 has been made and recorded.

Record payment and identify components of a loan payable by instalment. (LO4)

E9.5 Use the information in figure 9.6 (p. 548) to complete this exercise.

Required
Prepare a journal entry to record the mortgage payment on 30 June 2016.
(a) What is the carrying amount of the mortgage liability at that date, after the payment?
(b) What portion of the mortgage liability should be classified as a current liability?
(c) What portion of the mortgage liability should be classified as a non-current liability?
(d) Why is it important to classify liabilities as current and non-current? Explain how this is helpful for decision making. Provide examples.

Record payment and identify components of a loan payable by instalment. (LO4)

E9.6 Use the mortgage schedule in the demonstration problem (pp. 569–70) to complete this exercise.

Required
(a) Prepare a journal entry to record the mortgage payment on 30 June 2018.
(b) What is the carrying amount of the mortgage liability at that date, after the payment?
(c) How much of the mortgage liability should be classified as a current liability?
(d) How much of the mortgage liability should be classified as a non-current liability?

Categorise liabilities as provisions, contingent liabilities or other. (LO7)

E9.7 Liabilities can be provisions, contingent liabilities or other liabilities.

Required
Categorise each of the following liabilities as (1) provisions, (2) contingent liabilities, or (3) other liabilities.
(a) An unquantifiable liability for restoring a polluted river
(b) Accounts payable
(c) Wages payable
(d) Obligation for unexpired warranty costs

(e) Trade creditors
(f) Obligations for employees' long service leave
(g) Accrued interest liability
(h) Mortgage loan
(i) Guarantee for another's loan, which will be payable if the other party defaults

Prepare entries to record provisions for warranties. (LO8)

E9.8 Olden Motor Vehicles Ltd offers a 12-month warranty for the sale of used motor vehicles. On 1 July 2015, there was a credit balance of $70 000 in its Warranty Provision account. During the year ended 30 June 2016, Olden Motor Vehicles incurred $65 000 in warranty costs, of which $30 000 was in the form of inventory and $35 000 was for labour costs. At 30 June 2016, Olden Motor Vehicles estimated its liability for unexpired warranty contracts as $75 000.

Required
(a) Prepare journal entries to record warranty claims during the period and end-of-period adjustments to the Warranty Provision account. (*Hint:* Credit Wages Payable for the labour costs.)
(b) Why do entities offer a warranty?

Prepare entries to record provisions for warranties. (LO8)

E9.9 Benson Builder Pty Ltd provides a 12-month warranty on building work performed by the entity. On 1 January 2016, there was a credit balance of $80 000 in its Warranty Provision account. During the year ended 31 December 2016, Benson Builder Pty Ltd incurred $85 000 servicing warranty claims. All of the warranty costs were in the form of labour costs. During the year ended 31 December 2016, Benson Builder Pty Ltd's revenue from building contracts was $7 million. Warranty liabilities are estimated as 1% of building revenue for the previous 12 months.

Required
Prepare journal entries to record warranty claims during the period and end-of-period adjustments to the Warranty Provision account. (*Hint:* Credit Wages Payable for the labour costs.)

Calculate liquidity and solvency ratios. (LO8)

E9.10 Premier Investment Ltd's annual report 2013 contained the following selected data (in $ thousands).

Current assets	$ 422 275	Accounts receivable	$ 6 858
Total assets	1 562 014	Short-term investments	—
Current liabilities	89 588	Interest expense	6 988
Total liabilities	261 648	Profit before tax	245 956
Cash	313 157		

Required
(a) Calculate these values and provide an overview of Premier Investment Ltd's liquidity and solvency.
1. Working capital.
2. Current ratio.
3. Quick ratio.
4. Debt to total assets ratio.
5. Times interest earned.
(b) Explain why it is helpful to compare ratios for individual entities to competitors' ratios or industry averages.

Explain journal entries for leases. (LO6)

E9.11 The following entries were recorded in the accounts of Speedy Delivery Ltd.

June 30	Truck Lease Expense	200	
	Truck Lease Payable—Fast Trucks Ltd		200

Aug. 31	Truck Lease Payable—Fast Trucks Ltd	200	
	Truck Lease Expense	400	
	Cash		600

The following entries were recorded in the accounts of Fast Trucks Ltd.

June 30	Truck Lease Receivable—Speedy Delivery Ltd	200	
	Truck Lease Revenue		200

Aug. 31	Cash	600	
	Truck Lease Receivable—Speedy Delivery Ltd		200
	Truck Lease Revenue		400

Required

For the four journal entries recorded above, explain clearly the nature of each entry.

Prepare journal entries for leases.
(LO6)

E9.12 On 1 June, Sunny Nursery Ltd (lessee) signed a 2-year operating lease agreement with Bunning's Rentals Ltd (lessor) to lease gardening tools for $400 per month. Payments are due every 2 months on the last day of the month. Both the lessee and the lessor have a 30 June year-end.

Required

Record the first lease payment in the books of both the lessee and the lessor.

Prepare journal entries for leases.
(LO6)

E9.13 On 30 May, Grand Design Ltd (lessee) signed a 3-year operating lease agreement with Doby Ltd (lessor) to lease office space for $500 per month. Payments are due every 3 months on the last day of the month. Both the lessee and the lessor have a 30 June year-end.

Required

Record the first three journal entries, i.e. the lease accrual and the first two lease payments in the books of both the lessee and the lessor.

PROBLEM SET A

Journalise and post note transactions; show statement of financial position presentation.
(LO2)

PSA9.1 Cling-on Ltd sells rock-climbing products and also operates an indoor climbing facility for climbing enthusiasts. During the last part of 2016, Cling-on Ltd had the following transactions related to notes payable.

Sept.	1	Issued a $16 000 note to Black Diamond to purchase inventory. The note payable bears interest of 9% and is due in 3 months.
	30	Recorded accrued interest for the Black Diamond note.
Oct.	1	Issued a $10 000, 12%, 3-month note to Montpelier Bank to finance the building of a new climbing area for advanced climbers.
	31	Recorded accrued interest for the Black Diamond note and the Montpelier Bank note.
Nov.	1	Issued an $18 000 note and paid $8000 cash to purchase a vehicle costing $26 000 to transport clients to nearby climbing sites as part of a new series of climbing classes. This note bears interest of 14% and matures in 12 months.
	30	Recorded accrued interest for the Black Diamond note, the Montpelier Bank note, and the vehicle note.
Dec.	1	Paid principal and interest on the Black Diamond note.
	31	Recorded accrued interest for the Montpelier Bank note and the vehicle note.

Required

(a) Prepare journal entries for the listed transactions.
(b) Post the entries to the Notes Payable, Interest Payable and Interest Expense accounts (use T accounts).
(c) Show the statement of financial position presentation of notes payable and interest payable at 31 December.
(d) How much interest expense relating to notes payable did Cling-on Ltd incur during the year? There were no other transactions relating to notes payable in 2016.
(e) Discuss the advantages and disadvantages of purchasing inventory by means of a note payable rather than accounts payable.

PSA9.2 On 1 July 2015, the ledger of Annie Clothing Ltd contained the following liability accounts.

Prepare current liability entries, adjusting entries, and current liability section. (LO2)

Accounts Payable	$78 000
PAYG Withheld Tax Payable	1 750
Revenue Received in Advance	21 000

During July the following selected transactions occurred.

July 14 Provided services for customers who had made advance payments of $7500 (credit Service Revenue).
20 Paid taxation department $1750 for PAYG withheld tax deducted from wages in June 2015.
24 Borrowed $27 000 from South Coast Bank on a 6-month, 12%, $27 000 note.

During July the entity's employees earned wages of $20 000. Payroll deductions related to these wages were $1400 for a health fund, $1900 for PAYG withheld tax, and $1800 for superannuation. Assume that wages earned during July will be paid during August.

Required

(a) Journalise the July transactions.
(b) Journalise the adjusting entries at 31 July for the note payable and for wages expense.
(c) Prepare the current liability section of the statement of financial position at 31 July 2015. Assume no change in accounts payable.
(d) Discuss some of the other costs employers may incur in relation to their employees.

PSA9.3 The following section is taken from D100 Ltd's statement of financial position at 31 December 2016.

Prepare journal entries to record interest payments, and redemption of unsecured notes. (LO3)

Current liabilities	
Interest payable on unsecured notes (for 6 months from 1 July to 31 December)	$ 240 000
Non-current liabilities	
Unsecured notes payable, 12% due 1 January 2020	4 000 000

Interest is payable half-yearly on 1 January and 1 July. Assume no interest is accrued on 30 June.

Required

(Round all calculations to the nearest dollar.)
(a) Journalise the payment of interest on 1 January 2017.
(b) Prepare the entry to pay the interest due on 1 July 2017.
(c) Assume on 1 July 2018, after paying interest, that D100 Ltd redeems half of the unsecured notes at 103. Record the redemption of the notes.
(d) Explain the advantages of debt financing over issuing shares.

PSA9.4 Cameron Ltd issued $1 000 000 of 10%, 10-year debentures on 1 January 2015. The debentures were dated 1 January and pay interest on 1 July and 1 January. The debentures were issued at face value. Assume no interest is accrued on 30 June, and Cameron Ltd's year-end is 31 December.

Prepare journal entries to record issue of debentures, and record redemption. (LO3)

Required

(a) Prepare the journal entry to record the issue of the debentures on 1 January 2015.
(b) Prepare journal entries to record the payment of interest on 1 July 2015 and the accrual of interest on 31 December 2015.
(c) At 31 December 2016, the entity redeemed the debentures at 104. Record the redemption of the debentures assuming that interest for the year had already been paid.

PSA9.5 On 1 April 2015, Southbank Mechanic Ltd borrowed $112 550 from the bank at 12% per annum interest and offered its workshop premises in Southbank as security for the loan. The loan was for 1 year, repayable in amounts of $10 000 at the end of each month.

Prepare a mortgage schedule and journal entries for loans payable by instalment. (LO4)

Required

(a) Prepare a journal entry to record the initial mortgage.
(b) Use an Excel spreadsheet to prepare a mortgage schedule.
(c) Use the schedule in part (b) to prepare the journal entries for loan repayments for April and May 2015.

Prepare a mortgage schedule and journal entries for loans payable by instalment.
(LO4)

PSA9.6 At the beginning of the month, Cherry Ltd had the following three loans outstanding:

Mortgagee	Balance owing at beginning of month	Annual interest rate	Monthly repayment
Eastpac Bank	$400 000	18%	$10 000
State Bank	$250 000	12%	$12 000
NZA Bank	$600 000	15%	$40 000

Required

(a) Prepare journal entries to record the interest payments on each loan for the month.
(b) What was Cherry Ltd's interest expense for mortgages for the current month?
(c) Assuming no new loans, will the interest expense for the next month be greater than, less than or the same as the current month's interest expense? Explain.

Prepare journal entries to record provisions for warranties and discuss appropriateness of the provision.
(LO9)

PSA9.7 Botch's Watches Ltd offers a 12-month guarantee with the watches that it sells. On 1 July 2016, the balance of the Warranty Provision account was $1200. During the year ended 30 June, warranty claims cost $1500, of which $500 was for parts and $1 000 was for labour. During the same year, revenue from the sale of watches was $14 000, an increase of more than 10% on the previous year. Management estimated that the liability for unexpired warranty contracts at 30 June was $1200. There have been no changes in suppliers, product quality or prices.

Required

(a) Prepare a journal entry to record the warranty claims during the year ended 30 June 2017. (*Hint:* Credit Wages Payable for the labour costs.)
(b) Prepare a journal entry to record the end-of-period adjustment to the Warranty Provision account.
(c) Comment on the appropriateness of the warranty provision at 30 June 2017. Do you think that the provision is adequate? Give reasons for your answer.

Prepare journal entries to record provisions for warranties and reconstruct the provision for warranty account.
(LO9)

PSA9.8 At the beginning of 2016, Lennox Plumbing Services Pty Ltd had a credit balance of $100 000 in its Warranty Provision account. The warranty expense for the year was $140 000 and the balance of the Warranty Provision account at the end of the year after adjusting entries was $130 000.

Required

(a) Calculate the cost of warranty claims during the period. It may be helpful to reconstruct the Warranty Provision account.
(b) Prepare journal entries to record the warranty claims during the period and end-of-period adjustments to the Warranty Provision account. Assume that all warranty costs were for the replacement of parts from spare parts inventory.

Evaluate liquidity and solvency.
(LO10)

PSA9.9 Selected data from the June 2013 financial statements of Telco Ltd is presented below (in $millions).

Cash	$ 5 530	Current liabilities	$ 8 680
Receivables	4 170	Total liabilities	25 400
Inventory	362	Total assets	39 360
Marketable securities	23	Profit before income tax	6 230
Current assets	10 085	Interest expense	1 115

Required

(a) Calculate the current ratio, quick ratio, debt to total assets ratio and times interest earned for Telco Ltd.

(b) Refer to the solution in the 'Using the decision-making toolkit' section of this chapter on page 565. Using the calculations and discussions prepared for the Telecom New Zealand, compare and contrast the liquidity and solvency of Telco Ltd and Telecom New Zealand.

Evaluate liquidity and solvency. (LO10)

PSA9.10 The financial statements of Bayside Ltd revealed the following information.

Total current assets	$ 29 600
Total assets	357 875
Total current liabilities	15 390
Total liabilities	125 295
Cash	6 207
Marketable securities	3 400
Accounts receivable	10 840
Profit before income tax	246 950
Interest expense	11 440

Required

(a) Calculate each of the following:
   1. Working capital
   2. Current ratio
   3. Quick ratio
   4. Debt to total assets ratio
   5. Times interest earned

(b) Discuss each of the ratios calculated in part (a).

Prepare journal entries to record payments for long-term loan. (LO4)

PSA9.11 Steven Fu has just approached a venture capitalist for financing for his new business venture, the development of a wireless golf buggy. On 1 July 2014, Steven borrowed $200 000 at an annual interest rate of 12%. The loan is repayable over 5 years in annual instalments of $55 480, principal and interest, due on 30 June each year. The first payment is due on 30 June 2015. Steven uses the effective-interest method for amortising debt. His wireless golf buggy entity's year-end will be 30 June.

Required

(a) Prepare a mortgage schedule for the 5 years, 2014–2019. Round all calculations to the nearest dollar.

(b) Prepare all journal entries for Steven Fu for the first 2 fiscal years ended 30 June 2015, and 30 June 2016. Round all calculations to the nearest dollar.

(c) Show the statement of financial position presentation of the loan payable as of 30 June 2016. (*Hint:* Be sure to distinguish between the current and long-term portions of the loan.)

Complete basic journal entries for accounting for leases. (LO6)

PSA9.12 On July 1 2015, Duncan Ltd entered a 3-year non-cancellable lease agreement with a finance company for equipment. The annual lease payments are $38 803 commencing on 30 June 2016. The fair value of the equipment was $100 000 and the rate implicit in the lease was 8%. Assume the lease was a finance lease. Duncan uses straight-line depreciation for similar equipment.

Required

(a) Prepare the lease repayment schedule. (*Hint:* See figure 9.9, p. 554.)

(b) Prepare the journal entries in the books of Duncan Ltd for the year ending 30 June 2016.

(c) Prepare an extract from the statement of financial position as at 30 June 2016 providing the figures for the leased asset. (*Hint:* Ensure you identify the current and non-current portions of the loan.)

PROBLEM SET B

Journalise and post note transactions; show statement of financial position presentation. (LO2)

PSB9.1 Mountain Bikes Pty Ltd markets mountain-bike tours to clients vacationing in various locations in the Blue Mountains. In preparation for the upcoming winter biking season, the entity entered into the following transactions related to notes payable.

Mar.	1	Purchased Mongoose bikes for use as rentals by issuing an $8000, 9% note payable that is due in 3 months.
	31	Recorded accrued interest for the Mongoose note.
Apr.	1	Issued a $20 000 note to Highland Property for the purchase of mountain property on which to build bike trails. The note bears 12% interest and is due in 9 months.
May	30	Recorded accrued interest for the Mongoose note and the Highland Property note.
June	1	Issued a note to Telluride National Bank for $15 000 at 6%. The funds will be used for working capital for the beginning of the season; the note is due in 4 months.
	31	Recorded accrued interest for all three notes.
	1	Paid principal and interest on the Mongoose note.
	30	Recorded accrued interest for the Highland Property note and the Telluride Bank note.

Required

(a) Prepare journal entries for the transactions.
(b) Post the entries to the Notes Payable, Interest Payable, and Interest Expense accounts. (Use T accounts.)
(c) Assuming that Mountain Bikes' year-end is 30 June, show the statement of financial position presentation of notes payable and interest payable at that date.
(d) How much interest expense relating to notes payable did Mountain Bikes incur during the year?
(e) Discuss the advantage and disadvantage of purchasing inventory by means of a note payable rather than accounts payable.

Prepare current liability entries, adjusting entries, and current liability section. (LO2)

PSB9.2 On 1 January 2016, the ledger of Jasmine Ltd contained the following liability accounts.

Accounts Payable	$8 500
PAYG Withheld Tax Payable	1 320
Service Revenue Received in Advance	3 800

During January the following selected transactions occurred.

Jan.	1	Borrowed $30 000 in cash from East Coast Bank on a 6-month, 10% note.
	16	Provided services for customers who had made advance payments of $2000 (credit the Service Revenue account).
	22	Paid the tax office $1320 for PAYG tax withheld in December 2015.

During January the entity's employees earned wages of $16 000. Withholdings related to these wages were $2000 for a health fund, $1450 for PAYG tax withheld and $1440 for superannuation. Assume that wages earned during January will be paid during February. No entry had been recorded for wages or payroll tax expense as of 31 January.

Required

(a) Journalise the January transactions.
(b) Journalise the adjusting entries at 31 January for the outstanding note payable and for wages expense.
(c) Prepare the current liability section of the statement of financial position at 31 January 2016. Assume no change in Accounts Payable.
(d) Discuss some of the other costs employers may incur in relation to their employees.

Prepare journal entries to record interest payments, and redemption of unsecured notes. (LO3)

PSB9.3 The following extract is taken from Spring Hill Ltd's statement of financial position at 31 December 2015.

Current liabilities	
Interest payable on unsecured notes (for 6 months from 1 July to 31 December)	$ 360 000
Non-current liabilities	
Unsecured notes payable, 12% due 1 January 2019	6 000 000

Interest is payable half-yearly on 1 January and 1 July. Assume no interest is accrued on 30 June.

Required

(Round all calculations to the nearest dollar.)

(a) Journalise the payment of interest on 1 January 2016.
(b) Prepare the entry to pay the interest due on 1 July 2016.
(c) Assume on 1 July 2017, after paying interest, that Spring Hill Ltd redeems half of the unsecured notes at 103. Record the redemption of the notes.
(d) Explain the advantage of debt financing over issuing shares.

Prepare journal entries to record issue of debentures and redemption of debentures. (LO3)

PSB9.4 Thompson Ltd issued $4 000 000, 9%, 20-year debentures at par (face) value on 1 July 2015. The debentures were dated 1 July 2015, and pay interest on 30 June and 31 December. Thompson's year-end is 30 June.

Required

(a) Prepare the journal entry to record the issue of the debentures on 1 July 2015.
(b) Prepare entries for the interest payments on 31 December 2015 and 30 June 2016.
(c) At 30 June 2017, Thompson Ltd redeemed the debentures at 102. Record the redemption of the debentures.

Prepare a mortgage schedule and journal entries for loans payable by instalment. (LO4)

PSB9.5 On 1 April 2015, Sunflower Ltd borrowed $56 870 from the bank at 10% per annum interest and offered its florist studio as security for the loan. The loan was for 1 year, repayable in amounts of $5000 at the end of each month.

Required

(a) Prepare a journal entry to record the initial mortgage.
(b) Use an Excel spreadsheet to prepare a mortgage schedule.
(c) Use the schedule in part (b) to prepare the journal entries for loan repayments for April and May 2015.

Prepare a mortgage schedule and journal entries for loans payable by instalment. (LO4)

PSB9.6 Book City Ltd had the following three loans outstanding at the beginning of the month.

Mortgagee	Balance owing at beginning of month	Annual interest rate	Monthly repayment
Aussie Bank	$200 000	9%	$ 5 000
Kiwi Bank	$225 000	6%	$ 6 000
Bank Outback	$300 000	7%	$20 000

Required

(a) Prepare journal entries to record the interest payments on each loan for the month.
(b) What was Book City Ltd's interest expense for mortgages for the current month?
(c) Assuming no new loans, will the interest expense for the next month be greater than, less than or the same as the current month's interest expense? Explain.

Prepare journal entries to record provisions for warranties and discuss appropriateness of the provision. (LO9)

PSB9.7 Quinton Mechanics Ltd offers a 12-month guarantee with all car repairs and service. On 1 July 2015, the balance of the Warranty Provision account was $2400. During the year ended 30 June, warranty claims cost $3000, of which $1000 was for parts and $2000 was for labour. During the same year, revenue from car repairs was $280 000, an increase of more than 20% on the previous year. Management estimated that the liability for unexpired warranty contracts at 30 June was $2400. There have been no changes in suppliers, product quality or prices.

Required

(a) Prepare a journal entry to record the warranty claims during the year ended 30 June 2016. (*Hint:* Credit Wages Payable for the labour costs.)

(b) Prepare a journal entry to record the end-of-period adjustment to the Warranty Provision account.

(c) Comment on the appropriateness of the warranty provision at 30 June 2016. Do you think that the provision is adequate? Give reasons for your answer.

Prepare journal entries to record provisions for warranties and reconstruct the provision for warranty account.
(LO9)

PSB9.8 At the beginning of 2016, Davis Builders Pty Ltd had a credit balance of $130 000 in its Warranty Provision account. The warranty expense for the year was $42 000 and the balance of the Warranty Provision account at the end of the year after adjusting entries was $39 000.

Required

(a) Calculate the cost of warranty claims during the period. (It may be helpful to reconstruct the Warranty Provision account.)

(b) Prepare journal entries to record the warranty claims during the period and end-of-period adjustments to the Warranty Provision account. Assume that all warranty costs were for the replacement of parts from spare parts inventory.

Evaluate liquidity and solvency.
(LO10)

PSB9.9 Information from the June 2013 financial statements of Omnicom Ltd is presented below.

OMNICOM LTD ($ in millions)			
Cash	$ 61 086	Current liabilities	$175 896
Receivables	175 272	Total liabilities	392 638
Inventory	153 539	Total assets	982 180
Marketable Securities	10 241	Profit before tax	165 877
Other	9 274	Interest expense	15 700
Current assets	501 581		

Required

(a) Calculate the current ratio, quick ratio, debt to total assets ratio and times interest earned for Omnicom Ltd for 2013.

(b) Refer to the solution in the 'Using the decision-making toolkit' section of this chapter on page 565. Using the calculations and discussions prepared for Telecom New Zealand Limited, compare and contrast the liquidity and solvency of Omnicom Ltd and Telecom New Zealand Limited.

Evaluate liquidity and solvency.
(LO10)

PSB9.10 You have been presented with the following selected information taken from the financial statements of Matrix Ltd.

MATRIX LTD
Statement of financial position (selected figures)
(in millions)

	2016	**2015**
Total current assets	$ 5 450	$ 4 650
Non-current assets	27 250	25 100
Total assets	$32 700	$29 750
Current liabilities	$ 7 120	$ 5 760
Non-current liabilities	18 500	16 200
Total liabilities	25 620	21 960
Equity	7 080	7 790
Total liabilities and equity	$32 700	$29 750
Other information	**2013**	**2012**
Profit before interest and tax	$ 2 710	$ 2 670
Interest expense	450	390
Cash, marketable securities and receivables	2 860	3 145

Required

(a) Calculate each of the following for 2016 and 2015.
  1. Working capital.
  2. Current ratio.
  3. Quick ratio.
  4. Debt to total assets ratio.
  5. Times interest earned.

(b) Comment on the trend in each of the ratios.

PSB9.11 Francis Lennon has just approached a venture capitalist for financing for her new business venture, the development of a waterslide. On 1 July 2015, Francis borrowed $100 000 at an annual interest rate of 10%. The loan is repayable over 5 years in annual instalments of $26 380, principal and interest, due on each 30 June. The first payment is due on 30 June 2016. Francis uses the effective-interest method for amortising debt. Her waterslide entity's year-end will be 30 June.

Prepare journal entries to record payments for long-term loan. (LO4)

Required

(a) Prepare a mortgage schedule for the 5 years, 2015–2020. Round all calculations to the nearest dollar.

(b) Prepare all journal entries for Francis Lennon for the first 2 fiscal years ended 30 June 2016, and 30 June 2017. Round all calculations to the nearest dollar.

(c) Show the statement of financial position presentation of the loan payable as of 30 June 2017. (*Hint:* Be sure to distinguish between the current and long-term portions of the loan.)

PSB9.12 On 1 July 2016, Cooper Ltd entered a 5-year non-cancellable lease agreement with a finance company for equipment. The annual lease payments are $20 805 commencing on 30 June 2017. The fair value of the equipment was $75 000 and the rate implicit in the lease was 12%. Assume the lease was a finance lease. Cooper uses straight-line depreciation for similar equipment.

Complete basic journal entries for accounting for leases. (LO6)

Required

(a) Prepare the lease repayment schedule. (*Hint:* See figure 9.9, p. 554.)

(b) Prepare the journal entries in the books of Cooper Ltd for the year ending 30 June 2017.

(c) Prepare the journal entries in the books of Cooper Ltd for the year ending 30 June 2018.

(d) Prepare an extract from the statement of financial position as at 30 June 2018 providing the figures for the leased asset. (*Hint:* Ensure you identify the current and non-current portions of the loan.)

BUILDING BUSINESS SKILLS

FINANCIAL REPORTING AND ANALYSIS

FINANCIAL REPORTING PROBLEM: *Domino's Pizza Enterprises Ltd*

BBS9.1 The liabilities section of Domino's statement of financial position is shown in the financial statements in the appendix at the back of this book. You will also find data relevant to this problem in the statement of profit or loss and other comprehensive income and the notes to the financial statements.

Required

Answer the following questions.

(a) What is the amount of current liabilities at 30 June 2013?
(b) What is the amount of current provisions at 30 June 2013?
(c) What was the change in the value of total liabilities from 2012 to 2013?
(d) Calculate the working capital, current ratio, quick ratio, debt to total assets ratio and times interest earned for 2013.

COMPARATIVE ANALYSIS PROBLEM: *Fantastic Holdings Limited and Nick Scali Limited*

BBS9.2 Selected information from the 2013 financial statements of Fantastic Holdings and Nick Scali are presented below.

Fantastic Holdings Limited ($'000)

Cash	$ 18 993	Total current liabilities	$ 49 647
Receivables	2 597	Total liabilities	76 316
Inventory	74 503	Total assets	184 461
Marketable securities	—	Profit before income tax	17 612
Total current assets	100 325	Interest expense	1 088

Nick Scali Limited ($'000)

Cash	$ 26 441	Total current liabilities	$ 28 478
Receivables	6 397	Total liabilities	37 830
Inventory	14 569	Total assets	74 164
Marketable securities	852	Profit before income tax	22 865
Total current assets	48 545	Interest expense	252

Required

(a) Calculate the working capital, current ratio, quick ratio, debt to total assets ratio and times interest earned for each entity for 2013.
(b) What do the ratios indicate about the liquidity and solvency of the two entities?

A GLOBAL FOCUS

BBS9.3 Visit the Telstra web site and access the most recent annual report.
Address: http://telstra.com (Select **About Telstra** and then select **Investor Centre**.)

Required

Refer to the notes to Telstra's financial statements to identify the different countries and currencies in which Telstra has borrowings. Why might Australian entities borrow overseas or in other currencies? What risks are involved? (*Hint:* Refer to notes such as borrowings, interest-bearing liabilities and financial instrument disclosures.)

FINANCIAL ANALYSIS ON THE WEB

BBS9.4 Debentures or debt securities pay a stated rate of interest. This rate of interest depends on the risk associated with the investment. Moody's Investment Service provides ratings for companies that issue debt securities.
Address: www.moodys.com

Required
Answer the following questions:
(a) Select **About Moody's** at the top of the home page. Describe two types of services offered by Moody's.
(b) From **Research & Ratings**, select **Ratings Process**, select **Understanding Risk**, then **In a world of short-term outlooks, long-term opinions are vital**. Why does Moody's take a long-term view and how is this achieved?

CRITICAL THINKING

GROUP DECISION CASE

BBS9.5 On 1 January 2016, Mall Ltd issued $1 200 000 of 5-year, 10% debentures at 93; the debentures pay interest half-yearly on 1 July and 1 January. By 1 January 2018, the market rate of interest for debentures of risk similar to those of Mall Ltd had risen. As a result the market value of these debentures was $1 000 000 on 1 January 2018 — below their carrying amount of $1 144 000.

Jenny Payne, managing director of the Mall Ltd, suggests repurchasing all of these debentures in the open market at the $1 000 000 price. But to do so Mall Ltd will have to issue $1 000 000 (face value) of new 5-year, 17.36% debentures at face value. The managing director asks you as chief accountant: 'What is the feasibility of my proposed repurchase plan?'

Required
With the class divided into groups, answer the following:
(a) Prepare the journal entry to redeem the 5-year debentures on 1 January 2018. Prepare the journal entry to issue the new 10-year debentures.
(b) Prepare a short memo to the managing director in response to her request for advice. List the economic factors that you believe should be considered for the repurchase proposal.

COMMUNICATION ACTIVITY

BBS9.6 On 15 June 2015, Dundee Pty Ltd signed a contract to provide market research services to a client for $1 million. The research would be undertaken during the years ended 30 June 2016 and 30 June 2017. Half of the research would be performed in the year ended 30 June 2016 and an amount of $600 000 would be received that year. The remaining half of the research would be performed in the year ended 30 June 2017 and $300 000 would be received. The remaining $100 000 would be received in August 2017.
The managing director believes that the $1 million should be recognised as revenue in June 2015 because the contract has been signed. The finance director argued that no amount should be recognised in 2015; that $600 000 should be recognised as revenue in the year ending 30 June 2016 and $300 000 in the year ended 30 June 2017; and that the remaining $100 000 should be recognised in August 2017.

Required
Prepare a report to the board of directors outlining the appropriate treatment for the revenue arising from the research contract.

ETHICS CASE

BBS9.7 Candy Bars Ltd produces several varieties of candy and chocolate bars. An action has been brought against the entity by a customer who broke a tooth while eating one of the entity's chewy chocolate bars. The managing director of Candy Bars Ltd has suggested that this should not be reported as a contingent liability because the entity might win the case, and any mention of this in the financial statements could encourage more law suits and increase the entity's liability.

Required

(a) Who are the stakeholders in this situation?
(b) Who would be potentially harmed or disadvantaged by non-disclosure of the contingent liability?
(c) Are the managing director's actions ethical?

Answers to self-study questions

1. d 2. a 3. a 4. c 5. b 6. a 7. b 8. b 9. c 10. c
11. c 12. d 13. a 14. c 15. a

Answers to Review It questions, p. 559

1. $2 550 000
2. $441 000

CHAPTER 10

REPORTING AND ANALYSING EQUITY

LEARNING OBJECTIVES

After studying this chapter, you should be able to:

1 Explain the business context and the importance of decision making relating to equity.

2 Identify and discuss the main characteristics of a corporation (company).

3 Record the issue of ordinary shares.

4 Describe the effects of share splits.

5 Prepare the entries for cash dividends and share dividends and describe the impact on equity and assets.

6 Understand the concept of earning power and indicate how irregular items are presented.

7 Identify components of comprehensive income and changes in equity.

8 Identify the items that affect retained earnings.

9 Evaluate a company's dividend and earnings performance from a shareholder's perspective.

10 Evaluate debt and equity as alternative sources of finance.

FROM WHANGAREI AND WELLINGTON TO THE WORLD

Two innovative but very different New Zealand companies have expanded from small beginnings to take on the world; one in retail shopping, the other in cloud-based accounting software for small and medium businesses. They are Michael Hill International and Xero Ltd.

Xero Ltd, founded by Rod Drury and Hamish Edwards in Wellington in 2006, was ranked number one in the world in the 2014 Forbes list of the most innovative companies. Since its initial 2007 IPO on the New Zealand Stock Exchange, the company has embarked on an agenda of growth as a global Software as a Service (SaaS) company with customers in New Zealand, Australia, the United Kingdom, the United States and a variety of other countries. In 2012, it also listed on the Australian Securities Exchange with 28% of its shareholders now Australian. It has subsidiaries in the United Kingdom, Australia, the United States and New Zealand. Despite rapidly increasing revenues (102% in 2013), it has yet to make a profit.

In contrast, Michael Hill International started in a more traditional trajectory. Michael and his wife Christine opened their first store as Michael Hill Jeweller in 1979 in Whangarei and, after their initial expansion, listed on the New Zealand Stock Exchange in June 1987 to raise capital to expand the business in New Zealand and to enter the Australian market.

> As at 30 June 2013, the Group now has 52 stores in New Zealand, 162 in Australia, 45 in Canada, and 8 stores in Chicago, USA. Around the world, the Group employs about 2300 permanent employees across retail sales, manufacturing and administration roles. Michael Hill International's overall strategic goal is to grow shareholder wealth over time through our philosophy of **controlled profitable growth**.

Sources: Based on information from Xero Ltd's web site, www.xero.com, and its 30 June 2008 and 30 June 2013 annual report; Michael Hill International's web site, www.michaelhill.com.au, and its 2013 annual report; and Forbes web site, www.forbes.com/growth-companies/list.

On the World Wide Web
Xero Ltd: www.xero.com;
Michael Hill International:
www.michaelhill.com.au

PREVIEW OF CHAPTER 10

Companies like Michael Hill International Limited, Fonterra Co-operative Group Limited, LG Electronics and Domino's Pizza Enterprises Ltd have substantial resources at their disposal. In fact, the corporation (company) is the dominant form of business organisation in Australia and New Zealand in terms of sales, profits and the number of employees. In this chapter we look at key decision making relating to the equity of corporations, the essential features of a corporation and explain how to account for a corporation's capital transactions. When companies distribute profit to shareholders that profit is referred to as a dividend. To the shareholders, the dividend is a return on their investment in the company. We will look at company dividend policies and how to account for different types of dividend payments.

In this chapter we will also revisit the statement of profit or loss and other comprehensive income and examine how to account for irregular items and other changes in equity. Lastly, in this chapter we will examine decision-making tools used by investors to evaluate earnings performance and learn how to compare debt and equity methods of finance for liquidity and solvency. The content and organisation of this chapter are as follows.

REPORTING AND ANALYSING EQUITY

Business context and decision making: overview	The corporate from of organisation	Share issues	Dividends	Earning power and irregular items	Reporting on equity	Financial statement analysis and decision making	Debt versus equity financing decisions
	• Characteristics of a corporation • Forming a company • Shareholder rights	• Issue of shares • Accounting for the private issue of shares • Accounting for the public issue of shares • Share splits	• Cash dividends • Share dividends	• Errors • Changes in accounting estimates • Changes in accounting policies • Discontinuing operations	• Statement of profit or loss and other comprehensive income • Statement of changes in equity • Statement of financial position — equity section	• Dividend record • Earnings performance	

LEARNING OBJECTIVE 1

Explain the business context and the importance of decision making relating to equity.

BUSINESS CONTEXT AND DECISION MAKING: OVERVIEW

The business context for equity is very dependent on the nature of the entity, how it is funded, its ownership structure and its accountability beyond its direct owners. As chapter 1 page 42 explained, the objective of general purpose financial statements is to provide information that is useful in particular to existing and potential shareholders, the providers of equity, and other parties. However, equity investors are not the only group who use equity information in their decision marking. Ratios such as debt to equity are key metrics for lenders and form the basis of debt covenants. Directors and management have to make decisions such as whether to use debt or equity funding, how much to pay out to shareholders in dividends, or retain for future expansion, and when to raise more capital or return capital to investors. Shareholders will also base their decision making on metrics including return on equity (ROE) and dividend payout ratios when deciding to purchase, retain or sell shares. Throughout this chapter there is a strong focus on tools for decision making relating to equity.

THE CORPORATE FORM OF ORGANISATION

LEARNING OBJECTIVE 2
Identify and discuss the main characteristics of a corporation (company).

A corporation is created by law. **Companies** are the most common type of corporation. Another type of corporation is a body corporate formed by the owners of strata-titled home units in a block. As a legal entity, a **corporation** has most of the rights and privileges of a person. The major exceptions relate to privileges that can be exercised only by a living person, such as the right to vote or to hold public office. Similarly, a corporation is subject to the same duties and responsibilities as a person; for example, it must abide by the laws and it must pay taxes.

Corporations may be classified in a variety of ways. Two common classifications are by purpose and by ownership. A corporation may be organised for the purpose of making a profit (such as Domino's), or it may be a not-for-profit charitable, medical or educational corporation (such as the Salvation Army or Red Cross Australia). Not-for-profit entities are also commonly referred to as non-profit entities.

Classification by ownership differentiates public and private companies. As discussed in chapter 1, ownership of a company is held in shares. A **public company** may have thousands of shareholders and, if listed, its shares may be traded on a national securities market such as the Australian Securities Exchange and the New Zealand Stock Exchange. Examples are Fantastic Holdings Limited, Michael Hill International Limited and Qantas Airways Ltd. In contrast, a **proprietary company**, also referred to as a private company, has up to 50 non-employee shareholders, and it does not offer its shares for sale to the general public. Private companies are generally much smaller than public companies, although some notable exceptions exist. In Australia, they are identified by the words 'proprietary limited', or the abbreviation 'Pty Ltd'. R. M. Williams Pty Ltd and Rivers (Australia) Pty Ltd are two examples of private companies. There is no such distinction in New Zealand.

CHARACTERISTICS OF A CORPORATION

A number of characteristics distinguish a company from sole proprietorships (sole traders) and partnerships. The most important of these characteristics are explained below.

Separate legal existence

As an entity separate and distinct from its owners, the company acts under its own name rather than in the name of its shareholders. Michael Hill International Limited, for example, may buy, own and sell property, borrow money, and enter into legally binding contracts in its own name. It may also sue or be sued, and it pays its own taxes.

In contrast to a partnership, in which the acts of the owners (partners) bind the partnership, the acts of the owners (shareholders) do not bind the company unless such owners are agents of the company. For example, if you owned Michael Hill shares, you would not have the right to purchase inventory for the company unless you were designated as an agent of the company, such as Michael Hill's purchasing officer.

Legal existence separate from owners

Limited liability of shareholders

Since a company is a separate legal entity, creditors ordinarily have recourse only to company assets to satisfy their claims. Shareholders normally enjoy **limited liability**. This means that the liability of shareholders is normally limited to any unpaid capital, and creditors have no legal claim on the personal assets of the shareholders. Thus, even in the event of insolvency of the company, shareholders' losses are generally limited to the amount of capital they have invested in the company. Shareholders' privately owned assets, such as their cars, houses and bank accounts, are not required to be used to pay the company's debts.


Limited liability of shareholders

Transferable ownership rights

Ownership of a company is shown in shares, which are transferable units. Shareholders may dispose of part or all of their interest in a company simply by selling their shares. In contrast to the transfer of an ownership interest in a partnership, which requires the consent of each partner, the transfer of shares is entirely at the discretion of the shareholder. It does not require the approval of either the company or other shareholders, unless specified in the company's own rules.

The transfer of ownership rights among shareholders normally has no effect on the operating activities of the company or on a company's assets, liabilities and total equity. That is, the company does not participate in the transfer of these ownership rights after the original sale of the shares. The company must maintain a register of shareholders and record any changes in share ownership in the register.

Transferable ownership rights

Continuous life

Continuous life

Since a company is a separate legal entity, the life of a company as a going concern is separate from its owners; it is not affected by the withdrawal, death or incapacity of a shareholder, employee or officer. As a result, a successful company can have a continuous and perpetual life. For example, on 17 October 2014, Virgin Australia, Australia's second largest airline, announced a complete takeover of Tigerair Australia, purchasing the 40% of the airline that it did not already own. Tigerair will continue flying under its own licensed brand from the Singapore company, Tiger Holdings, but will be controlled by Virgin Australia. Virgin Australia paid $1 for the acquisition of the remainder of the loss-making airline on top of the $35 million paid for the initial 60% holding in 2013. Thus, Tigerair Australia will continue to operate — only its ultimate ownership has changed. The takeover is subject to some conditions including approval from the Foreign Investment Review Board.

Similarly, companies can restructure and change their direction without changing the owners of a business.

APPLICATION IN BUSINESS

Management perspective

The rights of shareholders in a company are supposed to be protected by the Corporations Act in Australia and the Companies Act in New Zealand. However, today's listed corporations are multinational, often having hundreds of subsidiaries. The fines imposed under the two Acts do not seem to deter directors' unethical behaviour. Despite more funding being available for ASIC to pursue corporations, ASIC often does not win cases. Failed cases include One.Tel and Fortescue Metals Group. ASIC has been criticised for its oversight in regulating the failed Centro group, Storm Financial Limited, and Westpoint Corporation, to name a few. In August 2009, ASIC was successful in the case against the non-executive directors of James Hardie, but this was short lived with a successful appeal by the directors in 2010. The lack of success by ASIC in enforcing regulation has some questioning the effectiveness of the Corporations Act in regulating business activity. However, in 2012 the High Court of Australia found the directors of James Hardie failed in their duty of care to prevent the company making false or misleading statements to the market and thus effectively reversed the Court of Appeal decision. ASIC chairman, Greg Medcraft, was quoted as saying that the decision has sent a warning to all company directors.

In New Zealand the equivalent to ASIC is the Financial Market Authority (FMA). On 3 July 2014, the FMA announced that it had filed charges against 8 companies for offences against the *Financial Reporting Act 1993* by persistently failing to file their financial statements on time. As of 17 December 2014, there were current cases before the court against directors of 12 finance companies for issuing untrue or misleading documents to the public. These cases have already resulted in directors now serving or facing jail terms, fines and automatic five year bans.

Source: Based on information from F. Clarke & G. Dean 2011, 'ASIC is wounded — again. Time for a rethink', *Australian Financial Review*, 3 January, p. 55; and ABC News 2012, 'James Hardie directors breached duties: court', 3 May, www.abc.net.au; FMA 2014, 'Consequences for failing to comply with financial statement filing obligations', 3 July, www.fma.govt.nz; and FMA 2014, 'Finance company cases before the court', 17 December, www.fma.govt.nz.

Ability to acquire capital

Ability to acquire capital

In general, it is relatively easy for a company to obtain capital through the issue of shares. For example, Michael Hill International Limited had issued 382 849 544 ordinary shares by June 2013. Buying shares in a company is often more attractive to an investor than investing in a partnership because a shareholder has limited liability and shares are readily transferable. Moreover, individuals can become shareholders by investing small amounts of money. Successful companies find it very easy to obtain capital.

Listing publicly is a method to expand and obtain the requisite capital. During 2013, 82 new entities were listed on the ASX, raising $9908 million in capital. At the end of December 2013, there were 2185 entities listed on the ASX and the total capital raised for the calendar year ending December 2013 was $46 billion.

Company management

Although shareholders legally own the company, they manage it indirectly through a board of directors which they elect. The board of directors is headed by a chairperson. At the time of writing, Sir Michael Hill is the chairperson of Michael Hill International Limited's board of directors. The Michael Hill International Limited board, in turn, formulates the operating policies for the company and selects officers, such as a managing director or chief executive officer and one or more division managers, to execute policy and to perform daily management functions.

A typical organisation chart showing the delegation of responsibility is shown in figure 10.1.

The managing director is the **chief executive officer (CEO)** with direct responsibility for managing the business. Although the CEO is usually a director, it is considered good corporate governance to ensure that the CEO is not also the chairperson of the board of directors. As the organisation chart in figure 10.1 shows, the managing director delegates responsibility to other officers, such as the finance manager/chief financial officer. The chief accounting officer is the **financial controller**. The financial controller's responsibilities include maintaining the accounting records and an adequate system of internal control, and preparing financial statements, tax returns and internal reports. The **treasurer** has custody of the company's funds and is responsible for maintaining the company's cash position. In smaller companies, the treasury function is the responsibility of the chief accountant.

Alternative terminology

Titles given to people in the roles of chief executive officer, chief accounting officer and treasurer vary between organisations.

The organisational structure enables a company to hire professional managers to run the business. On the other hand, some view this separation as a weakness. The separation of ownership and management prevents owners from having an active role in managing the company, which some owners like to have.

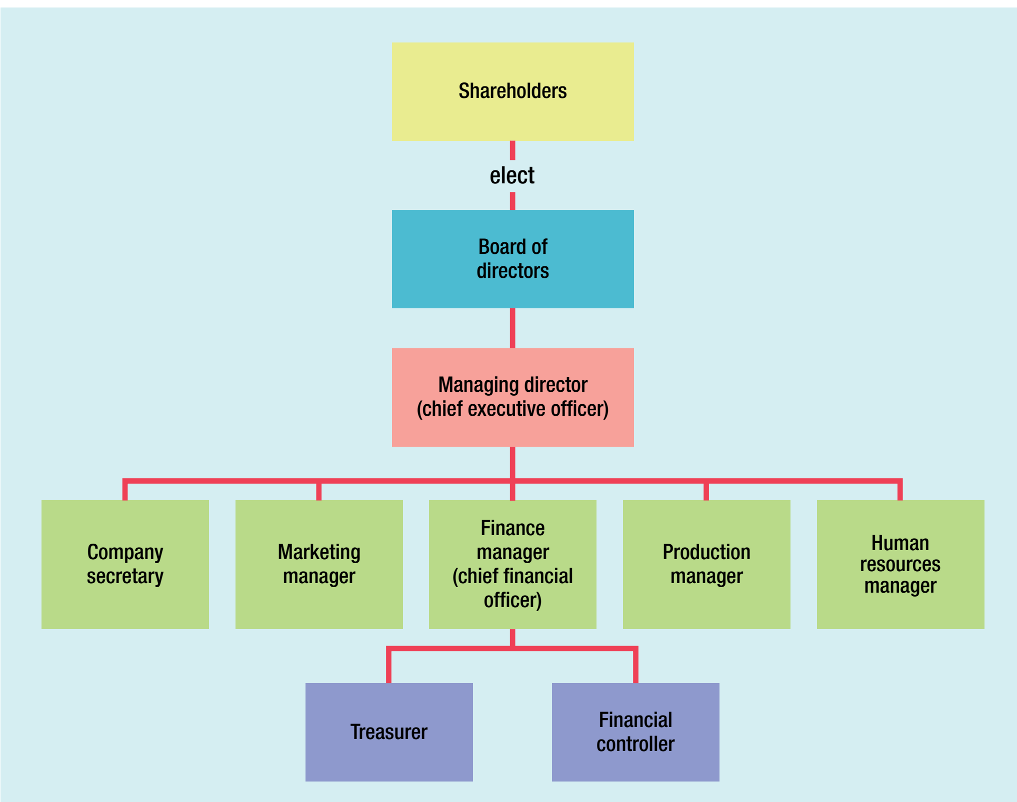
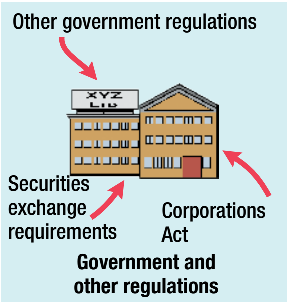


Figure 10.1 Company organisation chart



Government and other regulations

A company is subject to the Corporations Act and other government regulations in Australia and the equivalent Acts in New Zealand. Regulations do differ between the two countries but generally they serve a similar purpose and have similar provisions. For example, the (Australian) Corporations Act prescribes the requirements for public share issues, the distributions of profit permitted to shareholders, and buying back shares. A share buyback is when a company pays its shareholders an agreed sum in return for the cancellation of their shares. Also, public companies are required to make extensive disclosure of their financial affairs to the Australian Securities and Investments Commission (ASIC). For example, they are required to lodge financial statements. In addition, when a company is listed on a securities exchange, it must comply with the reporting requirements of the exchange.

The advantages and disadvantages of a company compared with a sole proprietorship and partnership are shown in figure 10.2.

Advantages	Disadvantages
• Separate legal existence • Limited liability of shareholders • Transferable ownership rights • Ability to acquire capital • Continuous life • Company management — professional managers	• Company management — separation of ownership and management • Government and other regulations

Figure 10.2 Advantages and disadvantages of a company

APPLICATION IN BUSINESS

Management perspective

The Colonial Sugar Refining Company (CSR), established in 1855, started diversifying from sugar into a building products company in 1942. Since the middle of 2009, CSR Limited has worked towards separating the sugar refining and building products businesses. Following the completion of the sale of Sucrogen and part of the Asian building products business in 2011, CSR returned 53 cents per share to investors while repaying all outstanding debt. During the year ended 2013, the number of shares was reduced from 1515 million to 506 million by a share consolidation involving a capital return of 43.57 cents and a consolidation of shares in a 3:1 ratio. $138.6 million was paid as a special dividend and $661.3 million as a share buy-back. An additional $136.4 was paid as ordinary dividends. The aim of the share buy-back was to ensure that the number of shares on issue and trading price were roughly comparable to other companies in the same industry. As at 30 June 2013, no additional shares have been issued or consolidated.

Source: Based on information from 'CSR returns $800m to shareholders', *Sydney Morning Herald*, 7 January 2011, www.smh.com.au/business; and the CSR Limited 2011 and 2013 annual reports.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Should the business incorporate?	Capital needs, growth expectations, type of business	Companies have limited liability, easier capital-raising ability, continuous life and professional managers; but they suffer from government and other regulations, and separation of ownership from management.	Must carefully weigh the costs and benefits in light of the particular circumstances

FORMING A COMPANY

A company is formed by registration and is bound by the *Corporations Act 2001* (Cwlth). It is allocated an Australian business number (ABN) and an Australian company number (ACN). The ABN was introduced when Australia adopted the goods and services tax (GST). The ABN may now be used on company documentation in place of the ACN. The company may adopt a constitution, which is a set of rules governing the internal management of the company. It determines matters such as the authority to approve dividends and rules for shareholders' meetings. If a constitution is not adopted, the replaceable rules of the Corporations Act automatically apply as default rules for internal management. Similar provisions apply in New Zealand with New Zealand companies bound by the Companies Act and allocated an IRD number that doubles as a GST number.

SHAREHOLDER RIGHTS

When registered, the company may begin issuing ownership rights in the form of shares. Different classes of shares carry different rights. The ownership rights of a share are stated in the company's constitution or the replaceable rules. The three major ownership rights are: the right to vote, the right to share in the company's profit, and the right to a residual claim in the event of the company being liquidated. At Michael Hill International Limited's annual general meeting, each shareholder has one vote by a show of hands. In the case of a poll, every fully paid share held by each shareholder entitles that shareholder to one vote. When a company has only one class of shares, these shares are referred to as **ordinary shares**. Each ordinary share gives the shareholder the ownership rights pictured in figure 10.3. Ordinary shares represent the residual ownership interest in a company.

Preference shares are a class of shares that have priority over ordinary shares with respect to dividends and/or repayment of capital in the event of the company being wound up, i.e. liquidated and ceasing to exist. Preference shares often do not have voting rights. In some cases, preference shares are disclosed as debt, but that is covered in more advanced accounting texts.

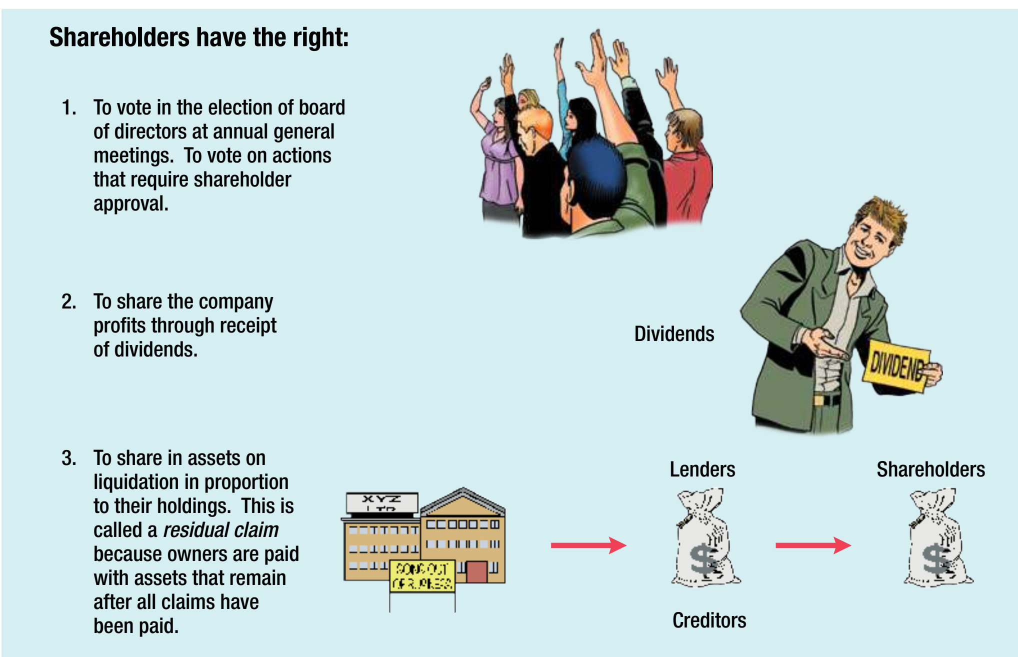


Figure 10.3 Ownership rights of shareholders

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What are the advantages and disadvantages of a company compared with a sole proprietorship and a partnership?
2. Identify the principal steps in forming a company.
3. What rights are inherent in owning ordinary shares in a company?

LEARNING OBJECTIVE 3

Record the issue of ordinary shares.

SHARE ISSUES

Michael Hill International Limited became a public company and listed on the New Zealand Stock Exchange in 1987. At that time, management evidently decided that the company would benefit from the injection of cash that a public issue of its shares would bring. When a company decides to issue shares, it must resolve a number of basic questions. How many shares should it issue? How should the shares be issued? At what price should the shares be issued? These questions are answered in the following sections.

INTERNATIONAL NOTE

US and UK corporations raise most of their capital through millions of outside shareholders and bondholders. In contrast, companies in France and Japan, for example, acquire financing from large banks or other institutions. Consequently, in the latter environment, shareholders are less important, and external reporting and auditing receive less emphasis.

ISSUE OF SHARES

A company may issue shares by **private placement**, in which the invitation is made privately to certain potential investors. This may be arranged through a merchant bank that specialises in bringing securities to the attention of prospective investors. Public companies may also issue shares publicly. This requires a **prospectus**, which is a document reporting on the company's financial position, performance and plans. It contains reports from independent parties, such as independent accountants and other experts.

How does a company set the **issue price** for a new issue of shares? Among the factors to be considered are (1) the company's anticipated future profits, (2) its expected dividend rate per share, (3) its current financial position, (4) the current state of the economy, and (5) the current state of the securities market. The calculation can be complex and is properly the subject of finance studies.

Helpful hint

While less common, shares may also be issued in return for services provided by professionals, such as lawyers and consultants.

ACCOUNTING FOR THE PRIVATE ISSUE OF SHARES

When a company issues shares it normally receives some assets, typically cash, in return. The effect on the accounting equation is to increase assets and increase equity. The entire proceeds from the issue of shares are considered to be capital of the company. Throughout this chapter we use the share capital account to record the proceeds from the issue of shares, although this could also be referred to as 'contributed equity' or 'paid-up capital'.

When shares are issued by private placement, the proceeds are immediately available to the company. To illustrate, assume that Hydro-Slide Ltd issues 1000 shares for $1 each, payable in cash. The entry to record this transaction is:

A	= L +	E
+1000		+1000

Cash	1 000	
Share capital		1 000
(To record issue of 1000 shares at $1 each)		

If Hydro-Slide Ltd issues an additional 1000 shares for cash at $5 per share, the entry is:

A	= L +	E
+5000		+5000

Cash	5 000	
Share capital		5 000
(To record issue of 1000 shares at $5 each)		

The total share capital from these two transactions is $6000.

ACCOUNTING FOR THE PUBLIC ISSUE OF SHARES

When a company invites the public to subscribe to an issue of shares, it provides a prospectus, which includes an application form for prospective shareholders. The prospectus prescribes the number of shares that can be issued and the share price. When prospective investors apply to become shareholders, they send in an application form with the **application** money for the number of shares they are applying for. The administration of the share issue, including the receipt of application monies, may be handled by a third party. The entries illustrated below assume that the company is administering the public issue of its own shares.

When prospective investors apply to become shareholders, the application money is normally held in trust until the **allotment** (i.e. issue) of shares to the applicants (using a trust account is no longer legally required in New Zealand, but is good accounting practice and will be used in this text). At that time, the application money is transferred from a trust account into the company's own bank account and recorded as an increase in the share capital of the company.

Sometimes companies require only a partial payment of the share issue price on application, with the remainder due on allotment or subsequent calls on capital. A **call on capital** is when a company asks shareholders to pay some or all of the unpaid capital on issued shares. For example, a company may invite the public to subscribe for shares at \$3.00 each with \$1.00 payable on application, a further payment of \$1.00 due on allotment and the remainder on call. The company then has the right to call up part or all of the remaining \$1.00 at any time in the future.

To illustrate, assume that Hydro-Slide Ltd invited the public to subscribe for 10 000 ordinary shares at \$1.00 per share. The terms of the share issue are:

\$0.50 per share is payable on application by 30 September 2016
\$0.20 per share is payable on allotment by 31 October 2016.

Applications are received for 10 000 shares. The directors allot 10 000 shares on 1 October 2016 and all money due on allotment is received. The journal entries to record Hydro-Slide Ltd's share issue are:

2016			
Sept. 30	Cash trust	5 000	
	Application		5 000
	(To record the receipt of application money for 10 000 shares at \$0.50 per share)		
Oct. 1	Application	5 000	
	Share capital		5 000
	(To record the application money as share capital on allotment of the shares to applicants)		
	Cash at bank	5 000	
	Cash trust		5 000
	(To record the transfer of the application money to the company's own bank account on allotment of the shares)		
	Allotment	2 000	
	Share capital		2 000
	(To record amounts owing on allotment of shares)		
Oct. 31	Cash at bank	2 000	
	Allotment		2 000
	(To record the receipt of monies due on allotment)		

A	= L +	E
+5000		+5000

A	= L +	E
		+2000
		−2000

A	= L +	E
+2000		+2000

Note that the effect of the call of \$0.20 per share on allotment is shown as both increasing and decreasing equity. Although the call on allotment is accounted for by crediting capital, the amount of capital contributed by shareholders by 1 October 2016 was \$5000. If a statement of financial position were prepared at 1 October 2016, the balance of the allotment account, a $2000 debit, would be shown as a reduction in contributed equity. The allotment account and any call accounts are *contra* equity accounts.

Share transactions, both the issue of shares and the payment of dividends, do not attract GST. However, if shares are exchanged for non-cash assets in New Zealand, GST registered entities can claim imputed GST for the fair value of the non-cash asset.

LEARNING OBJECTIVE 4

Describe the effects of share splits.

SHARE SPLITS

A **share split** involves the issue of additional shares to shareholders according to their percentage ownership, and results in a reduction in the stated value per share. In a share split, the number of shares is increased in the reciprocal proportion as the stated value per share (the initial issue price) is decreased. For example, in a 2-for-1 split, one share with a stated value of $10 is exchanged for two shares which each have a stated value of $5. A share split does not affect the total share capital or equity of the company. Thus a company with share capital of $1000 comprising 1000 $1 shares may choose to do a 2-for-1 share split and divide its capital into 2000 $0.50 shares. After the share split, the share capital would still be $1000. There is no journal entry required to record a share split because it does not affect the amount of share capital or any other equity account. It affects only the number of shares and the stated value of each share. However, companies must keep some memorandum record of the share split because they will need to make disclosures in the annual financial reports in the form of a note about the composition of share capital. Michael Hill International Limited performed a 10 for 1 share split on 19 November 2007 increasing share numbers from 38 276 070 to 382 468 900 (excluding treasury shares).

The purpose of a share split is to increase the marketability of the shares by lowering the market value per share. This makes it easier for the corporation to issue additional shares. The effect of a share split on the market value of shares is generally inversely proportional to the size of the share split. For example, after Michael Hill International Limited performed the 10 for 1 share split the market value of the shares fell from $10.50 to $1.10 overnight.

APPLICATION IN BUSINESS

Management perspective

Some US companies have no intention of keeping their shares trading in a range accessible to mere mortals. These companies never divide their shares into smaller ownership portions, no matter how high their share price gets. The king of these is investment company Berkshire Hathaway's Class A shares, which closed on 26 September 2014 at a pricey US$208.133 per share! In 2010, the shareholders approved a Class B 50-for-1 share split and the shares listed for roughly US$73.40 per share and were trading at US$138.58 in September 2014 on the New York Stock Exchange.

The trading of shares on securities exchanges involves the transfer of previously issued shares from an existing shareholder to another investor. Consequently, these transactions have no impact on a company's equity.

APPLICATION IN BUSINESS

Investor perspective

The shares of listed public companies are traded on organised exchanges at prices per share established by the interaction between buyers and sellers. For each listed security the Australian Securities Exchange reports, for each day, the opening price, high and low prices, the total volume traded, the last traded price, the latest price bid, the latest price offered and the dollar change in price. Xero Limited is listed on the Australian Securities Exchange. The following is an extract from the listing for Xero Limited.

Date	High	Low	Volume	Last	$+/–
26 September 2014	18.850	18.410	37 437	18.660	–0.380

These numbers indicate that the high and low market prices on 26 September 2014 were $18.85 and $18.41, respectively; the trading volume was 37 437 shares; the last traded price for 26 September 2014 was $18.66; and the change for the day was a decrease of $0.38.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What approaches may a company use to issue new shares to investors?
2. Distinguish between issue price and market value.
3. Explain the effect on the accounting equation of ordinary shares issued for cash.

>> DO IT

Downunder Opals Ltd begins operations on 1 March by issuing 100 000 shares by private placement at $12 per share. Journalise the issue of the shares.

REASONING: Upon issuing shares at $12, Share Capital is credited for $12 per share.

SOLUTION:

Mar.	1	Cash	1 200 000	
		Share capital		1 200 000
		(To record issue of 100 000 shares at $12 per share)		

DIVIDENDS

LEARNING OBJECTIVE 5
Prepare the entries for cash dividends and share dividends and describe the impact on equity and assets.

A **dividend** is a distribution of profit by a company to its shareholders on a pro rata basis. *Pro rata* means 'on a proportionate basis'. If you own, say, 10% of the ordinary shares, you will receive 10% of the dividend. Dividends can take three forms: cash, property or shares. Cash dividends, which predominate in practice, and share dividends, which are declared with some frequency, are the focus of our discussion. Many public companies pay dividends twice a year — a final dividend determined at the end of the company's financial year, and an interim dividend, paid during the year.

Investors are very interested in a company's dividend practices. In the financial press, dividends are generally reported as a dollar amount per share. For example, Michael Hill International Limited's interim dividend for 2013 was 2.5 cents and its final dividend for that year was 4.0 cents per share. Dividends can also be expressed as a percentage of capital paid on the shares.

CASH DIVIDENDS

A **cash dividend** is a pro rata distribution of profit paid in cash to shareholders. In Australia and New Zealand, companies can only pay a dividend if:
- the assets exceed liabilities by more than the amount of dividend proposed
- it is fair and reasonable to shareholders as a whole
- it does not materially prejudice the company's ability to pay its creditors.

A dividend subject to shareholder approval can now be paid from share capital. If a company is not required to prepare an annual financial report, eligibility to pay a dividend by being solvent can be determined from the accounting records.

The board of directors has full authority to determine the amount to be distributed in the form of dividends. However, a company may impose additional requirements, such as approval by shareholders at the annual general meeting for payment of a final dividend. Any such requirements would be specified in the company's constitution. Unlike interest, dividends on ordinary shares do not accrue or accumulate. They are not a legal liability until the date for payment arises.


DECISION MAKING

The amount and the timing of a dividend are important issues for management to consider. The payment of a large cash dividend could lead to liquidity problems for the company. Conversely, a small dividend or a missed dividend may cause discontent among shareholders who expect to receive a reasonable cash payment from the company on a periodic basis. Many companies declare and pay cash dividends every 6 months. On the other hand, a number of high-growth companies pay no dividends, preferring to retain profits and use them to finance capital expenditures.

In order to remain in business, companies must honour their interest payments to suppliers, bankers and other creditors. But the payment of dividends to shareholders is another matter. Many companies can survive, and even thrive, without such payouts. Investors must keep an eye on the company's dividend policy and understand what it may mean. For most companies, for example, regular dividends in the face of irregular earnings can be a warning signal. Companies with high dividends and rising debt may be borrowing money to pay shareholders. On the other hand, low dividends may not be a negative sign because they may mean that profit is being retained for investment that will increase future profits.

Some companies pay regular dividends whereas other companies reinvest all profits. Presumably, investors for whom regular dividends are important tend to buy shares in companies that pay periodic dividends, and those for whom growth in the share price (capital gains) is more important tend to buy shares in companies that retain profits.

Entries for cash dividends

There are two important dates for the recording of dividends: (1) the declaration date and (2) the payment date.

On the **declaration date**, the board of directors formally declares (authorises) the cash dividend and announces it to shareholders. Although the declaration of a cash dividend does not commit the company to a binding legal obligation, Australian accounting standards require companies to recognise the decrease in retained earnings and the increase in the liability dividends payable if the dividend is proposed or declared before the end of the reporting period. This accounting treatment reflects a moral or equitable obligation and the high probability that the dividend will be paid. To illustrate, assume that on 1 December 2016, the directors of Media General Ltd declare a $0.50 per share cash dividend on 100 000 shares. The dividend is $50 000 (100 000 × $0.50), and the entry to record the declaration is:

A	=	L	+	E
		+50 000		−50 000

Declaration date

Dec. 1	Retained earnings (or cash dividends declared)	50 000	
	Dividends payable		50 000
	(To record declaration of cash dividend)		

Alternative terminology

The dividends account is also called *Cash Dividend Declared* or *Interim/Final Cash Dividend Declared.*

Dividends payable is a current liability because it will normally be paid within the next 12 months. You may recall that, in chapter 2, instead of decreasing retained earnings, the account dividends was used. This account provides additional information in the ledger. For example, a company may have separate dividend accounts for each class of shares or each type of dividend. When a separate dividend account is used, its balance is transferred to retained earnings at the end of the year by a closing entry. Consequently, the effect of the declaration is the same — retained earnings is decreased and a current liability is increased. To avoid additional detail, we have chosen to use the retained earnings account.

On the **payment date**, dividend cheques are mailed to the shareholders or by EFT direct deposit and the payment of the dividend is recorded. If 20 January is the payment date for Media General Ltd, the entry on that date is:

A	=	L	+	E
−50 000		−50 000		

Payment date

Jan. 20	Dividends payable	50 000	
	Cash		50 000
	(To record payment of cash dividend)		

Note that payment of the dividend reduces both current assets and current liabilities but has no effect on equity. The cumulative effect of the declaration and payment of a cash dividend on a company's financial statements is to decrease both equity and total assets.

SHARE DIVIDENDS

A **share dividend** is a pro rata distribution of the company's own shares to shareholders. Whereas a cash dividend is paid in cash, a share dividend is paid in shares. A share dividend results in a decrease in retained earnings and an increase in share capital. Unlike a cash dividend, a share dividend does not decrease total equity or total assets.

Alternative terminology

A share dividend can also be referred to as a *bonus share issue*.

Because a share dividend does not result in a distribution of assets, many view it as nothing more than a publicity gesture. Share dividends are often issued by companies that do not have adequate cash to issue a cash dividend. These companies may not want to announce that they will not issue a dividend at their normal time to do so. By issuing a share dividend they 'save face' by giving the appearance of distributing a dividend. Note that since a share dividend neither increases nor decreases the assets in the company, investors are not receiving anything they didn't already own.

To illustrate a share dividend, assume that you have a 2% ownership interest in Wing Ltd by virtue of owning 20 of its 1000 shares. In a 10% share dividend, 100 shares (1000 × 10%) would be issued. You would receive two shares (2% × 100), but your ownership interest would remain at 2% (22 ÷ 1100). You now own more shares, but your ownership interest has not changed. Moreover, no cash is paid out, and no liabilities have been assumed by the company.

What, then, are the purposes and benefits of a share dividend? Companies generally issue share dividends for one of the following reasons:

1. to satisfy shareholders' dividend expectations without spending cash
2. to emphasise that a portion of equity has been permanently reinvested in the business and therefore is unavailable for cash dividends.

However, in the long term, shareholders may benefit from the share dividend. If the company has a policy of maintaining constant dividends in terms of the amount per share, shareholders can look forward to more cash dividends in future. For example, assume Bob holds 1000 shares in a company that has a policy of paying an annual cash dividend of 10 cents per share. Bob would usually receive a cash dividend of \$100 (1000 × 10 cents). If the company issued a 10% share dividend, Bob would hold 1100 shares. In subsequent cash dividend payments of 10 cents per share by the company, Bob would receive \$110 (1100 × 10 cents).

The size of the share dividend and the value to be assigned to each dividend share are determined by the board of directors when the dividend is declared.

Entries for share dividends (bonus shares)

To illustrate the accounting for share dividends, assume that Hawke's Bay Ltd has a balance of \$300 000 in retained earnings and declares a 10% share dividend on its 50 000 shares. The current market price of Hawke's Bay shares is \$15 per share and the directors have decided that this should be the value assigned to the bonus shares. The number of shares to be issued is 5000 (10% × 50 000), and the total amount to be debited to retained earnings is \$75 000 (5000 × \$15). The entry to record this transaction at the declaration date is:

Retained earnings (*or* share dividends declared)	75 000	
Share dividends payable		75 000
(To record declaration of 10% share dividend)		

A	=	L	+	E
				−75 000
				+75 000

Note that, at the declaration date, retained earnings is decreased (debited) for the assigned value of the shares issued and share dividends payable is increased (credited) for the same amount. Share dividends payable is an equity account. When the share dividend is paid, the share dividends payable account is decreased and the share capital account is increased as follows:

Share dividends payable	75 000	
Share capital		75 000
(To record the issue of 5000 shares as a share dividend)		

A	=	L	+	E
				−75 000
				+75 000

Effects of share dividends

How do share dividends affect equity? They change the composition of equity because a portion of retained earnings is transferred to share capital. The total equity remains the same but the number of issued shares increases. These effects are shown in figure 10.4.

		Before dividend	After dividend
	Equity		
	Contributed equity		
50 000	Ordinary shares	$ 500 000	$ 500 000
5 000	Ordinary shares	—	75 000
55 000	Total share capital	500 000	575 000
	Retained earnings	300 000	225 000
	Total equity	**$800 000**	**$800 000**
	Issued shares	**50 000**	**55 000**

Figure 10.4 Share dividend effects

In this example, total share capital is increased by $75 000 and retained earnings are decreased by the same amount. Note also that total equity remains unchanged at $800 000.

APPLICATION IN BUSINESS

Investor perspective

Many companies, including CSR Limited, offer dividend reinvestment to their shareholders. CSR Limited's Dividend Reinvestment Plan (DRP) allows shareholders to elect to reinvest all or part of their dividends in fully paid ordinary shares in the company. That is, for each cash dividend, the shareholders are given a choice of receiving their dividend either as cash or in the form of ordinary shares. Some shareholders choose to build up their shareholding by reinvesting their dividends in the company. CSR Limited acquires shares on market for the DRP and thus no additional shares are issued by CSR Limited.

Source: Based on information from CSR Ltd's web site, www.csr.com.au, and its 2013 annual report.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What factors affect the size of a company's cash dividend?
2. Why do companies issue share dividends?
3. How might a share dividend affect future cash dividends?

>> DO IT

Linda CD Ltd issued 500 000 shares for $4 each. After 5 years of record profits, the company had a cash balance of $1 000 000, retained earnings of $2 500 000 and share capital of $2 000 000. The chief executive officer, Mandy Kang, is considering either a 10% cash dividend or a 10% share dividend with an assigned value of $4. She asks you for the 'before' and 'after' effects of each option on cash, retained earnings and equity.

REASONING: Both a cash dividend and a share dividend would reduce retained earnings. The cash dividend would reduce cash and equity. The share dividend would not reduce equity because it would increase share capital instead of reducing cash.

SOLUTION: The dividend amount is $200 000 (10% × $2 000 000). The balance of retained earnings after the payment of the dividend would be $2 300 000 ($2 500 000 − $200 000). If the dividend were paid in cash, Linda CD Ltd's cash balance would decrease to $800 000 ($1 000 000 − $200 000). Equity, which comprises share capital and retained earnings, would decrease from $4 500 000 ($2 000 000 + $2 500 000) to $4 300 000 ($2 000 000 + $2 300 000).

If Mandy Kang chooses to pay a share dividend, there would be no reduction in equity because the reduction in retained earnings would be offset by an increase in share capital. The financial effects of the two dividend alternatives are summarised as follows:

	Original balances	After cash dividend	After share dividend
Share capital	$2 000 000	$2 000 000	$2 200 000
Retained earnings	2 500 000	2 300 000	2 300 000
Total equity	$4 500 000	$4 300 000	$4 500 000
Cash	$1 000 000	$ 800 000	$1 000 000

Before we examine how the equity section of the statement of financial position is presented we will further explore how irregular items that affect retained earnings are treated.

EARNING POWER AND IRREGULAR ITEMS

LEARNING OBJECTIVE 6

Understand the concept of earning power and indicate how irregular items are presented.

Ultimately, the value of an entity is a function of its future cash flows. When analysts use this year's profit to estimate future cash flows, they must be aware of any irregular revenues or expenses included in this year's profit. Profit adjusted for irregular items is referred to as **earning power**. Earning power is the most likely level of profit to be obtained in the future — that is, to the extent this year's profit is a good predictor of future years' profit. Earning power differs from actual profit by the amount of irregular revenues and expenses included in this year's profit.

Users are interested in earning power because it helps them derive an estimate of future earnings without the 'noise' of irregular items. For example, suppose Aust Ltd reports that this year's profit is $500 000 but included in that amount is a once-in-a-lifetime revenue of $400 000. In estimating next year's profit for Aust Ltd, we would be likely to ignore this $400 000 revenue and estimate that next year's profit will be in the neighbourhood of $100 000. That is, based on this year's results, the entity's earning power is roughly $100 000. Therefore, identifying irregular items has important implications for using reported profits as an input in estimating an entity's value.

Accounting standard IAS 1/AASB 101 *Presentation of Financial Statements* prescribes requirements for the presentation of the statement of profit or loss. IAS 8/AASB 108 *Accounting Policies, Changes in Accounting Estimates, and Errors* requires disclosures that aid the determination of earning power (or sustainable profit). This is achieved by requiring the identification of certain irregular items on the face of the statement of profit or loss or in the notes to the financial statements. In addition, disclosures about discontinued operations are required by IFRS 5/AASB 5 *Non-current Assets Held for Sale and Discontinued Operations*. Four types of irregular items are reported:

1. errors
2. changes in accounting estimates
3. changes in accounting policies
4. discontinuing operations.

These four categories are discussed in the following section. In addition, entities must also disclose revenues and expenses from ordinary activities that, because of their size, nature or incidence, are relevant to understanding financial performance. Examples include major inventory write-downs and the cost of settling a legal dispute.

ERRORS

Prior period errors are errors made in a previous period that have resulted in the presentation of incorrect information in financial statements. For example, it may be discovered in the current period that legal costs that should have been expensed were included in the carrying amount of an asset in the previous period. Such errors must be corrected retrospectively. This means that, when an error involves an income or expense item, the correction of the error is not recognised in the profit or loss of the period in which it is discovered. Instead, any effect on the profit of a prior period is recognised as an adjustment against opening retained earnings in the statement of changes in equity, and comparative figures and any disclosed historical summaries are adjusted to include the correction.

Alternative terminology

Retained earnings are also called *retained profits*.

In the period when the prior period error is corrected, the entity must disclose the nature of the error, the amount of the correction for each financial statement line item that is affected, and the amount of the correction at the beginning of the earliest prior period presented. Any information presented about prior periods, including any historical summaries of financial information, must be restated as far back as is practicable. If the entity reports earnings per share, this figure must be recalculated to reflect the effect of the error correction on profit. If it is impracticable to restate prior period figures, the entity must disclose the circumstances and a description of how the error has been corrected.

To illustrate, assume that during 2016 Aust Ltd paid legal fees of $200 000 associated with court proceedings, and that the fees were included in the cost of a parcel of land instead of being recognised as an expense. For simplicity, assume that the accounting treatment of the legal fees has not affected the income tax expense. Extracts from Aust Ltd's 2016 financial statements are illustrated in figures 10.5 to 10.7.

AUST LTD
Statement of profit or loss (extract)
for the year ended 30 June 2016

	$000
Revenue	2 500
Expenses excluding finance costs	(1 200)
Finance costs	(100)
Profit before income tax expense	1 200
Income tax expense	(360)
Profit for the period	840

Figure 10.5 Extract of Aust Ltd's statement of profit or loss

AUST LTD
Notes to the financial statements (extract)
Movement in retained earnings
for the year ended 30 June 2016

	$000
Balance at start of the period	1 600
Profit for the period	840
Total for the period	2 440
Dividends	(300)
Balance at end of period	2 140

Figure 10.6 Extract from Aust Ltd's notes to the financial statements

AUST LTD
Statement of financial position (extract)
as at 30 June 2016

	$000
Land	4 700
Buildings, plant and equipment	8 000

Figure 10.7 Extract from Aust Ltd's statement of financial position

The effect of the error is to understate expenses and to overstate profit and the carrying amount of the land in 2016. On discovery of the error in 2017, Aust Ltd would make the following journal entry to correct it:

2017	Retained earnings	200 000	
	Land		200 000
	(To correct a prior period error)		

A	= L +	E
−200 000		−200 000

The comparative financial statement information must also be corrected, as shown in figures 10.8 to 10.10. Note that the expenses reported as 2016 comparative figures in figure 10.8 differ from the expenses reported in the statement of profit or loss in the previous year shown in figure 10.5. Note also the carried down effect on profit for 2016.

AUST LTD
Statement of profit or loss (extract)
for the year ended 30 June 2017

	2017 $000	2016 $000
Revenue	2 700	2 500
Expenses excluding finance costs	(1 300)	(1 400)
Finance costs	(300)	(100)
Profit before income tax expense	1 100	1 000
Income tax expense	(400)	(360)
Profit for the period	700	640

Figure 10.8 Extract from Aust Ltd's statement of profit or loss

Compare the changes in retained earnings reported in figure 10.6 with the 2016 comparative data in figure 10.9. Both the profit for 2016 and the closing retained earnings are affected by the correction of the error. Note that this also changes the balance of retained earnings at the start of 2017.

Helpful hint

In published external financial reports the movement in retained earnings is part of the statement of changes in equity.

AUST LTD
Notes to the Financial Statements (extract)
Movement in retained earnings
for the year ended 30 June 2017

	2017 $000	2016 $000
Balance at start of the period	2 140	1 600
Correction of error	(200)	—
Restated balance	1 940	1 600
Profit for the period	700	640
Total for the period	2 640	2 240
Dividends	(300)	(300)
Balance at end of period	2 340	1 940

Figure 10.9 Extract from Aust Ltd's notes to the financial statements

Compare the carrying amount of the land reported in the 2016 statement of financial position in figure 10.7 with the 2016 comparative figures for land reported in the subsequent year shown in figure 10.10 (overleaf). The carrying amount of the land reported in the comparative 2016 column is $200 000 less than the amount reported in the statement of financial position in the previous year. It has been reduced by the correction of the error that had originally caused the land to be overstated.

AUST LTD Statement of financial position (extract) as at 30 June 2017		
	2017 **$000**	**2016** **$000**
Land	4 500	4 500
Buildings, plant and equipment	7 200	8 000

Figure 10.10 Extract from Aust's statement of financial position, after correction of prior period error

When comparing financial statements over several reporting periods, prior and current period profit should be adjusted for the effect of prior period errors. If we were to correct the error as an adjustment to current period profit (which is not permitted by IFRS 8/AASB 8), both years' reported profits would be incorrect. In the Aust Ltd example, profit would be overstated in 2016 and then understated in 2017 when the error was discovered and corrected. The retrospective adjustment required by the standard avoids this problem.

CHANGES IN ACCOUNTING ESTIMATES

A **change in accounting estimates** is a revision of estimates used in the preparation of previous-period financial statements. For example, the economic life of a depreciable asset may have been estimated as 10 years in the period of acquisition. A year later, this estimate of economic life may be revised to 5 years. The effect of the change must be included in the determination of profit in the period of the change. A revision of an estimate used in a previous year is not a correction of an error.

DECISION MAKING

The effect of changes in accounting estimates on the current year's profit and, if practicable, future years' profit, must be disclosed if *material*. Information is considered material if its omission or misstatement has the potential to adversely affect decisions made by users of financial statements. Disclosure would typically be made in the notes to the financial statements rather than on the face of the statement of profit or loss. Information about changes in accounting estimates is useful when analysing trends in profit. The effect of the change — both on previous years' profit and the current year's profit — should be considered when analysing an entity's performance. This is because previous years' profit has been based on a different estimate to current year's profit, thus distorting the comparison. An apparent improvement in profitability may simply be the result of a change of accounting estimate.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Have there been any changes to accounting estimates used in previous-period financial statements?	Effect of a change in accounting estimates in the notes to the financial statements	Items reported in this section indicate that the current profit is affected by a revision to an accounting estimate used in preparing previous-period financial statements.	Consistent accounting estimates should be applied when predicting future profits.

CHANGES IN ACCOUNTING POLICIES

For ease of comparison, financial statements are expected to be prepared on a basis consistent with that used for the preceding period. That is, where a choice of accounting policies is available, the policy initially chosen should be applied consistently from period to period. A **change in accounting policy** occurs when the policy used in the current year is different from the one used in the preceding year. An example of a change in accounting policy is a change in inventory costing methods, such as from FIFO to average cost.

In preparing its 2014 financial statements, CSR Limited adopted the amendments to IAS 19/AASB 119 *Employee Benefits* (revised from 1 April 2013). This resulted in a change in policy applied retrospectively resulting in a $3.1 million decrease in profit after tax and a corresponding increase in other comprehensive income for the year ended 31 April 2013. According to note 1 in the notes to the financial statements:

> The CSR group has obtained actuarial assessments and applied amendments retrospectively resulting in a $3.1 million decrease in profit after tax ($4.4 million before tax) and a corresponding increase in other comprehensive income for the financial year ended 31 March 2013. Earnings per share based on net profit attributable to shareholders of CSR Limited has been restated for the financial year ended 31 March 2013 resulting in a decrease of 0.6 cents per share to 29.6 cents per share loss.

Source: CSR Limited, 2014 *annual report*, note 1, p. 47.

APPLICATION IN BUSINESS

Management perspective

There are two types of changes in accounting policies: changes in accounting standards and voluntary changes. When an entity changes its accounting policies to comply with a new or revised accounting standard, it must follow any transitional provisions in the standard for the treatment of the effect of the change in accounting policy. For example, on initial application of IAS 38/AASB 138 *Intangible Assets*, a transitional provision permitted entities to charge against retained earnings the carrying amounts of any intangible assets that no longer qualified for recognition under the new standard. The following information, where applicable, must be disclosed in the notes to the financial statements for changes in accounting policies resulting from a change in accounting standards:

- the title of the standard
- confirmation that the change in accounting policy is made in accordance with its transitional provisions
- the nature of the change in accounting policy
- a description of the transition provisions
- any transitional provisions that might affect future periods
- the amount of the adjustment to each financial statement line item and, if reported, the effect on earnings per share
- the amount of the adjustment that relates to prior periods
- how the accounting policy change has been applied if any retrospective application required by the transitional provision was impracticable.

For voluntary changes in accounting policy, accounting standard IAS 8/AASB 108 requires the following disclosures in the notes to the financial statements:

- the nature of the change
- the reason(s) for the change
- the effect of the change on the current year's profit
- the effect of the change on each prior year's profit presented
- the effect of the change on all previous years that are not presented, to the extent practicable
- how the change has been applied if retrospective application is not practicable.

Comparative information, if practicable, must be restated for voluntary changes in accounting policies.

For an example, see the disclosure from CSR Limited above. The annual report for Domino's Pizza Enterprises Ltd reproduced in the appendix at the end of this book, includes information on adoption of new and revised accounting standards (note 2.1).

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Has the entity changed any of its accounting policies?	Prior period effect of change in accounting policy in the notes to the financial statements	Items reported in this section indicate that the entity has changed an accounting policy during the current year.	Consistent accounting policies should be applied when estimating future profit.

DISCONTINUING OPERATIONS

A **discontinued operation** is a component of an entity that is being disposed of or is classified as held for sale. A component of an entity refers to operations and cash flows that can be clearly distinguished from the rest of the entity. For example, Coles can clearly identify its food and liquor operations and cash flows from other areas of its business, such as general merchandise and fuel. A discontinued operation will have been a cash-generating unit or group of cash-generating units while it was held for use.

DECISION MAKING

Information about discontinuing operations is useful when estimating future profits. When certain steps have been taken towards discontinuing operations, such as entering into a binding agreement for the sale of part of the business, details about the discontinuing operations must be disclosed. When operations are classified as discontinuing, the carrying amounts of assets are measured at fair value less costs of disposal. IFRS 5/AASB 5 requires the sum of the after-tax profit or loss from discontinued operations and the after-tax gain or loss arising from the restatement of the assets of discontinued operations to be reported as a single line item on the face of the statement of profit or loss. When an operation is classified as a discontinued operation, the comparative statement of profit or loss is restated as if the operation had been discontinued from the start of the comparative period. This is useful information to users because it quantifies an amount of profit or loss included in the current profit that is not expected in future years because the source of that profit or loss has been discontinued.

The following disclosures must be made, either on the face of the statement of profit or loss or in the notes to the financial statements:

- revenue, expense and pre-tax profit or loss from discontinuing operations
- the gain or loss on measuring assets of discontinued operations at fair value and the associated tax effect
- net cash flows from the operating, investing and financing activities of the discontinuing operations.

Other information pertaining to discontinued operations that must be disclosed in the notes to the financial statements includes:

- identification of the discontinuing operations
- the business or geographic segment that had included the discontinuing operations
- a description of the facts and circumstances of the sale, or the facts and circumstances leading to the expected disposal
- when discontinuance is expected to be completed.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Has the entity disposed of any major part of the business?	Statement and notes to the financial statements	Disclosures about discontinuing operations indicate that the source of some of the entity's profit is not continuing.	This source of profit should be ignored in estimating future profit.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What is earning power?
2. What are irregular items and what effect might they have on the estimation of future profits and future cash flows?

REPORTING ON EQUITY

LEARNING OBJECTIVE 7

Identify components of comprehensive income and changes in equity.

In chapter 1 we introduced you to the financial statements and illustrated a simple set of accounts for Wong Pty Ltd (see figure 1.8, p. 21). In this example, the interrelationship between the statement of profit or loss, statement of changes in equity and statement of financial position was straightforward — the statement of changes in equity showed the movement in retained earnings accounting for profit and dividends. In this section of the chapter we will examine how movements in equity are presented in external general purpose financial statements.

The content and presentation of external general purpose financial statements is prescribed by IAS 1/AASB 101 *Presentation of Financial Statements*.

A complete set of financial statements consists of a statement of profit or loss and other comprehensive income for the period, a statement of changes in equity for the period, a statement of cash flows for the period (see chapter 11), a statement of financial position as at the end of the period, and notes comprising a summary of significant accounting policies and other explanatory information. If an entity makes a retrospective change as a result of a change in an accounting policy or the correction of an error, or reclassifies items in its financial statements, a statement of financial position as at the beginning of the earliest comparative period must also be prepared. In other words, three statements of financial position and the related notes need to be prepared in the year these changes are made (i.e. as at the end of the current period, the end of the previous period and the beginning of the earliest comparative period). The names of the financial statements are not mandatory for the published financial statements. Therefore, in practice, there continues to be a variety of names used; for example, Michael Hill International Limited continues to use statement of comprehensive income for the statement of profit or loss and other comprehensive income.

STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

One of the main objectives in revising IAS 1/AASB 101 was to provide better information to users by aggregating information of items with common characteristics. Based on the concept of **total comprehensive income** as the change in equity during a period resulting from transactions and other events, other than those changes resulting from transactions with owners in their capacity as owners, IAS 1/AASB 101, paragraph 10(c) introduced the **statement of profit or loss and other comprehensive income** which reports total comprehensive income for the period. This distinguishes changes in equity arising from transactions with owners/shareholders in their capacity as owners from all the other changes in equity from total comprehensive income representing changes in equity as a result of non-owner transactions.

So how does the statement of profit or loss relate to the statement of profit or loss and other comprehensive income? Consider figure 10.11 (overleaf).

The statement of profit or loss forms part of the statement of profit or loss and other comprehensive income. IAS 1/AASB 101 permits preparers to choose between presenting all items of profit or loss and other comprehensive income in a single statement divided into two sections, or presenting two separate statements, the first a statement of profit or loss and the second a statement of comprehensive income beginning with profit for the period and then adding other comprehensive income. The statement of profit or loss shows the income and expenses for the period resulting in the profit or loss which is then transferred to retained earnings. Due to the rules set out in the accounting standards, some items of income and expenses are often not recognised in the statement of profit or loss. For example, you may recall from chapter 8 that when the revaluation basis is adopted for a class of non-current assets the upward revaluation increase is credited to the revaluation surplus and not to the statement of profit or loss. You will study other items of comprehensive income in later years of your accounting studies. IAS 1/AASB 101 paragraph 10 permits alternative names for the single statement and for the two separate statements. The alternative presentation of the statement of profit or loss and other comprehensive income is shown in figure 10.11 (overleaf). For ease of presentation, 2012 comparative figures are not shown.

Alternative terminology

Prior to 1 July 2012, the statement of profit or loss and other comprehensive income was called the statement of comprehensive income.

TWO STATEMENT PRESENTATION

ILLUSTRATIVE LTD
Statement of profit or loss for the year ended 30 June 2016

Continuing operations	
Revenue	$ 5 600
Cost of sales	(2 760)
Gross profit	2 840
Administrative expenses	(780)
Other expenses	(240)
Finance costs	(300)
Profit before income tax	1 520
Income tax expense	(450)
Profit for the period	$ 1 070

ILLUSTRATIVE LTD
Statement of comprehensive income for the year ended 30 June 2016

Profit for the period	$1 070
Other comprehensive income	
Revaluation surplus	100
Income tax on other comprehensive income	30
Other comprehensive income for the period net of income tax	70
Total comprehensive income for the period	1 140

ONE STATEMENT PRESENTATION

ILLUSTRATIVE LTD
Statement of profit or loss and other comprehensive income for the year ended 30 June 2016

Continuing operations	
Revenue	$ 5 600
Cost of sales	(2 760)
Gross profit	2 840
Administrative expenses	(780)
Other expenses	(240)
Finance costs	(300)
Profit before income tax	1 520
Income tax expense	(450)
Profit for the period	$ 1 070
Other comprehensive income	
Revaluation surplus	100
Income tax on other comprehensive income	30
Other comprehensive income for the period net of income tax	70
Total comprehensive income for the period	1 140

Figure 10.11 Alternative presentation of income

Michael Hill International Limited's statement of comprehensive income is shown in figure 10.12. Note Michael Hill uses the single statement method. The profit for the year is obtained from the first part of the statement.

Figure 10.12 Michael Hill International Limited's 2013 statement of comprehensive income

MICHAEL HILL INTERNATIONAL LIMITED
Statement of comprehensive income for the year ended 30 June 2013

		Group	
	Notes	**2013 $'000**	**2012 $'000**
Revenue from continuing operations		549 521	511 497
Other income	5	412	1 494
Cost of goods sold	6	(199 349)	(194 573)
Employee benefits expenses		(140 706)	(124 394)
Occupancy costs		(52 086)	(47 531)
Selling expenses	7	(30 927)	(30 074)
Marketing expenses		(30 365)	(29 753)

Figure 10.12 *(continued)*

	Notes	Group 2013 $'000	Group 2012 $'000
Depreciation and amortisation expense	7	(13 034)	(12 238)
Loss on disposal of property, plant and equipment	7	(123)	(457)
Other expenses		(33 068)	(27 792)
Finance costs		(3 235)	(4 143)
Profit before income tax		47 040	42 036
Income tax (expense)/benefit	8	(7 008)	(5 525)
Profit for the year		40 032	36 511
Other comprehensive income			
Items that may be reclassified subsequently to profit or loss		(4 777)	(1 843)
Currency translation differences arising during the year			
Total comprehensive income for the year		35 255	34 668
Total comprehensive income for the year attributable to:			
Owners of Michael Hill International Limited		35 255	34 668

STATEMENT OF CHANGES IN EQUITY

As the name suggests, the statement of changes in equity reflects the net changes in the equity accounts for the period. It shows the total comprehensive income for the period; the effects of any retrospective adjustments for accounting errors, changes in accounting policies and reclassification of amounts, as outlined in the previous section in this chapter; and the results of transactions with owners/shareholders in their capacity as owners, that is, contributions and distributions. The details of dividends or other distributions to owners can still be shown in a note to the financial statements. Lastly, the statement of changes in equity must show, for each equity account, a reconciliation between the opening and closing balances, separately disclosing each change. An extract of Michael Hill International Limited's statement of changes in equity as at 30 June 2013 (from the Michael Hill International Limited 2013 annual report) is illustrated in figure 10.13. For ease of presentation, the non-controlling interests and the 2012 comparative figures are not shown.

Figure 10.13 Extract of Michael Hill International Limited's 2013 statement of changes in equity

MICHAEL HILL INTERNATIONAL LIMITED
Statement of changes in equity (extract)
for the year ended 30 June 2013

	Notes	Contributed equity $'000	Reserves $'000	Retained earnings $'000	Total $'000
Balance at 30 June 2012		4 083	1 793	188 483	194 359
Total comprehensive income		—	(4 777)	40 032	35 255
		4 083	(2 984)	228 515	229 614

(continued)

Figure 10.13 *(continued)*

	Notes	Contributed equity $'000	Reserves $'000	Retained earnings $'000	Total $'000
Transactions with owners in their capacity as owners:					
Dividends paid	27	—	—	(22 968)	(22 968)
Employee shares issued	31(b)	79	—	—	79
Option expense through share based payment reserve	31(c)	—	140	—	140
		79	140	(22 968)	(22 749)
Balance at 30 June 2013		4 162	(2 844)	205 547	206 865

Now let's review how equity is reported in the statement of financial position.

Alternative terminology

Share capital is often called *contributed equity* in external financial statements.

STATEMENT OF FINANCIAL POSITION — EQUITY SECTION

The equity section of the statement of financial position of a corporation includes:

- share capital (contributed equity)
- retained earnings
- reserves.

Helpful hint

For reporting periods from 1 January 2009 the balance sheet is called the *statement of financial position*, but some companies continue to use the old title in their published financial statements.

The distinction between capital and retained earnings is important from both legal and economic perspectives. Share capital is the amount that has been paid into the company by shareholders in exchange for shares of ownership. **Retained earnings** represent a part of equity resulting from profit that has not been distributed as a dividend. Most reserves, such as the general reserve and the revaluation surplus, represent changes in equity that do not result from transactions with owners. The general reserve is an accumulation of profit, similar to retained earnings. The revaluation surplus was discussed in chapter 8, and is a component of other comprehensive income.

An extract from the equity section of Michael Hill International Limited's statement of financial position as at 30 June 2013 (from the Michael Hill International Limited 2013 annual report) is illustrated in figure 10.14.

MICHAEL HILL INTERNATIONAL LIMITED
Statement of financial position
as at 30 June 2013 (extract)

EQUITY	2013 $'000	2012 $'000
Contributed equity	$ 4 162	$ 4 083
Reserves	(2 844)	1 793
Retained profits	205 547	188 483
Total equity	$206 865	$194 359

Figure 10.14 Equity section of Michael Hill International Limited's 2013 statement of financial position

Source: Michael Hill International Limited, 2013 annual report, http://investor.michaelhill.com.

Share capital

The company must report the amount of share capital, often labelled **contributed equity**, on the face of the statement of financial position. Other information about share capital is also reported but is typically located in the notes to the financial statements.

Share capital may comprise several classes of shares. For each class of shares, the company reports the number of shares that are fully paid, the number of shares that are partly paid, and an explanation of any changes in the number of shares during the period.

Figure 10.15 shows extracts from the note disclosures of share capital in the 2013 annual report of Xero Limited, a company funded entirely by equity. As can be seen from figure 10.15, Xero Limited had 115 378 000 fully paid shares at the end of its 2013 financial year and the dollar amount of contributed equity, or paid up capital, was $155 551 000. During 2013, the $10 437 000 increase in share capital came from three separate issues. The first an issue of 10 million shares to Matrix Capital and Valar, the second 90 000 to purchase Spotlight Workpapers Limited, and the remaining 347 000 under employee long-term incentive plans.

XERO LIMITED
Notes to the financial statements
for the year ended 31 March 2013

1. Summary of significant accounting policies

(r) Share capital

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares are shown in equity as a deduction, net of tax, from the proceeds. Where any Group company purchases the Company's equity share capital (treasury shares), the consideration paid is deducted from equity attributable to the Company's equity holders until the shares are cancelled or transferred outside the Group.

NOTE 13. SHARE CAPITAL (extract)

Movement in ordinary shares on issue

		Group	
	Notes	**2013 Shares $'000**	**2012 Shares $'000**
Balance at 1 April		106 782	91 012
Issue of ordinary shares		10 000	13 352
Issue of ordinary shares — purchase of Paycycle assets	11	—	606
Issue of ordinary shares — purchase of Max Solutions Holdings Limited		—	1 262
Issue of ordinary shares — purchase of Spotlight Workpapers Limited		90	—
Issue of ordinary shares under employee long term incentive plans		347	550
Ordinary shares on issue at 31 March		117 219	106 782
Treasury Stock		(1 841)	(2 683)
Ordinary shares on issue at 31 March		115 378	104 099

All shares have been issued, are fully paid and have no par value.

In December 2012 the Company issued 10 million shares to Matrix Capital and Valar. These shares were issued at $6.00 — the VWAP at the time the transaction was negotiated. Transaction costs of $118 000, being primarily ASX and NZX listing fees, were incurred in this transaction.

During the year the Company issued 347 438 shares under the employee long-term incentive plans, at an average price of $5.31.

During the year the Company granted 392 390 options to selected employees with exercise prices of $3.83 to $7.70 per share, being the market price on the date the options were granted. The options are exercisable in equal amounts over three years from the grant date. No options can be exercised later than the first anniversary of the final vesting date (a total of four years from the grant date). Any unvested and unexercised options will be cancelled should an employee cease to be employed.

Treasury stock includes shares issued in relation to the purchase of Paycycle assets, Max Solutions Holdings Limited and the Employee Restricted Share Plan that have yet to vest.

Figure 10.15 **Extract from the contributed equity note disclosure in the 2013 annual report of Xero Limited.**

Source: Xero Limited, 2013 annual report, pp. 10, 22.

Xero Limited's statement of changes in equity for the year ended 31 March 2013 showed total share capital of $155 551 000, an increase of $62 300 000 during the year. Of this, $59 882 000 related to the issue of shares on 12 December, $600 000 to the equity component of the purchase of Spotlight Workpapers Limited, and $1 818 000 for the employee restricted share plan. In contrast Michael Hill International Limited's share capital increase was limited to the $79 000 employee share scheme.

Reserves

Reserves are a component of equity. Most reserves of Australian and New Zealand companies are classified as **revenue reserves**, which mean they can be distributed as dividends. Management may choose to transfer retained earnings to a reserve account to signal that they have no intention of distributing it in the near future. This does not prevent the company from later distributing it as a dividend. Accounting standards require companies to disclose the nature and purpose of reserves, and to provide a reconciliation that explains the movement in each reserve during the reporting period. The aggregate amount of reserves at the end of the reporting period is shown on the face of the statement of financial position. See figure 10.16 for an example of the disclosure for reserves reported in the notes to the financial statements.

LEARNING OBJECTIVE 8
Identify the items that affect retained earnings.

RETAINED EARNINGS

Retained earnings represent accumulated profits that have not been distributed to shareholders. The retained earnings account is increased by profits and decreased by losses and dividends. Amounts can also be transferred to reserve accounts from retained earnings; similarly, amounts can be transferred from reserve accounts to retained earnings.

Accounting standards require companies to report the opening amount of retained earnings and changes to retained earnings during the period. The amount of retained earnings at the end of the reporting period is also shown in the statement of financial position. To illustrate: Retainer Ltd had a credit balance of $120 000 in the retained earnings account at the beginning of the year. Retainer Ltd's profit for the year was $50 000. Dividends of $5000 were declared during the year and $20 000 was transferred to the general reserve. The movement in the retained earnings account and its closing balance can be determined as shown below.

Balance of retained earnings at the beginning of the period		$120 000
Add: Profit		50 000
		170 000
Less: Dividends declared	$ 5 000	
Transfer to general reserve	20 000	25 000
Balance of retained earnings at the end of the period		$145 000

Figure 10.16 illustrates an example of the disclosure for reserves and retained earnings reported in the notes to the financial statements.

Figure 10.16 Extract from reserves and retained earnings section. Note disclosure in 2013 annual report of Domino's Pizza Enterprises Limited reproduced here.

DOMINO'S PIZZA ENTERPRISES LIMITED
Notes to the financial statements
as at 30 June 2013 (extract)

29 Reserves	2013 $'000	2012 $'000
Foreign currency translation	(6 852)	(12 842)
Equity-settled share-based benefits	2 533	1 898
Hedging	2 334	2 296
	(1 985)	(8 648)

Figure 10.16 *(continued)*

29.1 Foreign currency translation reserve	**2013 $'000**	**2012 $'000**
Balance at beginning of financial year	(12 842)	(9 064)
Translation of foreign operations	5 990	(3 778)
Balance at end of financial year	(6 852)	(12 842)

Exchange differences relating to the translation of the net assets of the consolidated entity's foreign operations from their functional currencies to the consolidated entity's presentation currency (i.e. Australian dollars) are recognised directly in other comprehensive income and accumulated in the foreign currency translation reserve.

29.2 Equity-settled share-based benefits reserve		
Balance at beginning of financial year	1 898	1 578
Share-based payment	635	320
Balance at end of financial year	2 533	1 898

The equity settled share-based benefits reserve arises on the grant of share options to executives under the Executive Share and Option Plan ('ESOP'). Further information about ESOP is made in note 33 to the financial statements.

29.3 Hedging reserve		
Balance at beginning of financial year	2 296	2 044
Gain recognised:		
Net investment hedge	38	156
Interest rate swap	—	96
Balance at end of financial year	2 334	2 296

The hedging reserve represents hedging gains and losses recognised on the effective portion of net investment hedges.

30 Retained earnings		
Balance at beginning of year	55 817	45 835
Net profit attributable to members of the Company	28 657	26 936
Payment of dividends	(20 762)	(16 954)
Balance at end of year	63 712	55 817

Figure 10.16 shows the movements in the equity settled share based benefits reserve. Note 33 expands on this. (See the relevant note from Domino's Pizza Enterprises Limited's 2013 report reproduced in the appendix on p. 912.)

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What are the differences between the statement of profit or loss, statement of profit or loss and other comprehensive income and statement of changes in equity?
2. Identify the three components of equity.
3. Identify three items that decrease retained earnings.

>> DO IT

Polar Equip Ltd operates a ski hire business. The company reported retained earnings of $80 000 and a general reserve of $250 000 in its statement of financial position at 30 June 2015. During the year ended 30 June 2016, Polar Equip Ltd generated profit of $30 000. It paid an interim dividend of $20 000 in January and declared a final dividend of $40 000 on 30 June 2016. The directors decided to transfer $50 000 from the general reserve account to the retained earnings account on 30 June 2016.

Calculate the closing balance of retained earnings and the general reserve at 30 June 2016 and prepare reconciliation statements showing the movement in each of these accounts.

REASONING: The general reserve account is reduced by the transfer from the general reserve to retained earnings. The retained earnings account is increased by profit and the transfer from the general reserve dividends.

SOLUTION:

General reserve	$
Balance 1 July 2015	250 000
Transfer to retained earnings	(50 000)
Balance 30 June 2016	**$200 000**
Retained earnings	$
Balance 1 July 2015	80 000
Profit	30 000
Transfer from general reserve	50 000
Interim dividend	(20 000)
Final dividend	(40 000)
Balance 30 June 2016	**$100 000**

LEARNING OBJECTIVE 9

Evaluate a company's dividend and earnings performance from a shareholder's perspective.

FINANCIAL STATEMENT ANALYSIS AND DECISION MAKING

Investors are interested in both a company's dividend record and its earnings performance. Although they are often parallel, that is not always the case. Thus, each should be investigated separately.

DIVIDEND RECORD

One way that companies reward investors for their investment is to pay them dividends. The **dividend payout** measures the percentage of profit distributed in the form of cash dividends to ordinary shareholders. It is calculated by *dividing total cash dividends declared to ordinary shareholders by profit*. From the information shown below, the payout for Michael Hill International Limited in 2013 and 2012 is calculated in figure 10.17.

Helpful hint

Profit refers to profit after tax. Profit = revenue − expenses. Expenses include tax expense. For comparative purposes it excludes discontinuing items. Dividends paid include interim cash dividends plus any final cash dividends relating to the financial year even if declared after the end of the reporting period.

($ in millions)	**2013**	**2012**
Dividends	24.89	21.05
Profit	40.03	36.51

$$\text{Dividend payout} = \frac{\text{Cash dividends declared on ordinary shares}}{\text{Profit}}$$

($ in millions)	2013	2012
Payout	$\frac{\$24.89}{\$40.03} = 62.2\%$	$\frac{\$21.05}{\$36.51} = 57.7\%$

Figure 10.17 Michael Hill International Limited's dividend payout

Michael Hill's dividend payout increased by 4.5% from 2012 to 2013, indicating the company increased its payout less than the 9.6% increase in profits in 2013. This suggests that the company may be retaining some of its profit for investment in future growth.

Companies that have high growth rates are often characterised by low dividend payouts because they reinvest most of their profit in the business. Thus, a low payout rates is not necessarily bad news. Companies that believe they have many good opportunities for growth pay lower dividends and retain funds for investments. However, low dividend payments, or a cut in dividend payments, might signal that a company has liquidity or solvency problems and is trying to free up cash by not paying dividends. Thus, the reason for low dividend payments should be investigated. However, Michael Hill does not appear to be in that situation.

Listed in figure 10.18 are payouts in recent years of four well-known companies.

Company	Payout percentage
Fantastic Holdings Limited	80%
Woolworths Limited	74%
Nick Scali Limited	61%
Santos Limited	56%

Figure 10.18 Variability of dividend payout rates among companies

In deciding whether to invest in a company, potential investors and existing shareholders would be interested in the amount of dividends distributed to shareholders. The dividend payout ratio provides an indication of the proportion of profit that is distributed in dividends. It compares the cash dividends declared on ordinary shares to the profit available to ordinary shareholders. If investors are dividend focused, they may prefer a company with a high dividend payout. For those investors that are focused on capital gains, a low dividend payout may be preferable if the company is planning for future growth, which may lead to an increase in profit and share price in the future. The relevance of the dividend payout in the investment decision is summarised in the decision-making toolkit below.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
What portion of its profit does the company pay out in dividends?	Profit and total cash dividends declared on ordinary shares	$\text{Dividend payout} = \dfrac{\text{Cash dividend declared on ordinary shares}}{\text{Profit}}$	A low rate suggests that the company is retaining its profit for investment in future growth or experiencing liquidity problems.

EARNINGS PERFORMANCE

Another way to measure corporate performance is through profitability. A widely used ratio that measures profitability from the shareholders' perspective is **return on ordinary shareholders' equity**. This ratio shows how many dollars of profit were earned for each dollar invested by ordinary shareholders. It is calculated by dividing profit available to ordinary shareholders (Profit − Preference dividends) by average ordinary shareholders' equity. From the additional information presented on the following page, Michael Hill International Limited's return on ordinary shareholders' equity is calculated for 2013 and 2012 in figure 10.19 (overleaf).

($ in millions)	2013	2012	2011
Profit	40.032	36.511	
Preference dividends	—	—	
Ordinary shareholders' equity	206.865	194.359	178.376

$$\text{Return on ordinary shareholders' equity} = \frac{\text{Profit} - \text{preference dividends}}{\text{Ordinary shareholder's average equity}}$$

($ in thousands)	2013	2012
Return on ordinary shareholders' equity	$\dfrac{\$40.032 - 0}{(\$206.865 + \$194.359)/2} = 20.0\%$	$\dfrac{\$36.511 - 0}{(\$194.359 + \$178.376)/2} = 19.6\%$

Figure 10.19 Michael Hill International Limited's return on ordinary shareholders' equity

From 2012 to 2013 Michael Hill's return on ordinary shareholders' equity increased slightly, as the increase in profit was 2% higher than the increase in average equity.

LEARNING OBJECTIVE 10

Evaluate debt and equity as alternative sources of finance.

DECISION MAKING

DEBT VERSUS EQUITY FINANCING DECISION MAKING

When undertaking major projects (e.g. purchasing a new vineyard), acquiring manufacturing facilities or expanding operations into international markets, management must consider how the investment will be financed. For small business, this usually involves a visit to the bank. For public companies, the decision is more complex because they have more alternatives — public companies can raise money from the public in the form of debt or equity.

The advantages of debt financing relative to issuing more shares are depicted in figure 10.20.

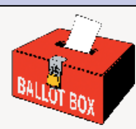
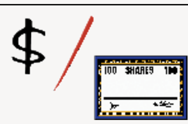
Debt financing	Advantages
	1. **Shareholder control is not affected.** Noteholders do not have voting rights, so current owners (shareholders) retain full control of the company.
	2. **Tax savings result.** Interest is deductible for tax purposes; dividends on shares are not.
	3. **Return on ordinary shareholders' equity may be higher.** Although interest expense reduces profit, return on ordinary shareholders' equity is often higher under debt financing because equity is not increased by the issue of shares.

Figure 10.20 Advantages of debt financing over issuing ordinary shares

We will now focus on how the return on ordinary shareholders' equity can be increased by the effective use of debt. To illustrate the potential effect of debt on the return on ordinary shareholders' equity, assume that Magpie Ltd is considering two plans for financing the construction of a new $5 million factory. Plan A involves issuing 200 000 shares at the current market price of $25 per share. Plan B involves issuing $5 million, 12% unsecured notes. Assume that profit before interest and tax on the new factory will be $1.5 million; income tax is expected to be 30%. Magpie Ltd currently has equity of $2.5 million. The alternative effects on return on ordinary shareholders' equity are shown in figure 10.21.

	Plan A: issue shares	**Plan B: issue unsecured notes**
Profit before interest and tax	$1 500 000	$1 500 000
Interest (12% × $5 000 000)	—	600 000
Profit before income tax	1 500 000	900 000
Income tax expense (30%)	450 000	270 000
Profit	$1 050 000	$ 630 000
Equity	$7 500 000	$2 500 000
Return on ordinary shareholders' equity	**14%**	**25.2%**

Figure 10.21 **Effects on return on ordinary shareholders' equity — shares vs. notes payable**

In calculating the estimated return on ordinary shareholders' equity for Plan A, the issue of shares, we include the increase in capital in equity. We do not include the change in retained earnings as this would involve numerous assumptions about dividend policy. We have no reason to expect that dividend policy would vary between financing alternatives. Implicitly, this approach assumes a dividend payout of 100% for both plans.

Note that with long-term debt financing (notes), profit is $420 000 less than with equity financing ($1 050 000 − $630 000). However, return on ordinary shareholders' equity is higher because equity is lower.

The major disadvantage resulting from the use of unsecured notes or debentures is that the company locks in fixed payments that must be made in good times and bad. Interest must be paid on a periodic basis, and the principal (face value) of the notes must be paid at maturity. A company with fluctuating earnings and a relatively weak cash position may experience great difficulty in meeting interest requirements in periods of low earnings. In the extreme, this can result in insolvency. With equity financing, on the other hand, the company can decide to pay low (or no) dividends if earnings are low. A potential disadvantage of equity finance is that issuing new shares may affect the control of existing shareholders.

APPLICATION IN BUSINESS

Management perspective

Arrium Limited, an international diversified mining and materials company, has been sharing the pain of other mining companies in facing falling commodity prices and rising debt. In September 2014, the company set out to reduce debt by raising approximately $754 million at a fixed price of $0.48 per share (a steep discount on the share price at that time). If all shares are taken up at 48 cents it will take total shares from 1356 million at June 2014 to over double that amount ($754/0.48 = $1570 million). As at 26 September 2014, its share price had dropped to $0.375 on the ASX.

Sources: Arrium Limited's web site, www.arrium.com, and its 2014 preliminary financial report; E. Knight, 'Arrium's $754m equity raising vital to ease debt burden as iron ore prices fall', *Sydney Morning Herald*, 16 September, www.smh.com.au.

In deciding whether to invest in a company, potential investors and existing shareholders would have a specific interest in the entity's ability to generate a satisfactory return from the funds invested by its owners. One key ratio that measures profitability from the shareholders' perspective is the return on ordinary shareholders' equity. It compares the profit available to ordinary shareholders to the amount of ordinary shareholders' equity. A company which generates a high rate of return would be a more attractive investment option as it provides investors greater confidence in the entity's ability to generate a high level of profit. The relevance of this information in the investment decision is summarised in the decision-making toolkit below.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
What is the company's return on ordinary shareholders' investment?	Profit available to ordinary shareholders and average ordinary shareholders' equity	Return on ordinary shareholder's equity $= \dfrac{\text{Profit – preference dividends}}{\text{Average ordinary shareholder's equity}}$	A high measure suggests strong earnings performance from shareholders' perspective.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What measure can be used to evaluate a company's dividend record, and how is it calculated?
2. What factors affect the return on ordinary shareholders' equity?
3. What are the advantages and disadvantages of debt and equity financing?

USING THE DECISION-MAKING TOOLKIT

Premier Investments Limited is a retailer with brands including Just Jeans, Portmans, Peter Alexander and Smiggle.

INSTRUCTIONS

The following facts are available for Premier Investments Limited. Using this information, evaluate its (1) dividend record and (2) earnings performance, and contrast them with those for Michael Hill International Limited 2013 and 2012 — calculated on pages 616 and 618 respectively.

(rounded to $ millions except per share data)	2013	2012	2011
Dividends declared	59	56	
Profit	174	68	
Ordinary shareholders' equity	1 300	1 250	1 194

SOLUTION:

1. *Dividend record:* The payout ratio is a measure to evaluate a company's dividend record. For Premier, this measure was calculated for 2013 and 2012 as shown below.

	2013	2012
Dividend payout	$\dfrac{\$59}{\$174} = 34\%$	$\dfrac{\$56}{\$68} = 82\%$

Premier Investments' profit of $174 million in 2013 is substantially higher than the profit of $68 million reported in 2012. This 155% increase in profit was attributed to a reclassification adjustment of $105 million associated with a change in accounting for the entity's investment in Breville Group Limited. Excluding this adjustment, the entity's profit for 2013 was $69 million, which reflects a 1.5% increase compared to 2012. The dividend payout for 2013 using the unadjusted profit figure of $174 million was 34%, which appears significantly lower than the 82% payout for 2012. However, if the adjustment of $105 million is excluded from the profit, the dividend payout rates for 2013 and 2012 were around 86% and 82% respectively. These rates are much higher than Michael Hill International Limited's dividend payout rates for 2013 and 2012 of 62% and 58% respectively, as shown in figure 10.17 (p. 616).

2. *Earnings performance:* The return on ordinary shareholders' equity is one measure of earnings performance. The return on ordinary shareholders' equity for Premier Investments is calculated as shown below.

	2013	2012
Return on ordinary shareholders' equity	$\frac{\$174}{(\$1300 + \$1250)/2} = 13.6\%$	$\frac{\$68}{(\$1250 + \$1194)/2} = 5.6\%$

Premier Investments' return on ordinary shareholders' equity increased significantly from 5.6% in 2012 to 13.6% in 2013. This was mainly due to the 155% increase in profit associated with the reclassification adjustment of $105 million referred to previously. However, a strong performance from the entity's core brands, which include Dotti, Portmans and Smiggle, as well as growth in the entity's online sales also contributed to this substantial improvement in 2013.

SUMMARY OF LEARNING OBJECTIVES

1 Explain the business context and the importance of decision making relating to equity.
The business context for equity is very dependent on the nature of the entity and ownership structure. Decision making relating to equity is important for many stakeholders apart from owners, and relates to such issues as share issues, share splits, dividend policies, earning power, and so on.

2 Identify and discuss the main characteristics of a corporation (company).
The main characteristics of a corporation are separate legal existence, limited liability of shareholders, transferable ownership rights, ability to acquire capital, continuous life, company management, and the application of government and other regulations.

3 Record the issue of ordinary shares.
For a private placement, the proceeds of a share issue are directly credited to share capital. When the public is invited to subscribe to a share issue, application money is credited to the application account and the proceeds are held in a trust account until shares are allotted. At that time the proceeds become legal capital and are credited to the share capital account. The money received into the trust account is then transferred to the company's bank account.

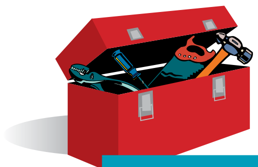
4 Describe the effects of share splits.
Share splits increase the number of shares owned by each shareholder and decrease the assigned value of each share. Share splits do not affect the total amount of share capital.

5 Prepare the entries for cash dividends and share dividends and describe the impact on equity and assets.
Entries for both cash and share dividends are required at the declaration date and the payment date. At the declaration date, the entries are as follows — for a *cash dividend*, debit retained earnings and credit dividends payable; for a *share dividend*, debit retained earnings and credit share dividends payable. At the payment date, the entries for cash and share dividends are debit dividends payable and credit cash, and debit Share dividends payable and credit share capital respectively. Cash dividends reduce reserves and thus total equity and assets, while share dividends make no difference to total equity or assets, but increase share capital while reducing reserves.

6 Understand the concept of earning power and indicate how irregular items are presented.
Earning power refers to an entity's ability to sustain its profits from operations. The effects of irregular items should

be considered when evaluating earning power. Profit or loss from discontinued operations is reported in the statement of profit or loss, while effects of changes in accounting policies and accounting estimates used, if material, are disclosed in the notes to the financial statements.

7 Identify components of comprehensive income and changes in equity.
The statement of changes in equity provides a reconciliation of all changes in equity and shows details of movements in equity from transactions with owners/shareholders in their capacity as owners. The statement of profit or loss and other comprehensive income shows all changes in equity for a period other than those arising from transactions with owners/shareholders in their capacity as owners.



8 Identify the items that affect retained earnings.
Retained earnings are increased by profit and transfers from reserves, and decreased by losses, dividends and transfers to reserves.

9 Evaluate a company's dividend and earnings performance from a shareholder's perspective.
The dividend payout can be used to measure the portion of a company's profit distributed to shareholders as a dividend. A low dividend payout may indicate that the company is growing and that management has chosen to retain shareholders' funds for further investment. On the other hand, a low dividend payout could reflect liquidity problems. There are many measures of earnings performance, including the return on ordinary shareholders' equity.

10 Evaluate debt and equity as alternative sources of finance.
The return on ordinary shareholders' equity can be used to determine whether debt finance or the issue of more shares to finance an investment project would result in a better return to shareholders. However, other factors such as the fixed interest stream and shareholder control should also be considered.

DECISION-MAKING TOOLKIT — A SUMMARY

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Should the business incorporate?	Capital needs, growth expectations, type of business	Companies have limited liability, easier capital-raising ability, continuous life and professional managers; but they suffer from government and other regulations, and separation of ownership from management.	Must carefully weigh the costs and benefits in light of the particular circumstances
Have there been any changes to accounting estimates used in previous period financial statements?	Effect of a change in accounting estimates in the notes to the financial statements	Items reported in this section indicate that the current profit is affected by a revision to an accounting estimate used in preparing previous-period financial statements.	Consistent accounting estimates should be applied when predicting future profits.
Has the entity changed any of its accounting policies?	Prior period effect of a change in an accounting policy in the notes to the financial statements	Disclosures about discontinuing operations indicate that the entity has changed an accounting policy during the current year.	Consistent accounting policies should be applied when estimating future profits.
Has the entity disposed of any major part of the business?	Statement of profit or loss and notes to the financial statements	Items reported in this section indicate that the source of some of the entity's profit is not continuing.	This source of profit should be ignored when estimating future profits.
What portion of its profit does the company pay out in dividends?	Profit and total cash dividends declared on ordinary shares	$\text{Dividend payout} = \dfrac{\text{Cash dividends declared on ordinary shares}}{\text{Profit}}$	A low rate suggests that the company is retaining its profit for investment in future growth or experiencing liquidity problems.
What is the company's return on shareholders' investment?	Profit available to ordinary shareholders and average ordinary shareholders' equity	$\text{Return on ordinary shareholders' equity} = \dfrac{\text{Profit} - \text{preference dividends}}{\text{Average ordinary shareholder's equity}}$	A high measure suggests strong earnings performance from shareholders' perspective.

GLOSSARY

Allotment The issue of shares (p. 597).

Application The act of subscribing to a public issue of shares or other securities, such as debentures (p. 597).

Call on capital A claim for unpaid capital made by a company (p. 597).

Cash dividend A pro rata distribution of profit paid in cash to shareholders (p. 599).

Change in accounting estimates A revision of estimates used in the preparation of previous-period financial statements (p. 606).

Change in accounting policy Use of an accounting policy in the current year different from the one used in the preceding year (p.606).

Chief executive officer (CEO) Most senior manager with direct responsibility for managing the business (p. 593).

Company A form of corporation; evidence of ownership is shares (p. 591).

Contributed equity Another name for share capital (p. 612).

Corporation A separate legal entity, with most of the rights and privileges of a person (p. 591).

Declaration date The date the board of directors formally declares the dividend and announces it to shareholders (p. 600).

Discontinued operation A component of an entity that is being disposed of or classified as held for sale (p. 608).

Dividend A distribution by a company to its shareholders on a pro rata (proportionate) basis (p. 599).

Dividend payout Total cash dividends declared to ordinary shareholders divided by profit (p. 616).

Earning power Profit adjusted for irregular items (p. 603).

Financial controller The chief accounting officer in a business (p. 593).

Issue price Amount received on issue of a share, debenture or unsecured note (p. 596).

Limited liability The limit of liability of owners of a company to any unpaid amount of capital (p. 591).

Ordinary shares Shares representing the residual ownership interest in a company (p. 595).

Payment date The date dividends are paid to shareholders (p. 600).

Prior period errors IAS 8 para. 5 defines prior period errors as 'omissions from, and misstatements in, the entity's financial statements for one or more prior periods arising from a failure to use, or misuse of, reliable information that:

(a) was available when financial statements for those periods were authorised for issue; and
(b) could reasonably be expected to have been obtained and taken into account in the preparation and presentation of those financial statements.

Such errors include the effects of mathematical mistakes, mistakes in applying accounting policies, oversights or misinterpretations of facts, and fraud (p. 603).

Private placement An issue of shares by private invitation (p. 596).

Proprietary company A company that has up to 50 shareholders and whose shares are not available for sale to the general public; also called a private company (p. 591).

Prospectus A document issued with an invitation to subscribe for shares, containing information about the offering company (p. 596).

Public company A company that may have thousands of shareholders and which may raise money from the public through debt or equity issues (p. 591).

Retained earnings Profit that has not been distributed (p. 612).

Return on ordinary shareholders' equity Profit available to ordinary shareholders divided by average shareholders' equity (p. 617).

Revenue reserves A component of equity, other than retained earnings, that may be distributed as a dividend (p. 614).

Share dividend A pro rata distribution of the company's own shares to shareholders; also called a bonus issue (p. 601).

Share split The issue of additional shares to shareholders accompanied by a proportionate reduction in the stated value of the shares (p. 598).

Statement of profit or loss and other comprehensive income A statement that reports total comprehensive income during a period (p. 609).

Total comprehensive income The change in equity during a period resulting from transactions and other events, other than those changes resulting from transactions with owners/shareholders in their capacity as owners (p. 609).

Treasurer The person with custody of a company's funds and responsibility for maintaining the company's cash position (p. 593).

DEMONSTRATION PROBLEM 1

Sydney Software Ltd successfully developed a new spreadsheet program. However, to produce and market the program, the company needed $1.5 million of additional financing. Sydney Software Ltd already had retained earnings of $100 000 and share capital of 100 000 $10 shares. The following transactions occurred:

1. Issued 150 000 ordinary shares for $10 each by private placement on 21 January 2016.
2. Dividends of $0.20 per share were declared on 8 September 2016 and paid on 30 September 2016.

Sydney Software Ltd's reporting period ends on 31 December.

REQUIRED

(a) Journalise the issue of the shares on 21 January 2016.
(b) Prepare the entry for the declaration and payment of dividends.
(c) Prepare a statement of the movement in retained earnings for the year ended 31 December 2016. Profit was $60 000.

SOLUTION TO DEMONSTRATION PROBLEM 1

(a) Jan. 21	Cash	1 500 000	
	Share capital		1 500 000
	(To record issue of ordinary shares at $10 each)		
(b) Sept. 8	Cash dividend declared	50 000	
	Dividend payable		50 000
	(To record cash dividend declared)		
Sept. 30	Dividend payable	50 000	
	Cash		50 000
	(To record cash dividend paid)		

(c) Retained earnings 1/1/16	$100 000
Profit year ended 31/12/16	60 000
Dividends declared and paid	(50 000)
Retained earnings 31/12/16	$110 000

DEMONSTRATION PROBLEM 2

Hamilton Ltd prepared the following statement of profit or loss and movement in retained earnings for the year ended 31 December 2016:

HAMILTON LTD
Statement of profit or loss
for the year ended 31 December 2016

	$'000
Net sales	4 400
Cost of sales	(2 600)
Finance costs	(300)
Other expenses (selling and administration expenses)	(1 000)
Additional depreciation expense resulting from change of estimated useful life	(100)
Tax expense	(150)
Profit for the period	250

HAMILTON LTD
Movement in retained earnings
for the year ended 31 December 2016

	$'000
Balance at the start of the period	400
Profit for the period	250
Profit from plastics division and loss from restatement of the assets of that division, net of tax (discontinued operation)	(500)
Balance at the end of the period	150

Hamilton Ltd entered into negotiations with Townsville Trading for the sale of the plastics division assets. The sale is expected to be completed by April 2017. The plastics division formed part of the industrial products business segment, and generated revenue of $800, expenses of $600 and profit before tax of $200 for the year ended 31 December 2016. The profit after tax was $120. The loss resulting from the restatement of the assets of the plastics division was $1000 before tax and $620 after tax.

Note
The movement in retained earnings is part of the statement of changes in equity.

REQUIRED

Prepare the statement of profit or loss, movement in retained earnings and any required disclosures in the notes to the financial statements.

SOLUTION TO DEMONSTRATION PROBLEM 2

HAMILTON LTD
Statement of profit or loss
for the year ended 31 December 2016

	$'000
Revenue	4 400
Cost of sales	(2 600)
Gross profit	1 800
Expenses excluding finance costs	(1 100)
Finance costs	(300)
Profit before income tax expense	400
Income tax expense	(150)
Profit from continuing operations for the period	250
Profit from plastics division and loss from restatement of the assets of that division, net of tax (discontinued operation)	(500)
Loss for the period	(250)

HAMILTON LTD
Movement in retained earnings
for the year ended 31 December 2016

	$'000
Balance at the start of the period	400
Loss for the period	(250)
Balance at the end of the period	150

HAMILTON LTD
Notes to the financial statements

Additional depreciation expense resulting from a change in estimated useful life has affected the line item 'Expenses excluding finance costs' by increasing depreciation expenses by $100 000. The carrying amount of property plant and equipment has decreased by $100 000 as a result of the change in estimated useful life.

The plastics division has been discontinued. It formed part of the industrial products business segment. Hamilton Ltd has commenced negotiations with Townsville Trading for the sale of the assets of the plastics division and it is anticipated that the sale will be completed in April 2017. The plastics division generated revenue of $800, expenses of $600 and profit before tax of $200 for the year ended 31 December 2016. The profit after tax was $120. The loss resulting from the restatement of the assets of the plastics division was $1000 before tax and $620 after tax.

The notes to the financial statements should also identify the operating, financing and investing cash flows generated or used by the plastics division. These may be located with the other notes about the statement of cash flows.

SELF-STUDY QUESTIONS *Answers are at the end of the chapter.*

(LO2) 1. Which of these is *not* a major advantage of the corporate form of business organisation?
(a) Separate legal existence.
(b) Continuous life.
(c) Separation of ownership and management.
(d) Limited liability of shareholders.

(LO2,3) 2. Which of these statements is *false*?
(a) Ownership of ordinary shares gives the owner a voting right.
(b) The equity section begins with share capital (contributed equity).
(c) The transfer of shares between shareholders does not result in a formal accounting entry.
(d) Shares can be issued only for cash.

(LO4) 3. A share split has the effect of:
(a) increasing the number of shares.
(b) increasing the amount of share capital.
(c) decreasing the amount of share capital.
(d) increasing equity.

(LO5) 4. Entries for cash dividends reduce equity:
(a) on both declaration date and payment date.
(b) on payment date only.
(c) on declaration date only.
(d) on neither declaration date nor payment date.

(LO5) 5. Which of these statements about share dividends is *true*?
(a) A credit entry should be made to Retained Earnings for the dollar amount of the shares issued.
(b) A share dividend increases share capital.
(c) A share dividend decreases total equity.
(d) A share dividend ordinarily will increase total equity.

(LO5) 6. Which of the following conditions is necessary for a company to pay cash dividends?
(a) Dividends must be paid from retained earnings.
(b) The company must pay the cash dividend at least once a year.
(c) After paying the dividend, the company must be able to pay its other debts, i.e. the company must be solvent.
(d) All of the above.

(LO6) 7. Which of the following is *not* true in relation to earning power?
(a) Earning power is the most likely level of profit to be obtained in the future.
(b) Earning power is the extent to which this year's profit is a good predictor of future profits.
(c) Profit adjusted for irregular items is referred to as earning power.
(d) Profit including irregular items is referred to as earning power.

(LO6) 8. Which of the following is *not* classified as an irregular item?
(a) Change in accounting policy.
(b) Bad debts expenses.
(c) Changes in accounting estimates.
(d) Prior period errors.

(LO7) 9. Which of the following is *not* part of comprehensive income?
(a) Prior period errors.
(b) Discontinuing operations.
(c) Changes in accounting estimates.
(d) Dividends paid.

(LO8) 10. Retained earnings are:
(a) increased by cash dividends declared.
(b) increased by all dividends declared.
(c) decreased by transfers to reserves.
(d) increased by losses after tax.

(LO3,8) 11. Which of the following is *not* an equity account?
(a) Share Capital.
(b) Reserves.
(c) Retained Earnings.
(d) Dividends Payable.

(LO8) 12. Which of the following decreases retained earnings?
(a) Share dividends declared.
(b) Payment of a cash dividend previously declared.
(c) Transfer from reserves.
(d) Profit after tax.

(LO9) 13. A low dividend payout may indicate that the company:
(a) generated low levels of profit.
(b) paid high dividends.
(c) is retaining profit to pursue a growth strategy.
(d) has share capital surplus to needs.

(LO9) 14. A low return on ordinary shareholders' equity indicates:
(a) shareholder confidence.
(b) low profitability on shareholders' funds.
(c) low return on assets.
(d) high leverage.

(LO9) 15. Duncan Ltd had the following account balances at 30 June 2015: Share Capital $100 000, Retained Earnings $30 000, General Reserve $8000, Dividends Payable $2000 and Cash $12 000. What is the total equity for Duncan Ltd at 30 June 2015?
(a) $152 000. (c) $138 000.
(b) $140 000. (d) $136 000.

(LO9) 16. Which of the following increases the dividend payout?
(a) An increase in average equity.
(b) An increase in profits, while the payout per share remains the same.
(c) A decrease in profits, while the payout per share remains the same.
(d) A decrease in average equity.

(LO9) 17. Which of the following directly increases return on ordinary shareholders' equity?
(a) A decrease in average equity.
(b) A decrease in profit available to ordinary shareholders.
(c) A lower dividend payout.
(d) A share split.

(LO10) 18. Which of the decision-making tools would you recommend for a manager choosing between debt finance and issuing shares to raise funds for an investment project?
(a) Compare profit before tax for each funding alternative.
(b) Choose debt finance because interest is tax deductible.
(c) Choose issuing shares to avoid paying interest.
(d) Compare return on ordinary shareholders' equity for each funding alternative.

QUESTIONS

1. Identify three groups that use equity information in decision making and distinguish between the nature and the sources of information each group requires.
2. Jie Li, a student, asks your help in understanding some characteristics of a company. Explain each of these to Jie:
   (a) Separate legal existence.
   (b) Limited liability of shareholders.
   (c) Transferable ownership rights.
   (d) Company management.
3. (a) Your friend Stuart cannot understand how the characteristic of company management is both an advantage and a disadvantage. Clarify this problem for Stuart.
   (b) Identify and explain other disadvantages of a company.
4. What are the basic ownership rights of ordinary shareholders?
5. What conditions in Australia and in New Zealand must be met before a cash dividend is paid?

6. Contrast the effects of a cash dividend and a share dividend on a company's statement of financial position.
7. Explain the effect of a 2-for-1 share split on the following:
   (a) the number of issued shares.
   (b) the Share Capital account.
   (c) equity.
8. During 2015, the accountant for Lu Ltd discovered an error in the 2014 statements. The effect of the error was to overstate an asset and understate expenses. How should the accountant correct the error in 2015?
9. Buck Ltd purchased a machine with an expected useful life of 4 years and nil residual value. After 2 years the estimated useful life was revised to 3 years. The manager of Buck Ltd suggested that the resulting additional depreciation should be charged against retained earnings. Is this correct? Give reasons for your answer.
10. Button Ltd has been in operation for 3 years. All of its manufacturing equipment, which has a useful life of 10 to 12 years, has been depreciated on a straight-line basis. During the fourth year, Button Ltd changes to an accelerated depreciation method for all of its equipment.
    (a) Will Button Ltd report more profit as a result of this change?
    (b) How will this change be reported?
11. Describe the interrelationship between the statement of profit or loss, the statement of profit or loss and other comprehensive income and the statement of changes in equity.
12. List the three components of equity and give examples of transactions or events that can increase each component.
13. Specialist Brewers Ltd is considering buying more equipment but is concerned that the additional debt it needs to borrow will make its liquidity and solvency ratios look bad. What options does the company have other than borrowing to buy the equipment, and how will these options affect the financial statements?
14. Why do some companies have low dividend payout rates?
15. Amber is a shareholder of Southern Ferns Ltd. The company's return on ordinary shareholders' equity increased in 2016, but Amber received less dividends. Explain to Amber how this can occur.

BRIEF EXERCISES

Journalise private issue of ordinary shares.
(LO3)

BE10.1 On 1 June, Walrus Ltd issues 4800 shares by private invitation at a cash price of $2.50 per share. Journalise the issue of the shares.

Prepare entries for a share dividend.
(LO5)

BE10.2 Connor Ltd has 400 000 $3 shares issued. It declares a 10% share dividend on 1 December. The dividend shares are issued as $5 shares on 31 December. Prepare the entries for the declaration and payment of the share dividend.

Journalise the issue of shares.
(LO3)

BE10.3 On 2 March, Makayla Ltd invited the public to subscribe for 5000 shares at $1.50 each, $1.00 payable on application and $0.50 payable on allotment. By 31 March, applications were received for 5000 shares, and these were allotted on 1 April. All amounts owing on allotment were received by 30 April. Prepare the journal entries required to record the issue of the shares and proceeds of the share issue.

Journalise cash dividends.
(LO5)

BE10.4 Spinning Ltd had 15 000 shares issued. On 30 June 2016, a cash dividend of $0.15 per share was declared. The dividend was paid on 31 July 2016. Prepare journal entries to record the declaration and payment of the dividend.

Determine the effect of a share split and journalise cash dividends.
(LO4,5)

BE10.5 At 1 July, TriTop Ltd had 1500 shares issued. An interim cash dividend of $0.25 per share was declared on 31 December and paid on 31 January. The shareholders agreed to a 3-for-1 share split, which occurred on 31 May. After the share split, a final cash dividend of $0.10 per share was declared on 30 June. Prepare journal entries to record the interim and final dividends declared and/or paid by TriTop Ltd.

Prepare a corrected statement of profit or loss.
(LO6)

BE10.6 An inexperienced accountant for Basil Ltd showed the following in Basil Ltd's statement of profit or loss: profit before income tax, $600 000; income tax expense, $180 000; correction of prior period error, $90 000; and profit, $330 000. The correction of the prior period error has no effect on tax expense. Prepare a corrected statement of profit or loss beginning with 'Profit before income tax'.

BE10.7 The average shareholders' equity of Jonty James Ltd was $500 000 for the year ended 30 June 2016. During that year, Jonty James Ltd had a profit of $90 000 and declared cash dividends of $20 000. Calculate the dividend payout and the return on ordinary shareholders' equity.

Evaluate a company's dividend and earnings performance from a shareholder's perspective. (LO9)

BE10.8 Brianna Ltd is considering these two alternatives to finance its construction of a new $3 million factory:
(a) Issue 600 000 shares at the market price of $5 per share.
(b) Issue $3 million, 6% unsecured notes at face value.
Complete the table and indicate which alternative is preferable.

Compare debt financing with equity financing. (LO10)

	Issue shares	Issue unsecured notes
Profit before interest and tax	$1 000 000	$1 000 000
Interest expense from unsecured notes		
Profit before income tax		
Income tax expense (30%)		
Profit	$	$
Equity	$	800 000
Return on ordinary shareholders' equity		$

EXERCISES

E10.1 During its first year of operations, SunLand Ltd had the following transactions pertaining to its capital.
Jan. 10 Issued 60 000 shares for cash at $5 per share.
July 1 Issued 20 000 shares for cash at $9 per share.

Journalise issue of ordinary shares. (LO3)

Required
(a) Journalise the transactions, assuming that the share issues were private placements.
(b) Journalise the 1 July and subsequent call issue assuming that it was a public offer, and that the public were invited to subscribe for 20 000 shares at $9 each, $4.50 payable on application and $3 on allotment. Applications closed and shares were allotted on 1 July. All allotment money was received by 31 July. The remaining capital of $1.50 per share is called on 1 December and all call money was received by 31 December.

E10.2 On 1 January 2016 Otter Ltd's share capital comprised 95 000 issued ordinary shares ($950 000) and retained earnings of $350 000. During the year, the following transactions occurred.

Journalise transactions and indicate statement presentation. (LO3,5)

Apr.	1	Issued 3000 additional ordinary shares for $15 per share.
June	15	Declared a cash dividend of $2.50 per share to ordinary shareholders.
July	10	Paid the $2.50 cash dividend.
Dec.	1	Issued 4000 additional ordinary shares for $18 per share.
	15	Declared a cash dividend on issued ordinary shares of $2.80 per share to shareholders.
	31	Profit for the year was $925 000.

Required
(a) Prepare the journal entries to record the above transactions.
(b) Prepare the equity section of the statement of financial position as at 31 December 2016.
(c) What are the requirements for a company to pay a dividend?

E10.3 On 31 October the equity section of Summer Ltd's statement of financial position consists of contributed equity $550 000 and retained earnings $240 000. Summer Ltd is considering the following two courses of action: (1) declaring a 6% share dividend

Compare effects of a share dividend and a cash dividend. (LO5) on the 550 000 $1 issued ordinary shares or (2) paying a cash dividend of $0.06 per share. If the company issues shares as a dividend, the shares will have a nominal value of $1 each.

Required

Prepare a tabular summary of the effects of the alternative actions on the company's equity, the number of issued shares and share capital. Use these column headings: *Original balances*, *After share dividends* and *After cash dividends* (as illustrated on p. 603), and comment on any assumption made and which course of action you would advise Summer Ltd to take.

Prepare correcting entries for dividends.
(LO5,8)

E10.4 Before preparing financial statements for the current year, the chief accountant for Jeckel Ltd discovered the following errors in the accounts:

1. The declaration and payment of a $15 000 cash dividend were recorded as a debit to Interest Expense $15 000 and a credit to Cash $15 000.
2. A 10% share dividend (1500 shares) was declared on the $15 shares. The directors had determined that the share dividend should be at the market value of $18. The only entry made was: Retained Earnings (Dr) $15 000 and Dividend Payable (Cr) $15 000. The shares have not been issued.

Required

Prepare the correcting entries at 31 December.

Calculate earning power.
(LO6)

E10.5 Bettie Ltd reported a current year's profit of $2 500 000.

Additional information:
Prior period sales included in current sales revenues, $15 600.
Gain on sale of a division of the entity, $45 200.
New asset acquired — related depreciation expense for the period $6000.
Contingent liability of $32 000 reported in the notes to the financial statements.

Required

(a) Determine Bettie Ltd's earning power.
(b) Why is it important for potential investors to understand the concept of earning power when deciding whether to invest in an entity?

Determine changes in retained earnings.
(LO8)

E10.6 Gold Ltd had the following equity accounts at 1 July 2014:

Share capital (200 000 shares)	$400 000
General reserve	30 000
Retained earnings	20 000

During the year ended 30 June 2015, the following occurred:

1. A profit of $40 000 was generated.
2. $8000 was transferred to the general reserve.
3. An interim dividend of 4c per share was declared and paid.
4. A final dividend of 6c per share was declared.

Required

Prepare a statement of the changes in retained earnings.

Determine changes in retained earnings.
(LO8)

E10.7 Speedy Deliveries Ltd had the following equity accounts at 1 January 2015:

Share capital (30 000 shares)	$150 000
Dividend equalisation reserve	10 000
Retained earnings	34 000

During the year ended 31 December 2015, the following occurred:

1. A profit of $20 000 was generated.
2. $5000 was transferred to the dividend equalisation reserve.
3. An interim dividend of 15c per share was declared and paid.
4. A final dividend of 10c per share was declared.

Required

Prepare a statement of the changes in retained earnings.

E10.8 South Island Skiwear Ltd was registered on 5 January 2016. The following private share issues were completed during the first year:

Journalise share transactions, post, and calculate share capital.
(LO3)

Jan.	10	Issued 90 000 ordinary shares for cash at $1 per share.
Mar.	1	Issued 6000 ordinary shares for cash at $1.25 per share.
May	1	Issued 50 000 ordinary shares for cash at $2.50 per share.
Sept.	1	Issued 20 000 ordinary shares for cash at $3 per share.
Nov.	1	Issued 2000 10% preference shares for cash at $4 per share.

Required

(a) Journalise the transactions.
(b) Post to the Share Capital account. (Use T accounts.)
(c) Calculate the share capital at 31 December 2016.

E10.9 Young Ltd was registered on 3 January 2016. The following private share issues were completed during the first year:

Journalise share transactions, post, and calculate share capital.
(LO3)

Jan.	10	Issued 240 000 ordinary shares for cash at $2 per share.
Mar.	1	Issued 30 000 ordinary shares for cash at $3 per share.
May	1	Issued 90 000 ordinary shares for cash at $3.50 per share.
Sept.	1	Issued 20 000 ordinary shares for cash at $4 per share.
Nov.	1	Issued 21 000 ordinary shares for cash at $5 per share.

Required

(a) Journalise the transactions.
(b) Post to the Share Capital account. (Use T accounts.)
(c) Calculate the share capital at 31 December 2016.

E10.10 The equity of Yang Pty Ltd was $210 000 at 30 June 2015. During the year ended 30 June 2016, Yang made a profit of $70 000 and declared dividends of $40 000.

Calculate return on ordinary shareholders' equity and dividend payout.
(LO9)

Required

Calculate the dividend payout and the return on ordinary shareholders' equity for the year ended 30 June 2016.

E10.11 SpringTime Ltd is considering these two alternatives for financing extensions:

Compare equity financing with debt financing.
(LO10)

1. Issue 70 000 shares at $20 per share. (Cash dividends have not been paid; nor is the payment of any cash dividend contemplated.)
2. Issue 10%, 10-year debentures at face value for $1.4 million. (Assume that 10% is also the market rate for similar securities.)

It is estimated that the company will earn $500 000 before interest and taxes as a result of the extension. The company has an estimated tax rate of 30% and has equity of $2 million prior to the new financing.

Required

(a) Determine the effect on profit and return on ordinary shareholders' equity for (1) issuing shares and (2) issuing debentures.
(b) Discuss factors the company would need to consider in deciding the financing options.

PROBLEM SET A

PSA10.1 Sport's Field Ltd was registered on 31 January 2016. It invited the public to subscribe to the issue of 35 000 ordinary shares for $1 per share: $0.60 due on application, $0.30 due on allotment and the balance due on call.

Journalise share transactions, post, and calculate share capital.
(LO3)

Jan.	10	Prospectus issued.
Mar.	1	Received applications for 35 000 shares.
Mar.	2	Allotted 35 000 ordinary shares.
Mar.	31	All allotment money received.
Nov.	1	Remaining capital called.
Nov.	30	All money due on call is received.

Required

(a) Journalise the transactions.
(b) Post to the equity accounts (use T accounts).
(c) What is the share capital of Sport's Field Ltd at 1 December?

Record share issues and dividends. (LO3,5)

PSA10.2 On 31 December 2015, CoffeeForU Ltd had 2 000 000 shares. The equity accounts at 31 December 2015 had the balances listed as follows.

Share capital	$2 000 000
Revaluation surplus	400 000
Retained earnings	1 300 000

Transactions during 2016 and other information related to equity accounts were as follows.

1. On 9 January 2016, issued 200 000 shares for $4 cash.
2. On 10 June 2016, declared a cash dividend of 15% of share capital, payable on 10 July 2016 to shareholders.

Required

(a) Prepare journal entries to record the above transactions.
(b) Prepare the equity section of CoffeeForU Ltd's statement of financial position as at 30 June 2016.

Journalise transactions with GST. (LO3,5)

PSA10.3 Amber started her own consulting firm, Amber Consulting Pty Ltd, on 1 October 2017. Assume Amber Consulting and all suppliers are registered for GST. If GST applies to a transaction, it is included at a rate of 10%. (*Hint:* Share transactions, dividends, loans, and salaries and wages do not have GST.) The following transactions occurred during the month of October.

Oct.	1	Shareholders invested $12 000 cash in the business.
	2	Paid $990 for office rent for the month.
	3	Purchased $660 of supplies on account.
	5	Paid $110 to advertise in the *Daily News*.
	9	Received $4422 cash for services provided.
	12	Paid $500 cash dividend.
	15	Performed $6600 of services on account.
	17	Paid $3200 for employee salaries after PAYG withheld tax of $590.
	20	Paid for the supplies purchased on account on 3 October.
	23	Received a cash payment of $5600 for services provided on account on 15 October.
	26	Borrowed $10 000 from the bank.
	29	Purchased office equipment for $3520 on account.
	30	Paid $220 for electricity.

Required

Journalise the transactions for the month of October 2017. Include narrations.

Prepare dividend entries and post to ledger accounts. (LO5)

PSA10.4 On 1 January 2016, Rake Ltd had equity accounts as follows.

Share capital (60 000 shares issued for $30 each)	$1 800 000
General reserve	250 000
Retained earnings	900 000

During the year, the following transactions occurred.

Feb.	1	Declared a $0.60 cash dividend per share to shareholders, payable on 1 March.
Mar.	1	Paid the dividend declared in February.
July	1	Declared a 10% share dividend to shareholders, distributable on 31 July. On 1 July the market price of the shares was $40 per share and this was determined to be the amount at which the dividend shares would be issued.
July	31	Issued the shares for the share dividend.
Dec.	1	Declared a cash dividend of $0.50 per share on 15 December, payable on 5 January 2017.

Required
(a) Journalise the transactions.
(b) Enter the beginning balances and post the entries to the equity T accounts.
(c) Prepare the equity section of Rake Ltd's statement of financial position as at 31 December.

Prepare journal entries, determine changes in retained earnings and calculate dividend payout. (LO4,5,7,8,9)

PSA10.5 CanDo Ltd had the following equity accounts at 1 July 2015.

Share capital (20 000 shares)	$20 000
Retained earnings	18 000

The following transactions occurred during the year ended 30 June 2016.

2015		
Dec.	31	CanDo Ltd declared an interim dividend of $0.20 per share.
2016		
Jan.	15	The interim dividend was paid.
Feb.	10	CanDo Ltd effected a 3-for-1 share split.
June	30	A final dividend of $0.10 per share was declared.

Profit for the year was $12 000. There were no other transactions or events affecting equity accounts.

Required
(a) Prepare journal entries to record the dividends.
(b) Prepare a statement showing the change in retained earnings for the year.
(c) Calculate the dividend payout.
(d) By how much did equity change during the period?

Prepare journal entries, determine changes in retained earnings and calculate dividend payout. (LO5,7,8,9)

PSA10.6 Rocky Ltd had the following equity accounts at 1 April 2015.

Share capital (50 000 shares)	$100 000
Retained earnings	60 000

The following occurred during the year ended 31 March 2016.

2015		
Sept.	30	Rocky Ltd declared an interim share dividend of $0.30 per share. The assigned value of each share was $2.
Oct.	10	Shares were issued as dividends.
2016		
Mar.	31	A final cash dividend of $0.30 per share was declared.

Profit for the year was $30 000. There were no other transactions or events affecting equity accounts.

Required
(a) Prepare journal entries to record the dividends.
(b) Prepare a statement showing the change in retained earnings for the year.
(c) Calculate the dividend payout.
(d) By how much did equity change during the period?

Prepare journal entries, determine changes in retained earnings and calculate ratios. (LO5,7,8,9)

PSA10.7 Harre Pty Ltd is a small proprietary company. Its owners invested $3 capital in the company and it has grown considerably since. The following section is taken from Harre Pty Ltd's statement of financial position as at 30 June 2016.

Share capital (20 shares)	$20
Reserves	18 000
Retained earnings	30 000

Additional information:
1. Harre Pty Ltd's profit for the year ended 30 June 2016 was $35 000.
2. Cash dividends declared for the year ended 30 June 2016 were $19 000.
3. The directors of the company approved a transfer of $8000 to reserves. This was recorded in the ledger and is the only item affecting reserves during the year.

Required
(a) Journalise the dividends declared.
(b) Calculate the dividend payout.
(c) Calculate the return on ordinary shareholders' equity.
(d) Prepare a statement of changes in equity for the year ended 30 June 2016.

Record dividends, show changes in retained earnings and calculate ratios. (LO5,7,8,9)

PSA10.8 The following section is taken from Silk Ltd's statement of financial position at 31 December 2016.

Share capital	$5 000 000
Reserves	212 000
Retained earnings	42 000

Additional information:
1. Equity was $5 225 000 at 31 December 2015.
2. Silk Ltd's profit for the year ended 31 December 2016 was $60 000.
3. Cash dividends declared for the year ended 31 December 2016 were $31 000.
4. The directors of the company approved a transfer of $20 000 to reserves. This was recorded in the ledger and is the only item affecting reserves during the year.

Required
(a) Journalise the dividends declared.
(b) Calculate the dividend payout.
(c) Calculate the return on ordinary shareholders' equity.
(d) Prepare a statement of changes in equity for the year ended 31 December 2016.

Prepare journal entries, determine retained earnings and calculate ratios. (LO3,5,7,8,9)

PSA10.9 Wellington Ltd had the following equity accounts at 1 July 2016.

Share capital, 100 000 fully paid shares	$300 000
Revaluation surplus	60 000
Retained earnings	150 000

The following transactions occurred during the year ended 30 June 2017.

Aug.	15	Final dividend for the year ended 30 June 2016 of 15 cents a share was declared.
Oct.	1	Paid final cash dividend.
Jan.	6	Wellington Ltd declared an interim share dividend of 12%. The shares were to be issued at $3 per share.
Mar.	15	Shares were issued as dividends. The assigned value of each share was $3.
June	30	$12 000 was transferred to general reserve.

During the year, Wellington Ltd generated a profit of $180 000. After the end of the reporting period, the directors declared a final dividend of 15 cents per share. There were no other transactions or events affecting equity accounts.

Required
(a) Prepare journal entries to record the dividend transactions and the transfer to general reserve.
(b) Prepare a statement of changes in equity for the year ended 30 June 2017.
(c) By how much did equity change during the period?
(d) Calculate the dividend payout and the return on ordinary shareholders' equity for the year ended 30 June 2017.

Compare financing alternatives using return on ordinary shareholders' equity. (LO10)

PSA10.10 Donkey Ltd's equity is as follows:

Share capital	$5 000 000
Retained earnings and reserves	2 000 000
Equity	$7 000 000

Donkey Ltd plans to expand its operations by establishing a branch in Thailand. The new branch will cost $3.5 million. Expected profit before tax and interest when the new branch is operational is $2.2 million. The tax rate is 30%. Donkey Ltd is considering two financing alternatives:

1. Borrow $3.5 million at 8% interest.
2. Issue 100 000 $35 shares.

Required

Which funding alternative yields the higher return on equity? What other factors should be considered?

PROBLEM SET B

Journalise share transactions, post, and calculate share capital.
(LO3)

PSB10.1 Jumping Jack Ltd was registered on 31 March 2016. It invited the public to subscribe to the issue of 200 000 ordinary shares for $6 per share: $3 due on application, $2 due on allotment and the balance due on call.

Mar.	31	Prospectus issued.
May	1	Received applications for 200 000 shares.
	2	Allotted 200 000 ordinary shares.
	31	All allotment money received.
Aug.	1	Remaining capital called.
	15	All money due on call received.

Required

(a) Journalise the transactions.
(b) Post to the equity accounts. (Use T accounts.)
(c) What is the share capital of Jumping Jack Ltd at 1 September?

Record share issues and dividends.
(LO3,5)

PSB10.2 On 31 December 2015, Luke Ltd had 2 000 000 shares. The equity accounts at 31 December 2015 had the following balances.

Share capital	$6 000 000
Revaluation surplus	200 000
Retained earnings	2 100 000

Transactions during 2016 and other information related to equity accounts are as follows.

1. On 15 March 2016, issued 300 000 shares for $2.50 cash.
2. On 10 June 2016, declared a cash dividend of 10% of share capital, payable on 31 July 2016 to shareholders.

Required

(a) Prepare journal entries to record the above transactions.
(b) Prepare the equity section of Luke Ltd's statement of financial position as at 30 June 2016.

Journalise transactions with GST.
(LO3,5)

PSB10.3 On 1 April, Treetops Ltd was established. Treetops Ltd is registered for GST and if GST is applicable, it is included in the figures given. (*Hint:* Share transactions, dividends, loans, and salaries and wages do not have GST.) The GST rate is 10%. Assume all suppliers are registered for GST. The following transactions were completed during the month:

1. Shareholders invested $30 000 cash in the company in exchange for shares.
2. Paid $550 cash for April office rent.
3. Purchased office equipment for $2200 cash.
4. Incurred $2420 of advertising costs in *The Age* on account.
5. Paid $990 for office supplies.
6. Provided $25 520 of services. Received $5500 cash from customers. The balance was invoiced to customers on account.
7. Paid $500 cash dividends.
8. Paid *The Age* the amount due in transaction (4).
9. Paid employees' salaries $2200; PAYG withheld tax $600.
10. Received $12 500 in cash from customers who had previously been invoiced in transaction (6).

Required
Journalise the transactions for the month of April. Include narrations.

Prepare dividend entries and post to ledger accounts. (LO5)

PSB10.4 On 1 July 2016, Ellie Ltd had the following equity accounts:

Share capital (200 000 shares)	$2 000 000
General reserve	250 000
Retained earnings	900 000

During the year, the following transactions occurred:

Aug.	1	Declared a $0.45 cash dividend per share to shareholders, payable on 1 September.
Sept.	1	Paid the dividend declared in August.
Oct.	1	Declared a 5% share dividend to shareholders, distributable on 31 October. On 1 October the market price of the shares was $10 per share and this was determined to be the amount at which the dividend shares would be issued.
	31	Issued the shares for the share dividend.
Dec.	1	Declared a cash dividend of $0.40 per share, payable on 5 January 2017.

Required
(a) Journalise the transactions.
(b) Enter the beginning balances and post the entries to the equity T accounts.

Record dividends, show changes in retained earnings and calculate ratios. (LO4,5,7,8,9)

PSB10.5 Beta Ltd had the following equity balances at 1 July, the beginning of the year.

Share capital (15 000 shares)	$150 000
Reserves	90 000
Retained earnings	100 000

Beta Ltd's profit for the year was $100 000. During the year the following events and transactions occurred.

Dec.	30	Declared interim cash dividend of $1.5 per share.
Jan.	15	Paid interim cash dividend.
Mar.	31	4-for-1 share split.
June	30	Declared cash dividend of $1.25 per share.
	30	Transferred $5000 to general reserve.

Required
(a) Prepare journal entries to record the transactions and events affecting equity during the year.
(b) Prepare a statement showing the changes in retained earnings during the year.
(c) Prepare the equity section of the statement of financial position.
(d) Calculate the dividend payout and the return on ordinary shareholders' equity.
(e) Explain why some companies engage in share splits.

Prepare journal entries, determine changes in retained earnings and calculate dividend payout. (LO5,7,8,9)

PSB10.6 Brownstone Ltd had the following equity accounts at 1 July 2015.

Share capital (10 000 shares)	$50 000
Retained earnings	12 500

The following occurred during the year ended 30 June 2016.

2015		
Dec.	31	Brownstone Ltd declared an interim share dividend of $0.25 per share. The shares were to be issued at $5 per share.
2016		
Jan.	10	Shares were issued as dividends. The assigned value of each share was $5.
June	30	A final cash dividend of $0.15 per share was declared.

During the year Brownstone Ltd generated a loss of $5000. There were no other transactions or events affecting equity accounts.

Required

(a) Prepare journal entries to record the dividends.
(b) Prepare a statement showing the change in retained earnings for the year.
(c) By how much did equity change during the period?
(d) Why do you think Brownstone Ltd issued the share dividend?

PSB10.7 Pansies Pty Ltd is a small proprietary company. Its owners invested $3 capital in the company and it has grown considerably since. The following section is taken from Pansies Pty Ltd's statement of financial position at 30 June 2016.

Record dividends, show changes in retained earnings and calculate ratios. (LO5,7,8,9)

Share capital (two shares)	$ 3
Reserves	5 000
Retained earnings	10 000

Additional information:

1. Pansies Pty Ltd's profit for the year ended 30 June 2016 was $8000.
3. Cash dividends declared for the year ended 30 June 2016 were $5000.
4. The directors of the company approved a transfer of $5000 to reserves. This was recorded in the ledger and is the only item affecting general reserves during the year.

Required

(a) Journalise the dividends declared.
(b) Calculate the dividend payout.
(c) Calculate the return on ordinary shareholders' equity.
(d) Prepare a statement of changes in equity for the year ended 30 June 2016.

PSB10.8 The following section is taken from Swedish Ltd's statement of financial position at 30 June 2016.

Record dividends, show changes in retained earnings and calculate ratios. (LO5,7,8,9)

Share capital	$5 000 000
Reserves	330 000
Retained earnings	92 000

Additional information:

1. Equity was $5 362 000 at 30 June 2015.
2. Swedish Ltd's profit for the year ended 30 June 2016 was $285 000.
3. Cash dividends declared for the year ended 30 June 2016 were $225 000.
4. The directors of the company approved a transfer of $45 000 to reserves. This was recorded in the ledger and is the only item affecting general reserves during the year.

Required

(a) Journalise the dividends declared.
(b) Calculate the dividend payout.
(c) Calculate the return on ordinary shareholders' equity.
(d) Prepare a statement of changes in equity for the year ended 30 June 2016.

PSB10.9 Gemini Ltd had the following equity accounts at 1 July 2016.

Prepare journal entries, show changes in equity and calculate ratios. (LO4,5,7,8,9)

Share capital, 200 000 fully paid shares	$400 000
General reserve	50 000
Retained earnings	150 000

The following transactions occurred during the year ended 30 June 2017.

Aug.	15	Final dividend for the year ended 30 June 2016 of 10 cents a share was declared.
Oct.	1	Paid final cash dividend.
Jan.	6	Gemini Ltd declared an interim share dividend of 12%. The shares were to be issued at $2.50 per share.
Mar.	15	Shares were issued as dividends. The assigned value of each share was $2.50.
June	30	$15 000 was transferred to general reserve.

During the year, Gemini Ltd generated a profit of $100 000. After the end of the reporting period, the directors declared a final cash dividend of 9 cents per share. There were no other transactions or events affecting equity accounts.

Required

(a) Prepare journal entries to record the dividend transactions and the transfer to general reserve.
(b) Prepare a statement of changes in equity for the year ended 30 June 2017.
(c) By how much did equity change during the period?
(d) Calculate the dividend payout and the return on ordinary shareholders' equity for the year ended 30 June 2017.

Compare financing alternatives using return on ordinary shareholders' equity. (LO10)

PSB10.10 Donald Ltd's equity is as follows:

Share capital	$5 000 000
Retained earnings and reserves	600 000
Equity	$5 600 000

Donald Ltd plans to expand its operations by acquiring substantial landholdings in Scotland. The expansion will cost $4 million. Expected profit before tax and interest after the expansion is $$1 000 000. The tax rate is 30%. The managers of Donald Ltd are considering two financing alternatives:

1. Borrow $4 million at 10% interest.
2. Issue 1 million $4 shares.

Required

Which funding alternative yields the higher return on equity? What other factors should be considered?

BUILDING BUSINESS SKILLS

FINANCIAL REPORTING AND ANALYSIS

FINANCIAL REPORTING PROBLEM: *Domino's Pizza Enterprises Ltd*

BBS10.1 The equity section of Domino's statement of financial position is shown in the financial statements in the appendix at the back of this book. You will also find data relevant to this problem in notes 28 and 31 of the notes to the financial statements.

Required

Answer these questions:

(a) How many shares had been issued by 28 June 2012?
(b) How many shares were issued during 2012–13?
(c) How much capital was returned during 2012–13?
(d) What is the amount of issued capital at 4 July 2013?
(e) Calculate the dividend payout for 2013 and 2012 and the return on ordinary shareholders' equity for 2012. (Shareholders' equity as at 3 July 2011 was $104 916 000.)

FINANCIAL REPORTING PROBLEM: *Domino's Pizza Enterprises Ltd*

BBS10.2 The equity section of Domino's statement of financial position is shown in the financial statements in the appendix at the back of this book. You will also find data relevant to this problem in notes 28 and 33 of the notes to the financial statements, and at the Domino's web site, www.dominos.com.

(a) What was the date that the company first listed on the ASX?
(b) What date and why did the company change its name from Domino's Pizza Australia New Zealand Ltd to Domino's Pizza Enterprises Ltd?
(c) The company has an Executive Share and Option Plan. Why would such a plan exist? How many shares were issued during 2013 under this plan and how was the issue price determined?
(d) During the 2012–13 financial year were shares issued under the Dividend Reinvestment Plan? How many shares were issued and for what price? How was the issue price determined?

COMPARATIVE ANALYSIS PROBLEM: *Fantastic Holdings Limited vs. Nick Scali Limited*

BBS10.3 Information from the June 2013 financial statements of Fantastic Holdings Limited and Nick Scali Limited is presented below.

	Fantastic Holdings Limited		Nick Scali Limited	
	2013 ($000)	2012 ($000)	2013 ($000)	2012 ($000)
Share capital/Contributed equity	$108 145	$108 986	$36 334	$27 353
Reserves	—	—	685	11
Retained earnings	84 840	85 716	32 285	23 978
Profit	13 508	20 988	16 002	9 204
Cash dividends declared and paid	10 797	13 356	9 720	7 290

Required

(a) Calculate the dividend payout for each company for two years and the return on ordinary shareholders' equity for the 2013 year.
(b) What do the ratios indicate about the profitability and dividend record of the two companies?

A GLOBAL FOCUS

BBS10.4 Many multinational companies find it beneficial to have their shares listed on the securities exchanges in more than one country. This exercise introduces you to the global nature of capital markets.

Address: www.sgx.com

Steps:

1. Choose **Home**.
2. Click on **About Us** at the top of the page and explore that section.
3. Choose **Listing on SGX**, then read the **Overview** and explore **Why SGX**?.
4. Go to **Products and Services** and discover the products and services the SGX offers.
5. Answer questions (a) and (b) below.
6. Choose **Company Information** from the SGX home page.
7. Choose **Corporate Information**, then select a company by clicking on it.
8. Answer question (c) below.

Required

(a) What is Singapore well known for in the Asia–Pacific region? Provide evidence in support of this claim.

(b) Explain the benefits of listing on the Singapore Stock Exchange for a multinational company.

(c) Select a company and find out the following information about it:

1. Name
2. Place of incorporation
3. Date of incorporation
4. Address of registered office
5. Web site
6. Amount of issued and paid up capital in SGD (Singapore dollars)
7. When it was listed and on which board
8. Name of its auditors
9. Nature of its operations
10. Countries in which the company — or its subsidiaries — operates.

CRITICAL THINKING

GROUP DECISION-MAKING CASE

BBS10.5 Dianaton Ltd is considering a risky investment in offshore drilling. To finance the ongoing working capital needs of the project over 15 years, $10 million will be needed if it continues to be successful. Several suggestions for finance have been put before the board of directors:

1. Issue more shares to the public or by private placement.
2. Borrow the required cash.
3. Establish another company (in which Dianaton Ltd will be the only shareholder) and use that company to borrow the money, relying on the limited liability principle if the project fails.

Assume that the expected returns on ordinary shareholders' equity are the same for all options.

Required

Divide the class into groups, and consider the following questions as Dianston Ltd's board of directors:

(a) How should the board rank the first two options?

(b) What are the advantages and disadvantages of the third option? Should the board undertake the third option? Consider multiple stakeholders.

COMMUNICATION ACTIVITY

BBS10.6 Marama Fisher, chief executive officer of Purple Regs Ltd, is considering the issue of debt to finance an expansion of the business. She has asked you to (1) discuss the advantages of debt over equity financing, (2) indicate the type of debt that might be issued, and (3) explain the issuing procedures used in share transactions for both public issues and private placements.

Required
Write a memorandum to the chief executive officer, answering her request.

COMMUNICATION ACTIVITY

BBS10.7 In 2012–13, Goodman Fielder changed from using separate sustainability reports to an annual review (in addition to its annual reports). The following is an extract from Goodman Fielder Limited's 2012–13 annual review.

> This Annual Review includes financial summaries and information from the company's 2013 Annual Report and 2013 Full Year Results Announcement and Investor Presentation. The Review also includes information on the organisation's environmental and social activities and performance (previously provided in the company's Sustainability Report).

Required
Access Goodman Fielder's latest Review from its web site http://goodmanfielder.com.au and answer the following:
(a) What reporting guidelines does Goodman Fielder use to prepare the sustainability part of the review?
(b) Summarise Goodman Fielder's goal and how it measures achievements in three of the following areas:
- our people
- environment
- community
- products.

ETHICS CASE

BBS10.8 Persuasive Ltd has paid 60 consecutive quarterly cash dividends (15 years). However, the last 6 months have been a real cash drain on the company because profit margins have been greatly narrowed by increasing competition. With a cash balance sufficient to meet only day-to-day operating needs, the chief executive officer, Valerie Flamingo, has decided that a share dividend instead of a cash dividend should be declared. She tells Persuasive Ltd's financial director, Jonty James, to issue a press release stating that the company is extending its consecutive dividend record with the issue of a 5% share dividend. 'Write the press release convincing the shareholders that the share dividend is just as good as a cash dividend,' she orders. 'Just watch our share price rise when we announce the share dividend; it must be a good thing if that happens.'

Required
(a) Who are the stakeholders in this situation?
(b) Is there anything unethical about Flamingo's intentions or actions?
(c) What is the effect of a share dividend on a company's equity accounts? Might it affect future dividends? Which would you rather receive as a shareholder — a cash dividend or a share dividend? Would it make a difference if you did not intend to invest in the long term in Persuasive Ltd?

Answers to self-study questions
1. c 2. d 3. a 4. c 5. b 6. c 7. c 8. b 9. d 10. c
11. d 12. a 13. c 14. b 15. c 16. c 17. a 18. d

CHAPTER 11

STATEMENT OF CASH FLOWS

LEARNING OBJECTIVES

After studying this chapter, you should be able to:

1 Indicate the main purpose of the statement of cash flows.

2 Distinguish among operating, investing and financing activities.

3 Prepare a statement of cash flows.

4 Explain the impact of the product life cycle on an entity's cash flows.

5 Use the statement of cash flows to evaluate an entity.

APPLE FANS: HOW FAR WOULD YOU GO FOR AN IPHONE?

Do you have an iPhone, iPad or iPod? Would you line up for days to be one of the first people to get a new-release Apple product? Well, die-hard fans started camping out in London, Sydney and Tokyo weeks before the release of Apple's iPhone 6 and iPhone 6 Plus despite the new online pre-ordering system. Apple announced it received over 4 million pre-orders for iPhone 6 and iPhone 6 Plus in the first 24 hours. How great would it be to own a company with products in such high demand?

Apple Inc. is a highly successful company that was incorporated on 3 January 1977. Did you know the company was originally named Apple Computer, Inc.? Apple Inc. removed the word 'Computer' from its name in 2007 to reflect the company's expansion into the consumer electronics market with telephones, mobile communication and media devices, among many other products. Well, the expansion has been a great success. In 2010, Apple Inc. was ranked 56th in the list of the Fortune 500 companies. Since then it has rocketed up to 5th place in 2014, with total sales revenue of $170 910 million and profit of $37 037 million as reported in the 2013 financials. That kind of profit is the result of a lot of fans and the company making a huge increase in sales.

Apple Inc. designs, manufactures and markets a range of hardware and software products. You may be familiar with, use or own some of the following Apple Inc. items: iPhone, iMac, iPad, iPod and iTunes. There are other products you may not know about including iOS, iWork and iLife! You may like to learn more about these products by searching Apple Inc.'s web site for more details.

Apple is continually developing its existing products, developing new ones and expanding its operations. Expansion requires funds. In chapter 9 we looked at borrowing as one way of financing expansion and growth. In chapter 10 we explored how companies can issue shares and retain profits as another means of financing research and expansion. In this chapter we explore the importance of cash flows in expanding and maintaining a business.

Apple Inc.'s 2013 annual report revealed that its cash flows were strong and going from strength to strength. In 2013, Apple's annual operating cash flow was US$53 666 million, a huge improvement upon its 2009 figure of US$10 159 million. As at 28 September 2013, Apple Inc.'s statement of financial position revealed that Apple had US$14 259 million in cash and cash equivalents. How great would it be to have US$ $14 259 million in the bank? You could own every Apple product you ever wanted and so much more. If you want to learn more about cash and cash flows, just read on.

Source: Based on information from S. Evans and H. Pow 2013, 'The madness begins! Apple fans start lining up outside flagship New York store ahead of Friday's iPhone 5S launch', *The Daily Mail*, 18 September, www.dailymail.co.uk; Apple Inc. web site, www.apple.com; and the 28 September 2014 10-K annual report.

On the World Wide Web
Apple Inc.:
www.apple.com

PREVIEW OF CHAPTER 11

The statement of profit or loss and statement of financial position do not always show the whole picture of the financial condition of an entity. In fact, looking at these two financial statements, a thoughtful investor might ask questions like 'How does Apple Inc. finance its investments and day-to-day operations?' Answers to this and similar questions can be found in this chapter, which presents the statement of cash flows.

The content and organisation of this chapter are as follows.

STATEMENT OF CASH FLOWS

The statement of cash flows: purpose and format

- Purpose of the statement of cash flows
- Classification of cash flows
- Significant non-cash activities
- Format of the statement of cash flows
- Usefulness of the statement of cash flows

Preparing the statement of cash flows

- Determining the net increase (decrease) in cash (step 1)
- Determining net cash provided (used) by operating activities (step 2)
- Determining net cash provided (used) by investing activities (step 3)
- Determining net cash provided (used) by financing activities (step 4)
- Completing the statement of cash flows
- Indirect method for determining cash flows from operating activities
- Summary of indirect method for determining cash flows from operating activities

Using cash flows to evaluate an entity

- The entity life cycle
- Free cash flow
- Capital expenditure ratio
- Assessing liquidity, solvency and profitability using cash flows

LEARNING OBJECTIVE 1

Indicate the main purpose of the statement of cash flows.

Helpful hint

Recall we introduced the *Conceptual Framework for Financial Reporting* in chapter 1. The *Conceptual Framework* outlines the objective of general purpose financial reporting and the primary users, namely the resource providers.

THE STATEMENT OF CASH FLOWS: PURPOSE AND FORMAT

The basic financial statements we have presented so far provide only limited information about an entity's cash flows (cash receipts and cash payments). For example, statements of financial position provide comparative figures that show the increase in property, plant and equipment during the year, but they do not show to what extent the change has involved the payment or receipt of cash. The statement of profit or loss shows profit, but it does not indicate the amount of cash generated by operating activities. Users of financial statements, namely equity investors, lenders and creditors, need information about the effects of operating, investing and financing activities on cash when deciding whether to provide resources to an entity.

PURPOSE OF THE STATEMENT OF CASH FLOWS

The main purpose of the **statement of cash flows** is to provide information about cash receipts, cash payments and the net change in cash resulting from the operating, investing and financing activities of an entity during a period for external users of financial information. The operating, investing and financing activities involving cash are reported in a format that reconciles the beginning and ending cash balances.

Reporting the causes of changes in cash is useful because investors, creditors and other interested parties who provide resources to the entity want to know what is happening to an entity's most liquid resource, its cash, when making lending or investing decisions. Managers also find cash flow data an essential input in managing the day-to-day operations of the entity. To understand an entity's financial position it is essential to understand its cash flows. The statement of cash flows provides answers to these important questions about an entity.

- Where did the cash come from during the period?
- What was the cash used for during the period?
- What was the change in the cash balance during the period?

The answers to these questions provide important information for managers' decision-making processes. For example, for entities like Apple Inc. and Domino's Pizza Enterprises Ltd this information will help managers to determine whether the entity will be able to continue to thrive and invest in new ideas with the cash generated by their current operations or whether they will need external funding for their investments. The statement of cash flows also provides clues about whether a struggling entity will survive or perish and where management needs to take action to improve the entity's financial position and performance.

DECISION MAKING

CLASSIFICATION OF CASH FLOWS

LEARNING OBJECTIVE 2

Distinguish among operating, investing and financing activities.

The statement of cash flows classifies cash receipts and cash payments into operating, investing and financing activities. Transactions within each activity are as follows.

- **Operating activities** are the entity's principal revenue-generating activities such as the provision of goods and services and activities which are not classified as investing or financing activities. The cash inflows and cash outflows arising from operating activities are a valuable input into the decision-making processes of internal and external users of financial information. Positive cash flows arising from operating activities are a good indicator that the operations of the business can generate sufficient cash flows to maintain or expand the current level of operations, repay debt and pay dividends.
- **Investing activities** are the acquisition and disposal of long-term assets, including activities such as purchasing and selling non-current assets, and lending money and collecting the loans. The cash inflows and cash outflows arising from investing activities also inform the decision-making processes of internal and external users of financial information. For example, cash outflows arising from investing activities are an indicator that the entity has invested in non-current assets that are intended to generate income and cash flows available for future dividends to equity investors or expansion.

DECISION MAKING

- **Financing activities** are those that affect the size and composition of contributed equity and borrowing, and include obtaining cash from issuing debt, repaying the amounts borrowed, obtaining cash from shareholders, and paying them dividends or buying back shares. The cash inflows and cash outflows arising from financing activities are another source of data for the decision-making processes of internal and external users of financial information. For example, cash inflows from financing activities are useful in predicting future cash outflows in the form of interest to lenders.

In IAS 7/AASB 107 *Statement of Cash Flows* the classification of certain items is debatable. For example, there are alternative treatments for interest and dividends. Interest received and dividends received may be classified as operating cash flows as they impact the calculation of profit or loss. Alternatively, interest and dividends received can be classified as investing cash flows because they are returns on investments. Most companies classify interest received and dividends received as operating activities, which is the method used in this chapter.

On the other hand, dividends paid may be classified as a financing cash flow because they relate to the cost of obtaining financial resources. An alternative classification for dividends paid is as a component of cash flows from operating as this can assist users to determine the ability of a business to pay dividends out of its operating cash flows.

Operating activities is the most important category because it shows the cash provided or used by operations. This source of cash is generally considered to be the best measure of whether an entity can generate sufficient cash to continue as a going concern by paying its debts as they fall due and whether there is additional cash for dividends or expansion. Monitoring operating cash inflows and outflows enables management of an entity to assess whether the entity will be able to finance its future expansion internally, or if additional funds are needed, to decide whether they will be obtained through borrowing and/or issuing shares.

Figure 11.1 lists typical cash receipts and cash payments within each of the three types of activities.

Helpful hint

Operating activities generally relate to changes in current assets and current liabilities. Investing activities generally relate to changes in investments and non-current assets. Financing activities generally relate to changes in non-current liabilities and equity accounts.

Helpful hint

The lease payment to the lessor reduces the lease liability. The interest component is an operating cash outflow.

Types of cash inflows and outflows

Operating activities

Cash inflows:
- From sale of goods or services
- From returns on loans (interest received) and on equity securities (dividends received)

Cash outflows:
- To suppliers for inventory
- To employees for services
- To governments for taxes
- To lenders for interest
- To others for expenses

Investing activities

Cash inflows:
- From sale of property, plant and equipment
- From sale of investments (debt or equity instruments of other entities)
- From collection of principal on loans to other entities

Cash outflows:
- To purchase property, plant and equipment
- To purchase investments (debt or equity instruments of other entities)
- To make loans to other entities

Financing activities

Cash inflows:
- From issue of the company's own shares
- From issue of debt (debentures and notes)

Cash outflows:
- To shareholders as dividends
- To redeem (repay) long-term debt
- To buy back the company's own shares
- To lessor as lease payments (finance lease)

Figure 11.1 Typical cash receipts and payments classified by activity

You may be wondering why interest paid to lenders is classified as an operating cash flow when it is a finance cost. Shouldn't it be classified as cash used by financing activities? This was one of the most controversial issues when accounting standards first required entities to prepare statements of cash flows. Some preparers argued that interest paid to lenders should be a financing cash flow, while others favoured operating cash flows because such interest was an expense. International accounting standard setters give preparers the choice of classification. Interest is classified as an operating cash flow in this book in accordance with the approach taken by most Australian and New Zealand entities.

SIGNIFICANT NON-CASH ACTIVITIES

Not all of an entity's significant activities involve cash. Here are four examples of significant non-cash activities:

- issue of shares to purchase assets
- conversion of debt, such as convertible notes, into ordinary shares
- issue of debt to purchase assets
- exchanges of property, plant and equipment.

Significant financing and investing activities that do not affect cash are not reported in the body of the statement of cash flows. However, these activities are reported in the notes to the financial statements. The reporting of significant non-cash investing and financing activities of the business (in the notes to the financial statements), together with the investing and financing cash flows (in the body of the statement cash flows), provides users with a more comprehensive picture of the entity's investing activities and how it has financed them. For example, assume an entity reports inflows of cash from the sale of non-current assets, together with a significant non-cash investment in non-current assets. This could signal increased future cash flows from operations as the entity replaces old assets with new to increase production. Furthermore, if the non-current asset purchases were financed by debt, this indicates that there will be increased outflows of cash in the future to repay interest and loans. Reporting both the cash flows and significant non-cash flows for investing and financing activities together (along with other financial and non-financial information) is helpful when current and potential investors and lenders are deciding whether to provide resources in the form of investments or loans to the entity.

DECISION MAKING

FORMAT OF THE STATEMENT OF CASH FLOWS

The three activities discussed previously — operating, investing and financing — make up the general format of the statement of cash flows. A widely used form of the statement of cash flows is shown in figure 11.2.

COMPANY NAME Statement of cash flows Period covered		
Cash flows from operating activities		
(List of individual items)	xx	
Net cash provided (used) by operating activities		xxx
Cash flows from investing activities		
(List of individual inflows and outflows)	xx	
Net cash provided (used) by investing activities		xxx
Cash flows from financing activities		
(List of individual inflows and outflows)	xx	
Net cash provided (used) by financing activities		xxx
Net increase (decrease) in cash		xxx
Cash at beginning of period		xxx
Cash at end of period		xxx

Figure 11.2 Format of the statement of cash flows

There are two methods of presenting cash provided (used) by operating activities: the direct method and the indirect method. The **direct method** presents cash payments as deductions from cash receipts to determine 'Net cash provided (used) by operating activities'. The cash receipts and payments may be determined by adjusting items in the statement of profit or loss from the accrual basis to the cash basis. The **indirect method** starts with profit and adjusts it for timing differences, non-cash items, and any investing or financing items included in profit, to determine 'Net cash provided (used) by operating activities'. The indirect method reconciles profit to net cash provided (used) by operating activities. Both methods arrive at the same result for 'Net cash provided (used) by operating activities', but differ in the disclosure of items on the face of the statement of cash flows. The direct method is more consistent with the objective of a statement of cash flows because it shows operating cash receipts and payments. Note that the two different methods affect only the operating activities section; the sections of the statement of cash flows pertaining to investing activities and financing activities are not affected by the choice of method for the operating activities section.

DECISION MAKING

International accounting standard IAS 7/AASB 107 *Statement of Cash Flows* encourages entities to use the direct method for published financial statements. The direct method provides information that is helpful to users in their decision-making processes when estimating future cash flows. Both shareholders and lenders are interested in predicting future cash flows as this is an indicator of whether there will be sufficient cash to pay dividends and repay loans in the future. Furthermore, once you review both the direct and indirect methods illustrated below, you will see that the direct method contains information for users that is not available when an entity uses the indirect method.

If an entity uses the direct method, the standard requires a reconciliation of profit and net cash provided (used) by operating activities, i.e. the indirect method, to be disclosed in a note. Accordingly, in this chapter we will use the direct method for preparation of the statement of cash flows and the indirect method for the reconciliation, which is normally disclosed in a note to the statement. It is also important to note that a number of years ago, IAS 1/AASB 101 *Presentation of Financial Statements* was revised. Commencing 1 January 2009, among the changes was a change in terminology for the names of the financial statements. Prior to 1 January 2009 the statement of cash flows was called the cash flow statement. However, while it is mandatory for the new titles to be used in all accounting standards wherever the relevant statements are referred to, it is not mandatory for the financial reports produced in accordance with the standards to change their name. The new title, statement of cash flows, is used throughout this text. However, you might find that some of the annual reports you access may use the previous title, cash flow statement as seen in the 2013 annual reports for Michael Hill International Ltd and Microsoft Corporation.

Helpful hint

When an entity uses the direct method for the statement of cash flows, users benefit by having access to the unique information that arises from each method — the direct method reported in the body of the statement and the indirect method in a note to the statement of cash flows.

As illustrated, the section of cash flows from operating activities always appears first, followed by the investing activities and the financing activities sections. Also, the individual inflows and outflows from investing and financing activities are reported separately. Thus, the cash outflow for the purchase of property, plant and equipment is reported separately from the cash inflow from the sale of property, plant and equipment. Similarly, the cash inflow from the issue of debt is reported separately from the cash outflow for the repayment of debt. If an entity did not report the inflows and outflows separately, it would obscure the investing and financing activities of the business and thus make it more difficult for the user to assess future cash flows.

Alternative terminology

The repayment of debt is also referred to as the *redemption* or *retirement* of debt.

The reported operating, investing and financing activities result in net cash either *provided* or *used* by each activity. The net cash provided or used by each activity is totalled to show the net increase (decrease) in cash for the period. The net increase (decrease) in cash for the period is then added to or subtracted from the beginning-of-period cash balance to obtain the end-of-period cash balance.

APPLICATION IN BUSINESS

Investor perspective

Profit is not the same as net cash generated by operations. The differences are illustrated by the following results from recent annual reports for the 2013 financial year ($ in millions).

Entity	Profit/(Loss)	Net cash provided by operations
ANZ Banking Group	$6 282.0	$13 166.0
AMP Ltd	716.0	858.0
Billabong International Ltd	(863.0)	11.9
Domino's Pizza Enterprises Ltd	28.7	33.2
Michael Hill International Ltd	40.0	52.3
Telstra Corporation Ltd	3 865.0	8 359.0

Note that Billabong reported a loss of around $863 million, but a net cash inflow from operations of $11.9 million. It is also interesting to observe the wide disparity between industries in term of the difference between profit/(loss) and net cash provided by operations.

USEFULNESS OF THE STATEMENT OF CASH FLOWS

DECISION MAKING

Many investors believe that 'Cash is cash and everything else is accounting'; that is, cash flow is less susceptible to creative accounting than traditional accounting measures such as profit. Although we suggest that reliance on cash flows to the exclusion of accrual accounting is inappropriate, when users of financial statements are making decisions about allocating their scarce resources, comparing cash from operations with profit can reveal important information that may help users decide whether to invest in, or lend funds to, an entity. The information in a statement of cash flows should help investors, creditors and others evaluate these aspects of the entity's financial position.

1. *The entity's ability to generate future cash flows.* By examining relationships between such items as sales and net cash provided by operating activities, investors, lenders and others can predict the amount, timing and uncertainty of future cash flows better than from accrual-based data.
2. *The entity's ability to pay dividends and meet obligations.* If an entity does not have adequate cash, it cannot pay employees, settle debts or pay dividends. Employees, creditors, shareholders and customers should be particularly interested in this statement because it alone shows the flows of cash in a business. Given an entity must generate sufficient cash flows for investors to receive future dividends as a return on their investment, and sufficient cash flows are needed to repay lenders interest and principal, being able to predict the amount, timing and uncertainty of future cash flows is an important input into the decision-making processes of these users. Recall, that *liquidity* is a measure of the entity's ability to meet its short-term obligations and *solvency* is its ability to meet long-term obligations.
3. *The reasons for the difference between profit and net cash provided (used) by operating activities.* Profit is important because it provides information on the success or shortcomings of a business. However, some are critical of accrual-based profit because it requires many estimates such as bad debts expense. As a result, the reliability of the amount is often challenged. Such is not the case with cash because if cash is received by the entity in a period or is paid by the entity in that same period it is included in the statement of cash flows for that period. This is regardless of whether the payment is a prepayment rather than an expense or if the receipt of cash is a revenue received in advance rather than a revenue. Note that cash flows could, however, be manipulated by management's choice of timing of the cash payments. Management has less control over the receipts of cash by the entity. Many users of the financial statements want to know the reasons for the difference between profit and net cash provided by operating activities. The indirect method of calculating the cash flows from operating activities is helpful in this regard as you will see later in the chapter.
4. *The cash investing and financing transactions during the period.* By examining an entity's investing activities and financing activities, a financial statement user can better understand how assets and liabilities increased or decreased during the period.

Helpful hint

Recall in chapter 1 that multiple sources of information — financial and non-financial — are needed to make sound decisions about resource allocations. These include: ratios, economic and industry data, as well as any other entity-specific information that could have a significant impact on the decision.

Helpful hint

Review the ratios explored in chapter 1 to refresh your memory and consolidate your understanding of how to measure liquidity and solvency of an entity using accrual-based numbers. Later in the chapter we will explore these same measures using information from the statement of cash flows.

In summary, the statement of cash flows can provide information that is helpful to shareholders, potential investors, lenders and other creditors when making decisions about the allocation of scare resources. It can provide insights into the following key questions.

- How did cash increase when there was a loss for the period?
- Why were dividends not increased?
- How was the retirement of debt accomplished?
- How much money was borrowed during the year?
- Is operating cash flow greater or less than profit?

Alternative terminology

The term *cash flow* is sometimes used to refer to cash provided by operating activities. However, throughout this book we will use the term *cash flow* in the generic sense and identify when we are referring specifically to operating cash flows.

APPLICATION IN BUSINESS

Management perspective

Wouldn't it be wonderful to make lots of money while doing good in the world? Well, entrepreneur Derek Handley with this goal in mind has made millions of dollars in business — and he's not even 40. From a New Zealand base, Handley foresaw the marketing opportunities that were emerging with the growth of mobile devices. He founded a mobile marketing company, The Hyperfactory, in 2001 with his brother — their vision, to connect consumers, brands and mass media via mobile phones. Together, they grew the business internationally before selling it in 2010 for a sum rumoured to be in the tens of millions of dollars. Handley is developing new business ventures, but his views about the role of business in society have changed. He now devotes time to 'The B Team', a Richard Branson initiative, to explore how business can develop a better version of capitalism that considers how people are treated and how businesses impact the cultures in which they are based — economically, socially and environmentally. Handley now focuses on questions like, 'How might business *do business differently* if in the financial reporting each year, the social and environmental impact of the enterprise is accounted for?' For example, what if staff wellbeing was measured and reported and companies provided data on employee health and stress levels.

What do you think might change in business practices if the *social and environmental impact* of the business was measured and reported?

Source: Based on information from L. Dugdale 2014, 'Having big dreams for a small planet and big business', *InTheBlack*, May.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What is the main purpose of a statement of cash flows?
2. What are the major classifications on the statement of cash flows?
3. What are some examples of significant non-cash activities?
4. Why is the statement of cash flows useful? What key information does it convey?

>> DO IT

During the first week of its existence, Fox Hauling Pty Ltd had these transactions:

1. Issued 100 000 shares for $800 000 cash.
2. Borrowed $200 000 from Castle Bank, signing a 5-year note bearing 8% interest.
3. Purchased two semi-trailers for $170 000 cash.
4. Paid employees $12 000 for salaries and wages.
5. Collected $20 000 cash for services rendered.

Classify each of these transactions by type of cash flow activity.

REASONING: All cash flows are classified into three activities for purposes of reporting cash inflows and outflows: operating activities, investing activities and financing activities. Operating activities include the principal revenue-producing activities and activities that are not classified as investing or financing activities. Investing activities include (a) purchasing and disposing of investments and long-term assets using cash and (b) lending money and collecting the loans. Financing activities include (a) obtaining cash from borrowing and repaying the amounts borrowed and (b) obtaining cash from shareholders.

SOLUTION: 1. Financing activity; 2. Financing activity; 3. Investing activity; 4. Operating activity; 5. Operating activity

LEARNING OBJECTIVE 3
Prepare a statement of cash flows.

PREPARING THE STATEMENT OF CASH FLOWS

The statement of cash flows is prepared differently from the other basic financial statements. First, it is not prepared from an adjusted trial balance. Because the statement requires detailed information concerning the changes in account balances that occurred between two periods of time, an adjusted trial balance does not provide the data necessary for the statement. Second, the statement of cash flows deals with cash receipts and payments. As a result, the *accrual concept is not used* in the preparation of a statement of cash flows.

In computerised accounting systems, a statement of cash flows may be prepared automatically if cash receipts and payments are entered appropriately. An alternative approach, which is illustrated in this book, is to derive cash flows from information contained in other financial statements.

The information to prepare this statement usually comes from three sources.

1. *Statement of financial position*. Information in this statement indicates the amount of the changes in assets, liabilities and equity from the beginning to the end of the period.
2. *Current statement of profit or loss*. Information in this statement helps determine the amount of cash provided or used by operations during the period.
3. *Additional information*. Additional information includes transaction data that are needed to determine how cash was provided or used during the period.

Note that internal reports are used rather than their more aggregated external counterparts when preparing the statement of cash flows.

Helpful hint

A statement of financial position generally provides at least 2 years of data. Hence, the statement indicates changes in assets, liabilities and equity between periods.

Recall from previous chapters, that income, expenses, assets and liabilities (except for accounts receivable and accounts payable) are shown net of the GST and the net amount payable to (recoverable from) the tax authority is classified also as a payable (receivable). Please also note that while the implications of the goods and services tax (GST) have been excluded from this chapter, it is helpful to understand that cash flows are actually included in the statement of cash flows on a gross basis, i.e. cash flows include the GST received or paid. Further, the GST component of cash flows arising from investing and financing activities, which is either recoverable from or payable to the tax office, is classified as operating cash flows. This is reflected in the net payments to suppliers and employees.

Preparing the statement of cash flows from the data sources listed above involves the four steps explained in figure 11.3. First, to see where you are headed, start by identifying the change in cash during the period. Has cash increased or decreased during the year? Second, determine the net cash provided (used) by operating activities. Third, determine the net cash provided (used) by investing activities. Fourth, determine the net cash provided (used) by financing activities.

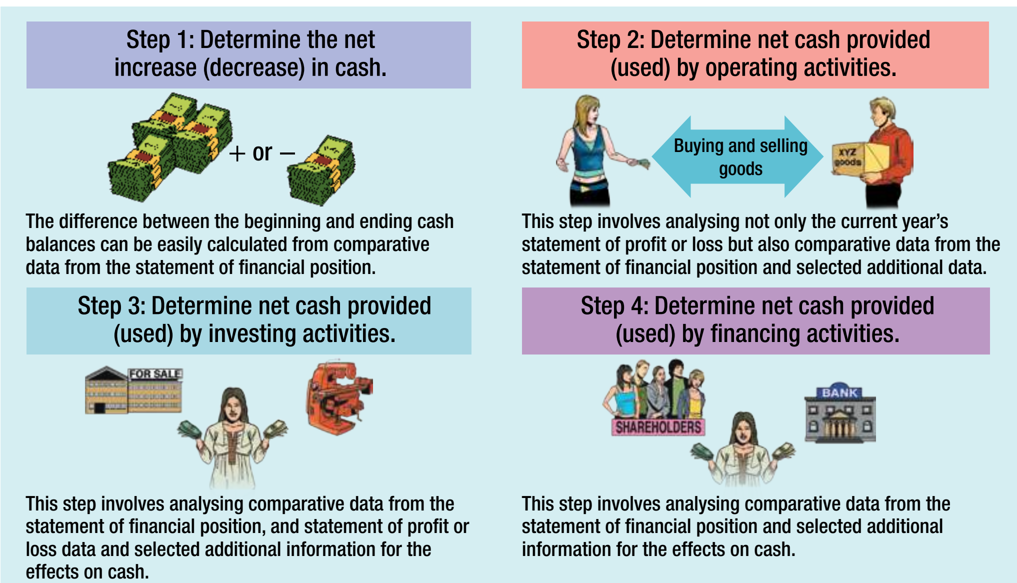


Figure 11.3 Four steps in preparing the statement of cash flows

To explain the preparation of a statement of cash flows, we will use the transactions of Pacific Ltd for 2016. The statement of cash flows for 2016 is prepared using the detailed internal statement of profit or loss and statement of financial position and other information. The statement of financial position for 2015 is also used to determine the movement in accounts, such as accounts payable and accounts receivable.

The statement of financial position at the end of 2016 with 2015 comparatives is shown in figure 11.4 (overleaf). The net change in each account is also displayed. The statement of profit or loss for 2016 and additional information for Pacific Ltd are shown in figure 11.5 (overleaf).

Figure 11.4 Statement of financial position, 2016, and calculation of the net change in each account

PACIFIC LTD
Statement of financial position
as at 30 June 2016

	2016	2015	Change Increase/decrease	
Assets				
Cash	$191 000	$159 000	$ 32 000	increase
Accounts receivable	12 000	15 000	3 000	decrease
Inventory	130 000	160 000	30 000	decrease
Prepaid expenses	6 000	8 000	2 000	decrease
Land	180 000	80 000	100 000	increase
Equipment	160 000	—	160 000	increase
Accumulated depreciation — equipment	(16 000)	—	16 000	increase
Total	$663 000	$422 000		
Liabilities and equity				
Accounts payable	$ 52 000	$ 60 000	$ 8 000	decrease
Accrued expenses payable	15 000	20 000	5 000	decrease
Income tax payable	12 000	—	12 000	increase
Notes payable (non-current)	90 000	—	90 000	increase
Share capital	400 000	300 000	100 000	increase
Retained earnings	94 000	42 000	52 000	increase
Total	$663 000	$422 000		

Figure 11.5 Statement of profit or loss and additional information, 2016

PACIFIC LTD
Statement of profit or loss
for the year ended 30 June 2016

Revenue from sales		$975 000
Cost of sales	$660 000	
Operating expenses (excluding depreciation)	176 000	
Depreciation expense	18 000	
Loss on sale of store equipment	1 000	855 000
Profit before income tax		120 000
Income tax expense		36 000
Profit		$ 84 000

Additional information:
(a) In 2016 Pacific Ltd declared and paid a $32 000 cash dividend.
(b) Notes were issued at face value for $90 000 in cash. These are a long-term source of borrowing.
(c) Equipment costing $180 000 was purchased for cash.
(d) Equipment costing $20 000 was sold for $17 000 cash when the carrying amount of the equipment was $18 000.
(e) Ordinary shares of $100 000 were issued to acquire land. The vendor (seller) of the land received the shares in payment for the land.

Figure 11.6 (opposite) provides an overview of the different ways to prepare a statement of cash flows. You can use the overview to gain the 'big picture' of the whole process. The details for calculating each amount are provided. Please note that some students may prefer to reconstruct accounts to calculate the cash amounts while others will prefer to use the formulas. Hence, both are provided in this chapter and both will yield the same solution.

Overview — preparing a statement of cash flows

Information needed: statements of financial position (SOFP), current statement of profit or loss (P/L) and additional information (AI) on transactions that explain how cash was provided or used during the period. **Process**: first draft a template or blank statement of cash flows (SOCF), as in the example given below in the first column and then fill in the amounts as each of the following steps are completed. **Step 1:** Determine the net increase/decrease in cash. **Step 2:** Determine the net cash provided (used) by operating activities. **Step 3:** Determine the net cash provided (used) by investing activities. **Step 4:** Determine the net cash provided (used) by financing activities. Once the information has been used, place a tick (✓) beside each amount. Then review information for any amounts that remain unticked to ensure you have included all cash flows.

PACIFIC LTD **Statement of cash flows** **for the year ended 30 June 2016**	**Page reference**	The title of the SOCF includes the name of the entity, the name of the financial statement and the period covered by the statement. **Information used**	**Accounts reconstructed (*or* use the formula illustrated in the text)**
Cash flows from operating activities			
Cash receipts from customers	p. 654	SOFP — Accounts receivable Allowance for doubtful debts P/L — Sales revenue Bad/doubtful debts expense	Accounts receivable Allowance for doubtful debts
Cash payments To suppliers	p. 657	SOFP — Inventory and accounts payable P/L — Cost of sales	Inventory Accounts payable
For operating expenses	p. 658	SOFP — Prepaid expenses Accrued expenses payable P/L — Operating expenses (excluding depreciation)	Prepaid expenses and accrued Expenses payable (combined)
For income taxes		SOFP — Income tax payable P/L — Income tax expense	Income tax payable
Net cash provided (used) by operating activities			
Cash flows from investing activities			
Purchase of equipment Sale of equipment	p. 661	SOFP — Equipment & accumulated depreciation — equipment P/L — Depreciation expense Loss on sale of equipment AI items (c) & (d) (figure 11.5)	Equipment Accumulated depreciation — equipment Disposal of equipment
*Land (This item is shown as a note to the statement of cash flows.)	p. 661	SOFP — Land and share capital AI item (e) (figure 11.5)	Land Share capital
Net cash provided (used) by investing activities			
Cash flows from financing activities			
Issue of notes payable	p. 662	SOFP and AI item (b) (figure 11.5)	Notes payable
Payment of cash dividends	p. 662	SOFP and AI item (a) (figure 11.5)	Retained earnings
Net cash provided (used) by financing activities			
Net increase in cash			
Cash at beginning of period	p. 654	SOFP (figure 11.4)	Cash
Cash at end of period		SOFP (figure 11.4)	Cash

Figure 11.6 Overview: Preparing a statement of cash flows

DETERMINING THE NET INCREASE (DECREASE) IN CASH (STEP 1)

The statement of financial position for Pacific Ltd (figure 11.4, p. 652) shows a cash balance of $159 000 at 30 June 2015, and a cash balance of $191 000 at 30 June 2016. Therefore, the change in cash for 2016 was a net increase of $32 000.

DETERMINING NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES (STEP 2)

Under the direct method, net cash provided by operating activities is calculated by adjusting each item in the statement of profit or loss from the accrual basis to the cash basis. To simplify and condense the operating activities section, only major classes of operating cash receipts and cash payments are reported. The difference between these major classes of cash receipts and cash payments is the net cash provided by operating activities, as shown in figure 11.7.

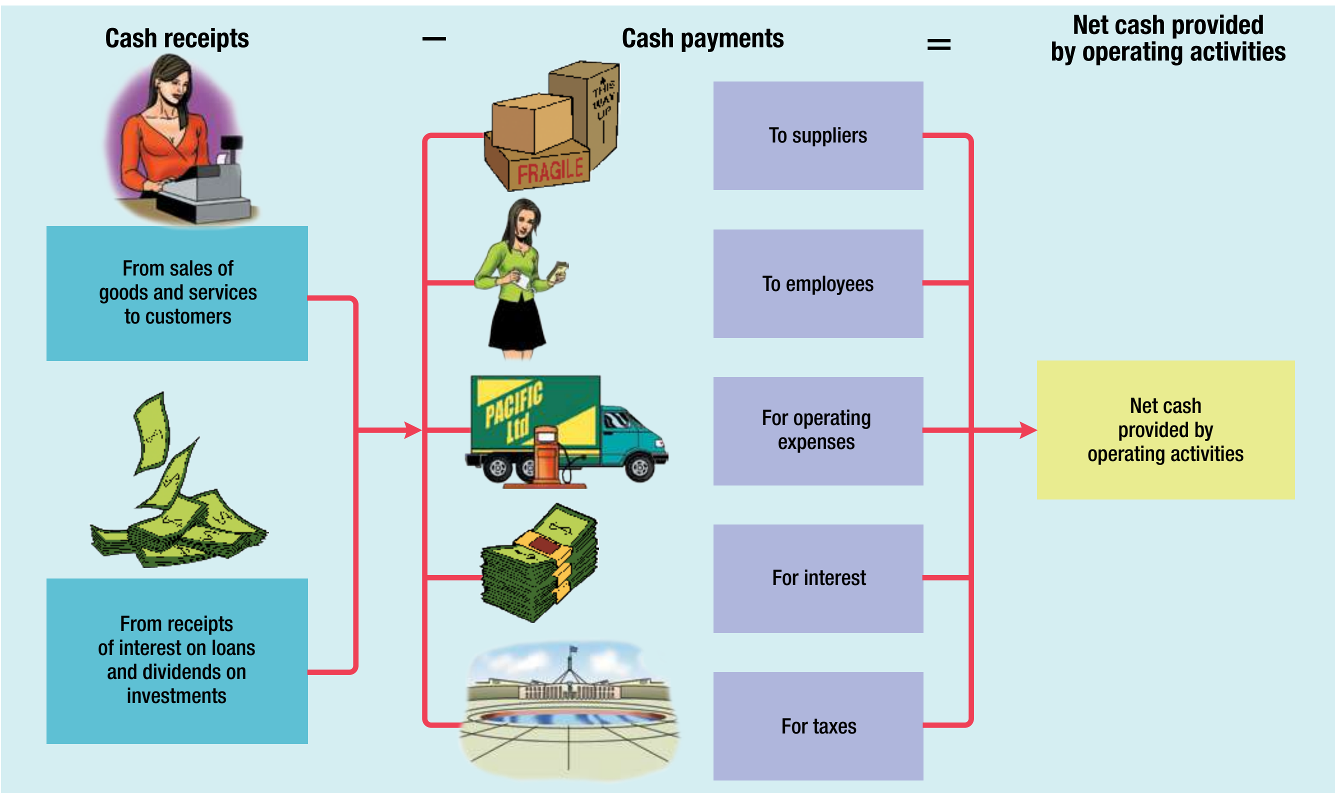


Figure 11.7 Major classes of cash receipts and payments

An efficient way to apply the direct method is to analyse the revenues and expenses reported in the statement of profit or loss in the order in which they are listed and then determine cash receipts and cash payments related to these revenues and expenses. The direct method adjustments for Pacific Ltd to determine net cash provided by operating activities in 2016 are presented in the following sections.

Cash receipts from customers

The statement of profit or loss for Pacific Ltd (figure 11.5, p. 652) reported revenue from sales of $975 000. Revenue includes both cash sales and credit sales. To determine the *cash receipts* from customers, it is necessary to consider the change in accounts receivable during the year. When accounts receivable increase during the year, this means that revenues on an accrual basis are higher than cash receipts from customers. This is because a credit sale results in an increase in accounts receivable (debit) and a corresponding increase in revenue (credit). When accounts receivable increase you can see that revenue has increased but the cash *has not* been received.

In other words, operations led to increased revenues, but not all of these revenues resulted in cash receipts. To determine the amount of cash receipts, the increase in accounts receivable is deducted from sales revenues. This represents the amount of credit sales that have not been collected in cash. Conversely, a decrease in accounts receivable is added to sales revenues because cash receipts from customers then exceed sales revenues.

As a general rule, the effects of the timing differences between recording revenues and expenses under accrual accounting and the recording of cash receipts and payments are found in the current asset and current liability accounts in the statement of financial position.

Pacific Ltd's accounts receivable decreased by $3000. Thus, cash receipts from customers were $978 000, calculated as shown in figure 11.8.

Revenues from sales	$ 975 000
Add: Decrease in accounts receivable	3 000
Cash receipts from customers	**$978 000**

Figure 11.8 Calculation of cash receipts from customers

Helpful hint

The statement of financial position provides 2 years of data, indicating the changes in assets, liabilities and equity between periods. When reconstructing accounts, it is helpful to note that the balance reported at the end of one period is the opening balance in the following period. In this example, the closing balance of accounts receivable at 30 June 2015 becomes the opening balance for accounts receivable on 1 July 2015. Hence, the balance of accounts receivable at 30 June 2016 becomes the opening balance for accounts receivable on 1 July 2016. The closing balance goes on the opposite side to the opening balance as shown in figure 11.9, as it is merely a 'balancing' item to make the debit and credit sides of the account equal or 'balance' the account.

Review figure 2.33 in chapter 2 (p. 118) and the related text on how to balance accounts if you need help. This is a crucial skill in supporting your mastery of this topic.

Cash receipts from customers may also be determined from an analysis of the accounts receivable control account, as shown in figure 11.9. For simplicity, the accounts receivable control account will be referred to as accounts receivable in this chapter.

Accounts receivable

2015				
July 1	Balance	15 000	**Receipts from customers**	**978 000**
	Revenue from sales	975 000	June 30 Closing balance	12 000
		990 000		990 000
2016				
July 1	Balance	12 000		

Figure 11.9 Analysis of accounts receivable

Are all credit entries to accounts receivable for cash receipts? Unfortunately not. Recall from chapter 7 that bad debts are written off by crediting accounts receivable. If the direct write-off method is used, the amount will be easily identified from the statement of profit or loss. If the allowance method is used, the amount of bad debts written off can be determined by reconstructing the allowance for doubtful debts account. Recall that when the allowance method is used, bad debts are written off by debiting allowance for doubtful debts and crediting accounts receivable.

The relationships among cash receipts from customers, revenues from sales, and changes in accounts receivable are shown in figure 11.10.

Cash receipts from customers = Revenues from sales { + Decrease in accounts receivable – bad debts written off
or
– Increase in accounts receivable – bad debts written off

Figure 11.10 Formula to calculate cash receipts from customers

Helpful hint

The illustration and formula assume that there is no discount allowed for prompt payment of accounts receivable. If the entity allows discounts, they should be included in the reconstruction of accounts receivable to calculate cash receipts.

As illustrated in figure 11.11, the statement adds accounts receivable and sales. The amount owed by customers at the beginning of the year and the sales made during the year represent the amount that could be collected from customers. The amount of accounts receivable uncollected at the end of the year is deducted from the sum of the opening accounts receivable and sales balances, to calculate the amount of cash collected.

Figure 11.11 Statement presentation of calculation of cash received from customers

Opening accounts receivable	$ 15 000
+ Sales	975 000
	990 000
− Closing accounts receivable	12 000
= Cash received from customers	$978 000

For simplicity, bad debts have been omitted. However, the statement can be modified to incorporate bad debts, as illustrated in figure 11.12.

Figure 11.12 Statement presentation of calculation of cash received from customers with bad debts written off

Opening accounts receivable
\+ Sales
Subtotal
− Bad debts written off
− Closing accounts receivable
= Cash received from customers

Now we will look at a more complicated example in which the allowance for doubtful debts account is used. Assume that the following information is extracted from the financial statements of Chocolate Indulgence Ltd:

Accounts receivable at 30 June 2017	$120 debit
Allowance for doubtful debts 30 June 2017	$15 credit
Sales revenue for the year ended 30 June 2017	$2400
Bad debts expense for the year ended 30 June 2017	$50

Account balances at the end of the previous year, 30 June 2016, were:

Accounts receivable	$100 debit
Allowance for doubtful debts	$10 credit

To calculate the amount of cash received we need to know how much of the accounts receivable has been written off as a bad debt. This is not necessarily the same amount as the bad debts expense when the allowance method is used to account for bad debts. We can reconstruct the allowance for doubtful debts to determine the amount of bad debts written off against it.

Allowance for doubtful debts

			2016		
Accounts receivable (for bad debt			July 1	Balance	10
written off)		45		Bad debts expense	50
June 30	Closing balance	15			
		60			60
			2017		
			July 1	Balance	15

The amount of bad debts written off against accounts receivable is determined by adding the opening balance of the allowance for doubtful debts and the doubtful debts expense on the credit side of the account and then subtracting the closing balance shown on the debit side of the account, that is, \$10 + \$50 − \$15 = \$45.

Having identified the bad debts written off against accounts receivable, we can now calculate the cash collected from customers as follows:

Opening accounts receivable	\$ 100
+ Sales	2 400
Sub-total	2 500
− Bad debts written off	(45)
− Closing accounts receivable	(120)
= Cash received from customers	\$ 2 335

Cash payments to suppliers

Pacific Ltd reported cost of sales of \$660 000 on its statement of profit or loss. Cash payments to suppliers is determined using a two-step process. First, it is necessary to find purchases for the year and only then can cash paid to suppliers be determined. To find purchases, cost of sales is adjusted for the change in inventory. When inventory increases during the year, it means that purchases this year exceed cost of sales. In other words, the company purchased more inventory than it sold, so the balance of inventory increases. As a result, the increase in inventory is added to cost of sales to arrive at purchases for the period. If the periodic inventory system is used, purchases are shown on the statement of profit or loss.

In 2016, Pacific Ltd's inventory decreased \$30 000. This means that cost of sales exceeded purchases. In this case, the company sold all of the inventory purchased during the period *and* it also sold inventory that was available at the beginning of the period (opening inventory) and inventory decreased. Hence, the cost of sales figure includes both the inventory purchased during the current period as well as the sale of inventory that was not purchased during the period, but was available as opening inventory. As a result, to calculate purchases, the decrease in inventory must be subtracted from cost of sales, as shown in figure 11.13.

Cost of sales	\$ 660 000
Less: Decrease in inventory	30 000
Purchases	**\$630 000**

Figure 11.13 Calculation of purchases

Second, after purchases are calculated, cash payments to suppliers are determined by adjusting purchases for the change in accounts payable. Purchases can be made for cash or on credit (increase in accounts payable). When accounts payable increase during the year, purchases on an accrual basis are higher than they are on a cash basis; that is, some of the purchases have not been paid for in cash, but are instead still payable. As a result, an increase in accounts payable is deducted from purchases to arrive at cash payments for purchases that have been made to suppliers. Conversely, a decrease in accounts payable (which represents a payment to a supplier) is added to purchases because cash payments to suppliers exceed purchases. In other words, in addition to the cash purchases made during the period, cash outflows occurred to pay off amounts owing on previous purchases (accounts payable). Cash payments to suppliers were \$638 000, calculated as in figure 11.14.

Purchases	\$ 630 000
Add: Decrease in accounts payable	8 000
Cash payments to suppliers	**\$638 000**

Figure 11.14 Calculation of cash payments to suppliers

Cash payments to suppliers may also be determined from an analysis of the accounts payable account, as shown in figure 11.15. Throughout this chapter we provide practical illustrations for determining cash flows in two ways. First, using a T-account reconstruction as shown in figure 11.15. Second using a formula to calculate cash payments to suppliers as shown in figure 11.16. You can choose the method that gives you the greatest understanding of how to determine cash inflows and outflows.

Accounts payable

			2015		
Payments to suppliers		**638 000**	July 1	Balance	60 000
June 30	Closing balance	52 000		Purchases	630 000
		690 000			690 000
			2016		
			July 1	Balance	52 000

Figure 11.15 Analysis of accounts payable

The relationship between cash payments to suppliers, cost of sales, changes in inventory, and changes in accounts payable is shown in the formula in figure 11.16.

Cash payments to suppliers = Cost of sales { + Increase in inventory or − Decrease in inventory } { + Decrease in accounts payable or − Increase in accounts payable }

Figure 11.16 Formula to calculate cash payments to suppliers

Helpful hint

The illustration and formula assume that the entity has received no discount for prompt payment. A discount, if received, should be included in the reconstruction of accounts payable to calculate cash payments to suppliers. A worked example is provided in demonstration problem 2 at the end of this chapter.

The equation in figure 11.16 can be rearranged and presented as a statement. This is illustrated in figure 11.17. The sum of the closing inventory and the cost of sales is the cost of goods available for sale. Subtracting the opening inventory from the cost of goods available for sale gives the cost of purchases. Purchases do not usually equal cash paid for inventory because purchases are typically made on credit. The purchases are added to the opening accounts payable to determine the total amount owed to suppliers of inventory throughout the year. The closing balance of accounts payable is subtracted from this subtotal to calculate the amount paid to suppliers. In figure 11.17, the total amount owed to suppliers throughout the year is $690 000. Of this amount, $52 000 had not been paid by the end of the year. Thus, the amount that had been paid during the year is $638 000 (i.e. $690 000 − $52 000). As you can see from the figures, the different methods of calculating cash flows produce the same result.

Closing inventory	$130 000
+ Cost of sales	660 000
= Cost of goods available for sale	790 000
− Opening inventory	160 000
= Purchases	630 000
+ Opening accounts payable	60 000
	690 000
− Closing accounts payable	52 000
= Cash paid to suppliers	$638 000

Figure 11.17 Statement presentation of calculating cash paid to supplier

Cash payments for operating expenses

Operating expenses of $176 000 excluding depreciation were reported in Pacific Ltd's statement of profit or loss. Recall that expenses can arise from cash payments or accrual accounting entries. Furthermore, some cash payments are not recorded as expenses, but prepayments. Hence, to determine the cash paid for operating expenses, the amount for operating expenses must be adjusted for any changes in prepaid expenses and accrued expenses payable. For example, when prepaid expenses decreased $2000 during the year, cash paid for operating expenses was $2000 lower than operating expenses reported in the statement of profit or loss. To convert operating expenses to cash payments for operating expenses, the decrease of $2000 must be subtracted from operating expenses as the decrease represents a debit to operating expenses and a credit to prepaid expenses and not a cash outflow. Conversely, if prepaid expenses increase during the year, the increase must be added to operating expenses to calculate cash payments as the increase in prepaid expenses represents a cash outflow.

Operating expenses must also be adjusted for changes in accrued expenses payable. The term accrued expenses payable is used to describe all liability accounts, such as accrued wages, warranty provisions and expenses payable, that arise from accrual accounting. Recall that an accrued expense is recorded as a debit to the expense account and a credit to the corresponding accrued expenses payable account. So, when accrued expenses payable increase during the year, operating expenses on an accrual basis are higher than they are on a cash basis. For example, if accrued wages were $1000 at the beginning of the year and $2000 at the end of the year, the cash payments for wages would include $1000 that was not a current-year expense and exclude $2000 that was a current-year expense. Thus expenses on an accrual basis would be higher than on a cash basis. As a result, an increase in accrued expenses payable is deducted from operating expenses to arrive at cash payments for operating expenses. Conversely, in the case of Pacific Ltd the decrease in accrued expenses payable of $5000 in 2016 (refer figure 11.4, p. 652) is added to operating expenses because cash payments exceed operating expenses.

Pacific Ltd's cash payments for operating expenses were $179 000, calculated as shown in figure 11.18.

Operating expenses	$ 176 000
Deduct: Decrease in prepaid expenses	(2 000)
Add: Decrease in accrued expenses payable	5 000
Cash payments for operating expenses	**$179 000**

Figure 11.18 Calculation of cash payments for operating expenses

The relationships among cash payments for operating expenses, changes in prepaid expenses, and changes in accrued expenses payable are shown in the formula in figure 11.19.

Cash payments for operating expenses = Operating expenses excluding depreciation { + Increase in prepaid expenses or − Decrease in prepaid expenses } { + Decrease in accrued expenses payable or − Increase in accrued expenses payable }

Figure 11.19 Formula to calculate payments for operating expenses

The formula in figure 11.19 can be rearranged and presented as a statement. This is illustrated in figure 11.20 (overleaf). The closing balance of the prepaid expenses account is added to the current period expenses because some cash payments become expenses in the current period and some are prepaid expenses classified as assets. The opening amount of the prepaid expenses account is deducted because it was paid in a previous period. The opening balance of the accrued expenses payable account is added because this is an amount that was paid in the current period but not included in expenses as it relates to the previous period's expenses. The closing balance of the accrued expenses payable account is deducted because it had not been paid by the end of the period.

Closing prepaid expenses	$ 6 000
+ Expenses	176 000
	182 000
− Opening prepaid expenses	8 000
	174 000
+ Opening accrued expenses payable	20 000
	194 000
− Closing accrued expenses payable	15 000
= Cash paid for operating expenses	$179 000

Figure 11.20 Statement presentation of calculation of cash paid for expenses

Depreciation expense and loss on sale of equipment

Operating expenses are shown exclusive of depreciation. Depreciation expense in 2016 was $18 000. Depreciation expense is not shown on a statement of cash flows under the direct method because it is a non-cash charge. If the amount for operating expenses includes depreciation expense, operating expenses must be reduced by the amount of depreciation expense to determine cash payments for operating expenses.

The loss on sale of store equipment of $1000 must also be excluded. The loss on the sale of equipment reduces profit, but it does not affect operating cash flows. A gain or loss on the sale of equipment comprises two items: proceeds from the sale, which are included in the investing cash flows; and the carrying amount of the asset sold, which is a non-cash item. Thus, a gain or loss on the sale of equipment is not reported on a statement of cash flows prepared using the direct method.

Other charges to expense that do not require the use of cash, such as the amortisation of intangible assets, leased assets and depletion expense, are treated in the same manner as depreciation.

Cash payments for income tax

Income tax expense reported on the statement of profit or loss was $36 000. Income tax payable, however, increased $12 000, which means that $12 000 of the income tax has not been paid. As a result, income tax paid was less than income tax reported on the statement of profit or loss. Cash payments for income tax were therefore $24 000, as shown in figure 11.21.

Income tax expense	$ 36 000
Deduct: Increase in income tax payable	12 000
Cash payments for income tax	**$24 000**

Figure 11.21 Calculation of cash payments for income tax

The relationship among cash payments for income tax, income tax expense, and changes in income tax payable are shown in the formula in figure 11.22.

Cash payments for income tax = Income tax expense { + Decrease in income tax payable or − Increase in income tax payable

Figure 11.22 Formula to calculate cash payments for income tax

The formula in figure 11.22 can be rearranged and presented as a statement. This is illustrated in figure 11.23 (opposite). The sum of the opening balance of the income tax payable and income tax expense accounts for the period is the amount of tax paid or payable. To calculate the tax paid during the year, deduct the closing balance of income tax payable because it has not been paid during the year.

Opening income tax payable	$ nil
+ Income tax expense	36 000
	36 000
− Closing income tax payable	12 000
= Cash paid for income tax	$24 000

Figure 11.23 Statement presentation of cash paid for income tax

DETERMINING NET CASH PROVIDED (USED) BY INVESTING ACTIVITIES (STEP 3)

Increase in land

Land increased $100 000. The additional information indicates that ordinary shares were issued to purchase the land. Although the issue of ordinary shares for land has no effect on cash, it is a significant non-cash investing and financing transaction. This transaction requires disclosure in a separate note to the statement of cash flows.

Increase in equipment

The statement of financial position shows that equipment increased $160 000 in 2016. The additional information in figure 11.5 (p. 652) indicates that the increase resulted from two investing transactions: (1) equipment costing $180 000 was purchased for cash, and (2) equipment costing $20 000 was sold for $17 000 cash when its carrying amount was $18 000. The relevant data for the statement of cash flows are the cash paid for the purchase and the cash proceeds from the sale. For Pacific Ltd the investing activities section will show purchase of equipment $180 000 as an outflow of cash, and sale of equipment $17 000 as an inflow of cash. The two amounts should *not* be netted; both flows should be shown separately.

While a lot of information was provided in this illustration, often you will need to reconstruct non-current asset accounts to determine amounts paid for acquisitions, or other key items needed to calculate cash flows. To assist in this task the equipment account is reconstructed and illustrated. The analysis of the changes in equipment should include the related accumulated depreciation account. These two accounts for Pacific Ltd are shown in figure 11.24.

Equipment

2015					
July 1	Balance	—		Cost of equipment sold	20 000
	Cash purchase	180 000	June 30	Closing balance	160 000
		180 000			180 000
2016					
July 1	Balance	160 000			

Accumulated depreciation — equipment

			2015		
	Sale of equipment	2 000	July 1	Balance	—
June 30	Closing balance	16 000		Depreciation expense	18 000
		18 000			18 000
			2016		
			July 1	Balance	16 000

Figure 11.24 Analysis of equipment and related accumulated depreciation

Note that if we didn't know the cost of the equipment purchased, we could have used the equipment account reconstruction to calculate it by adding the cost of equipment sold to the closing balance and then subtracting the opening balance, i.e. $160 000 + $20 000 − $nil = $180 000.

DETERMINING NET CASH PROVIDED (USED) BY FINANCING ACTIVITIES (STEP 4)

Increase in notes payable

Notes payable increased $90 000. The additional information in figure 11.5 (p. 652) indicates that notes with a face value of $90 000 were issued for $90 000 cash. The issue of notes is a financing activity. For Pacific Ltd, there is an inflow of cash of $90 000 from the issue of notes.

Increase in ordinary shares

The share capital account increased $100 000. As indicated in the additional information, land was acquired from the issue of ordinary shares. This transaction is a significant non-cash investing and financing transaction that should be reported in a note to the statement of cash flows.

Increase in retained earnings

The net increase in retained earnings of $52 000 resulted from profit of $84 000 and the declaration and payment of a cash dividend of $32 000. Profit is not reported in the statement of cash flows under the direct method. Cash dividends paid of $32 000 are reported in the financing activities section as an outflow of cash.

COMPLETING THE STATEMENT OF CASH FLOWS

The statement of cash flows for Pacific Ltd is shown in figure 11.25.

Helpful hint

Although cash payments to suppliers is shown separately from cash payments for operating expenses in figure 11.25, they may be reported as a single line item in a statement of cash flows.

Helpful hint

Notice the issue of shares to purchase land is not included in the body of the statement of cash flows but in the notes as it is a significant non-cash activity.

PACIFIC LTD
Statement of cash flows
for the year ended 30 June 2016

Cash flows from operating activities		
Cash receipts from customers		$ 978 000
Cash payments:		
To suppliers	$ 638 000	
For operating expenses	179 000	
For income taxes	24 000	841 000
Net cash provided by operating activities		137 000
Cash flows from investing activities		
Purchase of equipment	(180 000)	
Sale of equipment	17 000	
Net cash used by investing activities		(163 000)
Cash flows from financing activities		
Issue of notes payable	90 000	
Payment of cash dividends	(32 000)	
Net cash provided by financing activities		58 000
Net increase in cash		32 000
Cash at beginning of period		159 000
Cash at end of period		$ 191 000
Note		
Non-cash investing and financing activities		
Issue of ordinary shares to purchase land		$ 100 000

Figure 11.25 Statement of cash flows — direct method

INDIRECT METHOD FOR DETERMINING CASH FLOWS FROM OPERATING ACTIVITIES

As noted on page 647, there are two methods to present the cash flows from operating activities section in the main statement of cash flows. The presentation of the investing and financing activities sections are the same. Earlier in this chapter we demonstrated the direct method for calculating the operating cash flows. The alternative method is the indirect method, which starts with profit and converts/reconciles it to net cash provided (used) by operating activities. Profit is calculated as income (revenues and gains) less expenses (expenses and losses). Cash flows from operating activities is calculated by subtracting operating cash inflows from operating cash outflows. To reconcile these two figures we need to 'undo' the effects of accrual accounting from profit to arrive at the cash flows from operating activities as illustrated below.

If the direct method is used to calculate the operating cash flows, the reconciliation of profit to cash provided (used) by operations must be disclosed as a note to the statement of cash flows. There are three types of differences between profit and cash provided (used) by operations:

- items that affect reported profit but do not affect cash, such as depreciation
- timing differences arising from accrual accounting, such as changes in accounts receivable
- cash flow items that are included in profit but not classified as operating activities in the statement of cash flows, such as proceeds from the sale of land.

The reconciliation adjusts profit for non-cash items, timing differences and cash flow items that are not classified as operating cash flows. The relationship between profit and net cash provided (used) by operations is illustrated in figure 11.26. Examples of accrual accounting timing differences depicted as adjustments in figure 11.26 are revenue received in advance and prepayments.

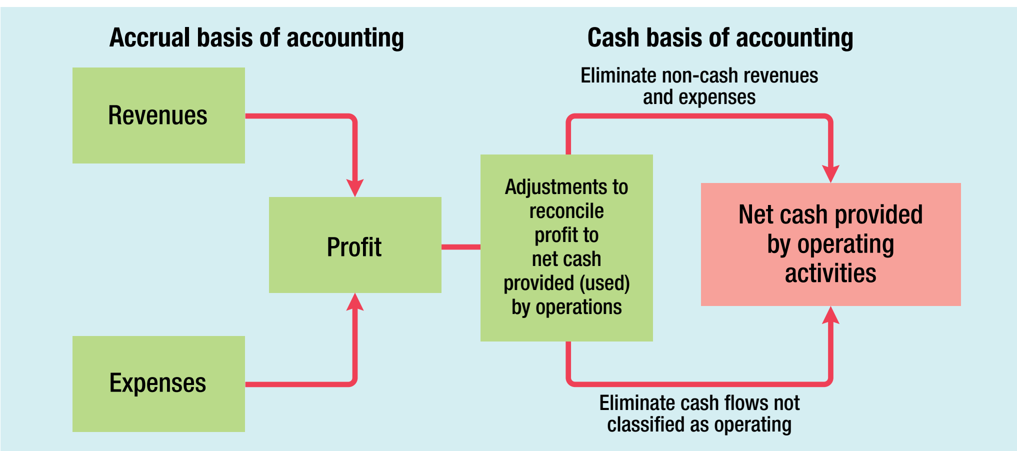


Figure 11.26 Profit versus net cash provided (used) by operating activities

As a general rule, the effect of the timing differences between the recording of revenues and expenses under accrual accounting and the receipts and payments of cash are found in the current asset and current liability accounts in the statement of financial position. Hence, a useful starting place in identifying the adjustments to profit is the current asset and current liability accounts other than cash. Those accounts, such as receivables, payables and inventories, should be analysed for their effects on cash. Some of the adjustments are identical or similar to those made to individual revenue or expense items to determine cash flows displayed in the statement of cash flows using the direct method illustrated earlier in the chapter.

Change in accounts receivable

Revenue includes both cash sales and credit sales. When accounts receivable increase during the year, this means that revenues on an accrual basis are higher than revenues on a cash basis. In other words, operations of the period led to revenues, but not all of these revenues resulted in an increase in cash; some of the revenues resulted in an increase in accounts receivable. Conversely, when cash collected from customers exceeds revenue during the year, accounts receivable decreases for the cash received.

To determine the amount of cash collected by Pacific Ltd, we need to start with the 2016 revenue for Pacific Ltd of $975 000 and then adjust this amount by the decrease in accounts receivable of $3000. That is, cash collected by Pacific Ltd includes the $975 000 in cash for revenue and a further $3000 for accounts receivable, totalling $978 000 in cash collected (refer also the analysis of the accounts receivable ledger account in figure 11.9, p. 655). To convert profit to net cash provided by operating activities, the decrease of $3000 in accounts receivable must be added to profit.

How do bad debt write-offs affect the reconciliation? If the direct write-off method is used, the bad debt expense does not appear in the reconciliation of profit after tax and cash provided (used) by operations. To illustrate, assume that an entity has an opening balance of $10 000 in accounts receivable, generates sales of $110 000, collects $100 000 from debtors, writes off a bad debt of $5000, and thus has a closing accounts receivable balance of $15 000. The effect on profit of those transactions is $105 000, being the sales revenue less the bad debt expense. The cash provided by these transactions is $100 000. The only reconciliation item between profit resulting from the sales and receivables transactions and cash provided by the sales and accounts receivable transactions is the increase in accounts receivable: $105 000 profit less the increase in accounts receivable, $5000 = cash collected. What happened to the bad debts expense? It was charged against revenue in the calculation of profit; and it was an amount of sales that never resulted in a cash receipt. The bad debt write-off is already reflected in the lower accounts receivable balance at the end of the period; instead of increasing by $10 000, accounts receivable increased by only $5000.

If the allowance method is used, bad debts are written off against the allowance for doubtful debts account, thus reducing the contra accounts receivable account. If the allowance for doubtful debts account has absorbed bad debt write-offs during the period, a greater charge against bad debts expense will be needed to achieve the required credit balance in the allowance for doubtful debts account at the end of the period. The bad debts expense is a non-cash item included in profit. The amount of the bad debts expense reflects the change in the allowance for doubtful debts account plus any bad debts written off against accounts receivable. Thus the bad debts expense is reflected in the changes in the allowance for doubtful debts and in accounts receivable. The changes in each of these accounts can be included separately in the reconciliation of profit and cash provided (used) by operations. However, as the allowance for doubtful debts account is a contra accounts receivable account, the change in net accounts receivable can be used in the reconciliation of profit and cash provided (used) by operations to reflect the bad debts expense.

Change in inventory

When inventory purchases during the period exceed cost of sales recognised in the statement of profit or loss, the amount of inventory increases. In other words, the entity purchased more inventory than it sold during the period, so the balance of inventory increases. Conversely, when cost of sales is greater than purchases, the amount of inventory decreases. That is, the entity sold more inventory than it purchased, so the balance of inventory decreases (some of the opening inventory is sold). The differences between purchases and cost of sales form part of the reconciliation between profit and net cash provided (used) by operating activities.

To convert profit to net cash provided (used) by operating activities, increases in inventory must be deducted from profit because purchases during the period exceed the expense (cost of sales) included in profit. That is, profit must be decreased to account for the purchase of inventory during the period that is not included in cost of sales. Some of the purchases were sold (cost of sales) and some of the purchases were included in ending inventory. In this way cost of sales does not include all of the purchases for the period and must therefore be deducted from profit in determining the net cash provided (used) by operating activities.

Conversely, decreases in inventory must be added to profit because the expense (cost of sales) included in the calculation of profit not only represents inventory that was purchased, it also includes inventory that was sold out of existing inventory (that is purchased in a previous period). In this case cost of sales is greater than purchases during the period and only payments for inventory in the current period are included as cash outflows. The total cash outflow will be picked up by the net change in inventory and accounts payable, similar to the two-step process for the direct method explained above.

To illustrate, Pacific Ltd's cost of sales in 2016 were $660 000, and purchases were only $630 000, as illustrated in figure 11.13 (p. 657). The decrease in inventory of $30 000 is added to profit to convert it to net cash provided by operations. Note that in figure 11.13 the decrease in inventory is being subtracted from cost of sales to calculate the amount of purchases.

Differences between purchases during the period and payments for purchases are reflected in the change in accounts payable. Taken together, the adjustments to profit for the change in inventory and the change in accounts payable reflect the difference between the cost of sales expense included in profit and cash paid for purchases of inventory, assuming all accounts payable pertain to the purchase of inventory.

Change in accounts payable

Purchases are typically made on credit terms. Consequently, the amount of cash paid for purchases usually differs from purchases recorded during the period. For Pacific Ltd, purchases for 2016 were $630 000 and payments to suppliers for purchases were $638 000, as shown in figure 11.14 (p. 657). When payments for purchases exceed purchases made during the year, accounts payable decreases as shown in figure 11.15 (p. 658). Conversely, an increase in accounts payable results from purchases exceeding the amount of cash paid for purchases during the period.

To convert profit to net cash provided (used) by operating activities, a decrease in accounts payable should be deducted from profit because it is the amount by which cash payments exceed purchases. Conversely, an increase in accounts payable should be added to profit to convert it to net cash provided (used) by operating activities.

Change in accrued expenses payable

Recall that under accrual accounting, expenses can be paid in cash or accrued. Accrued expenses payable are treated the same way as accounts payable in the reconciliation of profit to cash provided (used) by operations. Accrued expenses payable increase during a period as a result of expenses exceeding cash payments. That is, expenses are debited and accrued expenses payable credited. Expenses are subtracted from revenues in determining profit; however, when expenses payable increase, then not all expenses are paid in cash. Accordingly, an increase in accrued expenses payable should be added to profit to convert it to net cash provided (used) by operations.

Conversely, when cash payments exceed expenses included in the statement of profit or loss, accrued expenses payable decrease during the period; that is, accrued expenses payable is debited and cash credited. A decrease in accrued expenses payable should be deducted from profit to convert it to net cash provided (used) by operations to account for the cash payment of accrued expenses. For Pacific Ltd, accrued expenses payable decreased by $5000 during 2016. This amount should be deducted from profit to convert it to net cash provided by operations.

Change in prepaid expenses

Prepaid expenses increase during a period because cash paid for expenses is greater than expenses reported on an accrual basis. Conversely, prepaid expenses decrease when expenses exceed cash paid. Cash payments have been made in the current period, but expenses (as charges to the statement of profit or loss) include the decrease in prepaid expenses, as the amounts that were paid in the previous year become current period expenses. To convert profit to net cash provided by operating activities, the decrease of $2000 in prepaid expenses must be added to profit as the decrease in a prepaid expense is not a cash outflow (the entry is a debit to expense and a credit to prepaid expense). An increase in prepaid expenses, on the other hand, means that cash paid for expenses and cash payments that are prepayments exceed the amount recognised as an expense under accrual accounting. Accordingly, an increase in prepaid expenses is deducted from profit to convert it to net cash provided (used) by operating activities.

Change in income tax payable

During 2016 Pacific Ltd's reported income tax payable increased by $12 000. Income tax payable increases during a period as a result of the income tax expense exceeding income tax payments. Conversely, when income tax payments exceed income tax expense, income tax payable decreases. Accordingly, an increase in income tax payable should be added to profit to convert it to net cash provided (used) by operations; and a decrease in income tax payable should be subtracted from profit to convert it to net cash provided (used) by operations. In the Pacific Ltd illustration, the $12 000 increase in income tax payable should be added to profit to convert it to net cash provided by operations.

You may have noticed deferred tax liabilities and deferred tax assets in some of the statements of financial position illustrated in this text or examined in the course of your studies. Deferred tax assets and deferred tax liabilities are reported in the non-current assets section and the non-current liabilities section, respectively. They result from the application of tax-effect accounting, which is usually covered in intermediate and advanced accounting texts. The movements in the deferred tax asset and the deferred tax liability accounts form part of the reconciliation between profit and cash provided (used) by operations. However, in this text, deferred tax asset and deferred tax liability accounts are not used in the illustration of the preparation of the statement of cash flows.

Depreciation expense

During 2016 Pacific Ltd reported depreciation expense of $18 000. The depreciation expense can also be calculated by reconstructing the accumulated depreciation account, as illustrated in figure 11.24 (p. 661). Because depreciation expense is a non-cash charge, it is added back to profit in order to arrive at net cash provided by operating activities. Other charges to expense that do not require the use of cash, such as the amortisation of intangible assets, are treated in the same manner as depreciation.

Gain/loss on the sale of non-current assets

The gain or loss on the sale of a non-current asset has two components: (1) the sale proceeds and (2) the carrying amount of the asset sold. The carrying amount of the asset is a non-cash expense. Although the sale proceeds typically involve the receipt of cash, the sale is classified as an investing activity and not an operating activity. Thus neither component of the gain or loss on the sale of a non-current asset is included in net cash provided (used) by operating activities.

Since a gain on the sale of a non-current asset increases profit, it should be deducted from profit to convert it to net cash provided (used) by operating activities. Conversely, a loss on the sale of a non-current asset, which reduces profit, should be added to profit to convert it to net cash provided (used) by operating activities.

As a result of the preceding adjustments, Pacific Ltd's net cash provided by operating activities is calculated as $137 000, as shown in figure 11.27. Note that this is the same as the amount of net cash provided by operating activities as calculated using the direct method in figure 11.25 (p. 662).

PACIFIC LTD
Statement of cash flows (extract)
for the year ended 30 June 2016

Cash flows from operating activities		
Profit		$ 84 000
Adjustments to reconcile profit to net cash provided by operating activities:		
Depreciation expense	$18 000	
Loss on sale of equipment	1 000	
Decrease in accounts receivable	3 000	
Decrease in inventory	30 000	
Decrease in prepaid expenses	2 000	
Decrease in accounts payable	(8 000)	
Decrease in accrued expenses	(5 000)	
Increase in income taxes payable	12 000	53 000
Net cash provided by operating activities		**$137 000**

Figure 11.27 Operating activities section of statement of cash flows — indirect method

SUMMARY OF INDIRECT METHOD FOR DETERMINING CASH FLOWS FROM OPERATING ACTIVITIES

As shown in the previous illustration, the indirect method starts with profit and adds or deducts items not affecting cash, timing differences and any investing cash flows included in profit to arrive at net cash provided by operating activities. The additions and deductions consist of (1) changes in specific current assets and current liabilities and (2) certain items reported in the statement of profit or loss. A summary of the adjustments for current assets and current liabilities is provided in figure 11.28.

Current assets and current liabilities	**Adjustments to convert profit to net cash provided by operating activities**	
	Add to profit	**Deduct from profit**
Accounts receivable	Decrease	Increase
Inventory	Decrease	Increase
Prepaid expenses	Decrease	Increase
Accounts payable	Increase	Decrease
Accrued expenses payable	Increase	Decrease

Figure 11.28 Indirect method — adjustments for current assets and current liabilities

Adjustments for items reported in the statement of profit or loss that are non-cash or not classified as operating activities are shown in figure 11.29.

Non-cash charges	**Adjustments to convert profit to net cash provided by operating activities**
Depreciation expense	Add
Patent amortisation expense	Add
Loss on sale of non-current assets	Add
Gain on sale of non-current assets	Deduct

Figure 11.29 Indirect method — adjustments for non-cash items and cash flow items not classified as operating activities

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What is the format of the operating activities section of the statement of cash flows using the direct method?
2. What is the format of the operating activities section of the statement of cash flows using the indirect method?
3. Why is depreciation expense added to profit in the reconciliation?

>> DO IT

The information on the following page relates to Reynolds Ltd. Use it to prepare a statement of cash flows using the direct method and a reconciliation of profit to cash provided by operating activities.

REYNOLDS LTD
Statement of financial position
as at 31 December 2016

	2016	2015	Change Increase/decrease	
Assets				
Cash	$ 54 000	$ 37 000	$ 17 000	increase
Accounts receivable	68 000	26 000	42 000	increase
Inventories	54 000	—	54 000	increase
Prepaid expenses	4 000	6 000	2 000	decrease
Land	45 000	70 000	25 000	decrease
Buildings	200 000	200 000	—	
Accumulated depreciation—buildings	(21 000)	(11 000)	10 000	increase
Equipment	193 000	68 000	125 000	increase
Accumulated depreciation—equipment	(28 000)	(10 000)	18 000	increase
Total	$569 000	$386 000		
Liabilities and equity				
Accounts payable	$ 23 000	$ 40 000	$ 17 000	decrease
Accrued expenses payable	10 000	—	10 000	increase
Convertible notes payable	110 000	150 000	40 000	decrease
Share capital	220 000	60 000	160 000	increase
Retained earnings	206 000	136 000	70 000	increase
Total	$569 000	$386 000		

Helpful hint

A convertible note is a note payable that may be converted into ordinary shares.

REYNOLDS LTD
Statement of profit or loss
for the year ended 31 December 2016

Revenues		$890 000
Cost of sales	$465 000	
Operating expenses	221 000	
Interest expense	12 000	
Loss on sale of equipment	2 000	700 000
Profit before tax		190 000
Income tax expense		65 000
Profit		$125 000

Additional information:

(a) Operating expenses include depreciation expense of $33 000.
(b) Land was sold at its carrying amount for cash in 2016.
(c) Cash dividends of $55 000 were declared and paid in 2016.
(d) Interest expense of $12 000 was paid in cash.
(e) During 2016, equipment with a cost of $166 000 was purchased for cash. Equipment with a cost of $41 000 and a carrying amount of $36 000 was sold.
(f) In 2016, convertible notes of $10 000 were redeemed at their carrying amount for cash; convertible notes of $30 000 were converted into ordinary shares issued at $30 000 in total.
(g) Ordinary shares were issued for $130 000 in cash during 2016.
(h) Accounts payable pertain to inventory suppliers.

REASONING: The direct method reports cash receipts less cash payments to arrive at net cash provided by operating activities. For clarification, payments to suppliers are shown separately from payments for expenses in the solution. However, they are usually combined in external statements of cash flows. Similarly, the sale of land and the sale of equipment are shown separately in the solution but are usually combined and shown as proceeds from the sale of property, plant and equipment in external statements of cash flows.

SOLUTION:

REYNOLDS LTD
Statement of cash flows
for the year ended 31 December 2016

Cash flows from operating activities		
Cash receipts from customers		$ 848 000[a]
Cash payments:		
To suppliers	$ 536 000[b]	
For operating expenses	176 000[c]	
For interest	12 000	789 000
For income taxes	65 000	
Net cash provided by operating activities		59 000
Cash flows from investing activities		
Sale of land	25 000	
Sale of equipment	34 000[d]	
Purchase of equipment	(166 000)	
Net cash used by investing activities		(107 000)
Cash flows from financing activities		
Redemption of convertible notes	(10 000)	
Issue of ordinary shares	130 000	
Payment of dividends	(55 000)	
Net cash provided by financing activities		65 000
Net increase in cash		17 000
Cash at beginning of period		37 000
Cash at end of period		$ 54 000

Calculations:

[a]$848 000 = $890 000 − $42 000 (Sales − increase in accounts receivable)

[b]$536 000 = $465 000 + $54 000 + $17 000 (Cost of sales + increase in inventories + decrease in accounts payable)

[c]$176 000 = $221 000 − $33 000 − $2000 − $10 000 (Operating expenses − depreciation expense − decrease in prepaid expenses − increase in accrued expenses payable)

[d]$34 000 = $36 000 − $2000. (The loss of $2000 arose because the carrying amount of the equipment sold exceeded the sale proceeds by $2000.)

Note 1: Non-cash investing and financing activities

Conversion of notes payable into ordinary shares		$ 30 000

Note 2: Reconciliation of profit to net cash provided by operating activities

Profit		125 000
Adjustments to reconcile profit to net cash provided by operating activities:		
Depreciation expense	$ 33 000	
Increase in accounts receivable	(42 000)	
Increase in inventories	(54 000)	
Decrease in prepaid expenses	2 000	
Decrease in accounts payable	(17 000)	
Increase in accrued expenses payable	10 000	
Loss on sale of equipment	2 000	(66 000)
		$ 59 000

Helpful hint

To prepare the statement of cash flows:

1. Determine the net increase (decrease) in cash.
2. Determine net cash provided (used) by operating activities.
3. Determine net cash provided (used) by investing activities. Investing activities generally relate to changes in non-current assets.
4. Determine net cash provided (used) by financing activities. Financing activities generally relate to changes in non-current liabilities and equity accounts.

LEARNING OBJECTIVE 4

Explain the impact of the product life cycle on an entity's cash flows.

USING CASH FLOWS TO EVALUATE AN ENTITY

Before we can begin an evaluation of an entity we need to understand the impact of the product lifecycle on an entity's cash flows.

THE ENTITY LIFE CYCLE

DECISION MAKING

All products go through a series of phases called the *product life cycle*. The phases (in order of their occurrence) are often referred to as the introductory phase, growth phase, maturity phase and decline phase. The introductory phase occurs when the entity is purchasing plant and equipment, and beginning to produce and sell. During the growth phase, the entity is striving to expand its production and sales. In the maturity phase, sales and production level off. And during the decline phase, sales of the product fall due to a weakening in consumer demand. Users of financial statements must consider the entity life cycle when interpreting financial information as it is a key input for their analysis and decision to invest or lend funds to the entity. Depending on where an entity is in its life cycle will have a significant impact on the cash flow as explained in detail shortly.

If an entity had only one product and that product was, for example, nearing the end of its saleable life, we would say that the entity was in the decline phase. Entities generally have more than one product, however, and not all of an entity's products are in the same phase of the product life cycle at the same time. We can still characterise an entity as being in one of the four phases if the majority of its products are in a particular phase.

Figure 11.30 shows how the phase an entity is in affects its cash flows. In the *introductory stage*, we expect that the entity will be spending considerable amounts to purchase productive assets, but it will not be generating much (if any) cash from operations. To support its product development and asset purchases, it may have to issue shares or debt. Thus, we expect cash from operations to be negative, cash from investing to be negative, and cash from financing to be positive.

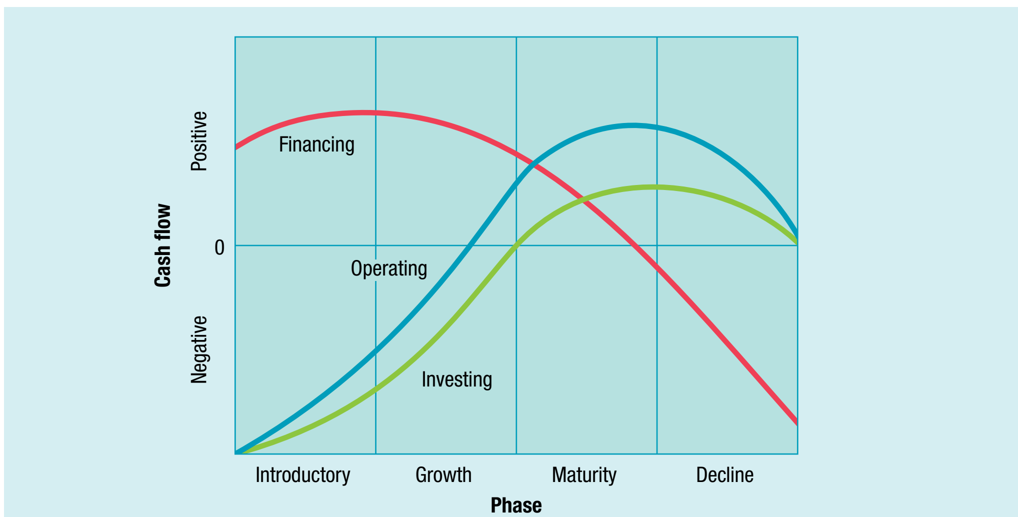


Figure 11.30 Impact of product life cycle on cash flows

During the *growth phase*, we expect to see the entity start to generate small amounts of cash from operations. Cash from operations continues to be less than profit during this phase, to the extent that inventory must be purchased for future projected sales. Since those sales are projected to be increasing, the size of inventory purchases must usually increase. Thus, less inventory will be expensed on an accrual basis than purchased on a cash basis in the growth phase. Also, collections on accounts receivable will lag behind sales, and because sales are growing, accrual sales during a period will exceed cash collections during that period. Cash needed for asset acquisitions will continue to exceed cash provided by operations, requiring that the entity make up the deficiency by issuing new shares or debt. Thus, the entity continues to show negative cash from investing and positive cash from financing in the growth phase. During the growth phase, entities often do not pay dividends because they need to spend cash on investment in operations. Investors and shareholders need to consider the life cycle of an entity when making investment decisions. When potential investors are interested in short-term returns on their investment, then entities in the introductory or early growth stages are generally not an ideal investment given they are unlikely to pay dividends in the short term. However, entities in the introductory or early growth stages are generally more suitable for potential investors interested in long-term returns, providing these entities continue to grow and prosper in the future.

During the *maturity phase*, cash from operations and profit are approximately the same. Cash generated from operations exceeds investing needs. Thus, in the maturity phase the entity can actually start to retire debt or buy back shares, and pay dividends. A share buy-back is when a company pays an agreed amount to shareholders and cancels the shares. Lenders and creditors need to consider the life cycle of an entity when making lending decisions. Creditors are more likely to be repaid when entities are in the maturity phase and have positive cash flows. Lending to entities in the introductory or early stages of growth is generally more risky.

Finally, during the *decline phase*, cash from operations decreases. Cash from investing might actually become positive as the business sells off excess assets, and cash from financing may be negative as the company buys back shares and retires debt.

Managers need to consider the entity life cycle when planning for and managing cash inflows and outflows of the entity. Consider Microsoft. During its early years it had significant product development costs with little revenue. Microsoft was fortunate in that its agreement with IBM to provide the operating system for IBM PCs gave it an early steady source of cash to support growth. One way it conserved cash was to pay employees with stock options rather than cash. Today Microsoft could best be characterised as being between the growth and maturity phases. Mangers of Microsoft need to make many decisions about the strategic direction and day-to-day operations of the business to maintain its success. In the Letter to Shareholders in the 2013 annual report, Steven Ballmer, Microsoft's CEO, explained that strategic steps are being taken to transform the entity to a 'devices and service company'. During 2013, period revenue grew 6% up to $77.8 billion and the company returned $12.3 billion to its shareholders though dividends and stock repurchases. Microsoft continues to spend considerable amounts on research and development and investment in new assets. For example, during 2013 the research and development expense was $10.4 billion and the company revealed plans to continue to make significant investments in a broad range of research and development efforts. In the last few years, its cash from operations has exceeded its profit. For Microsoft, as for any large entity, the challenge is to maintain its growth. In the software industry, where products become obsolete very quickly and the competition from Apple is fierce, the challenge is particularly great.

Alternative terminology

The term *stock* is used to refer to shares in the United States.

APPLICATION IN BUSINESS

Management perspective

Passion and determination are key ingredients for business success, but they're not enough. What does it take to make a new business venture successful? Having sufficient cash is an obvious necessity. Adequate cash flow is crucial to pay debts as they fall due, to hire staff, and to purchase supplies and equipment among other things. To achieve this, it is important to plan business finances using a budget for cash projection. Preparing a regular statement of cash flows can provide information on the sources and uses of cash. However, in addition to monitoring cash flows, there other steps to starting a successful business like: creating a business plan with clear directions and realistic targets; understanding the industry you are in; developing a marketing plan; engaging and keeping suitable staff to take the business forward; as well as establishing effective business structures and administrative systems. Steve Hui, CEO of iFLYflat, says his qualifications and experience in accounting have been an important part of his business success. 'Accounting is a fantastic background and all based on logic. A lot of businesses have an idea, but don't know how to make money. You have to have a lot of passion, but if you can't pay the bills it doesn't work. But I'm an accountant and it's natural to me.'

Source: Based on information from C. Fox 2014, 'Scoring points: Steve Hui CPA', *InTheBlack*, May, p. 41, www.itbdigital.com.

Traditionally, to evaluate an entity the ratios most commonly used by investors and creditors have been based on accrual accounting. In this section we introduce you to some cash-based ratios that are gaining increased acceptance among analysts.

LEARNING OBJECTIVE 5

Use the statement of cash flows to evaluate an entity.

FREE CASH FLOW

In the statement of cash flows, cash provided by operating activities is intended to indicate the cash-generating capability of the entity. Analysts have noted, however, that net cash provided by operating activities fails to take into account that an entity must invest in new property, plant and equipment just to maintain its current level of operations, and it may need to maintain dividends at current or minimum levels to satisfy investors. **Free cash flow** is the term used to describe the cash from operations available for expansion or the payment of dividends. It is the amount of cash flow from operating activities remaining after deducting investing in capital expenditure necessary to maintain the current level of operations. Alternative definitions are also used. Some analysts define free cash flow as discretionary cash flow and deduct a minimum level of dividends because they are non-discretionary.

According to Telstra's 2014 annual report free cash flow 'represents the cash that a company is able to generate from its operations after spending money required to maintain or expand its asset base'. Free cash flow generated from operating and investing activities was $7483 million in the year, a significant increase of 48.9%. As outlined in the Chairman and CEO's message to shareholders, Telstra's strategy and focus for the year ahead will be on improving its service, investing to maintain its network advantage and investing in future capability to build a foundation for sustainable long term growth. In 2015, Telstra expects free cash flow of between $4.6 billion and $5.1 billion and capital expenditure to be around 14% of sales.

Free cash flow is difficult to measure because financial statements do not distinguish between investment expenditure that maintains the current level of operations and investment expenditure incurred for expansion. Respondents to the exposure draft preceding the introduction of an accounting standard for the statement of cash flows argued that free cash flow should not be reported. Two common reasons were: (1) there is not a generally accepted definition of free cash flow, and (2) it is often not possible, due to the rapid developments in technology, to distinguish between capital expenditure incurred to maintain operations and that which expands capacity. Investment expenditure may often both maintain and expand operating capacity. For example, if you replaced your old computer, it would be difficult to do so without upgrading its capacity.

Throughout this book we will adopt the formula shown in figure 11.31 to estimate free cash flow.

Net cash provided by operating activities − Capital expenditures = Free cash flow

Figure 11.31 Estimate of free cash flow

Figure 11.32 provides basic information extracted from the 2013 statement of cash flows of Nick Scali Limited.

NICK SCALI LIMITED
Statement of cash flows (partial)
for the year ended 30 June 2013
($ in thousands)

Net cash provided by operating activities		$19 703
Cash flows from investing activities		
Additions to property, plant and equipment	$(9 268)	
Net cash used by investing activities		(9 268)
Net cash used by financing activities		(4 685)

Figure 11.32 Cash flow information

Nick Scali's free cash flow (again noting that we do not have details to differentiate between amounts spent to maintain the current level of operations and amounts spent to expand production) is calculated as shown in figure 11.33.

Net cash provided by operating activities	$19 703
Less: Expenditures on property, plant and equipment	(9 268)
Free cash flow	$10 435

Figure 11.33 Calculation of free cash flow ($ in thousands)

Free cash flow of $10 435 000 is available for the acquisition of new assets, the retirement of debt, or the payment of dividends. Nick Scali chose to use some of its free cash flow to pay dividends.

APPLICATION IN BUSINESS

Management perspective

Many business people want fast growth in order to earn large profits as soon as possible. However, Graeme Strange, the chief executive of Readify, a rapidly growing IT company, explains that if a business grows too fast it can end up in trouble. A rapidly expanding business requires the right management for success. Readify experienced massive growth rates of up to 104% per year! Strange said, 'the thing that saved us was our focus on systems and an agile infrastructure. You need to invest in infrastructure that caters for high growth.' Nick Hinder, the owner and director of Six Degrees Executive, also understands what it is like to manage a fast growing business. He recommends reinvesting profits from high periods of growth back into the business to support future growth. In his own business he estimates that he reinvests 60–70% of profits each year. The free cash flow ratio discussed in this chapter indicates the amount of cash available for the acquisition of new assets and the payment of debt and dividends, and is an important ratio for rapidly growing businesses.

Source: A. Heathcote 2010, 'Growing Pains', *Business Review Weekly*, 13 October, www.brw.com.au.

Using the decision-making toolkit, managers and external users can evaluate the entity's ability to generate cash from its normal operating activities and determine whether this is at an adequate level to finance future expansion and pay dividends to its shareholders. The decision demonstrated looks at the relationship between net cash provided by operating activities and capital expenditure to determine the entity's free cash flow. This figure is of particular interest to managers and shareholders as it provides an indication of the entity's capacity to finance future growth in their business. Both parties would prefer a higher free cash flow as this indicates a greater potential to finance new investments and pay dividends, which in turn, would have a direct impact on future profits and returns to shareholders.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
How much cash did the entity generate to either expand operations or pay dividends?	Net cash provided by operating activities and cash spent on property, plant and equipment (Ideally, the measure would use cash spent to maintain the current level of operations, but that is rarely available.)	Free cash flow = Net cash provided by operating activities − Capital expenditures	A higher free cash flow indicates a greater potential to finance new investment and pay dividends.

CAPITAL EXPENDITURE RATIO

Another indicator of an entity's ability to generate sufficient cash to finance the purchase of new property, plant and equipment is the **capital expenditure ratio** — net cash provided by operating activities divided by capital expenditures. This measure is similar to free cash flow, except that free cash flow reveals the amount of cash available for discretionary use by management, whereas the capital expenditure ratio provides a *relative measure* of cash provided by operations compared with cash used for the purchase of productive assets. Amounts spent on capital expenditures are listed in the investing activities section of the statement of cash flows. Using the information from Nick Scali's 2013 annual report, as presented in figure 11.32 (p. 672), we can calculate its capital expenditure ratio as shown in figure 11.34.

$$\text{Capital expenditure ratio} = \frac{\text{Net cash provided by operating activities}}{\text{Capital expenditures}}$$

($ in thousands)

$$\frac{\$19\,703}{\$9\,268} = 2.13 : 1$$

Figure 11.34 Capital expenditure ratio

The ratio of 2.13:1 shows that there was $2.13 of net cash provided by operating activities to finance each $1 of capital expenditure. This figure suggests that Nick Scali could have purchased more than two times as much property, plant and equipment as it did *without requiring any additional outside financing*. This ratio will vary across industries depending on the capital intensity of the industry. That is, we would expect a manufacturing entity to have a lower ratio (because it has higher capital expenditures) than a software entity, which spends less of its money on non-current assets and more on 'intellectual' capital. The phase of an entity's life cycle will also affect the expected capital expenditure ratio. It is likely to be lower in the introductory and growth phases and higher in the maturity and decline phases.

In deciding whether to invest, potential investors and existing shareholders would be interested in the entity's management and its ability to generate sufficient cash to finance the purchase of new property, plant and equipment. The capital expenditure ratio provides some insight as it compares the net cash provided by operating activities to the investment in capital expenditure. A ratio greater than or equal to one indicates that the entity is generating sufficient cash from its normal operations and there is no need for management to source external financing for capital expenditures. This would be preferable as an entity with a high capital expenditure ratio would be a more attractive investment option as it provides investors with greater confidence in the entity's ability to finance new investments which may lead to an increase in profit and share price in the future. The relevance of this ratio in management and investment decisions is summarised in the decision-making toolkit below.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Can the entity finance its capital expenditures with cash provided by operating activities?	Net cash provided by operating activities and cash spent on property, plant and equipment (capital expenditures)	$\text{Capital expenditure ratio} = \frac{\text{Net cash provided by operating activities}}{\text{Capital expenditures}}$	A ratio greater than or equal to 1 indicates no need for outside financing for capital expenditures. It may indicate that the entity is in the mature or declining phase of its life cycle.

ASSESSING LIQUIDITY, SOLVENCY AND PROFITABILITY USING CASH FLOWS

Previous chapters have presented ratios used to analyse an entity's liquidity, solvency and profitability. With the exception of chapter 1, the ratios were calculated using accrual-based numbers from the statement of profit or loss and statement of financial position. Now we explore, in more detail, ratios that are *cash-based* rather than accrual-based; i.e. instead of using numbers from the statement of profit or loss, these ratios use numbers from the statement of cash flows.

Many analysts do not confine their calculations to accrual-based numbers because they feel that the adjustment process allows too much management discretion. These analysts like to supplement accrual-based analysis with measures that use the statement of cash flows. One disadvantage of these measures is that, unlike the more commonly used accrual-based measures, there are few readily available published industry averages for comparison. In the following discussion we use cash flow-based ratios to analyse Nick Scali Limited. In addition to the cash flow information provided in figure 11.32 (p. 672), we need the information related to Nick Scali provided in figure 11.35.

($ in thousands)	2013	2012
Current liabilities	$ 28 478	$ 20 526
Total liabilities	37 830	26 459
Sales	127 431	109 391
Profit after tax	12 241	9 024

Figure 11.35 Additional data

Liquidity

Liquidity is the ability of an entity to meet its immediate obligations. One measure of liquidity is the *current ratio*: current assets divided by current liabilities. A disadvantage of the current ratio is that it uses year-end balances of current asset and current liability accounts, and these year-end balances may not be representative of the entity's position during most of the year.

A measure that partially corrects this problem is the **current cash debt coverage** which is the net cash provided by operating activities divided by average current liabilities. Because net cash provided by operating activities involves the entire year rather than a balance at one point in time, it is often considered a better representation of liquidity. The calculation is shown in figure 11.36, using the data for Nick Scali Limited for 2013.

Helpful hint

Liquidity is discussed in more detail in chapter 14.

$$\text{Current cash debt coverage} = \frac{\text{Net cash provided by operating activities}}{\text{Average current liabilities}}$$

($ in thousands)

$$\frac{\$19\,703}{(\$28\,478 + \$20\,526)/2} = 0.80 : 1$$

Figure 11.36 Current cash debt coverage

Nick Scali's current cash debt coverage in 1 year is 0.80:1 or 80%. This ratio indicates that the entity has 80 cents of net cash provided by operating activities to cover each $1 of current liabilities. Nick Scali generates enough cash from its operating activities to meet 80% of the obligations that are due within 1 year.

Using the decision-making toolkit below, managers and creditors can use the current cash debt coverage to determine the entity's ability to generate sufficient cash from its operating activities to pay its current liabilities. A higher coverage ratio indicates a higher level of liquidity. This is preferable, as it would provide managers and creditors with greater confidence in the entity's capacity to pay its short-term obligations as they fall due.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Is the entity generating sufficient cash provided by operating activities to meet its current obligations?	Net cash provided by operating activities and average current liabilities	$\text{Current cash debt coverage} = \frac{\text{Net cash provided by operating activities}}{\text{Average current liabilities}}$	The higher the current cash debt coverage, the better the liquidity. Since the numerator contains a cash flow measure, it provides a good supplement to the current ratio.

Solvency

Solvency is the ability of an entity to survive over the long term. A measure of solvency that uses cash figures is the **cash debt coverage** which is measured as the net cash provided by operating activities divided by total debt as represented by average total liabilities. This measure indicates an entity's ability to repay its liabilities from cash generated from operations, i.e. without having to liquidate productive assets such as property, plant and equipment. The cash debt coverage for Nick Scali for 2013 is given in figure 11.37.

$$\text{Cash debt coverage} = \frac{\text{Net cash provided by operating activities}}{\text{Average total liabilities}}$$

($ in thousands)

$$\frac{\$19\,703}{(\$37\,830 + \$26\,459)/2} = 0.61 : 1$$

Figure 11.37 Cash debt coverage

Nick Scali's net cash provided by operating activities is 0.61:1 or 61%. This means that the entity has 61 cents net cash provided by operating activities to cover each $1 of average total liabilities. Another way to consider this measure is to look at the reciprocal (1/0.61 = 1.64). It would take Nick Scali 1.64 years to repay all of its liabilities from cash provided by operating activities at the current level. Nick Scali's reliance on non-current assets has increased substantially in 2013. As the entity's total liabilities have increased at a higher rate than the increase in current liabilities, its cash debt coverage (61%) is significantly lower than its current debt coverage (80%).

Using the decision-making toolkit below, managers and creditors can use the cash debt coverage to determine the entity's ability to generate sufficient cash from its operating activities to pay its total liabilities. A higher coverage ratio indicates a higher level of solvency. This is preferable as it would provide managers and creditors with greater confidence in the entity's capacity to pay its short-term and long-term obligations as they fall due.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Is the entity generating sufficient cash provided by operating activities to cover its total debt?	Net cash provided by operating activities and average total liabilities	$\text{Cash debt coverage} = \frac{\text{Net cash provided by operating activities}}{\text{Average total liabilities}}$	The higher the cash debt coverage, the higher the level of solvency, which is the capacity to pay short-term and long-term obligations. The cash debt coverage should be considered in conjunction with the maturity dates of liabilities.

Profitability

Profitability refers to an entity's ability to generate a reasonable return. In chapter 12, accrual-based ratios that measure profitability are discussed, such as gross profit rate, profit margin and return on assets. In measures of profitability the potential differences between cash accounting and accrual accounting are most pronounced. Although some differences are expected because of the difference in the timing of revenue and expense recognition under cash versus accrual accounting, significant differences should be investigated. A cash-based measure of performance is the cash return on sales ratio.

The **cash return on sales ratio** is calculated as net cash provided by operating activities divided by net sales. This ratio indicates the entity's ability to convert sales into cash. The cash return on sales ratio should be compared with the corresponding accrual-based ratio. A lower cash return on sales ratio should be investigated because it might indicate that the entity is recognising sales that will never be collected in cash, or incurring a high level of expenditure relative to revenue. Alternatively, it may reflect payments for increased inventory and other lags occurring in the growth phase. The cash return on sales ratio for Nick Scali Limited for 2013 is presented in figure 11.38.

$$\text{Cash return on sales ratio} = \frac{\text{Net cash provided by operating activities}}{\text{Net sales}}$$

($ in thousands)

$$\frac{\$19\,703}{\$127\,431} = 0.15 : 1$$

Figure 11.38 Cash return on sales ratio

Nick Scali's cash return on sales ratio is 0.15:1 or 15%. This means the entity generates 15 cents in cash for each $1 of sales. This compares favourably with the ratio of its profit to sales ($12 241 000/$127 431 000), which represents a profit margin of 10% for 2013. The cash return on sales is expected to be greater than the profit margin in the long term, because profit includes a charge for depreciation, which is a non-cash expense.

Using the decision-making toolkit below, managers, existing shareholders and potential investors can use the cash return on sales ratio to determine the entity's ability to converting sales turn into cash. A higher ratio is preferable as it indicates a higher level of efficiency in the entity's management of accounts receivable and overall productivity.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Is the entity efficient in converting sales into cash?	Net cash provided by operating activities and sales	$\text{Cash return on sales ratio} = \frac{\text{Net cash provided by operating activities}}{\text{Net sales}}$	Cash return on sales ratio should be compared with the profit margin. Lower cash return on sales ratios or differences over a series of years should be investigated further.

APPLICATION IN BUSINESS

Management perspective

Cardrona Alpine Resort in Central Otago, New Zealand, is one of many ski fields to offer 'early bird specials' before the first snow has even fallen. The 2014 'early bird' adult season passes bought before 31 March sell for $599 ($1299 later on), with children's passes costing as little as $145. This discount encourages a reliable client base and generates cash inflows at a quiet time in the ski industry. A substantial 'early bird' discount not only attracts people but gives management more certainty of cash flow during the quieter months.

Source: Based on information from Cardrona Alpine Resort's web site, www.cardrona.com accessed 15 August 2014.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What is the difference between cash from operating activities and free cash flow?
2. Why might an analyst want to supplement accrual-based ratios with cash-based ratios?
3. Identify four cash-based ratios that are relevant to the decision-making process.

USING THE DECISION-MAKING TOOLKIT

Designer Decor Ltd (a hypothetical entity) undertook a major expansion in the year ended 30 June 2013. Financial statement data for Designer Decor Ltd are provided below.

REQUIRED

Calculate the following cash-based measures for Designer Decor Ltd for 2013 and compare them with those provided for Nick Scali.
(a) Capital expenditure ratio
(b) Current cash debt coverage
(c) Cash debt coverage
(d) Cash return on sales ratio

DESIGNER DECOR LTD
Statement of financial position (partial)
as at 30 June 2013
(in thousands)

	2013	2012
Assets		
Current assets	$169 880	$ 80 838
Property, plant and equipment	85 659	40 229
Deferred tax assets	6 401	2 705
Intangible assets	95 586	44 030
Other assets	385	494
Total assets	$357 911	$168 296
Liabilities and equity		
Current liabilities	209 144	$ 92 337
Non-current liabilities	69 020	37 660
Total liabilities	278 164	129 997
Equity	79 747	38 299
Total liabilities and equity	$357 911	$168 296

DESIGNER DECOR LTD
Statement of cash flows (partial)
for the year ended 30 June 2013
(in thousands)

	2013	2012
Net cash provided by operating activities	$ 18 314	$ 19 724
Gross cash used for investing activities	(53 322)	(21 918)
Proceeds from the sale of property, plant and equipment	411	180
Net cash provided by financing activities	49 965	184
Net increase (decrease) in cash	$ 15 368	$ (1 830)

Designer Decor Ltd's sales revenue for 2013 was $646 734 000.
The comparative data for Nick Scali for the year ended 30 June 2013 is presented below.

1. Capital expenditure ratio	2.13:1
2. Current cash debt coverage	0.80:1
3. Cash debt coverage	0.61:1
4. Cash return on sales ratio	0.15:1

SOLUTION

Ratio	Formula	Designer Decor (in $ thousands)	Nick Scali (in $ thousands)
1. Capital expenditure ratio	$\frac{\textbf{Net cash provided by operating activities}}{\textbf{Capital expenditures}}$	$\frac{\$18\,314}{\$53\,322} = 0.34{:}1$	$\frac{\$19\,703}{\$9\,268} = 2.13{:}1$
2. Current cash debt coverage	$\frac{\textbf{Net cash provided by operating activities}}{\textbf{Average current liabilities}}$	$\frac{\$18\,314}{(\$209\,144 + \$92\,337)/2} = 0.12{:}1$	$\frac{\$19\,703}{(\$28\,478 + \$20\,526)/2} = 0.80{:}1$
3. Cash debt coverage	$\frac{\textbf{Net cash provided by operating activities}}{\textbf{Average total liabilities}}$	$\frac{\$18\,314}{(\$278\,164 + \$129\,997)/2} = 0.09{:}1$	$\frac{\$19\,703}{(\$37\,830 + \$26\,459)/2} = 0.61{:}1$
4. Cash return on sales ratio	$\frac{\textbf{Net cash provided by operating activities}}{\textbf{Net sales}}$	$\frac{\$18\,314}{\$646\,734} = 0.03{:}1$	$\frac{\$19\,703}{\$127\,431} = 0.15{:}1$

(a) Designer Decor Ltd's capital expenditure ratio of 0.34 is very low compared to Nick Scali's ratio of 2.13. This figure shows that even though Designer Decor Ltd was able generate $18 314 000 net cash provided by operating activities, it was not sufficient to cover its significant capital expenditure of $53 322 000. The ratio of 0.34 shows that net cash provided by operating activities financed only 34 cents of each $1 of capital expenditure. Designer Decor Ltd's cash-generating ability relative to its expenditures is significantly lower than Nick Scali's. The low capital expenditure ratio for Designer Decor Ltd reflects the significant expansion undertaken in 2013. Note that Designer Decor Ltd's capital expenditure ratio for 2012 was substantially higher at 0.90 ($19 724 000/$21 918 000).

(b) Designer Decor Ltd's current cash debt coverage of 0.12 indicates that it generates 12 cents of net cash provided by operating activities for each $1 of current liabilities. This coverage is significantly lower than Nick Scali's coverage of 0.94 which indicates that Designer Decor Ltd is less liquid than Nick Scali.

(c) Designer Decor Ltd's cash debt coverage of 0.09 indicates that it generates 9 cents of net cash provided by operating activities for each $1 of total liabilities. This coverage is significantly lower than Nick Scali's coverage of 0.61 which indicates that Designer Decor Ltd is considerably less solvent than Nick Scali.

(d) Designer Decor Ltd's cash return on sales ratio is 0.03 which means it converts 3 cents into cash from each $1 of sales. This is very low in comparison to Nick Scali's cash return on sales ratio of 0.15. These figures indicate that Nick Scali has the greater ability to convert its sales into cash.

SUMMARY OF LEARNING OBJECTIVES

1 Indicate the main purpose of the statement of cash flows.
The statement of cash flows provides information about the cash receipts and cash payments of an entity during a period. A secondary objective is to provide information about the operating, investing and financing activities of the entity during the period.

2 Distinguish among operating, investing and financing activities.
Operating activities include the principal revenue-generating activities of the entity, and activities that are not classified as investing or financing. Investing activities include the acquisition and disposal of non-current assets. Financing activities are activities that affect the composition of borrowing and equity.

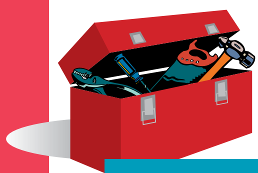
3 Prepare a statement of cash flows.
The preparation of the statement of cash flows involves four major steps: (a) determine the net increase or decrease in cash, (b) determine net cash provided (used) by operating activities, (c) determine net cash provided (used) by investing activities and (d) determine net cash provided (used) by financing activities. The direct method reports cash receipts less cash payments to arrive at net cash provided by operating activities. The indirect method reconciles profit to net cash provided (used) by operating activities.

4 Explain the impact of the product life cycle on an entity's cash flows.
During the introductory stage, cash provided by operating activities and cash from investing are usually negative, whereas cash from financing is positive. During the growth stage, cash provided by operating activities becomes positive. During the maturity stage, cash provided by operating activities typically exceeds investing needs, so the entity may begin to retire debt. During the decline stage, cash provided by operating

activities is reduced, cash from investing may become positive, and more cash is used in financing activities such as retiring debt.

5 Use the statement of cash flows to evaluate an entity.

A number of measures can be derived by using information from the statement of cash flows as well as the other required financial statements. Free cash flow indicates the amount of cash an entity generated during the current year that is available for the payment of dividends or for expansion. The capital expenditure ratio (cash provided by operating activities divided by capital expenditures) complements free cash flow by giving a relative indicator of the sufficiency of cash from operations to fund capital expenditures. Liquidity can be measured with the current cash debt coverage (cash provided by operating activities divided by average current liabilities), solvency by the cash debt coverage (cash provided by operating activities divided by average total liabilities), and profitability by the cash return on sales ratio (cash provided by operating activities divided by sales).



The relevance of these four important cash-based ratios in the decision-making process is summarised in the decision-making toolkit below.

DECISION-MAKING TOOLKIT — A SUMMARY

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
How much cash did the entity generate to either expand operations or pay dividends?	Net cash provided by operating activities and cash spent on property, plant and equipment (Ideally, the measure would use cash spent to maintain the current level of operations, but that is rarely available.)	$\text{Free cash flow} = \text{Net cash provided by operating activities} - \text{Capital expemditures}$	A higher free cash flow indicates a greater potential to finance new investment and pay dividends.
Can the entity finance its capital expenditures with cash provided by operating activities?	Net cash provided by operating activities and cash spent on property, plant and equipment (capital expenditures).	$\text{Capital expenditure ratio} = \dfrac{\text{Net cash provided by operating activities}}{\text{Capital expenditures}}$	A ratio greater than or equal to 1 indicates no need for outside financing for capital expenditures. It may indicate that the entity is in the mature or declining phase of its life cycle.
Is the entity generating sufficient cash provided by operating activities to meet its current obligations?	Net cash provided by operating activities and average current liabilities	$\text{Current cash debt coverage} = \dfrac{\text{Net cash provided by operating activities}}{\text{Average current liabilities}}$	The higher the current cash debt coverage, the better the liquidity. Since the numerator contains a cash flow measure, it provides a good supplement to the current ratio.
Is the entity generating sufficient cash provided by operating activities to cover its total debt?	Net cash provided by operating activities and average total liabilities	$\text{Cash debt coverage} = \dfrac{\text{Net cash provided by operating activities}}{\text{Average total liabilities}}$	The higher the cash debt coverage, the higher the level of solvency, which is the capacity to pay short-term and long-term obligations. The cash debt coverage should be considered in conjunction with the maturity dates of liabilities.
Is the entity efficient in converting sales into cash?	Net cash provided by operating activities and sales	$\text{Cash return on sales ratio} = \dfrac{\text{Net cash provided by operating activities}}{\text{Net sales}}$	Cash return on sales ratio should be compared with the profit margin. Lower cash return on sales ratios or differences over a series of years should be investigated further.

GLOSSARY

Capital expenditure ratio A cash-basis ratio that indicates the extent to which cash provided by operating activities was sufficient to fund capital expenditure (non-current asset) purchases during the year (p. 673).

Cash debt coverage A cash-basis ratio used to evaluate solvency, calculated as net cash provided by operating activities divided by average total liabilities (p. 676).

Cash return on sales ratio A cash-basis ratio used to evaluate profitability, calculated as net cash provided by operating activities divided by net sales (p. 676).

Current cash debt coverage A cash-basis ratio used to evaluate liquidity, calculated as net cash provided by operating activities divided by average current liabilities (p. 675).

Direct method A method of presenting cash payments as deductions from cash receipts to determine net cash provided by operating activities (p. 647).

Financing activities Activities that affect the size and composition of contributed equity and borrowings (p. 645).

Free cash flow Cash provided by operating activities less investments made to maintain the current level of operations (p. 672).

Indirect method A method of preparing a statement of cash flows in which profit is adjusted for timing differences, non-cash items and cash flows classified as investing to determine net cash provided (used) by operating activities (p. 647).

Investing activities The acquisition and disposal of long-term assets (p. 645).

Operating activities The entity's principal revenue-generating activities and activities that are not classified as investing or financing activities (p. 645).

Statement of cash flows A basic financial statement that provides information about the cash receipts and cash payments of an entity during a period, classified as operating, investing and financing activities, in a format that reconciles the beginning and ending cash balances (p. 644).

DEMONSTRATION PROBLEM 1

The statement of profit or loss for Kosinski Manufacturing Ltd contains the following condensed information:

KOSINSKI MANUFACTURING LTD
Statement of profit or loss
for the year ended 31 December 2016

Revenues		$6 583 000
Cost of sales	$4 000 000	
Operating expenses, excluding depreciation	893 000	
Depreciation expense	880 000	
Loss on sale of machinery	27 000	5 800 000
Profit before income tax		783 000
Income tax expense		353 000
Profit		$ 430 000

Machinery was purchased at a cost of $750 000. The following balances are reported on Kosinski's 2016 statement of financial position at 31 December:

	2016	2015
Cash	$ 672 000	$ 130 000
Accounts receivable	775 000	610 000
Inventories	834 000	867 000
Accounts payable	521 000	501 000
Provision for warranty	103 000	106 000
Machinery	3 020 000	2 400 000
Accumulated depreciation	1 647 000	800 000
Loan payable	1 200 000	1 000 000
Share capital	1 500 000	1 500 000
Retained earnings	330 000	100 000

REQUIRED

(a) Prepare the statement of cash flows using the direct method.
(b) Prepare the reconciliation of profit and cash provided by operating activities.

SOLUTION TO DEMONSTRATION PROBLEM 1

(a)

KOSINSKI MANUFACTURING LTD
Statement of cash flows
for the year ended 31 December 2016

Cash flows from operating activities		
Cash collections from customers		$ 6 418 000[1]
Cash payments to suppliers and employees		(4 843 000)[2]
Cash payments for income tax		(353 000)[3]
Net cash provided by operating activities		1 222 000
Cash flows from investing activities		
Sale of machinery	$ 70 000[4]	
Purchase of machinery	(750 000)	
Net cash used by investing activities		(680 000)
Cash flows from financing activities		
Proceeds from borrowing	200 000[5]	
Payment of cash dividends	(200 000)[6]	
Net cash used by financing activities		—
Net increase in cash		542 000
Cash at beginning of period		130 000
Cash at end of period		$ 672 000

Direct method calculations

[1]Calculation of cash collections from customers:		
Revenues per the statement of profit or loss		$ 6 583 000
Less increase in accounts receivable		(165 000)
Cash collections from customers		$ 6 418 000
[2]Calculation of cash payments to suppliers and employees:		
Payments for the purchase of inventory:		
Cost of sales	$4 000 000	
Less decrease in inventories	(33 000)	
Less increase in accounts payable	(20 000)	
Cash paid to suppliers of merchandise		$ 3 947 000
Payments for operating expenses:		
Operating expenses per the statement of profit or loss	$ 893 000	
Add decrease in provision for warranty	3 000	896 000
Cash paid to suppliers and employees		$ 4 843 000

[3]Tax expense equals tax paid because there is neither an opening nor closing income tax liability in 2016.

[4]The sale proceeds of $70 000 are derived by subtracting the loss ($27 000) on disposal from the carrying amount of the machine sold ($97 000). The carrying amount of the machine sold is $97 000 ($130 000 − $33 000). This is determined by reconstructing the accumulated depreciation account and the machinery account as follows:

Machinery

2016				
Jan. 1	Balance	2 400 000	Cost of machine sold	130 000
	Purchased machine	750 000	Closing balance	3 020 000
		3 150 000		3 150 000

Accumulated depreciation

		2016		
Machine sold	33 000	Jan. 1	Balance	800 000
Closing balance	1 647 000		Depreciation expense	880 000
	1 680 000			1 680 000

[5]Increase in loan payable ($1 200 000 − $1 000 000)
[6]Retained earnings 2015 + profit − retained earnings 2016 ($100 000 + $430 000 − $330 000)

(b) Reconciliation of profit to cash provided by operating activities

Profit		$ 430 000
Adjustments to reconcile profit to cash provided by operating activities:		
Depreciation expense	$ 880 000	
Loss on sale of machinery	27 000	
Increase in accounts receivable	(165 000)	
Decrease in inventories	33 000	
Increase in accounts payable	20 000	
Decrease in provision for warranty	(3 000)	792 000
Net cash provided by operating activities		$1 222 000

DEMONSTRATION PROBLEM 2 — COMPREHENSIVE

The following information relates to Kim Ltd.

KIM LTD
Statement of financial position
as at 30 June 2016
(in thousands)

	2016	2015	Change — Increase/ (decrease)
Current assets			
Cash	$ 773	340	433
Accounts receivable	585	625	(40)
Allowance for doubtful debts	(35)	(25)	10
Inventory	550	420	130
Prepaid insurance	35	30	5
	1 908	1 390	

(continued)

Statement of financial position *(continued)*

	2016	2015	Change — Increase/ (decrease)
Non-current assets			
Land	1 170	1 100	70
Buildings	1 225	955	270
Accumulated depreciation—buildings	(385)	(350)	(35)
Plant and equipment	942	723	219
Accumulated depreciation—plant and equipment	(430)	(400)	(30)
Patents	65	80	(15)
	2 587	2 108	
Total assets	$4 495	$3 498	
Current liabilities			
Account payable	$ 310	$ 390	$(80)
Accrued expenses	130	140	(10)
Interest payable	35	30	5
Income tax payable	450	390	60
Final dividend payable	300	200	100
	1 225	1 150	
Non-current liabilities			
Borrowings	1 100	800	300
Total liabilities	$2 325	$1 950	
Equity			
Share capital	$ 800	$ 500	$ 300
General reserve	180	250	(70)
Retained earnings	1 190	798	392
Total equity	2 170	1 548	
Total liabilities and equity	$4 495	$3 498	

KIM LTD
Statement of profit or loss
for the year ended 30 June 2016
(in thousands)

Sales revenue		$5 040
Gain from sale of land		75
Gain on sale of equipment		30
Discount received		15
		5 160
Less expenses:		
Cost of sales	$2 565	
Bad debts expense	22	
Depreciation—building	35	
Depreciation—plant and equipment	95	
Insurance expense	80	
Interest expense	110	
Amortisation—patents	15	
Other expenses	766	
Total expenses		3 688
Profit before income tax		1 472
Income tax expense		450
Profit for the period		$1 022

ADDITIONAL INFORMATION:

1. Land with a cost of $50 000 was sold during the year.
2. Land with a cost of $100 000 was acquired during the year in exchange for $100 000 of ordinary shares in Kim Ltd.
3. Equipment with an original cost of $100 000 and accumulated depreciation of $65 000 was sold during the year.
4. There were cash acquisitions of land, buildings and plant and equipment during the year.
5. A share dividend of $100 000 was paid from retained earnings. An interim cash dividend of $300 000 was paid during the year.
6. During the year $70 000 was transferred from general reserve to Retained Earnings.
7. Accounts payable pertain to inventory suppliers and during the year $15 000 of settlement discount was received from suppliers.

REQUIRED

(a) Prepare a statement of cash flows using the direct method.
(b) Prepare the reconciliation of profit and cash provided by operating activities.

SOLUTION TO DEMONSTRATION PROBLEM 2

Reasoning: The direct method reports cash receipts less cash payments to arrive at net cash provided by operating activities. The sale of land and the sale of equipment are shown separately in the solution but are usually combined and shown as proceeds from the sale of property, plant and equipment in external statements of cash flows.

Refer to figure 11.6 (p. 653) for an overview of how to prepare a statement of cash flows. (*Hint:* As you use each piece of information and figures in the statement of financial position and statement of profit or loss, tick the items off to ensure you do not omit any information.)

Workings (cash flows are bolded):

1. Cash receipts from customers

Cash	=	Revenue from sales	+	Decrease in accounts receivable	+	Increase in allowance for doubtful debts	−	Bad debts expense
$5 068 000	=	$5 040 000	+	$40 000	+	$10 000	−	$22 000

Reconstruct using T accounts — the advantages of using the T-account reconstructions is that you do not need to memorise formulas. This can be shown by the reconstruction of the accounts below and overleaf.

First reconstruct the allowance for doubtful debts account to determine the bad debt written off. Then reconstruct the accounts receivable account to determine the cash received from customers.

Allowance for doubtful debts

Accounts receivable (bad debt write-off)	12 000	Balance o/b	25 000
Balance c/b	35 000	Bad debts expense	22 000
	47 000		47 000
		Balance o/b	35 000

Helpful hint

The 'o/b' is the opening balance and the 'c/b' is the closing balance. Recall that when we balance accounts, the closing balance is always on the wrong side in order to balance the account. For example, the closing balance in the allowance for doubtful debts account is a debit to balance the account. However, the actual account balance, the one you would see in the trial balance, is a credit. This is reflected in the opening balance for the next period.

Accounts receivable

Balance o/b	625 000	**Cash**	**5 068 000**
Sales	5 040 000	Allowance for doubtful debts (bad debt write-off)	12 000
		Balance c/b	585 000
	5 665 000		5 665 000
Balance o/b	585 000		

2. Cash payments to suppliers and employees
   Need to determine the expenses paid during the year:

Cash	=	Cost of sales	+	Increase in inventory	+	Decrease in accounts payable	−	Discount received
$2 760 000	=	$2 565 000	+	$130 000	+	$80 000	−	$15 000

This can be shown by the reconstruction of the accounts below.

First reconstruct the inventory account to determine purchases. Then reconstruct the accounts payable account to determine cash paid to suppliers.

Inventory

Balance o/b	420 000	Cost of sales	2 565 000
Purchases	2 695 000	Balance c/b	550 000
	3 115 000		3 115 000
Balance o/b	550 000		

Accounts payable

Discount received	15 000	Balance o/b	390 000
Cash	**2 760 000**	Purchases	2 695 000
Balance c/b	310 000		
	3 085 000		3 085 000
		Balance o/b	310 000

Other payments:

Cash payments for operating expenses	=	Operating expenses excluding depreciation	+	Increase in prepaid expenses	+	Decrease in accrued expenses
$861 000	=	$ 80 000	+	$5 000	+	$10 000
	+	766 000				

This can be shown by the reconstruction of the accounts below and opposite.

Prepaid insurance

Balance o/b	30 000	Insurance expense	80 000
Cash	**85 000**	Balance c/b	35 000
	115 000		115 000
Balance o/b	35 000		

Accrued expenses

Cash	**776 000**	Balance o/b	140 000
Balance c/b	130 000	Other expenses	766 000
	906 000		906 000
		Balance o/b	130 000

$85 000 + $776 000 = $861 000 total cash expenses other than inventory.

Total paid to suppliers and employees = $2 760 000 + $861 000 = **$3 621 000**.

3. Interest paid

Cash payments for interest	=	Interest expense	−	Increase in interest payable
$105 000	=	$110 000	−	$5 000

This can be shown by the reconstruction of the account below.

Interest payable

Cash	**105 000**	Balance o/b	30 000
Balance c/b	35 000	Interest expense	110 000
	140 000		140 000
		Balance o/b	35 000

4. Taxes paid

Cash payments for income tax	=	Income tax expense	−	Increase in income tax payable
$390 000	=	$450 000	−	$60 000

This can be shown by the reconstruction of the account below.

Income tax payable

Cash	**390 000**	Balance o/b	390 000
Balance c/b	450 000	Profit or loss	450 000
	840 000		840 000
		Balance o/b	450 000

5. After reviewing the additional information determine the movement in retained earnings to determine the dividend declared and the transfers from retained earnings to other equity accounts.

The additional information indicates $70 000 was transferred to retained earnings from general reserve and that there was a share dividend of $100 000.

Cash dividend declared	=	Profit	−	Increase in retained earnings	+	Transfer from general reserve	−	Share dividend
$600 000	=	$1 022 000	−	$392 000	+	$70 000	−	$100 000

The cash dividend declared is used to determine the cash dividend paid (see item 6 below).

Cash flows from equity can be from the issue of share capital. During the year share capital increased by $300 000.

The additional information reveals that $100 000 in shares was issued to fund the purchases of land (item 7 opposite) and that there was a share dividend of $100 000 (out of retained earnings). Therefore, only $100 000 ($300 000 − $100 000 − $100 000) was a cash share issue.

This can be shown by the reconstruction of the accounts below.

Share capital

Balance c/b	800 000	Balance o/b	500 000
		Land	100 000
		Share dividend	100 000
		Cash	**100 000**
	800 000		800 000
		Balance o/b	800 000

Retained earnings

Share dividend	100 000	Balance o/b	798 000
Dividend declared	600 000	General reserve	70 000
Balance c/b	1 190 000	Profit	1 022 000
	1 890 000		1 890 000
		Balance o/b	1 190 000

6. Financing cash flows from liabilities

From the movement in retained earnings (item 5 above), dividends declared were $600 000

Cash dividend paid	=	Dividend declared	−	Increase in dividend payable
$500 000	=	$600 000	−	$100 000

The increase in borrowings of **$300 000** is a cash inflow. The additional information does not indicate there were any other transactions involving borrowings.

This can be shown by the reconstruction of the accounts below.

Dividend payable

Cash	**500 000**	Balance o/b	200 000
Balance c/b	300 000	Dividends declared	600 000
	800 000		800 000
		Balance o/b	300 000

Borrowings

Balance c/b	1 100 000	Balance o/b	800 000
		Cash	**300 000**
	1 100 000		1 100 000
		Balance o/b	1 100 000

7. Cash flows from investing activities

Returning to the non-current assets section of the statement of financial position we can determine the cash flows from investing activities using the additional information and the information in the statement of profit or loss.

The additional information indicates that ordinary shares were issued to purchase the land (see item 5). Although the issue of ordinary shares for land has no effect on cash, it is a significant non-cash investing and financing transaction. This transaction requires disclosure in a separate note to the statement of cash flows.

The additional information also indicates that land was sold. The land had an original cost of $50 000 and the statement of profit or loss shows a gain of $75 000. This means that proceeds were **$125 000** (gain = proceeds − cost).

(a)

Cash purchases of land	=	Increase in land	−	Non-cash purchase (by share issue)	+	Disposal
$20 000	=	$70 000	−	$100 000	+	$50 000

The gain on sale of land was $75 000 and in the additional information the land sold cost $50 000, so the proceeds are $125 000 (gain = proceeds − cost).

(b) The movement in patents is the amortisation, which is not a cash outflow. This can be shown by the reconstruction of the asset accounts below.

Land

Balance o/b	1 100 000	Disposal	50 000
Shares	100 000	Balance c/b	1 170 000
Cash	**20 000**		
	1 220 000		1 220 000
Balance o/b	1 170 000		

Patents

Balance o/b	80 000	Amortisation expense	15 000
		Balance c/b	65 000
	80 000		80 000
Balance o/b	65 000		

(c) There is no additional information concerning the buildings. The statement of profit or loss reflects depreciation expense of $35 000.

The net increase in buildings of $270 000 is a cash outflow. The increase in the accumulated depreciation—building account is the depreciation charge in the statement of profit or loss.

This can be shown by the reconstruction of the accounts below and overleaf.

Buildings

Balance o/b	955 000	Balance c/b	1 225 000
Cash	**270 000**		
	1 225 000		1 225 000
Balance o/b	1 225 000		

Accumulated depreciation—buildings

Balance c/b	385 000	Balance o/b	350 000
		Depreciation expense	35 000
	385 000		385 000
		Balance o/b	385 000

(d) The additional information reveals that equipment with a carrying value of \$35 000 (cost of \$100 000 and accumulated depreciation of \$65 000) was sold during the year. The statement of profit or loss reveals a gain of \$30 000, which means the proceeds were \$**65 000** (gain = proceeds − carrying value).

Cash purchases	=	Increase in plant and equipment	+	Disposal
\$319 000	=	\$219 000	+	\$100 000

Net increase in accumulated depreciation	=	Depreciation expense	−	Disposal
\$30 000	=	\$95 000	−	\$65 000

This can be shown by the reconstruction of the accounts below.

Plant and equipment

Balance o/b	723 000	Disposal	100 000
Cash	**319 000**	Balance c/b	942 000
	1 042 000		1 042 000
Balance o/b	942 000		

Accumulated depreciation—plant and equipment

Disposal	65 000	Balance o/b	400 000
Balance c/b	430 000	Depreciation expense	95 000
	495 000		495 000
		Balance o/b	430 000

Now all the movements in the statement of financial position have been ticked off, all the bold figures can be listed in the following statement of cash flows.

KIM LTD
Statement of cash flows
for the year ended 30 June 2016
(in thousands)

Cash flows from operating activities		
Receipts from customers	\$ 5 068	
Payments to suppliers and employees	(3 621)	
Interest paid	(105)	
Income tax paid	(390)	
Net cash provided by operating activities		\$ 952

Cash flows from investing activities		
Purchase of land	(20)	
Purchase of building	(270)	
Purchase of plant and equipment	(319)	
Proceeds from sale of equipment	65	
Proceeds from sale of land	125	
Net cash outflow from investing activities		(419)
Cash flows from financing activities		
Proceeds from issue of shares	100	
Cash from borrowings	300	
Dividends paid	(500)	
Net cash from financing activities		(100)
Net increase in cash held		433
Cash at the beginning of the financial year		340
Cash at the end of the financial year		$ 773

Note 1: Non-cash investing and financing activities

Purchase of land by the issue of ordinary shares	$100 000

Note 2: Reconciliation of profit to net cash provided by operating activities

	$'000	**$'000**
Profit		1 022
Adjustments to reconcile profit to net cash provided by operating activities:		
Gain from sale of land	(75)	
Gain on sale of equipment	(30)	
Depreciation expense—building	35	
Depreciation expense—plant and equipment	95	
Amortisation—patents	15	
Decrease in accounts receivable (net)	50	
Increase in inventory	(130)	
Increase in prepaid insurance	(5)	
Decrease in accounts payable	(80)	
Decrease in accrued expenses	(10)	
Increase in interest payable	5	
Increase in income tax payable	60	(70)
		$ 952

SELF-STUDY QUESTIONS *Answers are at the end of the chapter.*

(LO1) 1. Which of the following is *incorrect* about the statement of cash flows?
(a) It is the third basic financial statement.
(b) It provides information about cash receipts and cash payments of an entity during a period.
(c) It reconciles the ending cash account balance to the balance as per the bank statement.
(d) It provides information about the operating, investing and financing activities of the business.

(LO2) 2. Which of the following is not a non-cash activity?
(a) Issue of shares to purchase assets.
(b) Issue of debt to purchase assets.

(c) Payment of cash dividends.
(d) Exchange of property, plant and equipment.

(LO2) 3. Which is an example of a cash flow from an operating activity?
(a) Payment of wages.
(b) Receipt of cash from the issue of shares.
(c) Payment of cash dividends to the company's shareholders.
(d) None of the above.

(LO2) 4. Which is an example of a cash flow from an investing activity?
(a) Receipt of cash from the issue of debentures.
(b) Payment of dividends.
(c) Receipt of cash from the sale of equipment.
(d) Payment of cash to suppliers for inventory.

(LO2) 5. Cash dividends paid to shareholders are classified on the statement of cash flows as:
(a) operating activities.
(b) investing activities.
(c) a combination of (a) and (b).
(d) financing activities.

(LO2) 6. Which is an example of a cash flow from a financing activity?
(a) Receipt of cash from sale of land.
(b) Issue of debt for cash.
(c) Purchase of equipment for cash.
(d) None of the above.

(LO3) 7. The beginning balance in accounts receivable is \$44 000, the ending balance is \$42 000, and sales during the period are \$129 000. What are cash receipts from customers, assuming no bad debts or discounts allowed?
(a) \$127 000. (c) \$131 000.
(b) \$129 000. (d) \$141 000.

(LO3) 8. Which of the following items is reported on a statement of cash flows prepared using the direct method?
(a) Bad debts expense.
(b) Increase in accounts receivable.
(c) Depreciation expense.
(d) Cash payments to suppliers.

(LO3) 9. Profit is \$132 000, accounts payable increased \$10 000 during the year, inventory decreased \$6000 during the year, and accounts receivable increased \$12 000 during the year. Using the indirect method, what is net cash provided by operations?
(a) \$104 000. (c) \$124 000.
(b) \$116 000. (d) \$136 000.

(LO3) 10. Non-cash charges that are added back to profit in determining cash provided by operations under the indirect method do *not* include:
(a) depreciation expense.
(b) an increase in inventory.
(c) amortisation expense.
(d) loss on sale of equipment.

(LO4) 11. During the introductory phase of an entity's life cycle, one would normally expect to see:
(a) negative cash from operations, negative cash from investing, and positive cash from financing.
(b) negative cash from operations, positive cash from investing, and positive cash from financing.
(c) positive cash from operations, negative cash from investing, and negative cash from financing.
(d) positive cash from operations, negative cash from investing, and positive cash from financing.

(LO4) 12. During the growth phase of an entity's life cycle, you would normally expect to see:
(a) negative cash from operations, positive cash from investing, and positive cash from financing.
(b) negative cash from operations, negative cash from investing, and positive cash from financing.
(c) positive cash from operations, negative cash from investing, and negative cash from financing.
(d) positive cash from operations, negative cash from investing, and positive cash from financing.

(LO5) 13. The statement of cash flows should *not* be used to evaluate an entity's ability to:
(a) earn profit.
(b) generate future cash flows.
(c) pay dividends.
(d) meet obligations.

(LO5) 14. Free cash flow provides an indication of a company's ability to:
(a) generate profit.
(b) generate cash to pay dividends.
(c) generate cash to expand investment.
(d) both (b) and (c).

(LO5) 15. Which of the following provides a useful comparison with the profit margin?
(a) Capital expenditure ratio.
(b) Cash return on sales ratio.
(c) Cash debt coverage.
(d) Current cash debt coverage.

QUESTIONS

1. What questions about cash are answered by the statement of cash flows?
2. Distinguish among the three activities reported in the statement of cash flows.
3. Why is it important to disclose certain non-cash transactions? How should they be disclosed?
4. (a) What are the phases of the life cycle of an entity?
   (b) What effect does each phase have on the amounts reported in a statement of cash flows?
5. Contrast the advantages and disadvantages of the direct and indirect methods of reporting on cash flows from operating activities.
6. Cameron's Cars reported sales of $2 million for 2015. Accounts receivable increased $200 000 and accounts payable increased $400 000. Calculate cash receipts from customers, assuming that the receivable and payable transactions related to operations.
7. The managing director of Fancy Fashion Pty Ltd is puzzled. During the last year, the entity experienced a loss for the period of $800 000, yet its cash increased $300 000 during the same period of time. Explain to the managing director how this could occur.
8. Identify five items that form part of the reconciliation of profit and net cash provided by operating activities.
9. During 2015, Pencils and More Ltd purchased equipment but paid for it with the issue of 2 million $1 ordinary shares. Indicate how the transaction would be reported in a statement of cash flows, if at all.
10. Give an example of a cash-based ratio to measure these characteristics of an entity:
    (a) liquidity
    (b) solvency
    (c) profitability.

BRIEF EXERCISES

BE11.1 Each of these items must be considered in preparing a statement of cash flows for Vong's Thongs Ltd for the year ended 30 June 2015. For each item, state how it should be classified in the statement of cash flows for 2015.

Indicate statement presentation of selected transactions.
(LO2)

(a) Issued unsecured notes for $100 000 cash.
(b) Purchased land for $75 000 cash.
(c) Sold land costing $10 000 for $10 000 cash.
(d) Declared and paid a $25 000 cash dividend.

BE11.2 The following T account is a summary of the cash account of King Fisheries Pty Ltd.

Identify financing activity transactions.
(LO2)

Cash (summary form)

2015		Payments for goods	180 000
Balance, 1 Jan.	8 000	Payments for operating expenses	140 000
Receipts from customers	264 000	Interest paid	30 000
Dividends received	6 000	Taxes paid	8 000
Proceeds from sale of equipment	36 000	Dividends paid	40 000
Proceeds from issue of debentures	200 000	Balance, 31 Dec.	116 000
	514 000		514 000
2016			
Balance, 1 Jan.	116 000		

What amount of net cash provided (used) by financing activities should be reported in the statement of cash flows?

BE11.3 Cheong's Chinese Herbs Ltd has Accounts Receivable of $14 000 at 1 July 2015, and $24 000 at 30 June 2016. Sales revenues were $600 000 for 2016. Bad debts written off directly against Accounts Receivable were $2000 in 2016. What is the amount of cash receipts from customers in 2016?

Calculate receipts from customers.
(LO3)

BE11.4 Pete's Pies Ltd reports operating expenses of $216 000 excluding depreciation expense of $18 000 for 2015. During the year prepaid expenses decreased $7920 and accrued expenses payable increased $5280. Calculate the cash payments for operating expenses in 2015.

Calculate cash payments for operating expenses — direct method.
(LO3)

Calculate net cash provided by operating activities — indirect method.
(LO3)

BE11.5 Rotorua Rides Ltd's profit for the year is $200 000. The comparative statement of financial position shows these changes in non-cash current asset accounts: Accounts Receivable decrease $80 000, Prepaid Expenses increase $12 000, and Inventories increase $30 000. Reconcile net cash provided by operating activities to profit.

Determine cash received from sale of equipment.
(LO3)

BE11.6 The T-accounts for Equipment and the related Accumulated Depreciation for Lau Pty Ltd at the end of 2015 are shown here.

Equipment

2015			
Op. bal.	225 000	Disposals	33 000
Acquisitions	62 400	Clos. bal.	254 400
	287 400		287 400
2016			
Op. bal.	254 400		

Accumulated Depreciation

		2015	
Disposals	9 000	Op. bal.	54 000
Clos. bal.	63 000	Depn	18 000
	72 000		72 000
		2016	
		Op. bal.	63 000

In addition, Lau Pty Ltd's statement of profit or loss reported a gain on the sale of equipment of $4500. What amount was reported on the statement of cash flows as 'cash flow from sale of equipment'?

Answer questions related to the phases of product life cycle.
(LO4)

BE11.7
(a) Why is cash from operations likely to be lower than reported profit during the growth phase?
(b) Why is cash from investing often positive during the late maturity phase and during the decline phase?
(c) Why is cash from financing often positive during introductory and growth phases?

EXERCISES

Classify transactions by type of activity.
(LO2)

E11.1 Wilderness Equipment Ltd had these transactions during 2015:
(a) Purchased a machine for $37 500, giving a long-term note in exchange.
(b) Issued ordinary shares for $62 500 in cash.
(c) Collected $20 000 of accounts receivable.
(d) Declared and paid a cash dividend of $31 250.
(e) Sold a long-term investment with a cost of $18 750 for $18 750 cash.
(f) Convertible notes with a carrying amount of $250 000 were converted to ordinary shares at $250 000.
(g) Paid $22 500 on accounts payable.

Required
(a) Analyse the above transactions and indicate whether each transaction resulted in a cash flow from operating activities, investing activities, financing activities, or was a non-cash investing and financing activity.
(b) What are the differences between operating, investing and financing activities?

Prepare the operating activities section — indirect method.
(LO3)

E11.2 Madonna Ltd reported profit of $200 000 for 2015. Madonna Ltd also reported depreciation expense of $35 000 and a loss of $5000 on the sale of equipment. The statement of financial position shows an increase in accounts receivable of $15 000 for the year, an $8000 increase in accounts payable, and a $5000 increase in prepaid expenses.

Required
Prepare the operating activities section of the statement of cash flows, using the indirect method.

Identify phases of product life cycle.
(LO4)

E11.3 The information in the following table is from the statement of cash flows for an entity at four different points in time (A, B, C and D). Negative values are presented in parentheses.

	Point in time			
	A	B	C	D
Cash provided by operations	$100 000	$ 30 000	$ 60 000	$ 10 000
Cash provided by investing	30 000	50 000	(100 000)	(40 000)
Cash provided by financing	(50 000)	(110 000)	70 000	120 000
Profit	100 000	40 000	(40 000)	(5 000)

Required

For each point in time, state whether the entity is most likely to be in the introductory phase, growth phase, maturity phase or decline phase. In each case explain your choice.

E11.4 Here is a statement of financial position for Big Bang Balloons Pty Ltd:

Prepare a statement of cash flows (direct method), and calculate cash-based ratios. (LO3,5)

BIG BANG BALLOONS PTY LTD
Statement of financial position
as at 30 June 2015

	2015	2014
Assets		
Cash	$ 72 000	$ 26 400
Accounts receivable	102 000	91 200
Inventories	216 000	226 800
Land	90 000	120 000
Equipment	312 000	240 000
Accumulated depreciation	(79 200)	(50 400)
Total	$712 800	$654 000
Liabilities and equity		
Accounts payable	$ 40 800	$ 56 400
Notes payable (long term)	180 000	240 000
Share capital	256 800	196 800
Retained earnings	235 200	160 800
Total	$712 800	$654 000

Additional information:

1. Profit for 2015 was $126 000. Total expenses were $1 047 600 and included cost of sales expense $633 600, interest paid $18 000, and tax expense $54 000.
2. Cash dividends of $51 600 were declared and paid.
3. Notes payable amounting to $60 000 were redeemed for cash $60 000.
4. Ordinary shares were issued for $60 000 cash.
5. Sales for 2015 were $1 173 600.
6. Land was sold at cost.

Required

(a) Prepare a statement of cash flows for 2015 using the direct method.
(b) Calculate these cash-basis ratios and comment on the cash adequacy indicated by the calculations.
  1. current cash debt coverage
  2. cash return on sales
  3. cash debt coverage.

E11.5 An analysis of the statement of financial position, the current year's statement of profit or loss, and the general ledger accounts of Simpson Ltd, uncovered the following items. Assume all items involve cash unless there is information to the contrary.

Classify transactions by type of activity. (LO2)

(a) Purchase of plant and equipment
(b) Payment of dividends
(c) Sale of building
(d) Exchange of land for patent
(e) Depreciation
(f) Redemption of debentures

(g) Receipt of interest on notes receivable	(k) Payment of interest on overdraft
(h) Issue of ordinary shares	(l) Conversion of notes into ordinary shares
(i) Amortisation of patent	(m) Sale of land
(j) Issue of unsecured notes	(n) Receipt of dividends on investment in Telstra shares

Required
Indicate how each item should be classified in the statement of cash flows using these four major classifications: operating activity, investing activity, financing activity, and non-cash investing and financing activity.

Calculate cash provided by operating activities — direct method.
(LO3)

E11.6 Christchurch Motors Pty Ltd completed its first year of operations on 30 June 2015. Its statement of profit or loss showed that the business had revenues of $170 000 and operating expenses of $80 000 including Bad Debts Expense of $1000. Accounts Receivable and Accounts Payable at year-end were $43 000 and $33 000, respectively. Assume that accounts payable related to operating expenses. Ignore income tax. The Allowance for Doubtful Debts is $1000. There has been no direct write-off of accounts receivable.

Required
Calculate net cash provided by operating activities using the direct method.

Calculate cash payments — direct method.
(LO3)

E11.7 The statement of profit or loss for Colin Ltd shows cost of sales $355 000 and operating expenses (exclusive of depreciation) $230 000. The statement of financial position for the year shows that inventory increased $6000, prepaid expenses decreased $6000, accounts payable (inventory suppliers) decreased $8000, and accrued expenses payable decreased $12 000.

Required
Using the direct method, calculate (a) cash payments to suppliers and (b) cash payments for operating expenses.

Calculate cash provided by operating activities — direct method.
(LO3)

E11.8 The 2015 accounting records of Outdoor Adventures Ltd reveal the following transactions and events.

Payment of interest	$ 15 000	Collection of accounts receivable	$190 000
Cash sales	60 000	Payment of salaries and wages	68 000
Receipt of dividend revenue	14 000	Depreciation expense	16 000
Payment of income tax	16 000	Proceeds from sale of aircraft	812 000
Profit	38 000	Purchase of equipment for cash	22 000
Payment of accounts payable		Loss on sale of aircraft	3 000
for inventory	100 000	Payment of dividends	14 000
Payment for land	74 000	Payment of operating expenses	20 000

Required
Prepare the cash flows from operating activities section of the statement of cash flows using the direct method. (Not all of the items will be used.)

Calculate cash flows — direct method.
(LO3)

E11.9 The following information is taken from the general ledger of Chau Ltd.

Rent	Rent expense	$ 93 000
	Prepaid rent, 1 January	17 700
	Prepaid rent, 31 December	9000
Salaries	Salaries expense	$162 000
	Salaries payable, 1 January	15 000
	Salaries payable, 31 December	24 000
Sales	Revenue from sales	$540 000
	Accounts receivable, 1 January	36 000
	Accounts receivable, 31 December	27 000

Required
In each case, calculate the amount that should be reported in the operating activities section of the statement of cash flows under the direct method.

Compare two entities by using cash-based ratios.
(LO5)

E11.10 Presented here is information for two entities in the shipping industry: Kang Ltd and Jang Ltd:

	Kang Ltd	**Jang Ltd**
Cash provided by operations	$220 000	$240 000
Average current liabilities	50 000	100 000
Average total liabilities	200 000	250 000
Profit	200 000	200 000
Sales	400 000	800 000

Required
Using the cash-based ratios presented in this chapter, compare the (a) liquidity, (b) solvency and (c) profitability of the two entities, and discuss their meaning.

Calculate cash provided by operating activities — direct method.
(LO3)

E11.11 The 2016 accounting records of Home and Away Travels Ltd reveal the following transactions and events.

Payment of interest	$ 21 000	Collection of accounts receivable	$ 266 000
Cash sales	84 000	Payment of salaries and wages	95 200
Receipt of dividend revenue	19 600	Depreciation expense	22 400
Payment of income tax	22 400	Proceeds from sale of aircraft	1 136 800
Profit	53 200	Purchase of equipment for cash	30 800
Payment of accounts payable		Loss on sale of aircraft	4 200
for inventory	140 000	Payment of dividends	19 600
Payment for land	103 600	Payment of operating expenses	28 000

Required
Prepare the cash flows from the operating activities section of the statement of cash flows, using the direct method. (Not all of the items will be used.)

Prepare the operating activities section of the statement of cash flows — indirect method.
(LO3)

E11.12 The current section of Opotiki Ltd statement of financial position at 30 June 2016 is presented below.

	2016	**2015**
Current assets		
Cash	$105 000	$ 99 000
Accounts receivable	120 000	89 000
Inventory	161 000	186 000
Prepaid expenses	27 000	22 000
Total current assets	$431 000	$396 000
Current liabilities		
Accounts payable	$ 85 000	$ 92 000
Accrued expenses payable	15 000	5 000
Total current liabilities	$100 000	$ 97 000

Other information:
1. Profit for the year ended 30 June 2016 was $153 000.
2. Depreciation expense was $19 000.

Required
Prepare the net cash provided by the operating activities section of Opotiki's statement of cash flows for the year ending 30 June 2016, using the indirect method.

Prepare a partial statement of cash flows, using the indirect method.
(LO3)

E11.13 The following accounts appear in the ledger of Castle Ltd during 2016.

Equipment

Date	Description	Debit $	Credit $	Balance $
01/07/15	Balance			40 000
31/01/16	Purchase of equipment	17 500		57 500
02/03/16	Cost of equipment constructed	13 250		70 750
10/05/16	Cost of equipment sold		8 750	62 000

Accumulated depreciation—equipment

Date	Description	Debit $	Credit $	Balance $
01/07/15	Balance			17 750
10/05/16	Accumulated depreciation on equipment sold	7 500		10 250
30/06/16	Depreciation for the year		7 000	17 250

Retained earnings

Date	Description	Debit $	Credit $	Balance $
01/07/15	Balance			26 250
23/02/16	Dividends (cash)	3 500		22 750
30/06/16	Profit for the year		16 750	39 500

Required

From the postings in the accounts, indicate how the information is reported in the statement of cash flows, using the indirect method. The loss on the sale of the equipment was $750. (*Hint:* The purchase of equipment is reported in the investing activities section as a decrease in cash of $17 500.)

PROBLEM SET A

Prepare the investing activities section of the statement of cash flows.
(LO3)

PSA11.1 The following selected account balances relate to the plant asset accounts of Waihi Beach Surfboards Pty Ltd at year-end.

	2015	2014
Accumulated depreciation—buildings	$125 000	$100 000
Accumulated depreciation—equipment	100 000	97 500
Buildings	500 000	500 000
Depreciation expense	47 750	40 000
Equipment	200 000	177 500
Land	485 000	425 000
Gain on sale of equipment	3 000	—

Additional information:

1. In 2015, Waihi Beach Surfboards Pty Ltd purchased $50 000 of equipment and $60 000 of land for cash.
2. Waihi Beach Surfboards Pty Ltd also sold equipment in 2015. (*Hint:* Reconstruct the accumulated depreciation account to determine carrying value and then determine the proceeds from sale of equipment.)

Required

Determine the amounts of any investing cash inflows or outflows in 2015.

Prepare the operating activities section — direct and indirect methods. (LO2,3)

PSA11.2 The statement of profit or loss of Phillips Screwdrivers Ltd is presented here.

PHILLIPS SCREWDRIVERS LTD
Statement of profit or loss
for the year ended 31 March 2017

Sales		$ 6 900 000
Cost of sales		
Beginning inventory	$ 1 900 000	
Purchases	4 400 000	
Goods available for sale	6 300 000	
Ending inventory	1 600 000	
Total cost of sales		4 700 000
Gross profit		2 200 000
Operating expenses		
Selling expenses	450 000	
Administrative expenses	600 000	1 050 000
Profit before tax		1 150 000
Tax expense		100 000
Profit		$ 1 050 000

Additional information:
1. Accounts receivable decreased $300 000 during the year.
2. Prepaid expenses increased $150 000 during the year.
3. Accounts payable to suppliers of inventory decreased $300 000 during the year.
4. Accrued expenses payable decreased $100 000 during the year.
5. Administrative expenses include depreciation expense of $60 000.
6. All tax expense was paid in cash.

Required

(a) Prepare the operating activities section of the statement of cash flows for the year ended 31 March 2017 for Phillips Screwdrivers Ltd, using the direct method.

(b) Reconcile profit to cash provided by operations for the year ended 31 March 2017.

(c) The statement of cash flows classifies cash receipts and cash payments into operating, investing and financing activities. Discuss why operating activities is the most important category of the three?

Prepare the operating activities section — direct and indirect methods. (LO3)

PSA11.3 Peebody Enterprises Ltd's statement of profit or loss contained the condensed information below.

PEEBODY ENTERPRISES LTD
Statement of profit or loss
for the year ended 30 June 2015

Revenues		$1 176 000
Operating expenses, excluding depreciation	$873 600	
Depreciation expense	84 000	
Loss on sale of equipment	36 400	994 000
Profit before income tax		182 000
Income tax expense		56 000
Profit		$ 126 000

Peebody Enterprises Ltd's statement of financial position contained the following comparative data.

	2015	2014
Accounts receivable	$65 800	$79 800
Accounts payable	57 400	46 200
Income tax payable	5 600	14 000

Accounts payable pertain to operating expenses.

Required

(a) Prepare the operating activities section of the statement of cash flows using the direct method.

(b) Prepare the operating activities section of the statement of cash flows using the indirect method, i.e. prepare a reconciliation of profit to cash provided by operations.

Prepare a statement of cash flows — direct and indirect methods — and calculate cash-based ratios. (LO3,5)

PSA11.4 These are the financial statements of Metro Meats Ltd.

METRO MEATS LTD
Statement of financial position
as at 31 December 2015

	2015	2014
Assets		
Cash	$ 29 000	$ 15 000
Accounts receivable	28 000	14 000
Inventory	25 000	35 000
Property, plant and equipment	60 000	78 000
Accumulated depreciation	(20 000)	(24 000)
Total	$122 000	$118 000
Liabilities and equity		
Accounts payable	$ 26 000	$ 25 000
Dividends payable	3 000	—
Income tax payable	5 000	8 000
Debentures payable	27 000	33 000
Share capital	18 000	14 000
Retained earnings	43 000	38 000
Total	$122 000	$118 000

METRO MEATS LTD
Statement of profit or loss
for the year ended 31 December 2015

Sales	$250 000
Cost of sales	210 000
Gross profit	40 000
Selling expenses	18 000
Administrative expenses	6 000
Interest expense	2 000
Profit before income tax	14 000
Income tax expense	4 000
Profit	$ 10 000

The following additional data were provided:

1. The entity paid an interim dividend of $2000 and declared a final dividend.
2. During the year equipment was sold for $8500 cash. This equipment cost $18 000 originally and had a carrying amount of $8500 at the time of sale.
3. All depreciation expense is in the selling expense category.
4. All operating expenses except for depreciation were paid in cash.

Required

(a) Prepare a statement of cash flows using the direct method.
(b) Reconcile profit to cash provided by operating activities.
(c) Calculate these cash-basis measures:
   1. current cash debt coverage
   2. cash return on sales ratio
   3. cash debt coverage.
(d) Comment on the cash adequacy as indicated by the ratios calculated in part (c).

Prepare a statement of cash flows — direct and indirect methods. (LO3)

PSA11.5 The condensed financial data of Freshest Farmers Ltd follow.

FRESHEST FARMERS LTD
Statement of financial position
as at 31 March 2016

	2016	**2015**
Assets		
Cash	$147 000	$ 57 600
Accounts receivable	136 200	49 500
Inventories	168 750	154 275
Prepaid expenses	27 600	24 000
Investments	162 000	141 000
Plant and machinery	405 000	363 750
Accumulated depreciation	(75 000)	(78 000)
Total	$971 550	$712 125
Liabilities and equity		
Accounts payable	$138 000	$100 950
Accrued expenses payable	25 050	25 500
Debentures payable	127 500	150 000
Share capital	330 000	277 500
Retained earnings	351 000	158 175
Total	$971 550	$712 125

FRESHEST FARMERS LTD
Statement of profit or loss
for the year ended 31 March 2016

Sales		$513 000
Less:		
Cost of sales	$173 190	
Operating expenses, excluding depreciation	18 615	
Depreciation expense	69 750	
Income tax	10 500	
Interest expense	3 345	
Loss on sale of machinery	11 250	286 650
Profit		$226 350

Additional information:

1. New machinery costing $127 500 was purchased for cash during the year.
2. Old machinery having an original cost of $86 250 was sold for $2250 cash.

3. Debentures matured and were paid off at face value for cash.
4. A cash dividend of $33 525 was declared and paid during the year.
5. Accounts payable pertain to inventory creditors.

Required

(a) Prepare a statement of cash flows for Freshest Farmers Ltd, using the direct method for operating cash flows.
(b) Prepare a reconciliation of profit and cash from operations. (*Note:* This is also the indirect method of calculating the operating activities section of the statement of cash flows.)

Prepare the operating activities section — direct and indirect methods.
(LO3)

PSA11.6 The statement of profit or loss of Sticky Stationery Supplies Ltd is presented here.

STICKY STATIONERY SUPPLIES LTD
Statement of profit or loss
for the year ended 30 June 2015

Sales		$7 100 000
Cost of sales		
Beginning inventory	$1 700 000	
Purchases	5 430 000	
Goods available for sale	7 130 000	
Ending inventory	1 920 000	
Total cost of sales		5 210 000
Gross profit		1 890 000
Operating expenses		
Selling expenses	400 000	
Administrative expense	525 000	
Depreciation expense	75 000	
Amortisation expense	30 000	1 030 000
Profit		$ 860 000

Additional information:
1. Accounts receivable increased $510 000 during the year.
2. Prepaid expenses increased $170 000 during the year.
3. Accounts payable to inventory suppliers increased $50 000 during the year.
4. Accrued expenses payable decreased $180 000 during the year.

Required

(a) Prepare the operating activities section of the statement of cash flows for the year ended 30 June 2015, for Sticky Stationery Supplies Ltd, using the direct method.
(b) Prepare the operating activities section of the statement of cash flows for the year ended 30 June 2015 for Sticky Stationery Supplies Ltd, using the indirect method.

Prepare the operating activities section — direct and indirect methods.
(LO3)

PSA11.7 The statement of profit or loss of Yu's Shoes Ltd reported the following condensed information.

YU'S SHOES LTD
Statement of profit or loss
for the year ended 31 March 2015

Revenues	$1 160 000
Operating expenses	560 000
Profit from operations	600 000
Income tax expense	180 000
Profit	$ 420 000

Yu's Shoes statement of financial position contained the following comparative data at 31 March 2015.

	2015	2014
Accounts receivable	$100 000	$80 000
Accounts payable	60 000	82 000
Income tax payable	12 000	8 000

Yu's Shoes has no depreciable assets and no inventory. Accounts payable pertain to operating expenses.

Required

(a) Prepare the operating activities section of the statement of cash flows using the direct method.

(b) Prepare the operating activities section of the statement of cash flows, using the indirect method.

PSA11.8 Here are the financial statements of Mountain King Tours Ltd.

Prepare a statement of cash flows — direct and indirect methods — and calculate cash-based ratios. (LO3,5)

MOUNTAIN KING TOURS LTD
Statement of financial position
as at 31 December 2016

		2016		2015
Assets				
Cash		$ 30 000		$ 13 000
Accounts receivable		18 000		14 000
Inventory		34 000		35 000
Equipment	$ 70 000		$ 78 000	
Less: Accumulated depreciation	(30 000)	40 000	(24 000)	54 000
Total		$122 000		$116 000
Liabilities and equity				
Accounts payable		$ 29 000		33 000
Income tax payable		15 000		20 000
Debentures payable		15 000		10 000
Share capital		30 000		25 000
Retained earnings		33 000		28 000
Total		$122 000		$116 000

MOUNTAIN KING TOURS LTD
Statement of profit or loss
for the year ended 31 December 2016

Sales		$250 000
Cost of sales		180 000
Gross profit		70 000
Selling expenses	$28 000	
Administrative expenses	16 000	44 000
Interest expense		2 000
Profit before income tax		24 000
Income tax expense		7 000
Profit		$ 17 000

The following additional data were provided:

1. Dividends of $12 000 were declared and paid.
2. During the year equipment was sold for $10 000 cash. This equipment cost $15 000 originally and had a carrying amount of $10 000 at the time of sale.
3. All depreciation expense, $11 000, is in the selling expense category.
4. All sales and purchases are on account.
5. Additional accessories for the climbing equipment were purchased for $7000 cash. The accessories are reported as part of the asset, climbing equipment.
6. Accounts payable pertains to inventory creditors. Inventory comprises food and liquor sold on tours.
7. All operating expenses except depreciation are paid in cash.

Required

(a) Prepare a statement of cash flows using the direct method for operating cash flows.
(b) Prepare a reconciliation of profit and cash provided by operations.
(c) Calculate these cash-based measures:
   1. current cash debt coverage
   2. cash return on sales ratio
   3. cash debt coverage
   4. free cash flow.
(d) Discuss the cash adequacy as indicated by the ratios.

Prepare a statement of cash flows — direct and indirect methods. (LO3)

PSA11.9 Condensed financial data of Takahashi Electronics Pty Ltd follow.

TAKAHASHI ELECTRONICS PTY LTD
Statement of financial position
as at 30 June 2017

	2017	2016
Assets		
Cash	$ 47 500	$ 23 625
Accounts receivable	43 400	28 500
Inventory	60 950	51 325
Investments (long term)	42 300	43 500
Plant and equipment	125 000	102 500
Accumulated depreciation	(24 750)	(20 000)
Total	$294 400	$229 450
Liabilities and equity		
Accounts payable	$ 26 350	$ 24 140
Accrued expenses payable	6 050	9 415
Debentures payable	50 000	35 000
Share capital	125 000	100 000
Retained earnings	87 000	60 895
Total	$294 400	$229 450

TAKAHASHI ELECTRONICS PTY LTD
Statement of profit or loss
for the year ended 30 June 2017

Sales		$150 000
Gain on sale of equipment		4 375
Less:		154 375
Cost of sales	$49 730	
Operating expenses, excluding depreciation expense	7 335	
Depreciation expense	24 850	
Income tax	3 635	
Interest expense	2 720	88 270
Profit		$ 66 105

Additional information:
1. New equipment and machinery were purchased for cash during the year.
2. Investments were sold at cost.
3. Equipment costing $23 500 was sold for $7775, resulting in a gain of $4375.
4. A cash dividend of $40 000 was declared and paid during the year.
5. Accounts payable pertain to inventory creditors.

Required

(a) Prepare a statement of cash flows using the direct method.
(b) Prepare a reconciliation of profit to cash provided by operations.

Prepare a statement of cash flows, including asset revaluations, transfer to reserves, and purchase of assets by issuing debt, using the direct and indirect methods. (LO3)

PSA11.10 The statement of financial position and statement of profit or loss for DVDs and More Limited is presented as follows.

DVDS AND MORE LIMITED
Statement of financial position
as at 30 June 2016

	2016 $'000	2015 $'000
Assets		
Current assets		
Cash	165	80
Accounts receivable	190	210
Allowance for doubtful debts	(20)	(12)
Inventory	200	170
Prepaid rent	20	60
Total current assets	555	508
Non-current assets		
Land	420	360
Buildings	510	470
Accumulated depreciation—buildings	(230)	(210)
Equipment	250	280
Accumulated depreciation—equipment	(110)	(90)
Patents	30	40
Total non-current assets	870	850
Total assets	$1 385	$1 318
Liabilities and equity		
Current liabilities		
Accounts payable	170	190
Accrued expenses	80	75
Income tax payable	92	45
Final dividend payable	50	40
Total current liabilities	392	350
Non-current liabilities		
Borrowings	310	410
Total liabilities	702	760
Equity		
Share capital	400	350
Revaluation surplus	108	48
General reserve	45	35
Retained earnings	130	125
Total equity	683	558
Total liabilities and equity	$1 385	$1 318

DVDS AND MORE LIMITED Statement of profit or loss for the year ended 30 June 2016		
	$'000	$'000
Sales revenue		620
Profit on sale of land		20
		640
Less expenses		
Cost of sales	$240	
Rent expense	40	
Bad debts expense	12	
Depreciation and amortisation	90	
Other expenses	28	
Loss on sale of office equipment	20	430
Profit before income tax		210
Income tax expense		
Current year	92	
Under-provision from previous year	18	110
Profit for the period		$100

Additional information (dollar amounts expressed in full units):

1. Equipment with an original cost of $90 000 and accumulated depreciation of $40 000 was sold.
2. Land with a cost of $80 000 was sold for $100 000. The remaining land was revalued upwards by $60 000.
3. Equipment to the value of $20 000 and buildings to the value of $40 000 were acquired with the issue of a long-term note. The amount payable has been included in borrowings on the statement of financial position.

Required

(a) Prepare a statement of cash flows, using the direct method.
(b) Reconcile profit to cash provided by operating activities.
(*Hint:* This statement of cash flows is more complex, so you will need to reconstruct all the statement of financial position accounts to solve it.)

PROBLEM SET B

Prepare the investing activities section of the statement of cash flows.
(LO3)

PSB11.1 The following selected account balances relate to the plant asset accounts of Wholesale Foods Ltd at year-end.

	2015	2014
Accumulated depreciation—buildings	$337 500	$300 000
Accumulated depreciation—equipment	144 000	96 000
Buildings	750 000	750 000
Depreciation expense	101 500	85 500
Equipment	300 000	240 000
Land	100 000	70 000
Loss on sale of equipment	1 000	0

Additional information:

1. Wholesale Foods Ltd purchased $80 000 of equipment and $30 000 of land for cash in 2015.
2. Wholesale Foods Ltd also sold equipment in 2015.

Required

Determine the amounts of any investing cash inflows or outflows in 2015.

PSB11.2 The statement of profit or loss of Okamoto Motors Ltd is presented here.

Prepare the operating activities section — direct and indirect method. (LO3)

OKAMOTO MOTORS LTD **Statement of profit or loss** **for the year ended 31 December 2015**		
Sales		$1 350 000
Cost of sales		
Beginning inventory	$ 445 000	
Purchases	857 500	
Goods available for sale	1 302 500	
Ending inventory	480 000	
Total cost of sales		822 500
Gross profit		527 500
Operating expenses		
Selling expenses	100 000	
Administrative expense	131 250	
Depreciation expense	31 250	
Amortisation expense	5 000	267 500
Profit		$ 260 000

Additional information:

1. Accounts receivable decreased $127 500 during the year.
2. Prepaid expenses increased $42 500 during the year.
3. Accounts payable to merchandise suppliers increased $12 500 during the year.
4. Accrued expenses payable increased $41 250 during the year.

Required

(a) Prepare the operating activities section of the statement of cash flows for the year ended 31 December 2015 using the direct method.

(b) Prepare the operating activities section of the statement of cash flows for the year ended 31 December 2015, using the indirect method.

PSB11.3 The statement of profit or loss of Nguyen and Tran Ltd reported the following condensed information.

Prepare the operating activities section — direct and indirect method. (LO3)

NGUYEN AND TRAN LTD **Statement of profit or loss** **for the year ended 31 March 2017**	
Revenues	$430 000
Operating expenses	280 000
Income from operations before income tax	150 000
Income tax expense	47 000
Profit	$103 000

Nguyen and Tran's statement of financial position contained the following comparative data at 31 March.

	2017	**2016**
Accounts receivable	$50 000	$40 000
Accounts payable	30 000	41 000
Income taxes payable	6 000	4 000

Nguyen and Tran Ltd has no depreciable assets and no inventory. Accounts payable pertain to operating expenses.

Required

(a) Prepare the operating activities section of the statement of cash flows using the direct method.

(b) Prepare the operating activities section of the statement of cash flows using the indirect method.

(c) There are two methods of presenting cash provided (used) by operating activities: the direct method and the indirect method. Discuss the differences between the two methods.

Prepare a statement of cash flows and calculate cash-based ratios.
(LO3,5)

PSB11.4 Here are the financial statements of Kiwi Ltd.

KIWI LTD
Statement of financial position
as at 31 December 2015

		2015		2014
Assets				
Cash		$ 33 800		$ 42 900
Accounts receivable		36 400		18 200
Inventory		49 400		32 500
Property, plant, and equipment	$ 91 000		$101 400	
Less: Accumulated depreciation	(35 100)	55 900	(31 200)	70 200
Total		$175 500		$163 800
Liabilities and equity				
Accounts payable		$ 40 300		$ 55 900
Income tax payable		33 800		26 000
Bonds payable		26 000		13 000
Contributed equity		32 500		32 500
Retained earnings		42 900		36 400
Total		$175 500		$163 800

KIWI LTD
Statement of profit or loss
for the year ended 31 December 2015

Sales		$371 800
Cost of sales		252 200
Gross profit		119 600
Selling expenses	$36 400	
Administrative expenses	11 700	
Interest expense	9 100	57 200
Profit before income taxes		62 400
Income tax expenses		9 100
Profit		$ 53 300

Additional information:

1. Dividends were declared and paid.
2. During the year equipment was sold for $13 000 cash. This equipment cost $19 500 originally and had a book value of $13 000 at the time of sale.
3. All depreciation expense, $10 400, is in the selling expense category.
4. All sales and purchases are on account.

5. Additional equipment was purchased for cash.
6. Accounts payable pertains to merchandise creditors.
7. All operating expenses except for depreciation are paid in cash.

Required

(a) Prepare a statement of cash flows using the direct method.
(b) Prepare a reconciliation between profit and cash provided by operating activities. (*Note:* This is also the indirect method of calculating operating activity cash flows.)
(c) Calculate these cash-based measures:
  1. current cash debt coverage
  2. cash debt coverage
  3. free cash flow.
(d) Discuss the cash adequacy as indicated by the ratios.

PSB11.5 Condensed financial data of Aleksia Ltd follows.

Prepare a statement of cash flows — direct and indirect. (LO3)

ALEKSIA LTD
Statement of financial position
as at 31 December 2016

	2016	2015
Assets		
Cash	$ 92 700	$ 33 400
Accounts receivable	80 800	37 000
Inventory	121 900	102 650
Investments (long term)	84 500	107 000
Plant and equipment	310 000	205 000
Accumulated depreciation	(49 500)	(40 000)
Total	$640 400	$445 050
Liabilities and equity		
Accounts payable	$ 62 700	$ 48 280
Accrued expenses payable	12 100	18 830
Bonds payable	140 000	70 000
Contributed equity	250 000	200 000
Retained earnings	175 600	107 940
Total	$640 400	$445 050

ALEKSIA LTD
Statement of profit or loss
for the year ended 31 December 2016

Sales		$297 500
Gain on sale of plant assets		5 000
Less:		302 500
Cost of sales	$99 460	
Operating expenses, excluding depreciation expense	14 670	
Depreciation expense	35 500	
Income taxes	7 270	
Interest expense	2 940	159 840
Profit		$142 660

Additional information:
1. Plant and equipment costing $141 000 were purchased for cash during the year.
2. Investments were sold at cost.
3. Plant and equipment costing $36 000 were sold for $15 000.
4. A cash dividend was declared and paid during the year.

Required

(a) Prepare a statement of cash flows using the direct method.

(b) Prepare a reconciliation of profit to cash provided by operations. (*Note:* This is also the indirect method of calculating operating activity cash flows.)

Distinguish among operating, investing, and financing activities. (LO2)

PSB11.6 You are provided with the following transactions that took place during a recent fiscal year.

Transaction	Where reported on statement	Cash inflow, outflow, or no effect?
(a) Recorded depreciation expense on the plant assets.		
(b) Recorded and paid interest expense.		
(c) Recorded cash proceeds from a sale of equipment.		
(d) Acquired land by issuing shares.		
(e) Paid a cash dividend to shareholders.		
(f) Distributed a share dividend to shareholders.		
(g) Recorded cash sales.		
(h) Recorded sales on account.		
(i) Purchased inventory for cash.		
(j) Purchased inventory on account.		

Required

Complete the table indicating whether each item (1) should be reported as an operating (O) activity, investing (I) activity, financing (F) activity, or as a non-cash (NC) transaction reported in a separate schedule; and (2) represents a cash inflow or cash outflow or has no cash flow effect. Assume use of the direct approach.

Prepare the operating activities section — direct and indirect. (LO3)

PSB11.7 The statement of profit or loss of Bear's Chairs Ltd is presented here.

BEAR'S CHAIRS LTD
Statement of profit or loss
for the year ended 30 November 2015

Sales		$7 700 000
Cost of sales		
Beginning inventory	$1 900 000	
Purchases	4 400 000	
Goods available for sale	6 300 000	
Ending inventory	1 400 000	
Total cost of sales		4 900 000
Gross profit		2 800 000
Operating expenses		
Selling expenses	450 000	
Administrative expenses	700 000	1 150 000
Profit		$1 650 000

Additional information:

1. Accounts receivable increased $200 000 during the year.
2. Prepaid expenses increased $150 000 during the year.
3. Accounts payable to suppliers of inventory decreased $340 000 during the year.
4. Accrued expenses payable decreased $100 000 during the year.
5. Administrative expenses include depreciation expense of $110 000.

Required

(a) Prepare the operating activities section of the statement of cash flows for the year ended 30 November 2015 for Bear's Chairs Ltd using the direct method.

(b) Prepare the operating activities section of the statement of cash flows for the year ended 30 November 2015 for Bear's Chairs Ltd, using the indirect method.

PSB11.8 Here are the financial statements of XYZ Children's Centre Ltd.

Prepare a statement of cash flows, using direct and indirect methods, and calculate cash-based ratios. (LO3,5)

XYZ CHILDREN'S CENTRE LTD
Statement of financial position
as at 31 December 2016

		2016		**2015**
Assets				
Cash		$ 72 000		$ 31 200
Accounts receivable		43 200		33 600
Inventory		81 600		84 000
Plant	$168 000		$187 200	
Less: Accumulated depreciation	(72 000)	96 000	(57 600)	129 600
Total assets		$292 800		$278 400
Liabilities and equity				
Accounts payable		$ 69 600		$ 79 200
Income tax payable		36 000		48 000
Debentures payable		36 000		24 000
Share capital		72 000		60 000
Retained earnings		79 200		67 200
Total liabilities and equity		$292 800		$278 400

XYZ CHILDREN'S CENTRE LTD
Statement of profit or loss
for the year ended 30 June 2016

Sales		$600 000
Cost of sales		432 000
Gross profit		168 000
Selling expenses	$60 000	
Administrative expenses	45 600	
Interest expense	4 800	110 400
Profit before income tax		57 600
Income tax expense		16 800
Profit for the period		$ 40 800

The following additional data were provided:

1. Dividends of $28 800 were declared and paid.
2. During the year furniture was sold for $24 000 cash. This furniture originally cost $36 000 and had an accumulated depreciation of $12 000 at the time of sale.
3. All the depreciation expense, $26 400, is in the selling expense category.
4. All sales and purchases are on account.
5. Additional equipment was purchased for $16 800 cash.
6. Accounts payable pertains to inventory creditors. Inventory comprises food and drinks for staff and children.
7. All operating expenses except depreciation are paid in cash.

Required

(a) Prepare a statement of cash flows using the direct method for operating cash flows.
(b) Prepare a reconciliation of profit and cash provided by operations.
(c) Calculate these cash-based measures:
  1. Current cash debt coverage.
  2. Cash return on sales ratio.
  3. Cash debt coverage.
  4. Free cash flow.
(d) Discuss the cash adequacy of XYZ Children's Centre Ltd, as revealed by the ratios calculated in part (c).

Prepare a statement of cash flows, using direct and indirect methods.
(LO3)

PSB11.9 Below is information relating to ABC Manufacturing Pty Ltd for the year ended 30 June 2015.

ABC MANUFACTURING PTY LTD
Comparative statement of financial position
as at 30 June 2015

	2015	2014
Assets		
Cash	$ 96 700	$ 47 250
Accounts receivable	86 800	57 000
Inventory	121 900	102 650
Investments	84 500	87 000
Plant and equipment	250 000	205 000
Accumulated depreciation	(49 500)	(40 000)
Total	$590 400	$458 900
Liabilities and equity		
Accounts payable	$ 52 700	$ 48 280
Accrued expenses payable	12 100	18 830
Debentures payable	100 000	70 000
Share capital	250 000	200 000
Retained profits	175 600	121 790
Total	$590 400	$458 900

ABC MANUFACTURING PTY LTD
Statement of profit or loss
for the year ended 30 June 2015

Sales		$297 500
Gain on sale of equipment		8 750
Less:		$306 250
Cost of sales	$99 460	
Operating expenses, excluding depreciation expense	14 670	
Depreciation expense	49 700	
Interest expense	2 940	
Income tax	7 270	174 040
Profit		$132 210

Additional information:

1. New equipment and machinery costing $92 000 were purchased for cash during the year.
2. Investments were sold at cost.
3. Equipment costing $47 000 was sold for $15 550, resulting in a gain of $8750.
4. A cash dividend of $78 400 was declared and paid during the year.
5. Accounts payable pertain to inventory creditors.

Required
(a) Prepare a statement of cash flows using the direct method.
(b) Prepare a statement of cash flows using the indirect method.

PSB11.10 Below is the information relating to Simic and Nikolic Ltd for the year ended 30 June 2016.

Prepare a statement of cash flows, including asset revaluations, bonus share issue and transfer to reserves, using direct and indirect methods. (LO3)

SIMIC AND NIKOLIC LTD
Statement of financial position
as at 30 June 2016

	2016 $'000	**2015 $'000**
Assets		
Current assets		
Cash	3 150	1 220
Accounts receivable	1 240	1 100
Allowance for doubtful debts	(60)	(50)
Inventory	1 520	1 300
Prepaid insurance	60	40
Total current assets	5 910	3 610
Non-current assets		
Land	1 630	1 900
Buildings	2 100	1 670
Accumulated depreciation—buildings	(540)	(500)
Plant and equipment	1 454	1 258
Accumulated depreciation—plant and equipment	(440)	(610)
Office equipment	430	380
Accumulated depreciation—office equipment	(270)	(190)
Patents	260	280
Total non-current assets	4 624	4 188
Total assets	$10 534	$7 798
Liabilities and equity		
Current liabilities		
Accounts payable	750	500
Accrued expenses	260	280
Interest payable	100	80
Income tax payable	1 100	1 120
Final dividend payable	600	500
Total current liabilities	2 810	2 480
Non-current liabilities		
Borrowings	3 000	2 200
Total liabilities	5 810	4 680
Equity		
Share capital		
Revaluation surplus	1 400	1 000
General reserve	260	300
Retained earnings	300	200
	2 764	1 618
Total equity	4 724	3 118
Total liabilities and equity	$10 534	$7 798

SIMIC AND NIKOLIC LTD Statement of profit or loss for the year ended 30 June 2016		
	$'000	**$'000**
Sales revenue		14 126
Gain from sale of land		210
Gain on sale of equipment		230
		14 566
Less expenses		
Cost of sales	8 876	
Bad debts expense	28	
Depreciation	250	
Insurance expense	140	
Interest expense	180	
Amortisation patents	20	
Other expenses	1 796	11 290
Profit before income tax		3 276
Income tax expense		
Current year	1 100	
Under-provision from previous year	80	1 180
Profit for the period		$ 2 096

Additional information (dollar amounts expressed in full units):

1. Equipment with an original cost of $500 000 was sold during the year.
2. Land with an original value of $600 000 was revalued upwards by $160 000 during the year.
3. A bonus share dividend of $200 000 was paid from the revaluation surplus.
4. An interim dividend was paid during the year.

Required

(a) Prepare a statement of cash flows, using the direct method.
(b) Reconcile profit to cash provided by operating activities.
(*Hint:* This statement of cash flows is more complex, so you will need to reconstruct all the statement of financial position accounts to solve it.)

BUILDING BUSINESS SKILLS

FINANCIAL REPORTING AND ANALYSIS

FINANCIAL REPORTING PROBLEM: *Domino's Pizza Enterprises Ltd*

BBS11.1 Refer to the financial statements of Domino's presented in the appendix at the back of this book.

Required

Answer these questions:

(a) What was the amount of net cash provided by operating activities for the year ended 1 July 2013? for the year ended 2 July 2012? Are Domino's cash flows consistent with the introductory growth, maturity or decline phase?

(b) What was the amount of increase or decrease in cash for the year ended 2 July 2012 and for the year ended 1 July 2013?

(c) From your analysis of the 2013 cash flow statement, what was the amount of the change in borrowings and was it a decrease or an increase?

(d) What was the total (net) cash used for investing activities for 2013?

(e) What was the amount of interest paid in 2013? What was the amount of income tax paid in 2013?

COMPARATIVE ANALYSIS PROBLEM: *Company A vs. Company B*

BBS11.2 The following data have been extracted from the financial statements of two competitors in the retail industry:

Company A

	2017 $'000	2016 $'000
Sales revenue	505 754	461 205
Net cash provided by operations	113 393	101 126
Current liabilities	112 907	130 769
Total liabilities	124 497	149 139

Company B

	2017 $'000	2016 $'000
Sales revenue	744 285	693 007
Net cash provided by operations	131 615	71 926
Current liabilities	188 896	162 582
Total liabilities	387 638	334 298

Required

(a) Based on the information in these financial statements, calculate the following ratios for each entity for 2017:

1. Current cash debt coverage.
2. Cash return on sales ratio.
3. Cash debt coverage.

(b) What conclusions concerning the management of cash can be drawn from these data?

INTERPRETING FINANCIAL STATEMENTS

BBS11.3 The following information was taken from the financial statements of Peter's of Buckingham Ltd (in millions), reported on its web site:

	2018	2017	2016	2015
Total liabilities	$19 632	$20 177	$24 113	$23 751
Current liabilities	7 576	5 834	8 230	9 279
Net cash provided (used) by operations	7 433	7 057	7 098	
Net cash provided (used) by investing	(3 270)	(2 492)	(3 258)	
Net cash provided (used) by financing	(4 776)	(4 317)	(3 817)	
Sales revenue	20 737	20 495	20 196	
Capital expenditure	(3 683)	(3 332)	(3 662)	

Required

Discuss the change in Peter's solvency, liquidity and ability to generate cash from operations to finance capital expenditure. Use the capital expenditure ratio, free cash flow, current cash debt coverage, cash debt coverage and the cash return on sales ratio to support your position.

RESEARCH CASE

BBS11.4 Obtain the latest annual report of a public company. Some companies provide them on their web sites. Company web sites are referenced throughout this book, in particular in the opening stories to most chapters. Refer to BBS11.5 if you have difficulty finding an annual report.

Required

Answer these questions:

(a) Explain the differences between profit after tax and net cash provided by operating activities.

(b) How has the company financed the acquisition of non-current assets, if applicable?

(c) Calculate the cash debt coverage for the current year.

(d) Calculate the cash return on sales for the current year and the previous year. Discuss the trend, stating whether it indicates improvement in cash generating ability. Explain the key factors driving any identified change in the cash return on sales.

FINANCIAL ANALYSIS ON THE WEB

BBS11.5 ***Purpose:*** Locating a statement of cash flows in an annual report.

Address: www.asx.com.au or www.nzx.com

Steps:

1. On the Australian Securities Exchange home page, you will notice a series of tabs on the menu bar of the screen. Place your cursor on the **Prices and research** tab, you will get a drop down menu. Then click on **Company information**, and then find the heading **Listed companies directory**.
2. You are now at the index for listed companies. Choose a letter and select a particular company (don't just choose the first company**,** find one that interests you) by clicking on the ASX code.
3. From this page browse down to the internet address and click on the address which will take you to the company's web site.
4. From the web site, search around and find the latest annual report.

OR

For the New Zealand Stock Exchange:

1. Go to the home page and click on the top menu.
2. Click on **Markets**. This will take you to a drop down menu. Click on **NZSX Main Board**. This will open up a side menu. Click on **All Securities**. You are now at the index for listed entities.

3. Scroll down the names and click the code for a company. This will take you to their page. Click on the link of the company's name (after issued by) and under contact info it will provide the company's web site address.

Required

Answer the following questions:

(a) What company did you select?

(b) Did it provide financial statements on its web site? If so, how easy or difficult was it to locate the latest annual report? If not, choose another company web site that does.

(c) Determine how much cash the company generated from/used in operating activities by referring to the statement of cash flows.

CRITICAL THINKING

COMMUNICATION ACTIVITY

BBS11.6 Peter Sole, the owner-manager of Cool Shooz Pty Ltd, is unfamiliar with the statement of cash flows that you, as his accountant, prepared. He asks for further explanation.

Required

Write a brief presentation explaining the form and content of the statement of cash flows as shown in figure 11.2 (p. 647).

BBS11.7 Have you heard of the 'The B Team'? The B team is a Richard Branson initiative he initiated to explore how people in business can develop a better version of capitalism that considers how people are treated and how businesses impact the cultures they are based in, economically, socially and environmentally.

Required

Go to http://bteam.org and find a B Team Project that interests you.

Answering the questions below, prepare summary notes that would allow you to give a five minute in-class presentation on the project to your peers. You may like to prepare two to three PowerPoint slides to focus your talk.

1. What is the project about? Provide some background to *the problem* this project is aiming to address.
2. What are businesses being asked to *do differently* based on the objectives of this project?
3. What are social and environmental impacts — the intended benefits of this project? Have any been achieved?

ETHICS CASE

BBS11.8 Big Rubber Ltd is a wholesaler of truck tyres. It has shareholders who have been paid a total of $1 million in cash dividends for 8 consecutive years. The board of directors' policy requires that in order for this dividend to be declared, net cash provided by operating activities as reported in Big Rubber Ltd's statement of cash flows must exceed $1 million. The managing director's job is secure so long as she produces annual operating cash flows to support the usual dividend.

At the end of the current year, the accountant reports some disappointing news. The net cash provided by operating activities is calculated as only $970 000. The managing director says, 'We must get that amount above $1 million. Isn't there some way to increase operating cash flow by another $30 000?' The accountant replies, 'I'll go back to my office and see what I can do.' The managing director replies, 'I know you won't let me down.'

On close scrutiny of the statement of cash flows, the accountant concludes that he can get the operating cash flows above $1 million by reclassifying a $60 000, 2-year note payable listed in the financing activities section as 'Proceeds from bank loan — $60 000'.

He will add the 2-year note to accounts payable, thus reducing the net payment of accounts payable. He returns to the managing director, saying, 'You can tell the board to declare their usual dividend. Our net cash flow provided by operating activities is \$1 030 000.' 'I knew I could count on you,' exults the managing director.

Required

(a) Is there anything unethical about the managing director's actions? Is there anything unethical about the accountant's actions?
(b) Are the board members or anyone else likely to discover the misclassification?
(c) Explain how the key stakeholders in this situation could be positively or negatively impacted by the note reclassification.
(d) What ethical actions could the accountant take? Explain the implications of these actions.

SUSTAINABILITY

BBS11.9 Minimising the negative impact of business operations on the environment is a key concern of government. Environmental laws are put into place to achieve this aim. In a recent 10-K annual report of Apple Inc., the future impact of environmental laws on the company's capital expenditures, earnings, or competitive position were discussed.

> **Environmental Laws**
> Compliance with federal, state, local and foreign laws enacted for the protection of the environment has to date had no significant effect on the Company's capital expenditures, earnings, or competitive position. In the future, compliance with environmental laws could materially adversely affect the Company.
>
> Production and marketing of products in certain states and countries may subject the Company to environmental and other regulations including, in some instances, the requirement to provide customers the ability to return product at the end of its useful life, and place responsibility for environmentally safe disposal or recycling with the Company. Such laws and regulations have been passed in several jurisdictions in which the Company operates including various countries within Europe and Asia and certain states and provinces within North America. Although the Company does not anticipate any material adverse effects in the future based on the nature of its operations and the thrust of such laws, there is no assurance that such existing laws or future laws will not materially adversely affect the Company's financial condition or operating results.

Required

(a) Prepare a report for the management of Apple Inc. explaining:
   1. the nature of the environmental laws that have come into effect in some countries Apple Inc. operates in. (*Hint:* Search 'Waste Electrical and Electronic Equipment Directive (WEEE Directive)' on the internet.)
   2. how compliance with these environmental laws could materially adversely affect the company.

(b) Download the 2013 annual report for Telstra Corporation Ltd and discuss the measures they have taken to recycle ewaste. (*Hint:* see the environmental impact section under sustainability.)

Answers to self-study questions

1. c 2. c 3. a 4. c 5. d 6. b 7. c 8. d 9. d 10. b
11. a 12. b 13. a 14. d 15. b

CHAPTER 12

FINANCIAL STATEMENT ANALYSIS AND DECISION MAKING

LEARNING OBJECTIVES

After studying this chapter, you should be able to:

1. Discuss the need for comparative analysis and identify the tools of financial statement analysis.
2. Explain and apply horizontal analysis.
3. Explain and apply vertical analysis.
4. Identify and calculate ratios and describe their purpose and use in analysing the liquidity, solvency and profitability of a business.
5. Discuss the limitations of financial statement analysis.

SHOPPING AROUND

Woolworths or Coles? Where do you do your weekly shop? Chances are it's either a Woolworths or a Coles supermarket, which combined dominate the supermarket retail sector. For this reason, this chapter will focus on Woolworths Ltd and Wesfarmers Ltd, which own and operate Woolworths and Coles supermarkets respectively. Have you noticed that when you get junk mail there's almost always one brochure for each? To endorse their fresh food products, each have their own celebrity chef — Woolworths has Jamie Oliver and Coles has Curtis Stone. To compete in the home improvement area, Woolworths has Masters and Wesfarmers has Bunnings. To encourage additional spending, both entities have customer loyalty programs and offer discounted petrol if you spend over a specified limit each time. Woolworths and Coles also feature their television commercials during prime-time, high-rating cooking shows such as MasterChef and My Kitchen Rules. These are examples of profit-making strategies to enhance their brand in order to increase sales of their broadening range of products and services. The effectiveness of these strategies can be seen in the continual growth in Woolworths' profit after tax of $1860 million in 2009 to $2264.6 million in 2013. Additional store openings and increased employment opportunities occurred during this period. The share price rose from $26.10 in 2009 to $32.81 in 2013.

So why is it important to understand some of these financial details and how may this be relevant in the decision-making process? Woolworths' management would use this information to assess its overall effectiveness in managing its operations over the period. Both Woolworths Ltd and Wesfarmers Ltd are public companies that are listed on the Australian Securities Exchange. For an existing or potential shareholder, it would be relevant to know about financial performance as positive results build shareholder confidence. This often has an impact on dividends paid and the entity's share price. Apart from management and shareholders, who else would be interested in this information? As a student, this information may be of interest in assessing Woolworths as a potential employer. Will these increasing profits provide future employment, job security and prospects for career advancement? Think about your favourite aisle at the supermarket. What are the brands that you like to buy — Cadbury's, Coca-Cola, Pepsi? As a supplier of these products to Woolworths, you would be interested in its ability and timeliness to pay for these purchases on credit. In 2013, Woolworths opened 34 supermarkets in Australia, 6 BIG W stores, 16 Masters, 16 Dan Murphy's and 14 BWS stores. To finance this expansion, Woolworths may have required additional debt finance. As a lender you would be interested in the extent of debt currently used to evaluate the level of risk involved.

Some additional background information about these entities is provided below and opposite.

Woolworths has more than 3000 stores across Australia and New Zealand which span across a diversity of operations including food, liquor, petrol, general merchandise, home improvement and hotels. Woolworths is an Australian business with more than 198 000 employees and approximately 426 000 shareholders. From its origins in 1914 as a Western Australian farmers' cooperative, Wesfarmers is one of Australia's largest listed companies and employers with over 200 000 employees and

approximately 500 000 shareholders. Its diverse business operations cover supermarkets, department stores, home improvement, office supplies, coal mining, chemicals, energy, fertilisers as well as industrial and safety products.

Our analysis of Woolworths and Wesfarmers will be conducted by examining their 2013 data throughout this chapter. Management, customers, shareholders, lenders, financial advisers and potential investors can use financial statement analysis to compare the performance of each entity against its own targets, its prior period performance and the performance of its competitors. In this chapter we explore the benefits and limitations of financial statement analysis for decision making. This chapter draws on and consolidates the decision-making tools introduced in earlier chapters to develop your understanding of, and skills in, financial statement analysis.

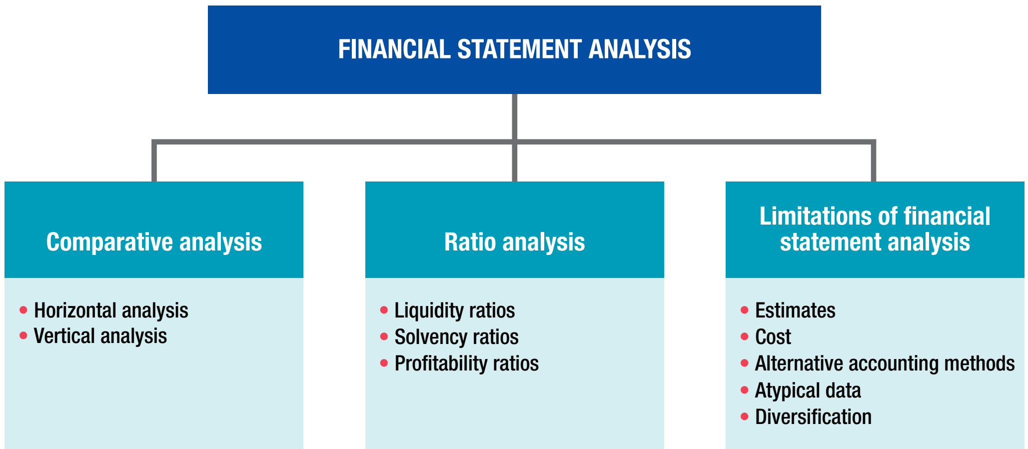
Sources: Based on information in Woolworths Ltd and Wesfarmers Ltd's 2013 annual reports and web sites.

On the World Wide Web
Woolworths Ltd and Wesfarmers Ltd:
www.woolworthslimited.com.au and
www.wesfarmers.com.au

PREVIEW OF CHAPTER 12

If you are thinking of granting a loan to a company or purchasing some of its shares, how can you assess that company's creditworthiness and profitability? How can you compare the financial position and profitability of different entities? How does the profitability of Woolworths compare with other entities in the retail industry? To answer these types of questions, it is helpful to understand how to analyse financial statement information.

Financial statement analysis, the topic of this chapter, enhances the usefulness of published financial statements for making decisions about a company or another entity. The content and organisation of this chapter are shown below.



LEARNING OBJECTIVE 1

Discuss the need for comparative analysis and identify the tools of financial statement analysis.

COMPARATIVE ANALYSIS

The statement of profit or loss shows the dollar amounts for various types of income and expense to determine whether the entity made a profit or loss. Similarly, the statement of financial position reports aggregate dollar amounts for various categories of assets, liabilities and equity at a point in time. For example, in its 2013 annual report, Woolworths Ltd reported a profit after tax of $2264.6 million and total assets of $22 250.2 million. But whether that represents an increase over previous years, or whether it is adequate in relation to the entity's needs, cannot be determined from the amount alone. The amount must be compared with other financial data to provide more information.

Three types of comparisons increase the decision usefulness of financial information.

- *Intra-entity basis.* Comparisons within an entity are often useful to detect changes in financial relationships and significant trends. For example, a comparison of the current year's cash amount with the previous year's cash amount shows either an increase or a decrease. Likewise, a comparison of the year-end cash amount with the amount of the entity's total assets at year-end shows the proportion of total assets in the form of cash.
- *Industry averages.* Comparisons with industry averages provide information about an entity's relative position within the industry. For example, Woolworths' financial data can be compared with the averages for its industry compiled by financial ratings organisations such as Dun & Bradstreet and Moody's.
- *Inter-entity basis.* Comparisons with other entities provide insight into an entity's competitive position. For example, Woolworths' profit can be compared with the profit of its competitors in the retail industry, such as Wesfarmers or Aldi.

Three basic tools are used in financial statement analysis to highlight the significance of financial statement data:

- horizontal analysis
- vertical analysis
- ratio analysis.

HORIZONTAL ANALYSIS

LEARNING OBJECTIVE 2

Explain and apply horizontal analysis.

Horizontal analysis is a technique for evaluating a series of financial statement data over a period of time. Its purpose is to determine the increase or decrease that has taken place, expressed as either an amount or a percentage. For example, here are 5 years of total group sales figures (in $ millions) of Woolworths Ltd.

2013	2012	2011	2010	2009
$58 516.4	$54 777.1	$54 142.9	$51 694.3	$49 594.8

If we assume that 2009 is the base year, we can measure all percentage increases or decreases from this base-period amount with the formula shown in figure 12.1.

$$\text{Change since base period} = \frac{\text{Current-year amount} - \text{Base-year amount}}{\text{Base-year amount}}$$

Figure 12.1 Horizontal analysis calculation of changes since base period

The percentage change for each of the 5 years using 2009 as the base period is shown in figure 12.2. By applying horizontal analysis, we can determine that the total group sales for Woolworths increased by approximately 4% [($51 694.3 − $49 594.8)/$49 594.8] from 2009 to 2010. Similarly, we can also determine that the total group sales increased by around 18% [($58 516.4 − $49 594.8)/$49 594.8] from 2009 to 2013.

WOOLWORTHS LIMITED
Total group sales (in $m)
Base period 2009

2013	2012	2011	2010	2009
$58 516.4	$54 777.1	$54 142.9	$51 694.3	$49 594.8
118%	110%	109%	104%	100%

Figure 12.2 Horizontal analysis of total group sales

Total group sales increased by $3739.3 million from 2012 to 2013, which represented a 7% improvement from the previous year. This significant growth in sales is mainly attributed to a combination of two key factors. In 2013, Woolworths opened 34 supermarkets in Australia, 6 BIG W stores, 16 Masters, 16 Dan Murphy's and 14 BWS stores. Its food and liquor business also continued to increase market share, customer numbers and basket size. This additional information was provided in the Woolworths Ltd's 2013 annual report.

To further illustrate horizontal analysis, we use the 2013 comparative financial statements of Woolworths. Extracts from the statement of financial position and the statement of profit or loss are illustrated in figures 12.3 (overleaf) and 12.4 (p. 725), respectively. Both the dollar change and percentage change in each line item from 2012 to 2013 are shown. For simplification, some line items have been combined.

Helpful hint

It is difficult to comprehend the significance of a change when only the dollar amount of the change is examined. When the change is expressed in a percentage format, it is easier to understand the relative magnitude of the change.

The horizontal analysis of the statement of financial position shows that a number of changes occurred in Woolworths' financial position from 2012 to 2013. As part of the analysis, we can examine individual items in each category of the statement of financial position as well as totals for each major category. For example, we can examine individual items such as receivables in the current assets section, where receivables increased by $98 700 000 or 11.3% ($98 700 000/$869 000 000). In the non-current assets section, we can examine property, plant and equipment which decreased by $342 000 000 or 3.6% ($342 000 000/$9 589 000 000). We can also examine totals for each major category. For example, in 2013 Woolworths' total assets increased by $669 100 000 or 3.1% ($669 100 000/$21 581 100 000). There was an overall increase across both current and non-current assets with the exception of other assets, non-current receivables and deferred tax assets.

Horizontal analysis can provide insights into underlying conditions for entities that may not be apparent from the individual components presented in financial statements. Horizontal analysis is even more meaningful if it is supplemented with further information such as inter-company comparisons with a competitor in the same industry as well as

Alternative terminology

The statement of financial position is also called the *balance sheet.*

other relevant information such as general economic conditions, industry trends or averages, information from directors' reports and media releases. For example, it was reported in the managing director's report in Woolworths Ltd's 2013 annual report that while the entity opened 86 new stores, there was a considerable decrease in the value of property, plant and equipment due to the sale of property which included the disposal of Dick Smith Electronics.

Alternative terminology

Some entities refer to *retained earnings* as *retained profits.*

WOOLWORTHS LIMITED
Statement of financial position (and analysis)
as at 30 June 2013

	2013	2012	Increase/(decrease) during 2013	
	$m	$m	Amount $	%
Current assets				
Cash assets	849.2	833.4	15.8	1.9%
Receivables	968.6	869.9	98.7	11.3%
Inventories	4 205.4	3 698.3	507.1	13.7%
Other financial assets	54.2	23.8	30.4	127.7%
Other assets	148.7	376.7	(228.0)	(60.5%)
Total current assets	6 226.1	5 802.1	424.0	7.3%
Non-current assets				
Receivables	16.6	24.5	(7.9)	(32.2%)
Other financial assets	358.7	238.8	119.9	50.2%
Property, plant and equipment	9 246.1	9 589.0	(342.9)	(3.6%)
Intangible assets	5 784.3	5 282.0	502.3	9.5%
Deferred tax assets	618.4	644.7	(26.3)	(4.1%)
Total non-current assets	16 024.1	15 779.0	245.1	1.6%
Total assets	22 250.2	21 581.1	669.1	3.1%
Current liabilities				
Payables	5 390.3	5 242.2	148.1	2.8%
Borrowings	169.4	54.4	115.0	211.4%
Current tax liabilities	193.2	221.5	(28.3)	(12.8%)
Other financial liabilities	145.9	107.4	38.5	35.8%
Provisions	967.2	939.8	27.4	2.9%
Other	—	200.9	(200.9)	—
Total current liabilities	6 866.0	6 766.2	99.8	1.5%
Non-current liabilities				
Borrowings	4 282.5	4 695.3	(412.8)	(8.8%)
Other financial liabilities	992.6	887.2	105.4	11.9%
Provisions	549.2	527.3	21.9	4.2%
Other	259.4	258.8	0.6	0.2%
Total non-current liabilities	6 083.7	6 368.6	(284.9)	(4.5%)
Total liabilities	12 949.7	13 134.8	(185.1)	(1.4%)
Net assets	9 300.5	8 446.3	854.2	10.1%
Equity				
Issued capital	4 522.7	4 336.6	186.1	4.3%
Shares held in trust	(180.5)	(60.7)	119.8	197.4%
Reserves	25.1	(243.9)	269.0	—
Retained earnings	4 661.1	4 163.4	497.7	12.0%
Other	272.1	250.9	21.2	8.4%
Total equity	9 300.5	8 446.3	854.2	10.1%

Figure 12.3 Horizontal analysis of a statement of financial position

We can continue our horizontal analysis by examining the liabilities and equity sections. Current liabilities increased by $99 800 000 or 1.5% whereas non-current liabilities decreased by $284 900 000 or 4.5%. Under the equity section, there were increases in each of the listed equity items which contributed to the overall increase of $854 200 000 or 10.1%. The most substantial increase was in retained profits for $497 700 000 or 12% for the period.

WOOLWORTHS LIMITED
Extract from statement of profit or loss (and analysis)
for the year ended 30 June 2013

	2013 $m	2012 $m	Increase/(decrease) during 2013 Amount $	%
Revenue from sale of goods	58 516.4	54 777.1	3 739.3	**6.8%**
Other operating revenue	157.7	138.9	18.8	**13.5%**
Total revenue	58 674.1	54 916.0	3 758.1	**6.8%**
Cost of goods sold	(42 912.6)	(40 455.0)	2 457.6	**6.1%**
Gross profit	15 761.5	14 461.0	1 300.5	**9.0%**
Other revenue	247.6	223.5	24.1	**10.8%**
Branch expenses	(9 799.8)	(8 777.3)	1 022.5	**11.6%**
Administrative expenses	(2 614.7)	(2 560.8)	53.9	**2.1%**
EBIT	3 594.6	3 346.4	248.2	**7.4%**
Financial expenses	(410.1)	(316.8)	93.3	**29.5%**
Financial income	30.3	34.6	(4.3)	**(12.4%)**
Profit before income tax	3 214.8	3 064.2	150.6	**4.9%**
Income tax expense	(959.9)	(885.0)	74.9	**8.5%**
Profit for the period*	2 254.9	2 179.2	75.7	**3.5%**
Basic earnings per share* (cents per share)	181.8 cents	178.3 cents	3.5 cents	**2.0%**
Diluted earnings per share* (cents per share)	181.0 cents	177.4 cents	3.6 cents	**2.0%**

*figures are based on continuing operations

Figure 12.4 Horizontal analysis of a statement of profit or loss

Helpful hint

In a horizontal analysis, the amount column is *additive* whereas the profit figure of $2 179 200 000 in the statement of profit or loss is the total figure after expense items have been deducted from revenue items. However, the % column is *not additive* as the 3.5% increase is not a total figure as it refers only to the change to the profit for the period. For more detailed analysis, both dollar amount changes and percentage changes need to be examined. For instance, percentage changes in line items may seem very large but the amount in the base year may be low and the impact on profit very small.

The horizontal analysis of Woolworths' statement of profit or loss shows the following changes.

- Revenue from sale of goods increased by $3 739 300 000 or 6.8% ($3 739 300 000/ $54 777 100 000).
- Other operating revenue increased by $18 800 000 or 13.5% ($18 800 000/$138 900 000).
- Cost of goods sold increased by $2 457 600 000 or 6.1% ($2 457 600 000/$40 455 000 000).

Overall, gross profit increased by $1 300 500 000 or 6.1%. Although all categories of expenses increased in 2013, Woolworths' profit for the period increased by $75 700 000 or 3.5% as the revenue from sales of goods and other revenue increased at a greater rate than the overall increase in expenses. The entity's improved financial performance is also evident in both measures of earnings per share showing a 2% increase from 2012 to 2013.

The measurement of changes from period to period in percentages is relatively straightforward and quite useful. However, complications can result in making the calculations. If an item has no value in a base year or preceding year and a value in the next year, no percentage change can be calculated. An example of this appears in the current liabilities section, under the category of *other* where $200 900 000 appears in 2012 but there is no value in 2013.

Also, if a negative amount appears in the base or preceding period and a positive amount exists the following year, or vice versa, no meaningful percentage change can be calculated. An example of this appears in the equity section. Under the category of reserves, $243 900 000 appears in 2012 and this increases to $25 100 000 in 2013.

Using the decision-making toolkit overleaf, management along with other users such as potential investors, shareholders and lenders can use horizontal analysis to determine whether the entity's operating results and financial position has improved from the

Alternative terminology

Some entities refer to *cost of sales* as *cost of goods sold*.

Alternative terminology

Some entities refer to *financial expenses* as *interest expense* previous year. Financial statements should be compared over at least 2 years, with the first year reported being the base year. Changes in each line item relative to the base year should be presented by both amount and percentage. An analysis of the statement of profit or loss will provide an indication of the changes in revenue, expenses and its effect on profit. An analysis of the statement of financial position will highlight changes in assets and financial structure. Any significant changes in these line items that have impacted on overall profitability and financial position should be investigated further.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
How do the entity's operating results and financial position compare with those of a previous period?	Statement of profit or loss and statement of financial position	Financial statements should be compared over at least 2 years, with the first year reported being the base year. Changes in each line item relative to the base year should be presented by both amount and percentage. This is called horizontal analysis.	Significant changes should be investigated to determine the reason for the change.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What is the purpose of horizontal analysis?
2. Describe the limitations of horizontal analysis.

>> DO IT

The following historical information is an extract from the 2013 annual report of JB Hi-Fi Ltd. All figures are in thousands of dollars. Use horizontal analysis to describe the trend in sales revenue and profit.

	2013	2012	2011	2010	2009
Sales revenue	3 308 396	3 127 792	2 959 253	2 731 320	2 327 266
Profit after tax	116 632	104 641	109 695	118 652	94 438

REASONING: Using 2009 as a base year, the sales revenue and profit for each year can be compared relative to a common starting point so that any trends can be more readily observed and understood.

SOLUTION:

	2013	2012	2011	2010	2009
Sales revenue	3 308 396	3 127 792	2 959 253	2 731 320	2 327 266
	*142%	134%	127%	117%	100%
Profit after tax	116 632	104 641	109 695	118 652	94 438
	**124%	111%	116%	126%	100%

Calculations for each year are shown below.

	2013	2012	2011	2010	2009
Sales revenue*	3 308 396	3 127 792	2 959 253	2 731 320	2 327 266
	2 327 266	2 327 266	2 327 266	2 327 266	2 327 266
Profit after tax**	116 632	104 641	109 695	118 652	94 438
	94 438	94 438	94 438	94 438	94 438

Since the base year of 2009, JB Hi-Fi Ltd has reported a significant increase in sales revenues and profits. In 2013 it reported its highest sales revenue of $3 308 396 000 which is an increase of 42% from the base year. The entity's profit after tax has also increased since 2009, but the trend has been inconsistent over the five-year period. JB Hi-Fi Ltd's profit after tax peaked in 2010 with an increase of 26% from the base year. There was a substantial drop in 2011 and another decline in 2012 in which the entity reported its lowest level of growth of 11% since the base year. A considerable improvement can be seen in 2013 in which a profit after tax of $116 632 000 was reported — this is the largest increase in profit since 2010. The historical data provides a context for interpreting what is happening in the current context. To uncover the reasons for the continual growth in sales and considerable fluctuations in profit over this five-year period, further information may be found in the annual report.

DECISION MAKING

VERTICAL ANALYSIS

LEARNING OBJECTIVE 3

Explain and apply vertical analysis.

Vertical analysis is a technique for evaluating financial statement data that expresses each item in a financial statement as a percentage of a base amount. For example, on a statement of profit or loss, selling expenses are expressed as a percentage of total revenue. When analysing a statement of financial position, current assets are expressed as a percentage of total assets.

Figure 12.5 presents the vertical analysis of extracts from the statement of profit or loss for Woolworths for the year ended 30 June 2013. Each line on the statement of profit or loss is presented as a percentage of total revenue.

WOOLWORTHS LIMITED
Statement of profit or loss (and analysis)
for the year ended 30 June 2013
($m)

	2013		2012	
	Amount	%	Amount	%
Revenue from sale of goods	58 516.4	**99.7%**	54 777.1	**99.7%**
Other operating revenue	157.7	**0.3%**	138.9	**0.3%**
Total revenue	58 674.1	**100.0%**	54 916.0	**100.0%**
Cost of goods sold	(42 912.6)	**(73.1%)**	(40 455.0)	**(73.7%)**
Gross profit	15 761.5	**26.9%**	14 461.0	**26.3%**
Other revenue	247.6	**0.4%**	223.5	**0.4%**
Branch expenses	(9 799.8)	**(16.7%)**	(8 777.3)	**(16.0%)**
Administrative expenses	(2 614.7)	**(4.5%)**	(2 560.8)	**4.7%**
EBIT	3 594.6	**6.1%**	3 346.4	**6.1%**
Financial expenses	(410.1)	**(0.7%)**	(316.8)	**(0.6%)**
Financial income	30.3	**0.1%**	34.6	**0.1%**
Profit before income tax	3 214.8	**5.5%**	3 064.2	**5.6%**
Income tax expense	(959.9)	**(1.6%)**	(885.0)	**(1.6%)**
Profit after tax*	2 254.9	**3.8%**	2 179.2	**4.0%**

*Profit after tax from continuing operations

FIGURE 12.5 **Vertical analysis of a statement of profit or loss (percentages are rounded)**

Vertical analysis of Woolworths' statement of profit or loss reveals that cost of goods sold as a percentage of total revenue has decreased from 73.7% in 2012 to 73.1% in 2013. This reduction in the cost of goods sold has increased the entity's gross profit from 26.3% to 26.9% over the same period; however, the profit for the period dropped slightly from 4% in 2012 to 3.8% in 2013. This was mainly attributed to the increase in branch expenses as there were minimal changes noted for all other line items.

Like horizontal analysis, vertical analysis can provide insights into underlying conditions for entities that may not be apparent from the individual components presented in financial statements. However, vertical analysis is even more meaningful if it is supplemented with further information such as general economic conditions, industry trends or averages, information from web sites, directors' reports and media releases. For example, given the current economic uncertainty, many of us may be concerned about our current or future employment opportunities and therefore more conscious about how we spend our cash. In light of this, it is generally more difficult for entities to increase their prices without potentially losing sales to competitors. However, despite these challenging economic conditions, Woolworths reported its highest group sales of $59.158 million in 2013 due to significant increases in sales in their supermarket and general merchandise operations. This is perhaps due to the nature of their core business in food and liquor which would be regarded as necessities despite the overall economic conditions. Woolworths is very competitive with its major rival Coles, which aims to offer the lowest possible prices to its customers and provide the best value for money while maintaining profit margins.

Helpful hint

The statement of financial position can be presented in two main formats: A = L + E or A − L = E. In Woolworths' 2013 annual report, the statement of financial position is presented as A − L = E as shown in figure 12.3. However, for the purposes of vertical analysis in figure 12.6, the statement of financial position has been presented in the A = L + E format.

Vertical analysis of the statement of financial position shows the relative size of each category. Each line item on the statement of financial position is presented as a percentage of total assets or total liabilities and equity. When applied to comparative financial statements, vertical analysis shows the relative change in the composition of assets from one year to the next, as well as changes in the extent of reliance on various forms of debt and equity financing.

The vertical analysis of extracts from Woolworths' statement of financial position for 30 June 2013 is shown in figure 12.6.

Figure 12.6 Vertical analysis of a statement of financial position

WOOLWORTHS LIMITED
Statement of financial position (and analysis)
as at 30 June 2013
($m)

		2013 $m		2012 $m	
	Notes	Amount	%	Amount	%
Current assets					
Cash assets		849.2	**3.8%**	833.4	**3.9%**
Receivables	8	968.6	**4.4%**	869.9	**4.0%**
Inventories		4 205.4	**18.9%**	3 698.3	**17.1%**
Other financial assets	9	54.2	**0.2%**	23.8	**0.1%**
Other assets	33	148.7	**0.7%**	376.7	**1.7%**
Total current assets		6 226.1	**28.0%**	5 802.1	**26.9%**
Non-current assets					
Receivables	8	16.6	**0.1%**	24.5	**0.1%**
Other financial assets	9	358.7	**1.6%**	238.8	**1.1%**
Property, plant and equipment	10	9 246.1	**41.6%**	9 589.0	**44.4%**
Intangible assets	11	5 784.3	**26.0%**	5 282.0	**24.5%**
Deferred tax assets	5d	618.4	**2.8%**	644.7	**3.0%**
Total non-current assets		16 024.1	**72.0%**	15 779.0	**73.1%**
Total assets		22 250.2	**100%**	21 581.1	**100%**
Current liabilities					
Payables	12	5 390.3	**24.2%**	5 242.2	**24.3%**
Borrowings	14	169.4	**0.8%**	54.4	**0.3%**
Current tax liabilities	5c	193.2	**0.9%**	221.5	**1.0%**
Other financial liabilities	13	145.9	**0.7%**	107.4	**0.5%**
Provisions	16	967.2	**4.3%**	939.8	**4.4%**
Other	33	—	**0.0%**	200.9	**0.9%**
Total current liabilities		6 866.0	**30.9%**	6 766.2	**31.4%**

Figure 12.6 *(continued)*

	Notes	2013 $m Amount	2013 %	2012 $m Amount	2012 %
Non-current liabilities					
Borrowings	14	4 282.5	**19.2%**	4 695.3	**21.8%**
Other financial liabilities	13	992.6	**4.5%**	887.2	**4.1%**
Provisions	16	549.2	**2.5%**	527.3	**2.4%**
Other		259.4	**1.2%**	258.8	**1.2%**
Total non-current liabilities		6 083.7	**27.3%**	6 368.6	**29.5%**
Total liabilities		12 949.7	**58.2%**	13 134.8	**60.9%**

The statement of financial position should be read in conjunction with the accompanying notes.

From the vertical analysis of Woolworths' statement of financial position in figure 12.6, we can see that the proportion of current assets to total assets increased from 26.9% in 2012 to 28% in 2013. During the same period, the proportion of current liabilities to total liabilities and equity decreased slightly from 31.4% to 30.9%. The proportion of total equity to total liabilities and equity increased from 39.1% in 2012 to 41.8% in 2013. This was mainly attributed to increases in issued capital and retained earnings. Given all of the changes are relatively small, we can conclude that the underlying relationships between statement of financial position items have not changed significantly between 2012 and 2013. It seems that Woolworths' operations are relatively stable despite the general economic uncertainty during this period.

An associated benefit of vertical analysis is that it enables you to compare entities in the same industry even if they are different in size. For example, one of Woolworths Ltd's competitors is Wesfarmers Holdings Ltd. By expressing each line item in the statement of profit or loss as a percentage of revenue, we have a common basis of comparison for each entity's statement of profit or loss, as shown in figure 12.7.

Statement of profit or loss (extracts and analysis)
for the year ended 30 June 2013
($m)

	Woolworths Limited Amount	Woolworths Limited %	Wesfarmers Holdings Limited Amount	Wesfarmers Holdings Limited %
Revenue	58 674	**100.0%**	59 832	**100.0%**
Cost of sales	(42 913)	**(73.1%)**	(39 617)	**(66.2%)**
Gross profit	15 762	**26.9%**	20 215	**33.8%**
Other revenue	158	**0.3%**	282	**0.5%**
Financial income	30	**0.1%**	128	**0.2%**
Interest expense	(410)	**(0.7%)**	(432)	**(0.7%)**
Branch and general expenses*	(9 800)	**(16.7%)**	(5 481)	**(9.2%)**
Depreciation and amortisation	(966)	**(1.6%)**	(1 071)	**(1.8%)**
Employee expenses	(7 002)	**(11.9%)**	(7 912)	**(13.2%)**
Occupancy expenses	(1 764)	**(3.0%)**	(2 368)	**(4.0%)**
Profit before income tax	3 215	**5.5%**	3 226	**5.4%**
Income tax expense	(960)	**(1.6%)**	(965)	**(1.6%)**
Profit after tax	2 265	**3.9%**	2 261	**3.8%**

(*Note:* The percentage column expresses each amount as a percentage of the total revenue, rounded to one decimal place. This column is additive and errors in additions can arise due to rounding.)

Figure 12.7 Inter-entity comparison by vertical analysis

The first part of the analysis is to use the statement of profit or loss data to match up the items that Woolworths and Wesfarmers report in their respective statements of profit or loss. The format and figures presented in figure 12.7 have been modified and simplified to enable a comparative analysis between these two entities. These amendments were necessary as the presentations of the statements of profit or loss for each entity were considerably different in their classifications of revenue and expense items. For example, the majority of Woolworths' operating expenses are categorised under branch or administration expenses, whereas Wesfarmers separates operating expenses into more specific categories such as employee benefits and occupancy related expenses. Despite these limitations, we can still make a number of useful observations from the information available.

From the revenue figures we can see that in 2013 Wesfarmers generated $1157.9 million or 2% more than Woolworths for the same period. Vertical analysis eliminates this difference by measuring each line item relative to revenue. This is sometimes referred to as a common-size format. Woolworths' gross profit is 26.9% of revenue which is significantly lower than the gross profit of 33.8% for Wesfarmers.

DECISION MAKING

The most significant difference between the two entities is the branch and general expenses as a percentage of revenue. This category of expenses accounts for 16.7% of revenue for Woolworths in comparison to 9.2% for Wesfarmers. These substantially higher costs for Woolworths are likely to be associated with the opening of 86 new stores in 2013. We can approximate each entity's operating expenses by combining the branch and general expenses, depreciation and amortisation along with the employee and occupancy expenses. Woolworths' operating expenses account for 33.3% of revenue whereas Wesfarmers operating expenses account for only 28.1% of revenue. These figures suggest that Wesfarmers has better control of its operating expenses.

Using the decision-making toolkit below, management along with other users such as potential investors, shareholders and lenders can use vertical analysis to determine the relationships between items in this year's financial statements and how they compare with those of last year, or those of competitors. A vertical analysis of the statement of profit or loss shows the relationship between revenue, expenses and profit. Each line item on the statement of profit or loss should be presented as a percentage of net sales revenue. A vertical analysis of the statement of financial position shows the relationship between assets, liabilities and equity. Each line item on the statement of financial position should be presented as a percentage of total assets or total liabilities and equity. These percentages should be investigated for any significant differences within the same entity over consecutive years or between different entities for the same year.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
How do the relationships between items in this year's financial statements compare with those of last year or those of competitors?	Statement of profit or loss and statement of financial position	Each line item on the statement of profit or loss should be presented as a percentage of net sales revenue, and each line item on the statement of financial position should be presented as a percentage of total assets or total liabilities and equity. These percentages should be investigated for any significant differences within the same entity over consecutive years or between different entities for the same year. This is called vertical analysis.	Significant differences either across years or between entities should be investigated to determine the cause.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What is vertical analysis?
2. What different bases can be used to compare financial information?

RATIO ANALYSIS

LEARNING OBJECTIVE 4

Identify and calculate ratios and describe their purpose and use in analysing the liquidity, solvency and profitability of a business.

In this section we provide a comprehensive coverage of financial ratios, discuss some important relationships among the ratios, and focus on their interpretation.

For analysing the main financial statements, ratios can be classified into three types:

- **liquidity ratios**: measures of the short-term ability of an entity to pay its maturing obligations and to meet unexpected needs for cash
- **solvency ratios**: measures of the ability of an entity to survive over a long period of time
- **profitability ratios**: measures of the profit or operating success of an entity for a given period of time.

As a tool of analysis, ratios can provide clues to underlying conditions that may not be apparent from an inspection of the individual components of a particular ratio. But a single ratio by itself is not very meaningful. Accordingly, in this discussion we use the following comparisons.

- *Intra-entity comparisons* covering two years for Woolworths. Calculations are provided for some 2013 ratios which use data from the statement of profit or loss, statement of financial position and statement of cash flows, so that you can trace the numbers back to the financial statements in figures 12.6 (p. 728), 12.7 (p. 729) and 12.10 (p. 733).
- *Inter-entity comparisons* using Wesfarmers as one of Woolworths' main competitors.

Ratios can be expressed in several ways: as a percentage, such as 20%; as a decimal, such as 0.2; and in ratio form, such as 0.2:1.

Alternatively, liquidity can refer to how quickly liabilities need to be paid and how quickly assets can be converted to cash. For example, accounts receivable are more liquid than plant and machinery.

LIQUIDITY RATIOS

Liquidity ratios measure the short-term ability of the entity to pay its maturing obligations and to meet unexpected needs for cash. Short-term creditors such as bankers and suppliers are particularly interested in assessing liquidity. The measures that can be used to determine the entity's short-term debt-paying ability are the current ratio, the quick ratio (or acid test), current cash debt coverage, receivables turnover, the average collection period, inventory turnover, and average days in inventory.

Helpful hint

The term *liquidity* has two meanings. It can refer to the ability to pay obligations and meet unexpected cash needs in the short term.

Alternatively, liquidity can refer to how quickly liabilities need to be paid and how quickly assets can be converted to cash. For example, accounts receivable are more liquid than plant and machinery.

1. *Current ratio*. The **current ratio** expresses the relationship of current assets to current liabilities, calculated by dividing current assets by current liabilities. It is widely used for evaluating an entity's liquidity and short-term debt-paying ability. The 2013 and 2012 current ratios for Woolworths and comparative data are shown in figure 12.8, together with the ratio for Wesfarmers for 2013. (Amounts have been rounded to $millions.)

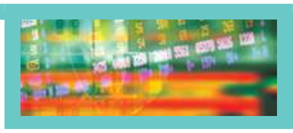
			Woolworths		Wesfarmers
Ratio	**Formula**	**Indicates**	**2013**	**2012**	**2013**
Current ratio	$\frac{\text{Current assets}}{\text{Current liabilities}}$	Short-term debt-paying ability	$\frac{\$6\,266.1}{\$6\,866.0} = 0.91:1$	$\frac{\$5\,802.1}{\$6\,766.2} = 0.86:1$	$\frac{\$10\,586.0}{\$9\,572.0} = 1.11:1$

Figure 12.8 Current ratio

What do these measures actually mean? A higher current ratio is considered more favourable than a lower current ratio. The 2013 ratio for Woolworths means that for every dollar of current liabilities Woolworths has $0.91 of current assets. This suggests that Woolworths has insufficient cash to meet liabilities as they fall due. Although there was a small increase from $0.86 in 2012 there was no significant change in liquidity. In both years Woolworths' current ratio was significantly lower than Wesfarmers' current ratio of $1.11 in 2013. What is considered to be an acceptable ratio varies from industry to industry. However, around 1.5:1 is generally considered to be an acceptable current ratio for most industries. Based on this rule of thumb, it is clear that both companies are not in a strong position to repay short-term liabilities as they fall due.

The current ratio is only one measure of liquidity. It does not take into account the composition of the current assets. For example, an entity may have a high current ratio because it has a lot of slow-moving inventory. A dollar of cash is more readily available to pay the bills than is a dollar's worth of slow-moving inventory. This weakness is resolved to some extent, by the quick ratio.

2. *Quick ratio*. The **quick ratio** (or **acid test**) is a measure of an entity's immediate short-term liquidity. It is calculated by dividing the sum of cash, marketable securities and net receivables by current liabilities. Therefore, it is an important complement to the current ratio. Note that it does not include inventory or prepaid expenses. Of the current assets, cash, marketable securities and net receivables are considered highly liquid as they are more quickly converted to cash when compared with inventory and prepaid expenses. The inventory may not be readily saleable and the prepaid expenses are not generally convertible into cash. The quick ratios for Woolworths and Wesfarmers are shown in figure 12.9.



APPLICATION IN BUSINESS

Investor perspective

The apparent simplicity of the current ratio can have real-world limitations because adding equal amounts to both the numerator and the denominator causes the ratio to decrease. Assume, for example, that an entity has $2 000 000 of current assets and $1 000 000 of current liabilities; its current ratio is 2:1. If it purchases $1 000 000 of inventory on account, it will have $3 000 000 of current assets and $2 000 000 of current liabilities; its current ratio decreases to 1.5:1. If, instead, the entity pays off $500 000 of its current liabilities, it will have $1 500 000 of current assets and $500 000 of current liabilities; its current ratio increases to 3:1. Therefore, any trend analysis should be undertaken with care because the ratio is susceptible to quick changes and is easily influenced by the timing of transactions which may, in turn, reflect management's attempt to generate more acceptable ratios.

			Woolworths		Wesfarmers
Ratio	**Formula**	**Indicates**	**2013**	**2012**	**2013**
Quick ratio or acid test	$\dfrac{\text{Cash} + \text{Marketable securities} + \text{Net receivables}}{\text{Current liabilities}}$	Immediate short-term liquidity	$\dfrac{\$849.2 + \$54.2 + \$968.6}{\$6\,866.0} = 0.27{:}1$	0.26:1	0.38:1

Figure 12.9 Quick ratio

The difference between the quick ratios indicates marginal change in liquidity from 0.26 to 0.27 for Woolworths in 2012 and 2013 respectively. Compared with Wesfarmers' quick ratio of 0.38, Woolworths has considerably fewer quick assets for every dollar of current liabilities in both years. As a rule of thumb, some analysts suggest that a ratio of approximately 1:1 is adequate. However, this is arbitrary and subject to debate and exception. In any case, deviations from the general rule of thumb are worthy of further investigation. However, in the retail segment of the market, where sales are generally made in cash (this includes credit card sales), a lower ratio is acceptable. This would applicable to entities such as Woolworths and Wesfarmers as the nature of their core business is in supermarkets where sales are generally either cash or credit sales. As this provides a continual inflow of cash, it can be used to meet debts as they fall due.

Alternative terminology

For reporting periods prior to January 2009 the statement of cash flows was called the *cash flow statement*.

3. *Current cash debt coverage*. A disadvantage of the current and quick ratios is that they use year-end balances of current asset and current liability accounts. These year-end balances may not be representative of the entity's current position during most of the year. A ratio that partially corrects for this problem is the ratio of net cash provided by operating activities to average current liabilities, called the **current cash debt coverage**. Because the numerator consists of net cash provided by operating activities rather than a balance at one point in time, and the denominator consists of average current liabilities, the ratio may provide a better representation of liquidity. The simplified statement of cash flows for Woolworths is provided in figure 12.10. The current cash debt coverage ratios for Woolworths and Wesfarmers are shown in figure 12.11.

WOOLWORTHS LIMITED Statement of cash flows (extract) for the year ended 30 June 2013		
($m)	2013	2012
Net cash inflow from operating activities	2 719.9	2 873.8
Net cash (outflow) from investing activities	(1 201.7)	(2 080.3)
Net cash (outflow) from financing activities	(1 520.4)	(1 469.2)
Net (decrease)/increase in cash held	(2.2)	(675.7)

Figure 12.10 Statement of cash flows (simplified)

			Woolworths		Wesfarmers
Ratio	**Formula**	**Indicates**	**2013**	**2012**	**2013**
Current cash debt coverage	$\frac{\text{Net cash provided by operating activities}}{\text{Average current liabilities}}$	Short-term debt-paying ability (cash basis)	$\frac{\$2\,719.9}{(\$6\,866.0 + \$6\,766.2)/2} = 0.40{:}1$	0.39:1	0.39:1

Figure 12.11 Current cash debt coverage

From this current cash debt coverage ratio based on cash flow information, Woolworths' coverage of its current liabilities improved slightly in 2013 from 0.39 to 0.40. These figures have remained stable over the 2 years and are similar to Wesfarmers' current cash debt coverage at 0.39 in 2013. This ratio indicates the entity's ability to generate sufficient cash to meet its short-term needs. While the acceptable level for the current cash debt coverage ratio will vary between industries, in general a value below 0.40:1 times is considered cause for additional investigation of an entity's liquidity. Woolworths' current cash debt coverage of 0.40 in 2013 is within the acceptable level. Wesfarmers' ratio of 0.39 in 2013 is marginally below the rule of thumb, which may warrant further investigation to ensure it does not have cash flow shortages in the future.

4. *Receivables turnover*. Liquidity may be measured by how quickly certain assets can be converted to cash. Low values of the previous ratios can sometimes be compensated for if some of the entity's current assets are highly liquid. How liquid, for example, are the receivables? The ratio used to assess the liquidity of the receivables is the **receivables turnover**, which measures the number of times, on average, that receivables are collected during the period. The higher the receivables turnover, the shorter the period of time between an entity making a credit sale and collecting the cash for the receivable. The receivables turnover is calculated by dividing net credit sales (net sales less cash sales) by average net trade receivables during the year. Receivables reported on the statement of financial position may include amounts not related to sales. If this is the case, trade receivables are disclosed in the notes. Woolworths' trade receivables are provided in the notes to the financial statements (Note 8). The receivables turnover figures for Woolworths and Wesfarmers are shown in figure 12.12. Users of external financial statements use total sales revenue because net credit sales are not separately identified in published financial statements.

Helpful hint

Note that net sales is gross sales less sales returns and allowances.

Figure 12.12 Receivables turnover

			Woolworths		Wesfarmers
Ratio	**Formula**	**Indicates**	**2013**	**2012**	**2013**
Receivables turnover	$\frac{\text{Net credit sales}}{\text{Average net trade receivables}}$	Liquidity of receivables	$\frac{\$58\,516.4}{(\$234.2 + \$218.0)/2} =$ 258.8 times	264.2 times	33.6 times

APPLICATION IN BUSINESS

Investor perspective

In some cases, the receivables turnover may be misleading. Some entities, especially large retail chains, encourage credit and revolving charge sales and they slow collections in order to earn a healthy return on the outstanding receivables in the form of interest. A revolving charge account is an account that does not have to be paid off to a nil balance. In general, however, the faster the turnover, the greater the reliance that can be placed on the current and quick ratios for assessing liquidity.

Woolworths' receivables turnover decreased from 264.2 times per year in 2012 to 258.8 times per year in 2013. However, these ratios are not a true reflection of the turnover. Retail entities typically make most of their sales as cash sales or credit card sales and this exaggerates turnover when the net sales figure is substituted for net credit sales.

DECISION MAKING

5. *Average collection period.* This is a variation of the receivables turnover which converts the turnover into an **average collection period** in days. This is done by dividing the receivables turnover into 365 days. The ratio can be used to assess the effectiveness of an entity's credit and collection policies. A general rule is that the collection period should not greatly exceed the credit term period, which is the time allowed for payment. For example, if an entity offers 30-day credit terms and has an average collection period of 27 days, this provides an indication that the entity's credit policy is appropriate and the monitoring of receivables collection is effective. A company whose average collection period is significantly above its credit terms suggests that it may be granting credit to customers who are not creditworthy or needs to change its credit policies or collection procedures. The average collection periods for Woolworths and Wesfarmers are shown in figure 12.13.

			Woolworths		Wesfarmers
Ratio	**Formula**	**Indicates**	**2013**	**2012**	**2013**
Average collection period	$\frac{\text{365 days}}{\text{Receivables turnover}}$	Liquidity of receivables and collection success	$\frac{365}{258.8}$ = 1.41 days	$\frac{365}{264.2}$ = 1.38 days	$\frac{365}{33.6}$ = 10.86 days

Figure 12.13 Average collection period

Both Woolworths and Wesfarmers have relatively low average collection periods; however, Woolworths' collection period is faster with an average of around 1.4 days in 2012 and 2013 compared to Wesfarmers' collection period of approximately 11 days. It should be noted that customers making purchases on credit terms are unlikely to pay for them in 3 days. These very low numbers reflect the invalidity of assuming all sales are credit sales for a retailer. However, these ratios would be calculated internally using the actual credit sales figures providing more useful information for management.

6. *Inventory turnover*. The **inventory turnover** measures the number of times on average the inventory is sold during the period. Its purpose is to measure the liquidity of the inventory. Further, the higher the turnover, the less chance stock will be slow moving or become obsolete and unsaleable. It is important to monitor the amount of resources invested in inventory, as part of managing the business. Entities do not want to unnecessarily have too much cash tied up in inventories. At the same time they do not want to be understocked and miss out on sales because of lack of stock. Inventory turnover is calculated by dividing the cost of sales by the average inventory during the period. Unless seasonal factors are significant, average inventory can be calculated from the beginning and ending inventory balances. Woolworths' and Wesfarmers' inventory turnovers are shown in figure 12.14.

			Woolworths		Wesfarmers
Ratio	**Formula**	**Indicates**	**2013**	**2012**	**2013**
Inventory turnover	$\frac{\text{Cost of sales}}{\text{Average inventory}}$	Liquidity of inventory	$\frac{\$42\,912.6}{(\$4\,205.4 + \$3\,698.3)/2} = 10.86$ times	10.88 times	7.88 times

Figure 12.14 Inventory turnover ratio

Woolworths' inventory turnover has remained consistent over the 2 years whereby inventory was sold and replaced 10.88 times in 2012 and 10.86 times in 2013. Woolworths is more efficient in managing its inventory with a substantially faster turnover than Wesfarmers' turnover of 7.88 times in 2013. Generally, a high inventory turnover is preferable as this minimises the cost of obsolescence and less cash is tied up in inventory. The downside of a very high inventory turnover is that the entity can run out of inventory and this may result in lost sales. Inventory turnover ratios are much higher in industry sectors such as supermarkets that sell perishable items.

7. *Average days in inventory.* This is a variation of the inventory turnover that converts the turnover into days. This is done by dividing the inventory turnover by 365 days. The **average days in inventory** ratio measures the average number of days it takes to sell the inventory. The average number of days in inventory for Woolworths and Wesfarmers are shown in figure 12.15.

			Woolworths		Wesfarmers
Ratio	**Formula**	**Indicates**	**2013**	**2012**	**2013**
Average days in inventory	$\frac{\text{365 days}}{\text{Inventory turnover}}$	Liquidity of inventory and inventory management	$\frac{365}{10.86}$ = 33.6 days	33.5 days	46.3 days

Figure 12.15 Average days in inventory

Woolworths' average days in inventory remained relatively unchanged from 33.5 days in 2012 to 33.6 days in 2013. This is considerably faster than Wesfarmers' average days in inventory of 46.3 days. An inventory turnover of 100 days may be acceptable for non-perishable items such as computers or furniture, but a much higher turnover would be necessary for perishables such as fresh food items. Both Wesfarmers and Woolworths are retailers of perishables, general merchandise as well as consumer durables which have a longer shelf-life than many of their grocery and fast-food lines. This would contribute to the average number of days that inventory is held.

SOLVENCY RATIOS

Solvency ratios measure the ability of the entity to survive over a long period of time. Long-term creditors and shareholders are interested in a company's long-term solvency, particularly its ability to pay interest as it comes due and to repay the face value of the debt at maturity. The debt to total assets ratio, times interest earned, and cash debt coverage provide information about debt-paying ability. In addition, free cash flow provides information about the company's solvency and its ability to pay dividends or invest in new projects.

8. *Debt to total assets ratio.* The **debt to total assets ratio** measures the percentage of the total assets financed by creditors. It is calculated by dividing total liabilities by total assets. This ratio indicates the degree of leveraging; it provides some indication of the entity's ability to withstand losses without impairing the interests of its creditors. The higher the percentage of total liabilities to total assets, the greater the financial risk that the entity may be unable to meet its maturing obligations. The lower the debt to total assets ratio, the greater the equity available to creditors if the entity becomes insolvent. Therefore, from the creditors' point of view, a low ratio of debt to total assets is usually desirable. Woolworths' and Wesfarmers' debt to total assets ratios are shown in figure 12.16.

Helpful hint

Leveraging is borrowing money at a lower rate of interest that can be earned by using the borrowed money; also referred to as trading on equity.

			Woolworths		Wesfarmers
Ratio	**Formula**	**Indicates**	**2013**	**2012**	**2013**
Debt to total assets ratio	$\frac{\text{Total liabilities}}{\text{Total assets}}$	Percentage of total assets provided by creditors	$\frac{\$12\,949.7}{\$22\,250.2}$ = 0.58:1	0.61:1	0.40:1

Figure 12.16 Debt to total assets ratio

Woolworths' debt to total assets ratio of 0.58 in 2013 indicates that creditors provided 58 cents for every dollar invested in assets compared to 61 cents in 2012. The adequacy of this ratio is often judged in the light of the entity's profits. Generally, entities with relatively stable profits have higher debt to total assets ratios than do cyclical entities with widely fluctuating profits, such as many high-tech companies. Stable profits reflect low operating risk, whereas fluctuating profits are interpreted as high operating risk. Leverage, measured by the debt to total assets ratio, is an indicator of financial risk. Creditors consider the total risk and are reluctant to lend to entities that combine high finance risk with high operating risk.

Another ratio with a similar meaning is the *debt to equity ratio*. It shows the relative use of borrowed funds (total liabilities) and resources invested by the owners. Because this ratio can be calculated in several ways, care should be taken when making comparisons. Debt may be defined to include only the non-current portion of liabilities, and intangible assets may be deducted from equity (which would equal tangible net worth). If debt and assets are defined as above (all liabilities and all assets), when the debt to total assets ratio equals 50% the debt to equity ratio is 1:1.

9. *Times interest earned*. **Times interest earned** (also called interest coverage) indicates the entity's ability to meet interest payments as they come due. It is calculated by dividing earnings before income tax plus interest expense (finance costs) by interest expense. Note that this ratio uses earnings before income tax and interest expense (EBIT) because this amount represents what is available to cover interest. A general rule of thumb is that earnings should be approximately 3–4 times the interest expense. Woolworths' and Wesfarmers' times interest earned are shown in figure 12.17.

Ratio	Formula	Indicates	Woolworths 2013	Woolworths 2012	Wesfarmers 2013
Times interest earned	$\frac{\text{Earnings before interest and tax}}{\text{Interest expense}}$	Ability to meet interest payments as they fall due	$\frac{\$3\,594.6}{\$410.1} = 8.77$ times	10.56 times	8.47 times

Figure 12.17 Times interest earned

Woolworths' interest coverage has decreased from 10.56 times in 2012 to 8.77 times in 2013. Although Woolworths' EBIT had increased significantly in 2013, the interest expense increased at a higher rate. Wesfarmers' interest coverage of 8.47 times in 2013 is similar to that of Woolworths. These figures indicate that both entities have very strong ability to cover interest expense, well above the rule of thumb of 3–4 times.

10. *Cash debt coverage*. Net cash provided by operating activities to average total liabilities, called the **cash debt coverage**, is a cash-basis measure of solvency. This ratio indicates an entity's ability to repay its liabilities from cash generated from operating activities, without having to liquidate the assets used in its operations. The cash debt coverage ratio is calculated as cash provided by operating activities divided by average total liabilities. While what is considered an acceptable ratio varies between industries, a general rule of thumb is that a ratio below 0.20 times is considered cause for additional investigation. Figure 12.18 shows Woolworths' and Wesfarmers' cash debt coverage.

Ratio	Formula	Indicates	Woolworths 2013	Woolworths 2012	Wesfarmers 2013
Cash debt coverage	$\frac{\text{Net cash provided by operating activities}}{\text{Average total liabilities}}$	Long-term debt-paying ability (cash basis)	$\frac{\$2\,719.9}{(\$12\,949.7 + \$13\,134.8)/2} = 0.21:1$	0.22:1	0.23:1

Figure 12.18 Cash debt coverage

Woolworths' cash debt coverage decreased slightly from 0.22:1 in 2012 to 0.21:1 in 2013. These figures are similar to that of Wesfarmers' cash debt coverage of 0.23:1 in 2013. The cash debt coverage for Woolworths and Wesfarmers are within the recommended minimum level of 0.2:1, which suggests that both entities appear solvent.

An alternative way of interpreting this ratio is that, in 2013, net cash provided by operations is sufficient to pay 21% of Woolworths' average liabilities and it could take approximately 4.76 years to pay existing liabilities from cash surpluses from operations at the 2013 level.

11. *Free cash flow*. One indication of an entity's solvency, as well as its ability to pay dividends, reduce long term debt, or expand operations, is the amount of excess cash it generated after investing to maintain its current productive capacity. This measure is referred to as **free cash flow**. For example, if you generate $100 000 of net cash from operations but spend $40 000 to maintain and replace productive facilities at their current levels, you have a free cash flow of $60 000 to use to either expand operations or to pay dividends.

As a practical matter, entities do not disclose what percentage of their capital expenditure was made to maintain existing production and what percentage was made to expand operations. Therefore, external users normally calculate free cash flow by simply subtracting gross property, plant and equipment (non-current assets) expenditures from cash from operations. Woolworths' and Wesfarmers' free cash flows are shown in figure 12.19. Woolworths' capital expenditures were $2375.5 million in 2013 and $2367.6 million in 2012.

			Woolworths		Wesfarmers
Ratio	**Formula**	**Indicates**	**2013**	**2012**	**2013**
Free cash flow	Net cash provided by operating activities — Capital expenditures	Cash available for paying dividends or expanding operations	$2 719.9 − $2 375.5 = $344.4	$506.2	$1 600.0

Figure 12.19 Free cash flow

Using the formula above, Woolworths' free cash flow is positive in both years. This means that capital expenditures are paid for using surpluses from operating activities. Sufficient cash is generated from operations net of capital expenditure to provide for dividends and liabilities. Woolworths' free cash flow showed a significant decrease from $506.2 million in 2012 to $344.4 million in 2013. These figures are well below Wesfarmers' free cash flow of $1600 million in 2013.

PROFITABILITY RATIOS

DECISION MAKING

Profitability ratios measure the profit or operating success of an entity for a given period of time. An entity's profit, or lack of it, affects its ability to obtain debt and equity financing, its liquidity position and its ability to grow. As a consequence, creditors and investors alike are interested in evaluating profitability. Profitability is frequently used as the ultimate test of management's operating effectiveness. Some commonly used measures of profitability are discussed in the following pages.

The relationships among these profitability measures are very important. Understanding them can help management determine where to focus its efforts to improve the entity's profitability. Figure 12.20 illustrates the interrelationships between these ratios. The following discussion of Woolworths' profitability is structured around this diagram.

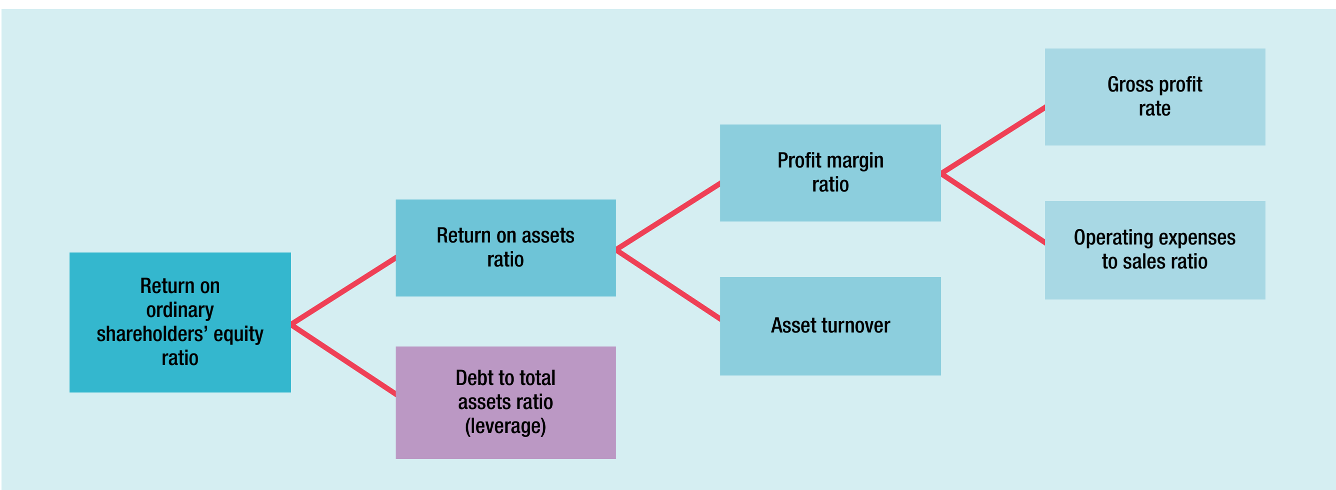


Figure 12.20 Relationships among profitability measures

12. *Return on ordinary shareholders' equity.* A widely used measure of profitability from the perspective of the ordinary shareholder is the **return on ordinary shareholders' equity (ROE)**. This ratio shows the amount of profit earned for each dollar invested by the shareholders. The ROE is calculated by dividing the profit available to ordinary shareholders by average ordinary shareholders' equity. To determine the profit available to ordinary shareholders, we need to subtract any dividends for preference shareholders. The return on ordinary shareholders' equity for Woolworths and Wesfarmers is shown in figure 12.21 (overleaf).

Ratio	Formula	Indicates	Woolworths 2013	Woolworths 2012	Wesfarmers 2013
Return on ordinary shareholders' equity	$\frac{\text{Profit available to ordinary shareholders}}{\text{Average ordinary shareholders' equity}}$	Profitability of ordinary shareholders' investment	$\frac{\$2\,254.9}{(\$9\,300.5 + \$8\,446.3)/2}$ = 25 cents	22 cents	9 cents

Figure 12.21 Return on ordinary shareholders' equity

Woolworths' return on equity of 25 cents for each dollar of equity in 2013 was slightly higher than the return on equity of 22 cents for 2012. There was a 24% increase of $442.7 million in profit available to ordinary shareholders and a 10% increase of $854 million in equity. The combination of these factors increased Woolworths' return on equity in 2013. The return on equity for Woolworths for both years was much higher than the 9 cent return on equity for Wesfarmers in 2013. Wesfarmers' profit available to ordinary shareholders of $2261 million in 2013 was actually higher than that of Woolworths in both years. The reason for the low return on equity for Wesfarmers is mainly due to the fact that it had $26 022 million of equity in 2013 compared to $9300 million of equity for Woolworths. As a potential investor, based on these results for 2013, Woolworths appears to be the more attractive investment as it provides the greater return on shareholder funds invested. Furthermore, given that Woolworths' return on equity is much greater than the market interest rate, investing in the company provided each shareholder with a greater return than if they had kept the money and earned interest on it in a bank account or if the money had been used to finance debt.

13. *Return on assets.* The return on ordinary shareholders' equity is affected by two factors: the **return on assets (ROA)** and the degree of leverage. The return on assets measures the overall profitability of assets in terms of the profit earned on each dollar invested in assets. It is a measure of management's effectiveness based on normal business activities. It is calculated by dividing profit by average total assets, and the higher the return on assets, the more profitable the entity. Woolworths' and Wesfarmers' return on assets are shown in figure 12.22.

Ratio	Formula	Indicates	Woolworths 2013	Woolworths 2012	Wesfarmers 2013
Return on assets	$\frac{\text{Profit after tax}}{\text{Average total assets}}$	Overall profitability of assets	$\frac{\$2\,264.6}{(\$22\,250.2 + \$21\,581.1)/2}$ = 10 cents	6 cents	5 cents

Figure 12.22 Return on assets

Woolworths' return on assets of 10 cents for each dollar of assets in 2013 was considerably higher than the return on assets of 6 cents for 2012. Woolworths' return on assets in both years is better than the return achieved by its competitor, Wesfarmers, of 5 cents. The reason for the higher return for Woolworths is mainly due to the 25% increase of $447.4 million in profit after tax, which is significantly greater than the 3% increase of $669.1 million in total assets in 2013. Wesfarmers' profit after tax of $2261 million was lower than Woolworths' $2264.6 million in 2013. The reason for the low return on assets for Wesfarmers in 2013 is mainly attributed to its total assets of $43 155 million which is almost twice the size of Woolworths' total assets of $22 250.2 million. The return on assets indicates that Woolworths has been more effective in generating relatively high profits from a much smaller asset base.

14. *Profit margin.* The return on assets is affected by two factors, the first of which is the profit margin. The **profit margin**, or rate of return on sales, is a measure of the amount of each dollar of sales that results in profit. It is calculated by dividing profit by net sales for the period. Woolworths' and Wesfarmers' profit margins are shown in figure 12.23.

Ratio	Formula	Indicates	Woolworths 2013	Woolworths 2012	Wesfarmers 2013
Profit margin	$\frac{\text{Profit after tax}}{\text{Net sales}}$	Profit generated by each dollar of sales	$\frac{\$2\,264.6}{\$58\,516.4} = 4$ cents	3 cents	4 cents

Figure 12.23 Profit margin

Woolworths' profit margin indicates that 4 cents of profit was generated from each dollar of sales in 2013 compared to 3 cents of profit in 2012. These results are similar to the profit margin for Wesfarmers in 2013.

Profit margins vary from industry to industry. High-volume businesses such as supermarkets generally experience low profit margins, which can be below 5 cents as shown in the results for Woolworths and Wesfarmers. In contrast, Crown Resorts Ltd, which operates in the hotels, restaurants and leisure industry, had a higher profit margin of 14 cents and Domino's Pizza Enterprises Ltd which operates in the food retail industry had a profit margin of 15 cents.

15. *Asset turnover.* The other factor that affects the return on assets is the asset turnover. The **asset turnover** measures how efficiently an entity uses its assets to generate sales. It is determined by dividing net sales by average total assets for the period. The resulting number shows the dollar of sales produced by each dollar invested in assets. Figure 12.24 shows asset turnover for Woolworths and Wesfarmers.

Ratio	Formula	Indicates	Woolworths 2013	Woolworths 2012	Wesfarmers 2013
Asset turnover	$\frac{\text{Net sales}}{\text{Average total assets}}$	How efficiently assets are used to generate sales	$\frac{\$58\,516.4}{(\$22\,250 + \$21\,581.1)/2} = \$2.67$	\$2.58	\$1.34

Figure 12.24 Asset turnover

The asset turnover for 2013 shows that Woolworths generated sales of \$2.67 for each dollar it had invested in assets compared to \$2.58 in 2012. This significant improvement was mainly attributed to the 7% increase of \$3739.3 million in sales, which was greater than the 3% increase of \$669.1 million in total assets. Wesfarmers had an asset turnover of \$1.34 in 2013, which indicates a much lower level efficiency than Woolworths in generating sales revenue from its assets.

Asset turnovers vary considerably across different industry sectors. For example, Crown Resorts Ltd, which operates in the hotels, restaurants and leisure industry, had a low turnover ratio of 50 cents. In contrast, JB Hi-Fi Ltd, which operates in the specialty retail industry, had a high asset turnover of \$4.10.

16. *Gross profit margin.* Two factors strongly influence the profit margin. One is the gross profit margin. The **gross profit margin** is determined by dividing gross profit (net sales less cost of sales) by net sales. This rate indicates an entity's ability to maintain an adequate selling price above its costs. As an industry becomes more competitive, this ratio declines. For example, when smart phones and mobile technology were newly released into the retail sector, the gross profit margins for these products were quite high. However, due to the intense competition across a diversity of new and innovative products, the gross profit margins have become relatively lower. Gross profit margins should be closely monitored over time. Figure 12.25 shows Woolworths and Wesfarmers' gross profit margins.

Figure 12.25 Gross profit margin

Ratio	Formula	Indicates	Woolworths 2013	Woolworths 2012	Wesfarmers 2013
Gross profit margin	$\frac{\text{Gross profit}}{\text{Net sales}}$	Margin between selling price and cost of sales	$\frac{\$15\,761.5}{\$58\,516.4} = 27\%$	26%	31%

Woolworths' gross profit margin increased slightly from 26% in 2012 to 27% in 2013. As stated in its 2013 annual report, its gross profit margin continued to improve due to better buying, increased freight efficiencies and more effective promotions. Woolworths' gross profit margins are slightly lower than that of its competitor, Wesfarmers, at 31%. This difference may be due to the nature Wesfarmers' diverse business operations. In addition to supermarkets, department stores and home improvement which are similar to Woolworths, its operations also include coal production and export; insurance; chemicals, energy and fertilisers; and industrial and safety products.

17. *Operating expenses to sales ratio.* This is the other factor that directly affects the profit margin. Management can influence an entity's profitability by maintaining adequate prices, cutting expenses, or both. The **operating expenses to sales ratio** measures the costs incurred to support each dollar of sales. It is calculated by dividing operating expenses (selling and administrative expenses) by net sales. The operating expenses to sales ratios for Woolworths and Wesfarmers are shown in figure 12.26.

			Woolworths		Wesfarmers
Ratio	**Formula**	**Indicates**	**2013**	**2012**	**2013**
Operating expenses to sales ratio	$\frac{\text{Operating expenses}}{\text{Net sales}}$	The costs incurred to support each dollar of sales	$\frac{\$9\,799.8 + \$2\,614.7}{\$58\,516.4} = 0.21{:}1$	0.21:1	0.29:1

Figure 12.26 Operating expenses to sales ratio

These figures relate back to Woolworths' statement of profit or loss (refer to figure 12.5, p. 727). Woolworths operating expenses are classified under branch expenses and administration expenses. From the operating expenses to sales ratio, we can see that Woolworths has maintained a constant level of 21 cents of operating expenses for each sales dollar over the 2-year period. In comparison, Wesfarmers' spends 29 cents of each sales dollar on operating expenses. These figures show that Woolworths is able to manage its operating costs more effectively.

An alternative approach is to include finance costs as well as the expenses used in the formula provided above. However, when comparing the operating expenses to sales ratios of different entities, it is preferable to exclude finance costs so that the comparison is not distorted by differences in financial structure. Obviously, entities that rely more heavily on debt financing will have higher total expenses because interest is recognised as an expense. Entities that rely more heavily on equity may pay more dividends. It is important to note that dividends are a distribution of profit and therefore not an expense. This is particularly relevant in the case of comparisons between Woolworths and Wesfarmers, given that Woolworths has a greater reliance on debt finance. In 2013, the debt to assets ratio was 58% and 40% for Woolworths and Wesfarmers respectively.

18. *Cash return on sales ratio.* The profit margin discussed earlier is an accrual-based ratio using profit as a numerator. The cash-basis counterpart to that ratio is the **cash return on sales ratio**, which uses net cash provided by operating activities as the numerator and net sales as the denominator. The difference between these two ratios should be explainable as differences between accrual accounting and cash-basis accounting, such as differences in the timing of revenue and expense recognition. The cash return on sales ratios for Woolworths and Wesfarmers are shown in figure 12.27.

Figure 12.27 Cash return on sales ratio

			Woolworths		Wesfarmers
Ratio	**Formula**	**Indicates**	**2013**	**2012**	**2013**
Cash return on sales ratio	$\frac{\text{Net cash provided by operating activities}}{\text{Net sales}}$	Net cash flow generated by each dollar of sales	$\frac{\$2\,719.9}{\$58\,516.4} = 0.05{:}1$	0.05:1	0.07:1

Woolworths' cash return on sales remained the same with a return of 5 cents from each sales dollar in 2012 and 2013. This ratio is similar to Wesfarmers' return of 7 cents from each sales dollar in 2013. Despite the diversity of each entity's business operations, the net cash provided by operating activities and sales generated were similar over the 2-year period

19. *Earnings per share (EPS).* Shareholders usually think in terms of the number of shares they own or plan to buy or sell. Expressing profit earned on a per share basis provides a useful perspective for determining profitability. **Earnings per share** is a measure of the profit earned on each ordinary share. It is calculated by dividing profit available to ordinary shareholders by the weighted average number of ordinary shares issued. When we use 'profit per share' or 'earnings per share', it refers to the amount of profit applicable to each ordinary share. Therefore, when we calculate earnings per share, if there are preference dividends declared for the period, they must be deducted from profit to determine the profit available to the ordinary shareholders. The reporting of earnings per share is regulated by accounting standard IAS 33/AASB 133 *Earnings per Share*. Woolworths' and Wesfarmers' earnings per share are shown in figure 12.28.

			Woolworths		Wesfarmers
Ratio	**Formula**	**Indicates**	**2013**	**2012**	**2013**
Earnings per share (EPS)	$\frac{\text{Profit available to ordinary shareholders}}{\text{Weighted average number ordinary shares}}$	Profit per ordinary share	$\frac{\$2\,259.4}{1\,237.4}$ = 182.6 cents	148.7 cents	195.9 cents

Figure 12.28 Earnings per share

Woolworths' EPS has increased significantly from 148.7 cents in 2012 to 182.6 cents in 2013. This was due to a substantial increase in profit available to ordinary shareholders of $443 million with a relatively small increase of 15 million to the number of issued shares in 2013. Wesfarmers' EPS is greater than Woolworths' in 2013 at 195.9 cents per share. The EPS is a commonly quoted figure and can be found in many daily newspapers and securities exchange reports. Companies are also required to disclose it in their annual reports. Comparison of EPS between companies is not valid when companies vary in the number of issued shares without further information about the share price. To some extent, the price/earnings ratio overcomes this limitation.

20. *Price/earnings ratio.* Like EPS, the **price/earnings ratio (P/E ratio)** is another statistic that is often quoted that measures the ratio of the market price of each ordinary share to the earnings per share. The price/earnings ratio is a reflection of investors' assessments of a company's future earnings and indicates how much an investor would have to pay in the market for each dollar of earnings expected. It is calculated by dividing the market price per share by earnings per share. Woolworths' and Wesfarmers' price/earnings ratios are shown in figure 12.29.

			Woolworths		Wesfarmers
Ratio	**Formula**	**Indicates**	**2013**	**2012**	**2013**
Price/earnings ratio	$\frac{\text{Share price}}{\text{Earning per share}}$	Relationship between market price per share and earnings per share	$\frac{\$32.81}{\$1.826}$ = 17.97 times	17.85 times	20.22 times

Figure 12.29 Price/earnings ratio

At the end of the 2013 financial period, Woolworths' share price of $32.81 was 17.97 times higher than the amount of earnings per share. This means that an investor who buys one share in Woolworths at a market price of $32.81 can expect to earn an average return of 5.6% ($1.826/$32.81) at the current level of profit. In 2013, Wesfarmers' P/E ratio of 20.22 times is much higher than that of Woolworths' P/E ratio which remained close to 18 times in 2012 and 2013. Both companies had strong

P/E ratios. Investing in shares in either company would have provided a return greater than simply earning interest on the money invested in a fixed term deposit with a bank at the prevailing rates of about 3% to 4.5% in Australia in 2013.

Price/earnings ratios vary between industries. Generally, financially strong, or 'blue chip' companies, and companies experiencing growth have higher P/E ratios. Companies in the maturity and decline phase of the life cycle tend to have lower P/E ratios. Calculating the P/E ratios enables an investor to compare the market value of one ordinary share relative to profits with that of other companies. It also provides an indication of shareholder confidence in the company. A greater level of shareholder confidence would be reflected in a higher P/E ratio as shareholders would be prepared to pay a higher price for the share. For example, Woolworths' share price has risen from $26.10 in 2009 to $32.81 in 2013.

21. *Dividend payout rate.* The **dividend payout rate** measures the percentage of profit distributed in the form of dividends. It is calculated by dividing dividends paid on ordinary shares by profit. Companies that have high growth rates are characterised by low payout rates because often they reinvest most of their profit back into the business. The dividend payout rates for Woolworths and Wesfarmers are shown in figure 12.30. Woolworths paid dividends of $1597.5 million in 2013.

			Woolworths		Wesfarmers
Ratio	**Formula**	**Indicates**	**2013**	**2012**	**2013**
Dividend payout rate	$\frac{\text{Dividends}}{\text{Profit}}$	Percentages of profit distributed in the form of dividends	$\frac{\$1\,597.5}{\$2\,259.4} = 71\%$	83%	88%

Figure 12.30 Dividend payout rate

Woolworths' dividend payout rate decreased from 83% of profit paid as dividends in 2012 to 71% in 2013. This is mainly due to the decrease of $392.5 million in dividends paid in 2013. Management determine the amount of dividends paid each year and companies are generally reluctant to reduce a dividend below the amount paid in a previous year except in this case where it was unusually high and not sustainable. Therefore, sometimes the payout rate will actually increase if a company's profit declines but the company maintains its dividend payments. Of course, unless the company returns to its previous level of profitability, maintaining this higher dividend payout rate is probably not possible over the long term.

Woolworths' dividend payout rate of 71% and 83% for 2012 and 2013 respectively was lower compared to Wesfarmers' dividend payout rate of 88% of profit in 2013. In the absence of low profits, a high dividend payout rate is indicative of a company in the maturity stage. The decline of Woolworths' dividend payout rate in 2013 also may have been attributed to the reinvestment of profits in the business to finance new store openings in 2013. This can be seen in the substantial increase of $497.7 million in retained earnings in 2013. Before drawing any conclusions regarding the company's dividend payout rate, we should calculate this ratio over a longer period of time to evaluate any trends, and also try to find out whether management's philosophy regarding dividends has changed in recent times.

In terms of the types of financial information available and the ratios used by various industries, what can be practically covered in this book gives you only the 'Titanic approach' — you are seeing only the tip of the iceberg compared with the vast databases and types of ratio analysis that are available on computers. The availability of information is not a problem. The challenge is to be discriminating enough to perform relevant analyses and select pertinent comparative data. It also must be restated that ratios provide useful information about a company that may not be immediately evident from simply observing the data provided in financial reports, additional information about general economic conditions, industry trends or averages, information from directors' reports and media releases.

Potential investors, shareholders, lenders and other users would be interested in evaluating whether the entity is profitable and whether it can meet its short- and long-term obligations. These decision makers would feel more confident investing in a company that is highly profitable, financially stable, with adequate funds to not only meet financial obligations but also to expand its future operations. Financial data can be found in the entity's statement of profit or loss and statement of financial position. To evaluate an entity's profitability, liquidity and solvency, key ratios specific to each of these categories can be calculated and used for analysis and interpretation. For example, profit margin for profitability, current ratio for liquidity and debt to assets ratio for solvency. For a more meaningful analysis, it is useful to use appropriate benchmarks for comparison such as intra-company comparisons, inter-company comparisons as well as industry trends and averages.

DECISION MAKING

From this chapter it is evident that there is a lot of information that users can draw upon to analyse, evaluate and make decisions about an entity. The decision-making and analysis process using ratio analysis is summarised in the decision-making toolkit below.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Is the entity profitable and can it meet its short- and long-term obligations?	Statement of profit or loss, statement of financial position and other relevant information such as general economic conditions, industry trends and/or averages, information from annual reports and media releases	Calculate a variety of ratios to indicate an entity's profitability, liquidity and solvency. This is called ratio analysis.	A single ratio on its own is not very meaningful, hence it is useful to interpret ratios using: (1) intra-company comparisons, (2) inter-company comparisons, (3) other relevant information such as general economic conditions and industry trends and averages.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. What are liquidity ratios? Explain the current ratio, quick ratio, receivables turnover, inventory turnover, and current cash debt coverage.
2. What are solvency ratios? Explain the debt to total assets ratio, times interest earned, and cash debt coverage.
3. What are profitability ratios? Explain return on ordinary shareholders' equity, return on assets, asset turnover, cash return on sales ratio, earnings per share, price/earnings ratio and dividend payout rate.

LIMITATIONS OF FINANCIAL STATEMENT ANALYSIS

LEARNING OBJECTIVE 5
Discuss the limitations of financial statement analysis.

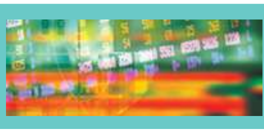
Significant business decisions are often made using one or more of the three analytical tools presented in this chapter — horizontal, vertical and ratio analysis. You should be aware of some of the limitations of these tools and of the financial statements on which they are based.

ESTIMATES

Financial statements contain numerous estimates. Estimates are used, for example, in determining the allowance for uncollectable receivables, periodic depreciation and the costs of warranties. To the extent that these estimates are inaccurate, the financial ratios and percentages are also inaccurate.

COST

Traditional financial statements are based on cost and are not adjusted for price-level changes. Comparisons of unadjusted financial data from different periods may be rendered invalid by significant inflation or deflation. For example, if a 5-year comparison of revenues shows a growth of 24% and the general price level also increased by 24%, the entity's real growth would be nil. Also, some assets such as property, plant and equipment might be many years old. The carrying amount (cost less accumulated depreciation) at which they are shown on the statement of financial position might be significantly lower than their current market value. Therefore, ratios such as return on investment would appear more favourable than if the entity had new assets.



APPLICATION IN BUSINESS

Investor perspective

A great deal of helpful non-financial information about the operations of a company can be obtained from the annual report. For example, in the 2013 annual report of Woolworths, the managing director's report outlines the entity's progress against its strategic priorities.

Good progress against our strategic priorities

All established divisions delivered a positive earnings result. This good momentum, and the progress we are making against our four strategic priorities, is mirrored in this year's result.

1. We are extending our leadership in food and liquor.

This has been demonstrated through strong sales, market share gains, earnings growth and higher volumes.

In Australian Supermarkets we continue to be the price leader, reinforced through the 'More Savings Every Day' campaign. As Australia's Fresh Food People, we are connecting our customers directly with farmers and producers, and introducing exciting offers to inspire shoppers with fresh ideas. Our New Zealand Supermarkets are the leading brand in New Zealand and have continued to grow their market share. The Woolworths Liquor Group has clear leadership across all customer segments and channels. Dan Murphy's, BWS, Cellarmasters, Langton's and winemarket.com.au have winning formulas both in store and online.

2. We have acted on our portfolio to maximise shareholder value.

We sold the consumer electronics businesses and created the SCA Property Group, transferring $1.4 billion in property to this listed vehicle. The strategic repositioning of BIG W is underway and we are working hard to run Australia's best and most responsible hotels.

3. We have maintained our successful track record of building new businesses.

We are now the largest Australian and Kiwi online retailer and we are aiming for more than $1 billion in online sales in 2014. We have a strong pipeline of Masters' store openings, setting up a clear pathway for future profits for Woolworths and our shareholders.

4. We have put in place the fundamentals that will enable future growth.

We have consistently driven our business to be more efficient and smarter. Our 50% stake in Quantium means we lead the field in customer insights and understand our customers better than ever before.

Source: Based on information from Woolworths Limited 2013 annual report, pp. 12–13.

ALTERNATIVE ACCOUNTING METHODS

Variations among entities in the application of generally accepted accounting principles may hamper comparability. For example, one entity may use the straight-line method of depreciation, whereas another entity in the same industry may use the diminishing-balance method. This would affect ratios that use profit and, to a lesser extent, ratios that use total assets. Although these differences in accounting methods might be detectable from reading the notes to the financial statements, adjusting the financial data to compensate for the different methods is difficult, if not impossible, in some cases. For example, many entities have changed accounting policies effective from the commencement of the first reporting period beginning on or after 1 January 2005. This is the result of the Financial Reporting Council's decision for Australia to converge with international financial reporting standards as discussed in chapter 1. While entities must in most cases restate comparative data, horizontal analysis over earlier periods would be distorted unless the entities also restate earlier figures.

ATYPICAL DATA

Financial year-end data may not be typical of an entity's financial condition during the year. In such cases, certain account balances (cash, receivables, payables and inventories) may not be representative of the balances in the accounts during the year. Data may also be atypical across years, if, for example, unusual events have occurred. If a gain or loss is not expected to recur, an analyst may exclude its effects from the analysis.

DIVERSIFICATION

Diversification within entities also limits the usefulness of financial statement analysis. Many entities today are so diversified that they cannot be classified by industry. Others appear to be comparable but are not. You might think that Seven Network Ltd and Ten Network Holdings Ltd would be comparable as commercial television network operators. But are they comparable when Seven Network, through Seven Media Group, lists activities including broadcast television, magazine publishing with online and expanding new communications platforms in a joint venture with Yahoo in Australia; while Ten Network Holdings' principal activities include out-of-home advertising, in particular large-format outdoor signage? Diversification hampers comparisons with competitors and industry statistics. This problem is somewhat mitigated by segmental reporting.

When entities have significant operations in different industries or groups of related products that have different risks and returns, they are required to report **segmental data**, i.e. information about the financial performance and position of each reportable segment. For example, Woolworths Ltd provides information about its business segments: supermarkets (including retail liquor and petrol outlets), general merchandise, consumer electronics and hotels. The disclosures include sales revenue, other revenue, segment revenue, total revenue, capital expenditure, depreciation and amortisation, other non-cash expenses, for each segment as well as geographic information.

Many analysts and other users of financial statements consider the segment disclosures to be among the most important information in the financial statements. Without the segment disclosures, comparing diversified entities becomes very difficult.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Are efforts to evaluate the entity significantly hampered by any of the common limitations of financial statement analysis?	Financial statements as well as a general understanding of the entity and its business	The main limitations of financial statement analysis are estimates, cost, alternative accounting methods, atypical data and diversification.	If any of these factors is significant, the analysis should be relied upon with caution.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

What are some of the limitations of financial statement analysis?

USING THE DECISION-MAKING TOOLKIT

Extracts from the Kathmandu Group annual report for 2013 are presented below.

KATHMANDU GROUP
Statement of comprehensive income (extract)
for the year ended 31 July 2013
(NZ$'000)

	2013	**2012**
Sales	383 983	347 104
Cost of sales	(141 958)	(127 559)
Gross profit	242 025	219 545
Other income	864	48
Selling expenses	(121 800)	(113 774)
Administration and general expenses	(57 700)	(48 854)
Finance income	187	144
Finance expenses	(4 594)	(5 983)
Profit before income tax	58 982	51 126
Income tax	(14 808)	(16 274)
Profit after income tax	44 174	34 852

KATHMANDU GROUP
Statement of financial position (extract)
as at 31 July 2013
(NZ$'000)

	2013	**2012**
Current assets		
Cash assets	2 345	1 811
Trade and other receivables	3 668	3 503
Financial assets	7 887	—
Inventories	80 031	73 295
Total current assets	93 931	78 609
Non-current assets		
Property, plant and equipment	43 379	41 911
Intangibles	234 863	249 092
Derivative financial instruments	27	—
Deferred tax assets	4 017	3 218
Total non-current assets	282 286	294 221
Total assets	376 217	372 830
Current liabilities		
Trade and other payables	33 032	29 304
Derivative financial instruments	58	3 128
Interest bearing liabilities	223	—
Current tax liabilities	5 507	6 276
Total current liabilities	38 820	38 708
Non-current liabilities		
Derivative financial instruments	628	751
Interest bearing liabilities	42 580	53 737
Total non-current liabilities	43 208	54 488
Total liabilities	82 028	93 196
Net assets	$294 189	$279 634

	2013	2012
Equity		
Share capital	197 370	197 298
Reserves	(4 668)	5 058
Retained earnings	101 487	77 278
Total equity	$294 189	$279 634

REQUIRED

Calculate the following ratios for Kathmandu Group for 2013 and 2012 and comment on each ratio for 2013 relative to the corresponding ratio for 2012.

(a) Liquidity:
1. Current ratio
2. Inventory turnover (inventory as at the end of 31 July 2011 was $54 001)
3. Days in inventory

(b) Solvency:
1. Debt to total assets ratio
2. Times interest earned

(c) Profitability:
1. Return on ordinary shareholders' equity (equity as at 31 July 2011 was $254 926)
2. Return on assets (assets on 31 July 2011 were $339 890)
3. Profit margin

SOLUTION

(a) Liquidity

Ratio	Formula	2013	2012
1. Current ratio	$\frac{\text{Current assets}}{\text{Current liabilities}}$	$\frac{\$93\,931}{\$38\,820} = 2.42:1$	$\frac{\$78\,609}{\$38\,708} = 2.03:1$
2. Inventory turnover	$\frac{\text{Cost of sales}}{\text{Average inventory}}$	$\frac{\$141\,958}{(\$80\,031 + \$73\,295)/2}$ = 1.85 times	$\frac{\$1\,27\,559}{(\$73\,295 + \$54\,001)/2}$ = 2 times
3. Days in inventory	$\frac{\text{365 days}}{\text{Inventory turnover}}$	$\frac{365}{1.85} = 197$ days	$\frac{365}{2} = 183$ days

Kathmandu's current ratio increased from $2.03 to $2.42 of current assets to cover each $1.00 of current liabilities in 2013. This was due to a significant increase in current assets and a relatively small increase in current liabilities. Kathmandu's inventory turnover slowed down slightly from 2 times to 1.85 times per year in 2013. The days in inventory ratio converts into 183 days in 2012 and 197 days in 2013. Although the cost of sales increased in 2013, there were greater levels of inventory held.

(b) Solvency

Ratio	Formula	2013	2012
1. Debt to total assets ratio	$\frac{\text{Total liabilities}}{\text{Total assets}}$	$\frac{\$82\,028}{\$376\,217} = 0.22:1$	$\frac{\$93\,196}{\$372\,830} = 0.25:1$
2. Times interest earned	$\frac{\text{Earnings before interest and tax}}{\text{Interest expense}}$	$\frac{\$63\,576}{\$4\,594} = 13.84$ times	$\frac{\$57\,109}{\$5\,983} = 9.55$ times

Kathmandu's debt to total assets ratio indicates a slight improvement. The level of debt used to finance assets decreased from 25% to 22% in 2013. This is reflected in the decline in liabilities and increase in the asset base in 2013. Kathmandu's lower use of debt has also had a positive impact on the times interest earned ratio which increased substantially from 9.55 times to 13.84 times in 2013. This increase is due to a higher EBIT along with a lower interest expense. Kathmandu's interest cover is very strong and well exceeds the 'rule of thumb' of 3 to 4 times coverage.

(c) Profitability

Ratio	Formula	2013	2012
1. Return on ordinary shareholders' equity	Profit available to ordinary shareholders / Average ordinary shareholders' equity	$44 174 / ($294 189 + $279 634)/2 = 15.3 cents	$34 852 / ($279 634 + $254 926)/2 = 13 cents
2. Return on assets	Profit after tax / Average total assets	$44 174 / ($376 217 + $372 830)/2 = 11.8 cents	$34 852 / ($372 830 + $339 890)/2 = 9.8 cents
3. Profit margin	Profit after tax / Net sales	$44 174 / $383 983 = 11.5 cents	$34 852 / $347 104 = 10 cents

Kathmandu's return on ordinary shareholders' equity profitability increased from 13% to 15.3% in 2013. This is attributed to an increase in profit available to ordinary shareholders and a concurrent increase in the average ordinary shareholders equity in 2013 Kathmandu's return on assets increased from 9.8% to 11.8% in 2013. This is mainly due to the significant increase in profit after tax, which was greater than the increase in the average total assets. Kathmandu's profit margin showed a slight increase from 10% to 11.5% in 2013. As the increase in profit after tax was substantially greater than the increase in sales, this suggests Kathmandu had better control over its expenses in 2013.

SUMMARY OF LEARNING OBJECTIVES

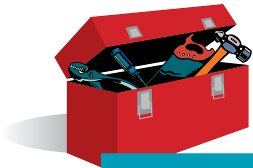
1 Discuss the need for comparative analysis and identify the tools of financial statement analysis.
Comparative analysis is performed to evaluate an entity's short-term liquidity, profitability and long-term solvency. Comparisons can detect changes in financial relationships and significant trends, and can provide insight into an entity's competitive position and relative position within its industry. Financial statements may be analysed horizontally, vertically, and with ratios.

2 Explain and apply horizontal analysis.
Horizontal analysis is a technique for evaluating a series of data over a period of time to determine the increase or decrease that has taken place, expressed as either an amount or a percentage.

3 Explain and apply vertical analysis.
Vertical analysis is a technique that expresses each item in a financial statement as a percentage of a relevant total or base amount.

4 Identify and calculate ratios and describe their purpose and use in analysing the liquidity, solvency and profitability of a business.
Ratios can be used to measure profitability, liquidity and solvency for purposes of comparison over time, between entities, and with industry statistics.

5 Discuss the limitations of financial statement analysis.
The usefulness of analytical tools is limited by the use of estimates, the cost basis, the application of alternative accounting methods, atypical data at year-end, and the diversification of entities.



DECISION-MAKING TOOLKIT — A SUMMARY

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
How do the entity's financial position and operating results compare with those of a previous period?	Statement of profit or loss and statement of financial position	Financial statements should be compared over at least 2 years, with the first year reported being the base year. Changes in each line item relative to the base year should be presented both by amount and by percentage. This is called horizontal analysis.	Significant changes should be investigated to determine the reason for the change.
How do the relationships between items in this year's financial statements compare with those of last year or those of competitors?	Statement of profit or loss and statement of financial position	Each line item on the statement of profit or loss should be presented as a percentage of net sales, and each line item on the statement of financial position should be presented as a percentage of total assets or total liabilities and equity. These percentages should be investigated for differences either across years in the same entity or in the same year across different entities. This is called vertical analysis.	Significant differences either across years or between entities should be investigated to determine the cause.
Is the entity profitable and can it meet its short- and long-term obligations?	Statement of profit or loss, statement of financial position and other relevant information such as general economic conditions, industry trends and/or averages, information from annual reports and media releases	Calculate a variety of ratios to indicate an entity's profitability, liquidity and solvency. This is called ratio analysis.	A single ratio on its own is not very meaningful, hence it is useful to interpret ratios using: (1) intra-company comparisons, (2) intercompany comparisons, (3) other relevant information such as general economic conditions and industry trends and averages.
Are efforts to evaluate the entity significantly hampered by any of the common limitations of financial statement analysis?	Financial statements as well as a general understanding of the entity and its business	The main limitations of financial statement analysis are estimates, cost, alternative accounting methods, atypical data and diversification.	If any of these factors is significant, the analysis should be relied upon with caution.

GLOSSARY

Asset turnover A measure of how efficiently an entity uses its assets to generate sales, calculated as net sales divided by average total assets (p. 739).

Average collection period The average number of days that receivables are outstanding, calculated as receivables turnover divided into 365 days (p. 734).

Average days in inventory A measure of the average number of days it takes to sell the inventory, calculated as inventory turnover divided into 365 days (p. 735).

Cash debt coverage A cash-basis measure used to evaluate solvency, calculated as cash from operations divided by average total liabilities (p. 736).

Cash return on sales ratio The cash-basis measure of profit generated by each dollar of sales, calculated as net cash from operations divided by net sales (p. 740).

Current cash debt coverage A cash-basis measure of short-term debt-paying ability, calculated as cash from operations divided by average current liabilities (p. 732).

Current ratio A measure that expresses the relationship of current assets to current liabilities, calculated as current assets divided by current liabilities (p. 731).

Debt to total assets ratio A measure of the percentage of total assets provided by creditors, calculated as total liabilities divided by total assets (p. 735).

Dividend payout rate A measure of the percentage of profit distributed in the form of dividends, calculated as dividends divided by profit (p. 742).

Earnings per share (EPS) The profit earned per ordinary share, calculated as profit available to ordinary shareholders divided by the weighted average number of ordinary shares (p. 741).

Free cash flow The amount of cash from operations available for paying dividends or expanding operations after spending enough cash to maintain operations at their current level, calculated as cash provided by operating activities less capital expenditure (p. 736).

Gross profit margin An indicator of an entity's ability to maintain an adequate selling price of goods above their cost, calculated as gross profit divided by net sales (p. 739).

Horizontal analysis A technique for evaluating a series of financial statement data over a period of time to determine the increase (decrease) that has taken place, expressed as either an amount or a percentage (p. 723).

Inventory turnover A measure of the liquidity of inventory, calculated as cost of sales divided by average inventory (p. 734).

Liquidity ratios Measures of the short-term ability of an entity to pay its maturing obligations and to meet unexpected needs for cash (p. 731).

Operating expenses to sales ratio A measure of the costs incurred to support each dollar of sales, calculated as operating expenses divided by net sales (p. 740).

Price/earnings ratio (P/E ratio) A comparison of the market price of each ordinary share with the earnings per share, calculated as the market price of the share divided by earnings per share (p. 741).

Profit margin A measure of the profit generated by each dollar of sales, calculated as profit divided by net sales (p. 738).

Profitability ratios Measures of the profit or operating success of an entity for a given period of time (p. 731).

Quick ratio (acid test) A measure of an entity's immediate short-term liquidity, calculated as the sum of cash, marketable securities and net receivables divided by current liabilities (p. 732).

Receivables turnover A measure of the liquidity of receivables, calculated as net credit sales divided by average net trade receivables (p. 733).

Return on assets (ROA) An overall measure of profitability, calculated as profit divided by average total assets (p. 738).

Return on ordinary shareholders' equity (ROE) A measure of the dollars of profit earned for each dollar invested by the owners, calculated as profit available to ordinary shareholders divided by average ordinary shareholders' equity (p. 737).

Segmental data A required note disclosure for diversified entities in which the entity reports financial information such as sales, profit and identifiable assets by geographic and/or industry segments (p. 745).

Solvency ratios Measures of the ability of the entity to survive over a long period of time (p. 731).

Times interest earned A measure of an entity's ability to meet interest payments as they come due, calculated as profit before income tax plus interest expense divided by interest expense (p. 736).

Vertical analysis A technique for evaluating financial statement data that expresses each item in a financial statement as a percentage of a base amount, such as total assets or sales revenue (p. 727).

DEMONSTRATION PROBLEM

Selected PepsiCo Inc. 2013 and 2012 figures and 2012 ratios are provided below and opposite.

	PepsiCo 2013 US$m	**PepsiCo 2012 US$m**
Net credit sales	66 415	65 492
Profit after tax	6 787	6 214
Profit available to ordinary shareholders	6 740	6 178
Income tax	2 104	2 090
Interest expense	911	899
Earnings before income tax and interest expense	9 802	9 203
Cost of sales	31 243	31 291
Gross profit	35 172	34 201
Operating expenses	25 467	25 278

	PepsiCo 2013 US$m	PepsiCo 2012 US$m
Current assets	22 203	18 720
Cash + Receivables + Marketable securities	16 632	13 660
Net receivables	6 954	7 041
Inventory	3 409	3 581
Total assets	77 478	74 638
Current liabilities	17 839	17 089
Total liabilities	53 089	52 239
Net cash flows from operating activities	9 688	8 479
Capital expenditures	2 795	2 714
Total equity	24 389	22 399
Weighted average no. of ordinary shares	1 541	1 557
Share price	$82.94	$68.43
Dividends	3 434	3 305
Earnings per share	$4.37	$3.97

Ratios	2012
Liquidity	
1. Current ratio	1.10:1
2. Quick ratio	0.80:1
3. Current cash debt coverage	0.32:1
4. Receivables turnover	9.39 times
5. Average collection period	38.88 days
6. Inventory turnover	8.45 times
7. Average days in inventory	43.21 days
Solvency	
8. Debt to total assets	0.70:1
9. Times interest earned	10.24 times
10. Cash debt coverage	0.16:1
11. Free cash flow	$5 765
Profitability	
12. Return on ordinary shareholders' equity	28.5%
13. Return on assets	8.4%
14. Profit margin	9%
15. Asset turnover	$0.89
16. Gross profit margin	53%
17. Operating expenses to sales	39%
18. Cash return on sales	0.13:1
19. Earnings per share	$3.97
20. Price/earnings ratio	17.25 times
21. Dividend payout rate	53%

REQUIRED

Calculate the liquidity, solvency and profitability ratios listed above for PepsiCo Inc. for 2013 and comment on the changes between 2012 and 2013.

SOLUTION TO DEMONSTRATION PROBLEM

Liquidity, solvency and profitability ratios for PepsiCo Inc. for 2013 are shown on the following pages. Also shown are the formulas for each ratio calculation.

Ratio analysis is more meaningful if it is supplemented with further information such as inter-company comparisons with a competitor in the same industry as well as other relevant information such as general economic conditions, industry trends or averages, company web sites, media releases, information from directors' reports and management's discussion and analysis in annual reports. This is illustrated in the analysis that follows the ratio calculations.

(a) Liquidity

Liquidity ratios measure the short-term ability of the entity to pay its maturing obligations and to meet unexpected needs for cash.

Ratio	Formula	2013	2012
1. Current ratio	$\frac{\text{Current assets}}{\text{Current liabilities}}$	$\frac{\$22\,203}{\$17\,839} = 1.24{:}1$	1.10:1
2. Quick ratio	$\frac{\text{Cash + Marketable securities + Net receivables}}{\text{Current liabilities}}$	$\frac{\$9\,375 + \$303 + \$6\,954}{\$17\,839} = 0.93{:}1$	0.80:1
3. Current cash debt coverage	$\frac{\text{Net cash provided by operating activities}}{\text{Average current liabilities}}$	$\frac{\$9\,688}{(\$17\,839 + \$17\,089)/2} = 0.55{:}1$	0.32:1
4. Receivables turnover (times)	$\frac{\text{Net credit sales}}{\text{Average net trade receivables}}$	$\frac{\$66\,415}{(\$6\,954 + \$7\,041)/2} = 9.49$ times	9.39 times
5. Average collection period (days)	$\frac{\text{365 days}}{\text{Receivables turnover}}$	$\frac{365}{9.49} = 38.5$ days	38.9 days
6. Inventory turnover (times per annum)	$\frac{\text{Cost of sales}}{\text{Average inventory}}$	$\frac{\$31\,243}{(\$3\,409 + \$3\,581)/2} = 8.94$ times	8.45 times
7. Average days in inventory	$\frac{\text{365 days}}{\text{Inventory turnover}}$	$\frac{365}{8.94} = 41$ days	43 days

PepsiCo's current ratio increased from 1.10:1 in 2012 to 1.24:1 in 2013 as the increase in current assets was greater than the increase in current liabilities. PepsiCo's competitor, The Coca-Cola Company, reported a current ratio of 1.13:1 in 2013, which is lower than PepsiCo's ratio of 1.24 in 2013 but similar to its ratio in 2012. What is considered to be an acceptable ratio may vary from industry to industry; however, around 1.5:1 is generally considered to be an acceptable current ratio for most industries. Although PepsiCo's ratio is below 1.5:1, it still has more current assets than current liabilities. This suggests that it can meet its current obligations when they fall due.

PepsiCo's quick ratio has improved from 0.80:1 in 2012 to 0.93:1 in 2013. As a rule of thumb, some analysts suggest that a quick ratio of approximately 1:1 is adequate; however, this is arbitrary and subject to debate and exception. PepsiCo's quick ratio for both years is below 1:1, which suggests that it may have difficulties in meeting its current obligations when they fall due.

PepsiCo's current cash debt coverage has increased from 0.32:1 in 2012 to 0.55:1 in 2013. The acceptable level for current cash debt coverage may vary between industries; however, a value below 0.40:1 is considered cause for additional investigation of an entity's liquidity. PepsiCo's current cash debt coverage in 2013 is above this benchmark, which indicates that it is in a strong position to meet its current liabilities.

PepsiCo's receivables turnover improved slightly from 9.39 in 2012 to 9.49 times per annum in 2013. To assess the effectiveness of an entity's credit and collection policies, the average collection period should be calculated. The general rule is that the collection period should not greatly exceed the credit term period; the time allowed for payment. PepsiCo's average collection period remained relatively unchanged from 38.9 days in 2012 to 38.5 days in 2013. To assess this ratio we need to know PepsiCo's credit policy which is explained under the accounting policies section of PepsiCo's 2013 annual report which indicates that payment required within 30 days of delivery in the United States and within 30 to 90 days internationally and discounts may be allowed for early payment. To evaluate PepsiCo's credit and collection policies more accurately we would need the break-up between international and local receivables. As this data is not available in the information provided, we need to evaluate the results with caution. However, PepsiCo's average collection period of 38.5 days in 2013 is close to the 30-day credit terms for its US customers, which indicates its credit policy is appropriate and its monitoring of receivables collection is effective.

The inventory turnover measures the number of times on average the inventory is sold during the period. Its purpose is to measure the liquidity of the inventory. The higher the turnover, the less chance stock will be slow moving or become obsolete or spoiled and unsaleable. It is important to monitor the amount of resources invested in inventory as part of managing the business. Entities do not want to unnecessarily have too much cash tied up in inventories. At the same time, they do not want to be understocked and miss out on sales because of a lack of stock. PepsiCo's inventory turnover improved slightly from 8.45 times to 8.94 times per annum in 2013.

The days in inventory ratio converts the inventory turnover into days. PepsiCo's days in inventory decreased slightly from 43 days in 2012 and 41 days in 2013. Although the cost of sales had decreased in 2013, there were significantly lower levels of inventory held. This suggests more efficient management of inventory during 2013. In order to analyse these results, we need to understand the nature of the inventory. An inventory turnover of 100 days is acceptable for non-perishable items such as furniture and machinery, but a much higher turnover would be necessary for perishables such as fresh food items. For example, Woolworths reported an inventory turnover of 10.86 times per annum which is an average of 34 days in inventory in 2013. General merchandise and consumer durables have a longer shelf life than many grocery and fast food lines, contributing to the average number of days that inventory is held. PepsiCo sells a smaller variety of products than Woolworths, including soft drinks and snack foods. Snack foods have a shorter shelf life than soft drinks; therefore, the 41 days in inventory reported in 2013 should be evaluated with caution. We would need more detailed data for each type of product to evaluate these figures with accuracy. However, 41 days in inventory does not seem excessive for soft drinks, which have expiry dates greater than one year. The figure is comparable to Woolworths, which sells both soft drinks and snack foods.

Summary — liquidity

From the analysis of the liquidity ratios along with the other information, including comparisons with competitors and information from PepsiCo's annual report, it appears that PepsiCo is able to meet its short-term obligations as they fall due, has effective credit and collection policies for receivables and is adequately turning its inventory over to avoid stock spoilage and wasted resources invested in inventory but maintain adequate supplies to meet product demand. Although slight improvements have been noted in each of the liquidity ratios from 2012 to 2013, PepsiCo's current ratio and quick ratio are slightly below expected benchmarks. Although there is no cause for concern at this stage, this should be monitored and investigated further if the decline continues in future.

(b) Solvency

Solvency ratios measure the financial stability of the entity and its ability to survive over a long period of time. Long-term creditors and shareholders are interested in a company's long-term solvency, particularly its ability to pay interest as it falls due and to repay the face value of debts at maturity. The debt to total assets, times interest earned and cash debt coverage provide information about debt-paying ability. The higher the percentage of total liabilities to total assets, the greater the financial risk that the entity may be unable to meet its maturing obligations. The lower the ratio, the more equity 'buffer' is available to creditors if the entity becomes insolvent. Therefore, from the creditors' point of view, a low ratio of debt to total assets is usually desirable.

Ratio	Formula	2013	2012
8. Debt to total assets ratio	$\frac{\text{Total liabilities}}{\text{Total assets}}$	$\frac{\$53\,089}{\$77\,478} = 0.69:1$	0.70
9. Times interest earned	$\frac{\text{Earnings before interest and tax}}{\text{Interest expense}}$	$\frac{\$9\,802}{\$911} = 10.76$ times	10.24 times
10. Cash debt coverage	$\frac{\text{Net cash provided by operating activities}}{\text{Average total liabilities}}$	$\frac{\$9\,688}{(\$53\,089 + \$52\,239)/2} = 0.18:1$	0.16:1
11. Free cash flow ($ millions)	Net cash provided by operating activities − Capital expenditures	$9 688 − $2 795 = $6 893	$5 765

PepsiCo's debt to total assets ratio indicates a marginal improvement with the level of debt used to finance assets decreased slightly from 0.70:1 in 2012 to 0.69:1 in 2013 as the increase in liabilities was relatively smaller than the increase in the asset base in 2013. Generally, entities with relatively stable profits have a higher debt to total assets than cyclical entities with widely fluctuating profits, such as many high-tech companies. Stable profits reflect low operating risk, whereas fluctuating profits are interpreted as reflecting high operating risk. PepsiCo has relatively stable profits as evidenced in the profitability ratios shown in the final section of this analysis.

To assess whether the entity's profit is adequate to meet interest payments we can calculate the times interest earned. PepsiCo's slightly lower debt to total assets ratio has had a similar impact on the times interest earned ratio which increased from 10.24 times in 2012 to 10.76 times in 2013. This was attributed to an increase in PepsiCo's EBIT which offset a marginally higher interest expense. PepsiCo's interest coverage is very strong and well exceeds the rule of thumb of 3 to 4times interest coverage.

The cash debt coverage ratio provides additional insight into an entity's ability to repay its liabilities from cash generated from operating activities without having to liquidate the assets used in its operations. PepsiCo's cash debt coverage increased slightly from 0.16:1 in 2012 to 0.18:1 in 2013. Both ratios are below the general rule of thumb of 0.20:1 which indicates additional investigation may be required; however, this may vary between industries. PepsiCo's ratio is considerably lower than its competitor, The Coca-Cola Company, which reported a ratio of 0.25:1 in 2013.

To complete our analysis of PepsiCo's solvency, free cash flow provides information about the company's solvency and its ability to pay dividends or invest in new projects. The free cash flow has increased substantially from $5 765 000 in 2012 to $6 893 000 in 2013. In 2013, PepsiCo spent $2 795 000 on capital expenditures. According to PepsiCo's management, capital spending is essential to maintaining product innovation initiatives and operational capabilities and is a necessary and ongoing use of cash.

Summary — solvency

Based on the solvency ratios calculated and other relevant information, it appears that PepsiCo is able to meet its long-term obligations as they fall due and can meet its planned capital expenditures to maintain innovation and efficiency. Financial ratings organisations can provide a comparison rating of PepsiCo's financial data to other companies. Moody's is one of the world's leading credit rating agencies. In June 2013, Moody's lowered the long-term ratings of PepsiCo from Aa3 (high quality and very low credit risk) down to A1 (upper-medium grade and low credit risk) PepsiCo's short-term rating was affirmed at P-1 Prime-1 (best ability to repay short-term debt) and the outlook for the company was evaluated as stable. The downgrade reflects PepsiCo's gradually increasing financial leverage as well as continued challenges in the North American beverage market. The significance of this downgrade by Moody's is significant for PepsiCo as it could increase its future borrowing costs.

(c) Profitability

Profitability ratios measure the profit or operating success of an entity for a given period of time. An entity's profit affects its ability to obtain debt and equity financing, its liquidity position and its ability to grow. As a consequence, creditors and investors alike are interested in evaluating profitability. Profitability is frequently used as the ultimate test of management's operating effectiveness.

Ratio	Formula	2013	2012
12. Return on ordinary shareholders' equity	$\frac{\text{Profit available to ordinary shareholders}}{\text{Average ordinary}}$	$\frac{\$6\,740}{(\$24\,389 + \$22\,399)/2}$ = 28.8 cents or 28.8%	28.5 cents or 28.5%
13. Return on assets	$\frac{\text{Profit after tax}}{\text{Average total assets}}$	$\frac{\$6\,787}{(\$77\,478 + \$74\,638)/2}$ = 8.9 cents or 8.9%	8.4 cents or 8.4%
14. Profit margin	$\frac{\text{Profit after tax}}{\text{Net sales}}$	$\frac{\$6\,787}{\$66\,415}$ = 10.2 cents or 10.2%	9.5 cents or 9.5%
15. Asset turnover	$\frac{\text{Net sales}}{\text{Average total assets}}$	$\frac{\$66\,415}{(\$77\,478 + \$74\,638)/2}$ = \$0.87	$0.89

Ratio	Formula	2013	2012
16. Gross profit margin	$\frac{\text{Gross profit}}{\text{Net sales}}$	$\frac{\$35\,172}{\$66\,415} = 53\%$	53.0%
17. Operating expenses to sales	$\frac{\text{Operating expenses}}{\text{Net sales}}$	$\frac{\$25\,467}{\$66\,415} = 38.3\%$	38.6%
18. Cash return on sales	$\frac{\text{Net cash provided by operating activities}}{\text{Net sales}}$	$\frac{\$9\,688}{\$66\,415} = 0.15{:}1$	0.13:1
19. Earnings per share (EPS)	$\frac{\text{Profit available to ordinary shareholders}}{\text{Weighted average number ordinary shares}}$	$\frac{\$6\,740}{1\,541} = \$4.37$	$3.97
20. Price/earnings ratio (times)	$\frac{\text{Share price}}{\text{Earning per share}}$	$\frac{\$82.94}{\$4.37} = 18.96$ times	17.25 times
21. Dividend payout	$\frac{\text{Dividends}}{\text{Profit}}$	$\frac{\$3\,434}{\$6\,787} = 51\%$	53%

The return on ordinary shareholders' equity (ROE) shows the amount of profit earned for each dollar invested by the shareholders. PepsiCo's return increased marginally from 28.5 cents in 2012 to 28.8 cents in 2013. These results are reflective of the minimal change in the profit available to ordinary shareholders and the average ordinary shareholders equity in 2013. The higher the ROE, the more attractive investment in the company is as it indicates a greater return on shareholder funds invested.

The return on assets measures the overall profitability of assets in terms of the profit earned on each dollar invested in assets. It is a measure of management's effectiveness based on normal business activities. PepsiCo's return on assets increased slightly from 8.4 cents in 2012 to 8.9 cents in 2013. Although there was a marginal increase in PepsiCo's profit after tax in 2013, this was offset by a greater increase in the asset base. The combination of these two factors explains the modest increase. PepsiCo's return on assets over the 2 years is comparable to its competitor, The Coca-Cola Company's, whose return on assets was 9.7 cents in 2013.

PepsiCo's profit margin showed a slight increase from 9.5% in 2012 to 10.2% in 2013. As the increase in profit after tax was greater than the increase in sales, this suggests that PepsiCo had better control over its expenses in 2013.

The asset turnover decreased slightly over the 2-year period. In 2013, PepsiCo generated 89 cents in sales for every dollar invested in assets compared to 87 cents in 2012. These figures are significantly higher than The Coca-Cola Company's asset turnover of 53 cents in 2013, which suggests that PepsiCo is using its assets more effectively in generating greater sales from its assets.

PepsiCo's gross profit margin remained unchanged between 2012 and 2013. This indicates that PepsiCo continued to have good control over its cost of sales in 2013. Its operating expenses to sales ratio has declined slightly from 38.6% to 38.3% in 2013, which contributed to the marginal increase in the profit margin in 2013.

The cash return on sales focuses on the cash generated from operating activities and therefore eliminates the impact of non-cash expenses such as depreciation, which are included in the calculation of profit-based ratios. PepsiCo's cash return on sales shows a slight increase from 13% to 15% in 2013. PepsiCo's principal source of liquidity is its operating cash flows, which is one of its fundamental strengths and offers the company financial flexibility in meeting its financing, investing and operating requirements.

Earnings per share (EPS) is a measure of the profit earned on each ordinary share. PepsiCo's EPS increased from $3.97 in 2012 to $4.37 in 2013. The EPS is a commonly quoted figure and can be found in many newspapers and on securities exchange web sites. Companies are also required to disclose this figure in their annual reports.

The price/earnings ratio (P/E ratio) is a reflection of shareholder confidence in a company's future earnings and indicates how much a shareholder would have to pay for the share compared to the earnings expected. The higher the P/E ratio, the more confident the shareholder is about the future earning capacity of the company. In the case of PepsiCo, the P/E ratio increased from 17.25 times in 2012 to 18.96 times in 2013. This is mainly due to the large increase in share price from $68.43 to $82.94 in 2013. At the end of the 2013 reporting period, PepsiCo's shares were selling for $82.94, and its EPS was $4.37, therefore the share price is approximately 19 times higher than the EPS of $4.37. PepsiCo's P/E ratio was slightly lower than The Coca-Cola Company's P/E ratio of approximately 21 times in 2013. Both companies would be considered profitable investments.

PepsiCo's dividend payout ratio decreased slightly from 53% in 2012 to 51% in 2013. Companies that have high growth rates are characterised by low payout rates because they often reinvest most of the profit back into the business. PepsiCo has a relatively high dividend payout ratio which is indicative of a company in maturity, however, it also recognises that to maintain innovation and effectiveness it needs to reinvest funds into the business. PepsiCo has a balanced approach to distributing funds to shareholders and reinvesting funds into the business.

Summary — profitability

Based on the ratios calculated and discussed in this section as well as the information gleaned from the annual report, PepsiCo is a profitable entity. Profitability is frequently used as the ultimate test of management's operating effectiveness. It appears that management is operating PepsiCo's assets efficiently and controlling prices and expenses adequately. This enables PepsiCo to generate sufficient cash to continue its investments in innovation as well as pay out generous dividends to shareholders.

SELF-STUDY QUESTIONS *Answers are at the end of the chapter.*

(LO1) 1. Intra-entity analysis is useful to detect:
(a) changes in financial relationships and significant trends within the entity.
(b) differences between entities within an industry.
(c) differences between entities.
(d) all of the above.

(LO1) 2. Industry average analysis is useful to detect:
(a) differences between entities within an industry.
(b) changes in financial relationships and significant trends within the entity.
(c) differences between entities.
(d) all of the above.

(LO1) 3. Comparison of data with other entities is an example of the following comparative basis:
(a) Intra-entity.
(b) Inter-entity.
(c) Industry averages.
(d) both (a) and (b).

(LO1) 4. Which of the following are the basic tools used in financial statement analysis?
(a) Horizontal analysis.
(b) Vertical analysis.
(c) Ratio analysis.
(d) All of the above.

(LO2) 5. In horizontal analysis, each item is expressed as a percentage of the:
(a) profit amount.
(b) equity amount.
(c) total assets amount.
(d) base-year amount.

(LO2) 6. Canterbury Ltd reported net sales of $300 000, $330 000, and $360 000 in the years 2015, 2016 and 2017 respectively. If 2015 is the base year, what is the trend percentage for 2017?
(a) 77%.
(b) 108%.
(c) 120%
(d) 130%.

(LO3) 7. In vertical analysis, the base amount for depreciation expense is generally:
(a) net sales.
(b) depreciation expense in a previous year.
(c) gross profit.
(d) non-current assets.

(LO3) 8. The following schedule is a display of what type of analysis?

	Amount	Percentage
Current assets	$200 000	25%
Property, plant and equipment	600 000	75%
Total assets	$800 000	

(a) Horizontal analysis.
(b) Differential analysis.
(c) Vertical analysis.
(d) Ratio analysis.

(LO4) 9. Which measure is an evaluation of an entity's ability to pay current liabilities?
(a) Quick ratio.
(b) Current ratio.
(c) Both (a) and (b).
(d) None of the above.

(LO4) 10. Which measure is useful in evaluating the efficiency in managing inventories?
(a) Inventory turnover.
(b) Average days in inventory.
(c) Both (a) and (b).
(d) None of the above.

(LO4) 11. Which of these is *not* a liquidity ratio?
(a) Current ratio.
(b) Asset turnover.
(c) Inventory turnover.
(d) Receivables turnover.

(LO4) 12. Silver Fern Limited reported profit $24 000; net sales $400 000; and average assets $600 000 for 2016. What is the 2016 profit margin?
(a) 6%. (c) 40%.
(b) 12%. (d) 200%.

(LO5) 13. Which of the following is generally not considered to be a limitation of financial statement analysis?
(a) Use of ratios. (c) Use of cost.
(b) Use of estimates. (d) Use of alternative accounting methods.

(LO5) 14. Which of the following is *not* considered to be true in relation to segmental data?
(a) Entities which make significant sales in different industries are required to report segment data.
(b) Entities which are highly diversified are required to report segment data.
(c) Segment data includes information about each reportable segment.
(d) Entities which have significant operations in different industries are required to report segment data.

(LO5) 15. Which of the following are generally considered to be limitations of financial statement analysis?
(a) Use of estimates, e.g. for depreciation.
(b) Use of cost for asset purchases.
(c) Use of alternative accounting methods, e.g. for inventory valuation.
(d) All of the above.

QUESTIONS

1. (a) Distinguish among the following bases of comparison: intra-entity, industry averages and inter-entity.
   (b) Give the principal purpose of using each of the three bases of comparison.
2. Two popular methods of financial statement analysis are horizontal analysis and vertical analysis. Explain the difference between these two methods.
3. The current ratio and the quick ratio are both measures of liquidity. Explain how the quick ratio overcomes some of the limitations of the current ratio.
4. Explain how calculating current cash debt coverage for an entity overcomes a disadvantage of the current and quick ratios.
5. Discuss the advantages of calculating the average collection period of receivables. How does an entity determine if there is an issue with receivables collection based on the average collection period calculation?
6. Megasonic Ltd, a retail store, has an inventory turnover of 8 times. The industry average is 14 times. Does Megasonic Ltd have a problem with its inventory?
7. Which ratios should be used to help answer each of these questions?
   (a) How efficient is an entity in using its assets to produce sales?
   (b) How long does it take for customers to pay their accounts?
   (c) How many dollars of profit were generated for each dollar of sales?
   (d) How liquid is this entity?
8. The price/earnings ratio of Domino's Pizza Enterprises Limited was 54.8 and the price/earnings ratio of Telstra Corporation Limited was 16.4. Which company did the securities market favour? Explain.
9. Indicate whether each of the following changes generally signals good or bad news about an entity:
   (a) Decrease in gross margin rate.
   (b) Decrease in inventory turnover.
   (c) Decrease in quick ratio.
   (d) Increase in return on assets.
   (e) Increase in price/earnings ratio.
   (f) Increase in debt to total assets ratio.
   (g) Increase in current cash debt coverage.
10. Identify and briefly explain five limitations of financial analysis.

BRIEF EXERCISES

Identify inter-entity and intra-entity comparison data.
(LO2)

BE12.1 Identify the inter-entity and intra-entity comparisons from the following data:
(a) Madison Ltd's current ratio has increased from 1.78:1 in 2015 to 1.90:1 in 2016.
(b) Broadway Ltd's quick ratio has decreased from 0.71:1 in 2015 to 0.69:1 in 2016.
(c) Madison Ltd's quick ratio of 0.51:1 in 2016 is lower than Broadway Ltd's quick ratio of 0.69:1 in 2016.
(d) Madison Ltd's current debt coverage is 0.80:1 is greater than the industry average.

(e) Madison Ltd's receivables turnover of 1.23 times in 2016 is higher than the receivables turnover in 2015.
(f) Madison Ltd's average collection period of 34.5 days in 2016 is lower than Broadway Ltd's average collection period of 40.3 days in 2016.

Prepare horizontal analysis.
(LO2)

BE12.2 Using these data from the statement of financial position, prepare a horizontal analysis using 2015 as a base year.

	30 June 2017	30 June 2016	30 June 2015
Accounts receivable	$ 800 000	$ 600 000	$ 700 000
Inventory	950 000	420 000	530 000
Total assets	4 600 000	3 800 000	2 400 000

Prepare vertical analysis.
(LO3)

BE12.3 Using the data presented in BE12.2, prepare a vertical analysis.

Calculate change in profit.
(LO2)

BE12.4 Horizontal analysis percentages for Jayden Ltd's sales, cost of sales and expenses are presented below.

Horizontal analysis	2017	2016	2015
Sales	92%	105%	100%
Cost of sales	105%	93%	100%
Expenses	107%	96%	100%

Explain whether Jayden Ltd's profit increased, decreased or remained unchanged over the 3-year period.

Calculate liquidity ratios.
(LO4)

BE12.5 The following selected condensed data are taken from a recent statement of financial position of Sunnydale Ltd. What are the (a) current ratio and (b) quick ratio?

Cash	$ 640 000
Marketable securities	84 500
Accounts receivable	106 300
Inventories	924 000
Other current assets	375 000
Total current assets	2 129 800
Total current liabilities	1 810 000

Evaluate collection of accounts receivable.
(LO4)

BE12.6 The following data are taken from the financial statements of Bristol Ltd.

	2017	2016
Accounts receivable (net), end of year	$ 672 000	$ 564 000
Net sales on account	6 600 000	4 920 000
Terms for all sales are 1/10, n/45.		

Calculate for each year (a) the receivables turnover and (b) the average collection period. What conclusions about the management of accounts receivable can be drawn from these data? At the end of 2015 accounts receivable (net) was $588 000.

Calculate cash-basis liquidity, profitability and solvency ratios.
(LO4)

BE12.7 Selected data taken from the 2016 financial statements of Madison Ltd are as follows.

Net sales	$8 232 000
Current liabilities, 1 July 2015	216 000
Current liabilities, 30 June 2016	288 000
Net cash provided by operating activities	912 000
Total liabilities, 1 July 2015	1 800 000
Total liabilities, 30 June 2016	1 560 000

Calculate these ratios at 30 June 2016: (a) current cash debt coverage, (b) cash return on sales ratio, and (c) cash debt coverage.

EXERCISES

E12.1 The following data is available for White Ltd and Wong Ltd.

Calculate intra-entity liquidity ratios and discuss comparative analysis. (LO1,4)

	White 2016 $'000	White 2015 $'000	Wong 2016 $'000	Wong 2015 $'000
Cost of sales	17 988	18 038	15 762	16 002
Current assets	9 998	10 151	9 130	10 200
Cash + receivables + marketable securities	6 800	6 870	6 547	7 300
Net receivables	3 995	4 389	3 725	3 500
Inventory	3 100	2 290	1 926	2 001
Total assets	35 648	34 628	29 930	33 000
Current liabilities	7 770	7 753	6 860	7 200
Total liabilities	18 231	17 394	14 562	12 450

Required

(a) Calculate all the intra-entity comparisons in relation to liquidity that the data allows for White Ltd.

(b) Why is it helpful to prepare intra-entity, inter-entity and industry comparisons when evaluating an entity?

E12.2 The financial information for Spencer Ltd is provided below.

Prepare a horizontal analysis. (LO2)

	30 June 2017	30 June 2016
Current assets	$150 000	$103 000
Property, plant and equipment (net)	380 000	315 000
Current liabilities	85 000	72 000
Non-current liabilities	140 000	104 000
Share capital, $1 each	175 000	100 000
Retained earnings	130 000	142 000

Required

Prepare a horizontal analysis for 2017 using 2016 as the base year.

E12.3 The financial information for Forrester Ltd is provided below.

Prepare horizontal analysis. (LO2)

	30 June 2017	30 June 2016
Current assets	$ 96 000	$88 000
Property, plant and equipment (net)	680 000	630 000
Current liabilities	45 000	50 000
Non-current liabilities	72 000	78 000
Share capital, $1 each	450 000	365 000
Retained earnings	209 000	225 000

Required

(a) Prepare a schedule showing a horizontal analysis for 2017 using 2016 as the base year.

(b) Explain the changes that have occurred for Forrester Ltd between 2016 and 2017.

E12.4 Operating data for Spectre Ltd are presented here.

Prepare vertical analysis and discuss the usefulness of horizontal and vertical analysis. (LO3)

	2017	2016
Sales	$900 000	$870 000
Cost of sales	520 000	460 000
Selling expenses	140 000	93 000
Administrative expenses	65 000	61 000
Income tax expense	52 500	76 800
Profit	122 500	179 200

Required

(a) Prepare a schedule showing a vertical analysis for 2017 and 2016.

(b) Why is it helpful to prepare horizontal and vertical analysis when evaluating an entity?

Prepare a vertical analysis. (LO3)

E12.5 Financial information for Ridge Ltd is as follows.

	2016	**2015**
Sales	$1 500 000	$1 350 000
Cost of sales	745 000	738 000
Selling expenses	123 000	105 000
Administrative expenses	92 000	81 000
Income tax expense	162 000	127 800
Profit	378 000	298 200

Required

(a) Prepare a schedule showing a vertical analysis for 2016 and 2015.

(b) Prepare a brief report outlining the results of your analysis for a potential investor.

Prepare horizontal and vertical analyses. (LO2,3)

E12.6 The statement of financial position for Jai's Jeans Ltd is presented below.

JAI'S JEANS LTD
Partial statement of financial position
as at 30 June 2017

	2017	2016
Assets		
Current assets	$ 27 000	$ 36 000
Property, plant and equipment (net)	951 000	862 000
Intangibles	56 000	52 000
Total assets	$1 034 000	$950 000
Liabilities and equity		
Current liabilities	$ 45 000	$ 50 000
Non-current liabilities	320 000	311 000
Equity	669 000	589 000
Total liabilities and equity	$1 034 000	$950 000

Required

(a) Prepare a horizontal analysis of the statement of financial position data for Jai's Jeans Ltd using 2016 as a base.

(b) Prepare a vertical analysis for Jai's Jeans Ltd for 2017 and 2016.

(c) If you were deciding whether to invest in this business, which analysis would you find more useful? Provide reasons for your answer.

E12.7 The statement of financial position for Bondi Ltd is presented below.

Prepare horizontal and vertical analyses. (LO2,3)

BONDI LTD
Statement of financial position
as at 30 June 2017

	2017	2016
Assets		
Current assets	$ 88 000	$ 80 000
Property, plant and equipment (net)	81 000	90 000
Intangibles	31 000	40 000
Total assets	$200 000	$210 000
Liabilities and equity		
Current liabilities	$ 52 000	$ 48 000
Non-current liabilities	135 000	150 000
Equity	13 000	12 000
Total liabilities and equity	$200 000	$210 000

Required
(a) Prepare a horizontal analysis of the statement of financial position data for Bondi Ltd using 2016 as a base. Show the amount of increase or decrease as well.
(b) Prepare a vertical analysis for Bondi Ltd for 2016 and 2017.

E12.8 Selected financial statement data for Grayson Ltd are presented below.

Calculate liquidity ratios and compare results.
(LO4)

	End of year	Beginning of year
	($m)	($m)
Cash and cash equivalents	$ 33	$ 91
Receivables (net)	378	271
Inventory	628	586
Prepaid expenses	61	52
Total current assets	$1 100	$1 000
Total current liabilities	$ 690	$ 627

For the year, net sales were $3894 million, cost of sales was $2600 million, and cash from operations was $215 million.

Required
Calculate the current ratio, quick ratio, current cash debt coverage, receivables turnover, average collection period, inventory turnover, and average days in inventory.

E12.9 Global Ltd had the following transactions involving current assets and current liabilities during February 2016.

Perform current and quick ratio analysis.
(LO4)

Feb.	3	Collected accounts receivable of $15 000.
	7	Purchased equipment for $25 000 cash.
	11	Paid $3000 for a 1-.year insurance policy.
	14	Paid accounts payable of $14 000.
	18	Declared cash dividends of $6000 to be paid in March.

Additional information:
1. As of 1 February 2016, current assets were $200 000 and current liabilities were $100 000.
2. As of 1 February 2016, current assets included $25 000 of inventory and $5000 of prepaid expenses.

Required
(a) Calculate the current ratio as of the beginning of the month and after each transaction.
(b) Calculate the quick ratio as of the beginning of the month and after each transaction.

E12.10 Sonic Ltd has the following comparative data.

Calculate selected ratios.
(LO4)

SONIC LTD
Statement of financial position
30 June 2016

	2016	2015
Cash	$ 20 000	$ 30 000
Receivables (net)	65 000	60 000
Inventories	60 000	50 000
Property, plant and equipment (net)	200 000	180 000
	$345 000	$320 000
Accounts payable	$ 50 000	$ 60 000
Loan payable (15%)	100 000	100 000
Share capital, $10 each	140 000	120 000
Retained earnings	55 000	40 000
	$345 000	$320 000

Additional information for 2016:
1. Profit was $20 000.
2. Sales on account were $380 000. Sales returns and allowances amounted to $30 000.
3. Cost of sales was $200 000.
4. Net cash provided by operating activities was $50 000.
5. The loan payable is a non-current liability in both years.

Required

Calculate the following at 30 June 2016:

(a) Current ratio.
(b) Quick ratio.
(c) Receivables turnover.
(d) Average collection period.
(e) Inventory turnover.
(f) Average days in inventory.
(g) Cash return on sales ratio.
(h) Cash debt coverage.
(i) Current cash debt coverage.

Calculate selected ratios. (LO4)

E12.11 Selected comparative statement data for Cyber Ltd are presented here.

	2017	**2016**
Net sales	$950 000	$830 000
Cost of sales	534 000	390 000
Finance cost	8 700	6 300
Profit	164 000	142 000
Accounts receivable (30 June)	56 000	52 000
Inventory (30 June)	35 000	41 000
Total assets (30 June)	710 000	670 000
Ordinary shareholders' equity (30 June)	610 000	580 000
Cash provided by operating activities	95 000	78 000

Required

Calculate the following for 2017:

(a) Profit margin.
(b) Asset turnover.
(c) Return on assets.
(d) Return on ordinary shareholders' equity.
(e) Cash return on sales ratio.
(f) Gross profit margin.

Calculate selected ratios. (LO4)

E12.12 Centro Ltd's statement of profit or loss follows.

CENTRO LTD **Statement of profit or loss (extract)** **for the year ended 30 June 2016**	
Sales	$ 580 000
Cost of sales	(210 000)
Gross profit	370 000
Expenses (excluding finance costs)	(160 000)
Finance costs	(36 000)
Profit before tax	174 000
Tax expense	(52 200)
Profit for the period	$ 121 800

Additional information:
1. The weighted average number of ordinary shares was 20 000.
2. The market price of Centro Ltd shares was $23 on 30 June 2016.
3. Cash dividends of $18 000 were paid, $3000 of which were to preference shareholders.
4. Net cash provided by operating activities was $95 000.

Required

Calculate the following measures for 2016:

(a) Earnings per share.
(b) Price/earnings ratio.
(c) Dividend payout rate.
(d) Times interest earned.
(e) Cash return on sales ratio.

E12.13 Xander Ltd experienced a fire on 30 June 2016 in which its financial records were partially destroyed. It has been able to salvage some of the records and has ascertained the following balances.

Calculate amounts from ratios. (LO4)

	30 June 2016	1 July 2015
Cash	$ 30 000	$ 10 000
Receivables (net)	72 500	126 000
Inventory	200 000	180 000
Accounts payable	50 000	90 000
Notes payable (non-current)	30 000	60 000
Ordinary shares, $100 each	400 000	400 000
Retained earnings	113 500	101 000

Additional information:
1. The inventory turnover is 3.6 times.
2. The return on ordinary shareholders' equity is 22%. Xander Ltd had no additional paid-up capital or reserves.
3. The receivables turnover is 9.4 times. All sales are on credit.
4. The return on assets is 12.5% (12.5 cents).
5. Total assets at 30 June 2015 were $805 000.

Required

Calculate the following for Xander Ltd:
(a) Cost of sales for 2016.
(b) Net sales for 2016.
(c) Profit for 2016.
(d) Total assets at 30 June 2016.

PROBLEM SET A

PSA12.1 Here are comparative statement data for Spencer Ltd and Forrester Ltd, two competitors. All data relating to the statement of financial position are as at 30 June, the end of the reporting period for both entities.

Prepare vertical analysis and comment on profitability. (LO3,4)

	Spencer Ltd		Forrester Ltd	
	2016	2015	2016	2015
Net sales	$1 250 000		$410 000	
Cost of sales	690 000		257 000	
Operating expenses	321 000		62 000	
Finance costs	6 000		1 200	
Income tax expense	69 900		26 940	
Profit	163 100		62 860	
Current assets	325 975	$312 410	188 000	$180 000
Non-current assets	521 310	500 000	240 000	216 000
Current liabilities	79 595	75 815	36 000	32 000
Non-current liabilities	108 500	90 000	27 000	24 000
Share capital, $10 each	500 000	500 000	320 000	300 000
Retained earnings	159 190	146 595	45 000	40 000

Required

(a) Prepare a vertical analysis of the 2016 statement of profit or loss data for both entities.
(b) Comment on the relative profitability of the entities by calculating the return on assets and the return on ordinary shareholders' equity for both entities.

Calculate ratios from financial statements.
(LO4)

PSA12.2 The comparative statements of Bayview Ltd are presented below.

BAYVIEW LTD
Statement of profit or loss (extract)
for the years ended 30 June

	2016	2015
Net sales	$1 818 500	$1 750 500
Cost of sales	1 005 500	996 000
Gross profit	813 000	754 500
Selling and administrative expenses	506 000	479 000
Finance costs	18 000	19 000
Profit before income tax	289 000	256 500
Income tax expense	86 700	77 000
Profit for the period	$ 202 300	$ 179 500

BAYVIEW LTD
Statement of financial position
as at 30 June 2016

	2016	2015
Assets		
Current assets		
Cash	$ 64 900	$ 64 200
Marketable securities	100 000	50 000
Accounts receivable (net)	150 000	102 800
Inventory	200 000	115 500
Total current assets	514 900	332 500
Non-current assets		
Property, plant and equipment (net)	625 300	520 300
Total assets	$1 140 200	$852 800
Liabilities and equity		
Current liabilities		
Accounts payable	$ 150 000	$145 400
Income taxes payable	43 500	42 000
Total current liabilities	$ 193 500	$187 400
Non-current liabilities		
Notes payable	210 000	200 000
Total liabilities	403 500	387 400
Equity		
Share capital ($5 each)	450 000	300 000
Retained earnings	286 700	165 400
Total Equity	736 700	465 400
Total liabilities and equity	$1 140 200	$852 800

All sales were on account. Net cash provided by operating activities for the year ended 30 June 2016 was $280 000. The weighted average number of shares is 80 137.

Required

Calculate the following for 2016:

(a) Earnings per share.
(b) Return on ordinary shareholders' equity.
(c) Return on assets.
(d) Current ratio.

(e) Quick ratio.
(f) Receivables turnover.
(g) Average collection period.
(h) Inventory turnover.
(i) Average days in inventory.
(j) Times interest earned.
(k) Asset turnover.
(l) Debt to total assets ratio.
(m) Current cash debt coverage.
(n) Cash return on sales ratio.
(o) Cash debt coverage.

PSA12.3 Condensed financial statements for Metro Ltd are presented as follows.

Prepare ratio analysis and discuss change in financial position operating results. (LO4)

METRO LTD
Statement of financial position
as at 30 June 2017

	2017	2016	2015
Cash	$ 25 000	$ 20 000	$ 18 000
Receivables (net)	50 000	45 000	48 000
Other current assets	90 000	85 000	64 000
Investments	75 000	70 000	45 000
Plant and equipment (net)	400 000	370 000	358 000
	$640 000	$590 000	$533 000
Current liabilities	$ 75 000	$ 80 000	$ 70 000
Long-term debt	80 000	85 000	50 000
Share capital, $10 each	340 000	300 000	300 000
Retained earnings	145 000	125 000	113 000
	$640 000	$590 000	$533 000

METRO LTD
Statement of profit or loss
for the years ended 30 June

	2017	2016
Sales	$740 000	$700 000
Less: Sales returns and allowances	40 000	50 000
Net sales	$700 000	$650 000
Cost of sales	420 000	400 000
Gross profit	$280 000	$250 000
Operating expenses (including income tax)	236 000	218 000
Profit	$ 44 000	$ 32 000

Additional information:
1. The market price of Metro Ltd's shares was $4.00 at 30 June 2015, $5.00 at 30 June 2016 and $7.95 at 30 June 2017.
2. All dividends were paid in cash.
3. On 1 January 2016, 4000 ordinary shares were issued.

Required
(a) Discuss the need for comparative analysis and identify the tools of financial statement analysis.
(b) Calculate the following for 2017 and 2016:
  1. Profit margin ratio.
  2. Gross profit margin.
  3. Asset turnover.
  4. Earnings per share.

5. Price/earnings ratio.
6. Cash dividend payout ratio.
7. Debt to total assets ratio.

(c) Based on the ratios calculated, provide an overview of the changes in the financial position and operating results from 2016 to 2017.

Calculate ratios; comment on overall liquidity and profitability. (LO4)

PSA12.4 The following financial information is for Digimax Ltd.

DIGIMAX LTD
Statement of financial position
as at 30 September 2016

	2016	2015
Assets		
Cash	$ 70 000	$ 65 000
Short-term investments	45 000	40 000
Receivables (net)	94 000	90 000
Inventories	130 000	125 000
Prepaid expenses	25 000	23 000
Land	130 000	130 000
Building and equipment (net)	190 000	175 000
Total assets	$684 000	$648 000
Liabilities and shareholders' equity		
Notes payable (30 days)	$100 000	$100 000
Accounts payable	45 000	42 000
Accrued liabilities	40 000	40 000
Notes payable, due March 2017	150 000	150 000
Contributed equity, $10 per share	200 000	200 000
Retained earnings	149 000	116 000
Total liabilities and shareholders' equity	$684 000	$648 000

DIGIMAX LTD
Statement of profit or loss
for the years ended 30 September

	2016	2015
Sales	$850 000	$790 000
Cost of sales	620 000	575 000
Gross profit	230 000	215 000
Operating expenses (including tax)	194 000	180 000
Profit	$ 36 000	$ 35 000

Additional information:
1. Inventory at 1 October 2014 was $115 000.
2. Receivables at 1 October 2014 were $88 000.
3. Total assets at 1 October 2014 were $630 000.
4. No transactions affected share capital during the years ended 30 September 2015 and 2016.

Required

By using ratios, explain the change in liquidity and profitability of Digimax Ltd from 2015 to 2016. (*Note:* Not all profitability ratios or cash-based ratios can be calculated.)

PSA12.5 Selected financial data of two intense competitors in a recent year are presented here (in millions).

Calculate selected ratios, and compare liquidity, profitability and solvency for two entities. (LO4)

	Eastco Ltd	Westco Ltd
	Statement of profit or loss data	
Net sales	$ 40 000	$ 82 000
Cost of sales	(32 000)	(65 000)
Selling and administrative expenses	(7 200)	(13 000)
Finance expense	(600)	(1 000)
Gain on sale of equipment	800	200
Income tax expense	(300)	(1 200)
Profit	$ 700	$ 2 000
	Statement of financial position data (end-of-year)	
Current assets	$ 11 000	$ 11 000
Property, plant and equipment (net)	9 000	17 481
Total assets	$ 20 000	$ 28 481
Current liabilities	$ 5 500	$ 9 000
Non-current liabilities	8 200	11 000
Total equity	6 300	8 481
Total liabilities and equity	$ 20 000	$ 28 481
	Beginning-of-year balances	
Total assets	$ 17 504	$ 26 441
Current liabilities	5 698	9 981
Total equity	6 093	10 753
	Other data	
Average net receivables	$ 5 500	$ 2 200
Average inventory	5 000	8 000
Net cash provided by operating activities	1 000	2 500

Required

(a) For each entity, calculate the following:

1. Current ratio.
2. Receivables turnover.
3. Average collection period.
4. Inventory turnover.
5. Average days in inventory.
6. Profit margin.
7. Asset turnover.
8. Return on assets.
9. Return on ordinary shareholders' equity.
10. Debt to total assets ratio.
11. Times interest earned.
12. Current cash debt coverage.
13. Cash return on sales ratio.
14. Cash debt coverage.

(*Hint:* Use beginning of year information provided to calculate beginning of year balance for total liabilities.)

(b) Compare the liquidity, solvency and profitability of the two entities.

Calculate numerous ratios.
(LO4)

PSA12.6 The comparative statements of Diva Ltd are presented here.

DIVA LTD
Statement of profit or loss
for the year ended 31 December

	2016	2015
Net sales (all on account)	$580 000	$520 000
Expenses		
Cost of sales	400 000	354 000
Selling and administrative	120 800	114 800
Interest expense	7 200	6 000
Income tax expense	18 000	14 000
Total expenses	546 000	488 800
Profit	$ 34 000	$ 31 200

DIVA LTD
Statement of financial position
as at 31 December

	2016	2015
Assets		
Current assets		
Cash	$ 15 000	$ 18 000
Marketable securities	18 000	15 000
Accounts receivable (net)	92 000	74 000
Inventory	84 000	70 000
Total current assets	209 000	177 000
Non-current assets		
Property, plant and equipment (net)	423 000	383 000
Total assets	$632 000	$560 000
Liabilities and equity		
Current liabilities		
Accounts payable	$112 000	$110 000
Income taxes payable	23 000	20 000
Total current liabilities	135 000	130 000
Non-current liabilities		
Notes payable	130 000	80 000
Total liabilities	265 000	210 000
Equity		
Share capital ($5 each)	150 000	150 000
Retained earnings	217 000	200 000
Total equity	367 000	350 000
Total liabilities and equity	$632 000	$560 000

Additional information:
1. Diva Ltd's shares recently sold at $19.50 per share.
2. All dividends are cash dividends.
3. All sales are credit sales.

Required

Calculate the following ratios for 2016:

(a) Current ratio.
(b) Quick ratio.
(c) Receivables turnover.
(d) Average collection period.
(e) Inventory turnover.
(f) Average days in inventory.
(g) Profit margin.
(h) Asset turnover.
(i) Return on assets.
(j) Return on ordinary shareholders' equity.
(k) Earnings per share.
(l) Price/earnings ratio.
(m) Dividend payout rate.
(n) Debt to total assets ratio.
(o) Times interest earned.

PSA12.7 Presented here are incomplete financial statements of Ascot Ltd.

Calculate missing information given a set of ratios.
(LO4)

ASCOT LTD
Statement of profit or loss
for the year ended 30 June 2016

Sales	$11 000 000
Cost of sales	?
Gross profit	?
Operating expenses	$ 1 665 000
Interest expense	?
Profit before income tax	?
Income tax expense	560 000
Profit	$?

ASCOT LTD
Statement of financial position
as at 30 June 2016

	2016	2015
Assets		
Current assets		
Cash	$ 450 000	$ 375 000
Accounts receivable (net)	?	950 000
Inventory	?	1 720 000
Total current assets	?	3 045 000
Non-current assets	4 620 000	3 955 000
Total assets	$?	$7 000 000
Liabilities and equity		
Current liabilities	$?	$ 825 000
Non-current liabilities	?	2 800 000
Total liabilities	?	3 625 000
Share capital ($1 each)	3 000 000	3 000 000
Retained earnings	400 000	375 000
Total equity	3 400 000	3 375 000
Total liabilities and equity	$?	$7 000 000

Additional information:

1. The receivables turnover for the year ended 30 June 2016 is 10 times.
2. All sales are on account.
3. The profit margin for the year ended 30 June 2016 is 14.5%.
4. Return on assets is 22% (22 cents) for the year ended 30 June 2016.
5. The current ratio on 30 June 2016 is 3:1.
6. The inventory turnover for the year ended 30 June 2016 is 4.8 times.

Required

Calculate the missing information given the ratios. Show your calculations. (*Note:* Start with one ratio and derive as much information as possible from it before trying another ratio. List all missing amounts under the ratio used to find the information.)

Use the statement of cash flows to evaluate an entity. (LO4)

PSA12.8 Presented below is a simplified statement of cash flows for Calgary Ltd.

CALGARY LTD
Statement of cash flows (simplified)
for the year ended 31 December 2017
($'000)

Net cash provided by operating activities		$101 344
Cash flows from investing activities		
Additions to property, plant and equipment	$(32 560)	
Proceeds from the sale of non-current assets	164	
Net cash used by investing activities		(32 396)
Net cash used by financing activities		(35 692)

Additional information:

1. Sales were $608 000.
2. Current liabilities were $202 800 in 2017 and $203 500 in 2016.
3. Total liabilities were $505 000 in 2017 and $306 500 in 2016.

Required

(a) Calculate:
 1. Free cash flow.
 2. Capital expenditure ratio.
 3. Current cash debt coverage.
 4. Cash debt coverage.
 5. Cash return on sales ratio.

(b) Based on your calculations, what is your evaluation of this entity? Explain your answer.

Identify and discuss the limitations of ratio analysis. (LO5)

PSA12.9 Presented below are extracts of financial information for two companies: Yin Ltd and Yan Ltd. Assume they both began operations at the beginning of 2016 with identical assets, liabilities and equity and that their revenues and expenses were identical except for their choice of accounting method for inventories and depreciation. Yin Ltd uses FIFO for inventories and straight line for depreciating property, plant and equipment. Yan Ltd uses the weighted average method for inventories and diminishing balance for depreciating property, plant and equipment. Ignore the effects of income tax for this question.

Statement of profit or loss (extracts)
for the year ended 31 December 2016

	Yin Ltd	Yan Ltd
Sales revenue	$1 000 000	$1 000 000
Less: Cost of sales	552 000	600 000
Gross profit	$ 448 000	$ 400 000
Less: Expenses		
Finance costs	32 000	32 000
Depreciation expense	40 000	80 000
Other expenses	100 000	100 000
Total expenses	172 000	212 000
Profit	**$ 276 000**	**$ 188 000**

Statement of financial position (extracts) for the year ended 31 December 2016		
	Yin Ltd	Yan Ltd
Cash	$ 80 000	$ 80 000
Accounts receivable	200 000	200 000
Inventories	208 000	160 000
Property, plant and equipment	260 000	260 000
Less accumulated depreciation	(40 000)	(80 000)
Total	**708 000**	**620 000**
Current liabilities	$ 120 000	$ 120 000
Non-current liabilities	180 000	180 000
Equity	408 000	320 000
Total	**$708 000**	**$620 000**

Required

(a) Calculate the following ratios for each entity:
1. Return on assets.
2. Return on equity.
3. Profit margin.
4. Current ratio.
5. Receivables turnover.
6. Inventory turnover.
7. Debt to equity ratio.

(b) Explain the effect that the use of different accounting methods can have on the calculations of ratios.

PROBLEM SET B

PSB12.1 Presented below is the statement of financial position data as at 31 December 2016 for two competitors, Black Ltd and White Ltd.

Prepare vertical analysis and comment on profitability. (LO3,4)

	Black Ltd		**White Ltd**	
	2016	**2015**	**2016**	**2015**
Net sales	$350 000		$1 400 000	
Cost of sales	180 000		720 000	
Operating expenses	51 000		278 000	
Finance expense	3 000		10 000	
Income tax expense	11 000		68 000	
Current assets	130 000	$100 000	700 000	$650 000
Non-current assets	405 000	270 000	1 000 000	750 000
Current liabilities	60 000	52 000	250 000	275 000
Non-current liabilities	50 000	68 000	200 000	150 000
Share capital	360 000	210 000	950 000	700 000
Retained earnings	65 000	40 000	300 000	275 000

Required

(a) Calculate profit and prepare the 2016 statement of profit or loss with vertical analysis for Black Ltd and White Ltd.

(b) Comment on the relative profitability of the entities by calculating the return on assets and return on ordinary shareholders' equity for both entities.

Calculate ratios from statement of financial position and statement of profit or loss. (LO4)

PSB12.2 The financial statements with comparative figures of Halifax Ltd are presented here.

HALIFAX LTD
Statement of profit or loss
for the year ended 30 June

	2016	2015
Net sales	$780 000	$624 000
Cost of sales	(440 000)	(405 600)
Gross profit	340 000	218 400
Selling and administrative expense	(143 880)	(149 760)
Finance expense	(9 920)	(7 200)
Profit before income taxes	186 200	61 440
Income tax expense	(29 000)	(24 000)
Profit for the period	$157 200	$ 37 440

HALIFAX LTD
Statement of financial position
as at 30 June

	2016	2015
Assets		
Current assets		
Cash	$ 23 100	$ 21 600
Short-term investments	34 800	33 000
Trade receivable (net allowance for doubtful accounts of $4800 for 2016 and $4200 for 2015)	106 200	93 800
Inventory	116 400	64 000
Total current assets	280 500	212 400
Property, plant and equipment (net)	455 300	459 600
Total assets	$735 800	$672 000
Liabilities and equity		
Current liabilities		
Accounts payable	$168 200	$132 000
Income taxes payable	25 300	24 000
Total current liabilities	193 500	156 000
Bonds payable	132 000	120 000
Total liabilities	325 500	276 000
Equity		
Share capital	140 000	150 000
Retained earnings	270 300	246 000
Total equity	410 300	396 000
Total liabilities and equity	$735 800	$672 000

All sales were on account. Net cash provided by operating activities was $41 000.

Required

Calculate the following ratios for 2016:

(a) Gross profit margin.
(b) Return on ordinary shareholders' equity.
(c) Return on assets.
(d) Current ratio.
(e) Receivables turnover.
(f) Average collection period.

(g) Inventory turnover.
(h) Days in inventory.
(i) Times interest earned.
(j) Asset turnover.
(k) Debt to total assets.
(l) Current cash debt coverage.
(m) Cash debt coverage.

Perform ratio analysis, and discuss change in financial position, operating results and limitation of financial statement analysis. (LO4)

PSB12.3 Condensed financial statements for Jasmine Ltd are presented below.

JASMINE LTD
Statement of financial position
as at 30 June

	2016	2015	2014
Cash	$ 60 000	$ 40 000	$ 18 000
Receivables (net)	70 000	60 000	48 000
Inventory	90 000	85 000	64 000
Investments	75 000	70 000	45 000
Plant and equipment (net)	500 000	410 000	358 000
	$795 000	$665 000	$533 000
Current liabilities	$ 75 000	$ 80 000	$ 70 000
Long-term debt	80 000	85 000	50 000
Share capital, $10 each	340 000	300 000	300 000
Retained earnings	300 000	200 000	113 000
	$795 000	$665 000	$533 000

JASMINE LTD
Statement of profit or loss
for the year ended 30 June

	2016	2015
Sales	$780 000	$700 000
Less: Sales returns and allowances	(40 000)	(50 000)
Net sales	740 000	650 000
Cost of sales	420 000	450 000
Gross profit	320 000	210 000
Operating expenses (including income tax)	200 000	110 000
Profit	$120 000	$100 000

Additional information:
1. The market price of Jasmine Ltd's shares was $4 at 30 June 2014, $10 at 30 June 2015 and $15 at 30 June 2016.
2. All dividends were paid in cash.
3. The weighted average number of shares was 30 000 in 2015 and 31 984 in 2016.

Required
(a) Calculate the following for 2016 and 2015.
 1. Profit margin
 2. Gross profit margin
 3. Asset turnover
 4. Earnings per share
 5. Price/earnings ratio
 6. Cash dividend payout ratio
 7. Debt to total assets ratio
(b) Based on the ratios calculated, discuss briefly the improvement or lack thereof in the financial position and operating results from 2015 to 2016 of Jasmine Ltd.
(c) Discuss the limitations of financial statement analysis.

Calculate ratios; comment on overall liquidity and profitability.
(LO4)

PSB12.4 Financial information for Multimedia Ltd is presented here.

MULTIMEDIA LTD
Statement of financial position
as at 31 December

	2016	2015
Assets		
Cash	$ 50 000	$ 42 000
Short-term investments	80 000	50 000
Receivables (net of allowance for doubtful accounts of $4000 for 2014 and $3000 for 2013)	100 000	87 000
Inventories	440 000	300 000
Prepaid expenses	25 000	31 000
Land	75 000	75 000
Building and equipment (net)	570 000	400 000
Total assets	$1 340 000	$985 000
Liabilities and equity		
Short-term provisions	$ 125 000	$25 000
Accounts payable	160 000	90 000
Accrued liabilities	50 000	50 000
Bonds payable, due 2016	200 000	100 000
Share capital (100 000 shares)	500 000	500 000
Retained earnings	305 000	220 000
Total liabilities and equity	$1 340 000	$985 000

MULTIMEDIA LTD
Statement of profit or loss
for the year ended 31 December

	2016	2015
Sales	$1 000 000	$ 940 000
Cost of sales	(650 000)	(635 000)
Gross profit	350 000	305 000
Finance cost	(20 000)	(10 000)
Operating expenses	(115 000)	(145 000)
Profit before tax	$ 215 000	$ 150 000
Tax expense	(100 000)	(70 000)
Profit	$ 115 000	$ 80 000

Additional information:
1. Inventory at the beginning of 2015 was $350 000.
2. Receivables at the beginning of 2015 were $80 000, net of an allowance for doubtful accounts of $3000.
3. Total assets at the beginning of 2015 were $1 175 000.
4. No share capital transactions occurred during 2015 or 2016.
5. All sales were on account.

Required

(a) By using ratios, explain the change in liquidity and profitability of the entity from 2015 to 2016. (*Note:* Not all profitability ratios can be calculated, nor can cash-basis ratios be calculated.)

(b) Your friend is a first-year accounting student and has asked you to explain, in simple terms, what the ratios calculated in part (a) mean.

PSB12.5 Selected financial data of two intense competitors are presented below.

Calculate selected ratios and compare liquidity, profitability and solvency for two entities. (LO4)

	Angel Ltd ($m) 2016	Buffy Ltd ($m) 2016
	Statement of profit or loss data	
Net sales	$34 025	$82 494
Cost of sales	25 992	65 586
Selling and administrative expenses	7 701	12 858
Interest expense	494	706
Gain on sale of equipment	572	918
Income tax expense	114	1 581
Profit	$ 296	$ 2 681
	Statement of financial position data (end-of-year)	
	2016	**2016**
Current assets	$ 9 187	$15 338
Property, plant and equipment (net)	7 842	17 481
Total assets	$17 029	$32 819
Current liabilities	$ 5 626	$ 9 973
Non-current liabilities	5 371	10 120
Total shareholder's equity	6 032	12 726
Total liabilities and shareholder's equity	$17 029	$32 819
	Beginning-of-year balances	
Total assets	$17 504	$26 441
Total shareholders' equity	6 093	10 753
Current liabilities	5 698	9 981
	Other data	
Average net receivables	$ 1 570	$ 695
Average inventory	7 317	12 539
Net cash provided by operating activities	351	3 106

Required

(a) For each entity, calculate the following:

1. Current ratio.
2. Receivables turnover.
3. Average collection period.
4. Inventory turnover.
5. Average days in inventory.
6. Profit margin ratio.
7. Asset turnover.
8. Return on assets ratio.
9. Return on shareholders' equity ratio.
10. Debt to total assets ratio.
11. Times interest earned.
12. Current cash debt coverage.
13. Cash return on sales ratio.
14. Cash debt coverage.

(b) Compare the liquidity, solvency and profitability of the two companies.

Calculate numerous ratios. (LO4)

PSB12.6 The comparative statements of Beachcombers Ltd are presented below.

BEACHCOMBERS LTD
Statement of profit or loss
for the year ended 31 December 2016

	2016	2015
Net sales (all on account)	$704 000	$645 000
Expenses		
Cost of sales	376 000	360 000
Selling and administrative	145 000	138 000
Interest expense	9 500	7 500
Income tax expense	52 050	41 850
Total expenses	582 550	547 350
Profit	$121 450	$ 97 650

BEACHCOMBERS LTD
Statement of financial position
as at 31 December 2016

	2016	2015
Assets		
Current assets		
Cash	$ 25 000	$ 22 500
Marketable securities	15 600	19 000
Accounts receivable (net)	110 000	95 000
Inventory	90 000	78 000
Total current assets	240 600	215 000
Non-current assets		
Property, plant and equipment (net)	520 000	465 000
Total assets	$760 600	$680 000
Liabilities and equity		
Current liabilities		
Accounts payable	$ 83 600	$ 80 700
Income taxes payable	28 000	24 300
Total current liabilities	111 600	105 000
Non-current liabilities		
Notes payable	184 000	150 000
Total liabilities	295 600	255 000
Equity		
Share capital ($5 each)	200 000	180 000
Retained earnings	265 000	245 000
Total equity	465 000	425 000
Total liabilities and equity	$760 600	$680 000

Additional information:
1. Beachcombers Ltd shares recently sold at $28.50 per share.
2. All dividends are cash dividends.
3. You are required to reconstruct the Retained Earnings account to calculate the dividend amount.
4. All sales are credit sales.

Required

Calculate the following ratios for 2016:

(a) Current ratio.
(b) Quick ratio.
(c) Receivables turnover.
(d) Average collection period.
(e) Inventory turnover.
(f) Average days in inventory.
(g) Profit margin.
(h) Asset turnover.
(i) Return on assets.
(j) Return on ordinary shareholders' equity.
(k) Earnings per share.
(l) Price/earnings ratio.
(m) Dividend payout.
(n) Debt to total assets ratio.
(o) Times interest earned.

PSB12.7 The incomplete financial statements of Jade Ltd are presented below.

Calculate missing information given a set of ratios. (LO4)

JADE LTD
Statement of profit or loss
for the year ended 30 June 2016

Sales	$5 500 000
Cost of sales	?
Gross profit	?
Operating expenses	$ 832 500
Interest expense	?
Profit before income tax	?
Income tax expense	280 000
Profit	$?

JADE LTD
Statement of financial position
as at 30 June 2016

	2016	2015
Assets		
Current assets		
Cash	$ 225 000	$ 187 500
Accounts receivable (net)	?	475 000
Inventory	?	860 000
Total current assets	?	1 522 500
Non-current assets	2 310 000	1 977 500
Total assets	$?	$3 500 000
Liabilities and equity		
Current liabilities	$?	$ 412 500
Non-current liabilities	?	1 400 000
Total liabilities	?	1 812 500
Share capital ($1 each)	1 500 000	1 500 000
Retained earnings	200 000	187 500
Total equity	1 700 000	1 687 500
Total liabilities and equity	$?	$3 500 000

Additional information:

1. The receivables turnover for the year ended 30 June 2016 is 10 times.
2. All sales are on account.
3. The profit margin for the year ended 30 June 2016 is 14.5%.

4. Return on assets is 22% (22 cents) for the year ended 30 June 2016.
5. The current ratio on 30 June 2016 is 3:1.
6. The inventory turnover for the year ended 30 June 2016 is 4.8 times

Required

Calculate the missing information, given the ratios. Show your calculations. (*Hint:* Start with one ratio and derive as much information as possible from it before trying another ratio. List all missing amounts under the ratio used to find the information.)

Calculate missing information given a set of ratios. (LO4)

PSB12.8 The incomplete financial statements of Kalamata Ltd are presented below.

KALAMATA LTD
Statement of profit or loss
for the year ended 30 June 2016

Sales	$2 750 000
Cost of sales	?
Gross profit	?
Operating expenses	$ 416 250
Interest expense	?
Profit before income tax	?
Income tax expense	140 000
Profit	$?

KALAMATA LTD
Statement of financial position
as at 30 June 2016

	2016	2015
Assets		
Current assets		
Cash	$ 112 500	$ 93 750
Accounts receivable (net)	?	237 500
Inventory	?	430 000
Total current assets	?	761 250
Non-current assets	1 155 000	988 750
Total assets	$?	$1 750 000
Liabilities and equity		
Current liabilities	$?	$ 206 250
Non-current liabilities	?	700 000
Total liabilities	?	906 250
Share capital ($1 each)	750 000	750 000
Retained earnings	100 000	93 750
Total equity	850 000	843 750
Total liabilities and equity	$?	$1 750 000

Additional information:
1. The receivables turnover for the year ended 30 June 2016 is 10 times.
2. All sales are on account.
3. The profit margin for the year ended 30 June 2016 is 14.5%.
4. Return on assets is 22% (22 cents) for the year ended 30 June 2016.
5. The current ratio on 30 June 2016 is 3:1.
6. The inventory turnover for the year ended 30 June 2016 is 4.8 times.

Required

(a) Given the ratios, calculate the missing information. Show your calculations. (*Note:* Start with one ratio and derive as much information as possible from it before trying another ratio. List all missing amounts under the ratio used to find the information.)

(b) Based on the ratios provided, would you invest in this business? Justify your answer.

PSB12.9 Presented below is a simplified statement of cash flows for Spectre Ltd.

Use the statement of cash flows to evaluate an entity. (LO4)

SPECTRE LTD
Statement of cash flows (extract)
for the year ended 31 December 2016
($'000)

Net cash provided by operating activities		$202 688
Cash flows from investing activities		
Additions to property, plant and equipment	($65 120)	
Proceeds from the sale of non-current assets	328	
Net cash used by investing activities		(64 792)
Net cash used by financing activities		(71 384)

Additional information:

1. Sales were $1 216 000.
2. Current liabilities were $403 000 in 2016 and $406 500 in 2015.
3. Total liabilities were $990 800 in 2016 and $608 500 in 2015.

Required

(a) Calculate:
   1. Free cash flow.
   2. Capital expenditure ratio.
   3. Current cash debt coverage.
   4. Cash debt coverage.
   5. Cash return on sales ratio.

(b) Based on your calculations, what is your evaluation of this entity? Explain your answer.

PSB12.10 Extracts of financial information for two companies: Victoria Ltd and Conrad Ltd are presented below. Assume they both began operations at the beginning of 2016 with identical assets, liabilities and equity and that their revenues and expenses were identical except for their choice of accounting method for inventories and depreciation. Victoria Ltd uses FIFO for inventories and straight line for depreciating property plant and equipment. Conrad Ltd uses the weighted average method for inventories and diminishing balance for depreciating property plant and equipment. Assume no income tax for this question.

Identify and discuss the limitations of ratio analysis. (LO5)

Statement of profit or loss (extracts)
for the year ended 31 December 2016

	Victoria Ltd	Conrad Ltd
Sales revenue	$500 000	$500 000
Less: Cost of sales	276 000	300 000
Gross profit	224 000	200 000
Less: Expenses		
Finance costs	16 000	16 000
Depreciation expense	20 000	40 000
Other expenses	50 000	50 000
Total expenses	86 000	106 000
Profit	$138 000	$ 94 000

Statement of financial position (extracts) as at 31 December 2016		
	Victoria Ltd	Conrad Ltd
Cash	$ 40 000	$ 40 000
Accounts receivable	100 000	100 000
Inventories	104 000	80 000
Property, plant and equipment	130 000	130 000
Less: Accumulated depreciation	(20 000)	(40 000)
Total assets	$354 000	$310 000
Current liabilities	60 000	60 000
Non-current liabilities	90 000	90 000
Equity	204 000	160 000
Total liabilities and equity	$354 000	$310 000

Required

(a) Calculate the following ratios for each entity:
1. Return on assets.
2. Return on equity.
3. Profit margin.
4. Current ratio.
5. Receivables turnover.
6. Inventory turnover.
7. Debt to equity ratio.

(b) Explain the effect that the use of different accounting methods can have on the calculations of ratios.

BUILDING BUSINESS SKILLS

FINANCIAL REPORTING AND ANALYSIS

FINANCIAL REPORTING PROBLEM

BBS12.1 Your parents are considering investing in David Jones Ltd (DJS) shares. They ask you, an accounting expert, to make an analysis of the entity for them. An extract from the five-year summary included in David Jones Ltd 2013 annual report is presented below. All figures are in thousands.

DAVID JONES LTD
Five-year summary 2009–2013
($'000)

	2013	2012	2011	2010	2009
Sales	$1 845 012	$1 867 817	$1 961 744	$2 053 087	$1 985 490
Gross profit	706 144	699 830	767 269	815 729	786 146
Department store—EBIT	99 532	104 995	199 003	204 798	184 377
Financial services—EBIT	49 466	49 418	47 707	44 379	41 274
Total EBIT	148 998	154 413	246 710	249 177	225 651
Profit after tax	101 554	101 103	168 139	170 766	156 522
Total assets	1 237 785	1 240 897	1 214 550	1 194 921	1 124 674
Total liabilities	436 689	465 193	429 070	450 683	439 832
Total equity	801 096	775 704	785 480	744 238	684 842
Basic earnings per share (cents)	19.2	19.4	33	34	31.5
Dividends per share (cents)	17	17.5	28	30	28

Required

(a) Prepare a 5-year trend (horizontal) analysis of sales, gross profit, department store EBIT, financial services EBIT and profit after tax using 2009 as the base year. Comment on the significance of the trend results.

(b) Calculate the following for 2013 and 2012:
1. Debt to total assets ratio.
2. Profit margin.
3. Asset turnover.
4. Return on shareholders' equity.
5. Dividend payout.

(c) How would you evaluate David Jones Ltd's profitability, solvency and investment potential?

(d) What other information may be useful in making a decision about investing in David Jones Ltd (DJS) shares?

INTERPRETING FINANCIAL STATEMENTS

BBS12.2 In 2016, Digitech Ltd decided to sell its low-performing e-business and concentrate efforts on showroom sales. The 2015 comparative figures were restated to reflect discontinued operations. The statement of profit or loss, statement of financial position and selected note disclosures from the annual report of Digitech Ltd for 2016 are presented below and on the next page.

DIGITECH LTD
Statement of profit or loss
for the year ended 30 June 2016
($'000)

	Notes	Consolidated 2016	Consolidated 2015
Revenue	2	$627 708	$550 324
Changes in inventories of work in progress and finished goods		(2 961)	(11 448)
Raw materials and consumables used		(276 558)	(221 865)
Employee benefits expense		(149 173)	(137 848)
Depreciation and amortisation expenses		(18 764)	(17 166)
Finance costs		(8 529)	(6 440)
Other expenses from ordinary activities		(160 000)	(149 727)
Profit before income tax expense		11 723	5 830
Income tax expense	5	(5 000)	(2 711)
Profit for the period from continuing operations	3	6 723	3 119
Profit after tax from discontinued operations net of loss on restatement of assets	21	(5 223)	(500)
Profit for the period		$ 1 500	$ 2 619

NOTE 3: PROFIT

Includes the following income and expense items:	2016	2015
Loss on asset write-down on impairment	(766)	(760)
Research and development costs	(2 620)	(3 931)
Defined benefit superannuation expense	(164)	(502)
Long service leave	(993)	(952)
Annual leave	(1 168)	(1 151)
Doubtful debts—trade debtors	(306)	(310)
Rent expense relating to operating leases	(49 368)	(43 574)
Bad debts recovered—trade debtors	39	60
Dividends received	470	600
Interest received	823	300
Gain on sale of non-current assets	1 800	500

DIGITECH LTD
Statement of financial position
as at 30 June 2016
($'000)

	Consolidated 2016	Consolidated 2015
Current assets		
Cash assets	$ 31 691	$ 18 422
Receivables	47 583	63 908
Inventories	55 117	88 853
Other—prepayments	8 324	10 014
Total current assets	142 715	181 197
Non-current assets		
Investments	13 965	6 295
Property, plant and equipment	108 000	110 860
Intangibles	27 000	35 000
Total non-current assets	148 965	152 155
Total assets	291 680	333 352
Current liabilities		
Payables	37 915	57 882
Current portion of long-term borrowings	4 000	142
Current tax liabilities	3 000	2 000
Short-term provisions	31 704	26 818
Total current liabilities	76 619	86 842
Non-current liabilities		
Borrowings	87 453	118 154
Long-term provisions	3 734	2 733
Total non-current liabilities	91 187	120 887
Total liabilities	167 806	207 729
Net assets	$123 874	$125 623
Equity		
Parent entity interest		
Share capital	$ 61 390	$ 61 390
Reserves	8 000	11 249
Retained earnings	54 484	52 984
Total equity	$123 874	$125 623

Required

(a) Calculate the following ratios for 2015 and 2016 and then evaluate Digitech's profitability:
1. Profit margin based on profit for the period and on profit from continuing operations. Use data in note 3 to calculate sales revenue.
2. Return on ordinary shareholders' equity, using both profit for the period and profit from continuing operations.
3. Return on assets, using both profit for the period and profit from continuing operations.
4. Times interest earned, using profit from continuing operations before finance cost and tax expense.

Note that, at 30 June 2014, equity was $124 million and total assets were $330 million.

(b) All sales were on credit. Cost of sales were $279 519 000 in 2016 and $233 313 000 in 2015.
   1. Calculate Digitech's inventory turnover for 2016.
   2. Calculate Digitech's receivables turnover for 2016. Use sales revenue calculated in (a).
   3. Calculate Digitech's gross profit margin for 2015 and 2016, using sales revenue calculated in (a).

(c) Discuss the change in profitability from 2015 to 2016 and prospects for 2017. Explain which profitability ratios are more useful as an indicator of future profitability.

MANAGERIAL ANALYSIS

BBS12.3 Grayson Global Ltd has excess cash that it wishes to invest in the ordinary shares of Nolan E-Corp Ltd. Daniel Grayson, finance director of Grayson Global Ltd, has a copy of Nolan E-Corp Ltd's most recent financial statements and a summary of key information is presented below.

	2017	2016	2015
Current ratio	2.5:1	2.0:1	1.3:1
Quick ratio	0.5:1	0.9:1	1.4:1
Accounts receivable turnover	7.2 times	8.4 times	6.8 times
Inventory turnover	6.1 times	7.3 times	7.6 times
Sales as a % of 2015 base year	142%	121%	100%
Dividends per share	$3.00	$3.00	$3.00
Dividend payout rate	50%	60%	70%
Return on total assets ratio using profit before tax	14 cents	12.4 cents	9.7 cents
Return on ordinary shareholders' equity	14.7 cents	13 cents	10.2 cents
(No additional shares issued from 2015–2017)			
Gross profit margin	40%	40%	40%

Required

To make this investment decision, Daniel would like to know about the financial trends of Nolan E-Corp Ltd over the past 3 years. As Daniel's assistant, you are required to answer each of the following questions using the data above and explain your reasoning for each answer.

(a) Are customers of Nolan E-Corp Ltd paying their invoices faster or slower now than they did in 2015?

(b) Is it becoming easier or harder for Nolan E-Corp Ltd to pay its invoices as they come due?

(c) Has the balance in Nolan E-Corp Ltd's accounts receivable increasing, decreasing or staying constant?

(d) Is the amount carried in Nolan E-Corp Ltd's inventory increased, decreased or stayed constant since 2015?

(e) Is the amount of earnings per share increasing or decreasing?

(f) Is Nolan E-Corp Ltd's financially leveraging to the advantage of its shareholders? Nolan E-Corp Ltd is charged 10% interest by the bank.

FINANCIAL ANALYSIS ON THE WEB

BBS12.4 ***Purpose:*** Financial statements communicate to investors, creditors and management the financial status of the organisation. Entities are aware that financial statements are read by individuals who have varying degrees of understanding of financial matters. IBM's 'Guide to Financials', which is located on its web site, provides online information for novice users. This guide takes an investor's approach to understanding the different financial statements.

Address: www.ibm.com/investor/help/

Steps: Go to the given address. Then under **Guides**, select **How to Read Financial Statements** and **How to Read Annual Reports**. You will then be able to answer questions (a)–(d).

Required

Answer the following questions:

(a) What is the purpose of an annual report? Who prepares the financial statements?

(b) What is the auditor's report?

(c) What are the three financial statements required in an annual report? What are key numbers in the statement of statement of profit or loss and statement of financial performance?

(d) From an investor's perspective, list two general suggestions for an approach to analysing financial statements. (Refer to **Statement Basics: Analysing the Statements.**)

COMPREHENSIVE FINANCIAL ANALYSIS EXERCISE WITH WEB SEARCH

BBS12.5 Selected figures and ratio calculations for The Coca-Cola Company and selected ratio calculations for PepsiCo Inc. are provided below. All figures are presented in US$ millions, except the share data.

The Coca-Cola Company			
	2013	**2012**	**2011**
Net credit sales	$46 854	$48 017	$46 542
Profit after tax	8 626	9 086	8 646
Profit available to ordinary shareholders	8584	9 019	8 584
Income tax	2 851	2 723	2 812
Interest expense	463	397	417
Earnings before income tax and interest expense	11 940	12 206	11 875
Cost of sales	18 421	19 053	18 215
Gross profit	28 433	28 964	28 327
Operating expenses	18 205	18 185	18 154
Current assets	31 304	30 328	25 497
Cash + Receivables + Market securities	25 141	21 310	18 955
Net receivables	4 873	4 759	4 920
Inventory	3 277	3 264	3 092
Total assets	90 055	86 174	79 974
Current liabilities	2 811	27 821	24 283
Total liabilities	56 615	53 006	48 053
Net cash flows from operating activities	10 542	10 645	9 474
Capital expenditures	2 550	2 780	2 920
Total equity	33 440	33 168	31 921
Weighted average no. of ordinary shares (in millions)	4 425	4 510	4 566
Share price	$41.31	$36.25	
Dividends	4 969	4 595	
Earnings per share	$1.94	$2.00	

Ratios	The Coca-Cola Company 2012	The Coca-Cola Company 2013	PepsiCo Inc. 2013
Liquidity			
1. Current ratio	1.09:1		1.24:1
2. Quick ratio	0.77:1		0.93:1
3. Current cash debt coverage	0.27:1		0.37:1
4. Receivables turnover	9.92 times		9.49 times
5. Average collection period	36.79 days		38.46 days
6. Inventory turnover	6.00 times		8.94 times
7. Average days in inventory	60.88 days		40.83 days
Solvency			
8. Debt to total assets	0.62:1		0.69:1
9. Times interest earned	30.75 times		10.76 times
10. Cash debt coverage	0.21:1		0.18:1
11. Free cash flow (in millions)	$7 865		$6 893
Profitability			
12. Return on ordinary shareholders' equity	28 cents		29 cents
13. Return on assets	11 cents		9 cents
14. Profit margin	19 cents		10 cents
15. Asset turnover	58 cents		87 cents
16. Gross profit margin	60%		61%
17. Operating expenses to sales	0.38:1		0.38:1
18. Cash return on sales	0.22:1		0.15:1
19. Earnings per share	$2.00		$4.37
20. Price/earnings ratio	18.13 times		18.96 times
21. Dividend payout rate	51%		51%

Required

(a) Calculate the liquidity, solvency and profitability ratios listed above for The Coca-Cola Company for 2013. Show all workings in the format provided in the demonstration problem in this chapter. Then enter the results in the table above. (*Hint:* If you are familiar with spreadsheets, you may like to enter all of the data provided on The Coca-Cola Company into a spreadsheet and enter each of the ratio formulas so that the spreadsheet calculates the amounts for you.)

(b) Compare The Coca-Cola Company's liquidity, solvency and profitability ratios for 2012 and 2013 and comment on any changes that have occurred between the years. Include in your discussion relevant information from The Coca-Cola Company's 10K report for 2013 which can be found as follows. Go to www.coca-colacompany.com/our-company/company-reports. Click on the link to the 2013 annual report on Form 10-K to view or download the document. While there is helpful information throughout, include in your discussion the relevant information provided on page 29 'Item 6: Selected Financial Data' and from page 30 'Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations'.

(c) Compare the 2013 liquidity, solvency and profitability ratios for PepsiCo Inc. and The Coca-Cola Company and comment on any differences between the entities. (*Hint:* For each of the ratios, go back to the relevant section in the chapter and the demonstration problem to help guide your analysis and discussion.)

CRITICAL THINKING

GROUP DECISION CASE

BBS12.6 You are a loan officer at Corporate Bank. Penny Wise, manager of Leverage Ltd, is interested in a 5-year loan to expand the entity's operations. The borrowed funds would be used to purchase new equipment. As evidence of Leverage Ltd's debt-worthiness, Penny provided you with the following facts.

	2016	**2015**
Current ratio	3.1	2.1
Quick ratio	0.8	1.4
Asset turnover	2.8	2.2
Cash debt coverage	0.1	0.2
Profit	Up 32%	Down 8%
Earnings per share	$3.30	$2.50

When you told Penny that you would need additional information before making your decision, she was offended, and said, 'What more could you possibly want to know?' You responded that, as a minimum, you would need complete, audited financial statements.

Required

With the class divided into groups, answer the following:

(a) Explain why you would want the financial statements to be audited.

(b) Discuss the implications of the ratios provided for the lending decision you are to make. Does the information paint a favourable picture? Are these ratios relevant to the decision?

(c) List three other ratios that you would want to calculate for Leverage Ltd, and explain why you would use each.

(d) What are the limitations of ratio analysis for credit and investing decisions?

COMMUNICATION ACTIVITY

BBS12.7 Shannon Leahy is the chief executive officer of Digital Designs Ltd. Shannon is an expert in web site design and development but a novice in accounting. Shannon requires your assistance as an accounting student, to explain (a) the basis for comparison in analysing Digital Designs Ltd's financial statements and (b) the limitations of financial statement analysis.

Required

Write a memo to Shannon explaining the basis for comparison and the limitations of financial statement analysis.

ETHICS CASE

BBS12.8 The management team of Positive Perception Ltd was faced with a financial crisis. The entity was in breach of a loan agreement and had to repay a major loan at short notice. To raise the necessary cash, one of Positive Perception Ltd's successful subsidiaries (a company owned by another company) was sold. While this solved the liquidity and solvency problems, it reduced future earning potential. As chief accountant, you have been asked to provide a list of 20 financial ratios along with some other operating statistics relative to Positive Perception Ltd's first-quarter financial data and operations.

Two days after you provide the ratios and data requested, you are asked by the public relations officer to prove the accuracy of the financial and operating data contained in the press release. In the press release, the managing director highlights the sales increase of 25% over last year's first quarter and the positive change in the current ratio from 1.5:1 last year to 3:1 this year. The managing director also emphasises that production was up 50% over the previous year's first quarter. You note that the release contains only positive or improved ratios and none of the negative or deteriorated ratios. For instance, the profit margin, which showed slight improvement from 6% to 7%, was reported but the interest cover, which had declined, was excluded. None of the ratios used profit from continuing operations, which was considerably lower. For instance, the profit margin from continuing operations was only 3%. The public relations office emphasises: 'The managing director wants this release by early this afternoon'.

Required

(a) Who are the stakeholders in this situation?
(b) Is there anything unethical in the management team's actions?
(c) Should you as chief accountant remain silent? Does the accountant or public relations officer have any responsibility?
(d) If you do not want to remain silent, who should you speak or write to?

SUSTAINABILITY

BBS12.9 Many companies today provide information on their objectives and strategies to ensure a sustainable future for the company and the planet.

Required

Download PepsiCo's 2013 annual report and summarise the key initiatives outlined for ensuring sustainable growth in relation to:

- its products
- the marketplace
- communities.

Answers to self-study questions

1. d 2. a 3. b 4. d 5. d 6. c 7. a 8. c 9. c 10. c
11. b 12. a 13. a 14. a 15. d

CHAPTER 13

ANALYSING AND INTEGRATING GAAP

LEARNING OBJECTIVES

After studying this chapter, you should be able to:

1. Explain and apply the concepts and principles underlying the recording of accounting information.
2. Describe the *Conceptual Framework for Financial Reporting* (the *Conceptual Framework*).
3. Explain the objective of general purpose financial reporting.
4. Identify the primary and other users, and their uses of financial reports.
5. Explain the nature of a reporting entity.
6. Identify and apply the qualitative characteristics and constraint on financial reporting.
7. Define assets, liabilities, equity, income and expenses and apply recognition criteria.
8. Integrate principles, concepts, standards and the *Conceptual Framework*.
9. Appreciate, at an introductory level, various future developments in financial reporting.

WHAT ACCOUNTING THEORY? ACCOUNTING IS JUST ABOUT NUMBERS...ISN'T IT?

OK, now that you've been studying accounting for some time, do you think it is just about numbers? Do you think it is a straightforward application of rules or have you found there are times when professional judgement is needed? How do accountants in practice make judgements? What is accounting's role in society? Accounting theories can be helpful in understanding these issues.

Let's begin by answering the question 'what is a theory'? The *Australian Concise Oxford dictionary* includes in its definition of a 'theory' that it is a system of ideas explaining something. There are many financial accounting theories with a variety of aims. Some theories are descriptive, seeking to explain accounting phenomena by describing them, while other theories seek to explain accounting phenomena by predicting them. For example, positive accounting theories seek to predict how managers adopt certain accounting methods to acquire higher personal wealth through bonuses. Other theories are prescriptive or normative and these theories prescribe what should be done in accounting practice. The current conceptual framework (the *Conceptual Framework*) and the related documents available for public comment (exposure drafts) described in this chapter fall into this category.

The *Conceptual Framework* is currently undergoing development and review. This is a complex process which takes many years. The various stages of this project are explored in this chapter. The first stage included a re-examination of the objective of financial reporting and the qualitative characteristics of information provided by financial reporting. One of the theories underlying the *Conceptual Framework* is the entity theory, also called the entity perspective. Within this theory, the reporting entity, that is, the entity that provides general purpose financial reports is viewed as separate from its owners, having substance on its own. What this means is that the resources provided to the entity by the investors, lenders and other creditors become the resources of the entity, and resource providers receive in exchange a claim on the resources of the entity. So, general purpose financial reporting provides information on the economic resources of that entity and the claims on those resources held by its resource providers.

Entity theory can be contrasted with proprietary theory, where the reporting entity doesn't have a substance of its own and general purpose financial reports report on the assets, liabilities and residual equity of the owners. In the reporting entity discussion paper, the entity perspective was presented as the preferred view as it is considered to more accurately represent the vast majority of today's business entities.

On the World Wide Web
International Accounting Standards Board: www.ifrs.org

However, this discussion was not carried forward to the reporting entity exposure draft (ED/2010/2 *Conceptual Framework for Financial Reporting: The Reporting Entity*). Some of the respondents to this exposure draft expressed support for the entity perspective while others expressed support for the proprietary perspective. We will have to wait and see which perspective(s) will be adopted when the reporting entity section of the conceptual framework is complete. At this point in time some of the elements and concepts in the *Conceptual Framework* remain the same but many have changed to meet the current business environment and economic conditions throughout the world. In this chapter we take another look at the accounting principles, concepts and qualitative characteristics associated with financial reporting and explore them with examples from throughout this book. We also explore some of the future directions for financial accounting. So, what does the future hold? Read on and find out.

Source: Adapted from the *Australian Concise Oxford dictionary;* based on information from C. Deegan 2013, *Financial Accounting Theory* 4rd ed., and discussion paper DP/2013/1 International Accounting Standards Board 2013, *A review of the Conceptual Framework for Financial Reporting*.

Well here we are at chapter 13 — the last chapter of the book. Let's begin with an analogy. Have you ever pieced together a jigsaw puzzle? You might have begun by putting all of the pieces that form the edge or outline of the puzzle together first. Then you might have grouped all of the pieces of a similar colour together, and then piece by piece with a lot of trial and error and a bit of luck and patience you eventually put it all together. Woo hoo! Yippee! Hooray! After all those hours of hard work, you probably stood back to admire your work, and saw the jigsaw puzzle as a whole and observed how everything fits together to make a complete picture.

The *process* is putting the jigsaw puzzle together piece by piece, but unless you stand back and look at the finished *product* you would never see it as an interrelated whole. We have used this analogy to explain the purpose of this chapter. Piece by piece, chapter by chapter, we have put together the various aspects of accounting theory and practice. The aim of this chapter is to help you stand back and review what you have learned so you can see it as an integrated whole — just like the finished picture of a jigsaw puzzle.

The organisation and content of the chapter are as follows.

ANALYSING AND INTEGRATING GAAP

Concepts and principles underlying accounting
- Monetary principle
- Accounting entity concept
- Accounting period concept
- Going concern principle
- Cost principle
- Full disclosure principle

Conceptual frameworks
- Historical developments
- Recent developments
- Future developments
- Overview of the *Conceptual Framework*

The objective of general purpose financial reporting
- Stewardship and accountability objectives
- Decision-usefulness objective
- The *Conceptual Framework*

Users and uses of financial reports
- The *Conceptual Framework* — primary users
- The *Conceptual Framework* — other users

The reporting entity
- The reporting entity — defined
- The reporting entity — indicators
- ED/2010/2 Conceptual Framework for financial reporting: the reporting entity
- Differential financial reporting

Qualitative characteristics and constraint on financial reporting
- Fundamental qualitative characteristics
- Enhancing qualitative characteristics
- Constraint on financial reporting

Definition, recognition and measurement of elements in financial reports
- Assets — definition and recognition criteria
- Liabilities — definition and recognition criteria
- Equity — definition
- Income — definition and recognition criteria
- Expenses — definition and recognition criteria
- Measurement of the elements of financial reports

Integrating principles, concepts, standards and the *Conceptual Framework*
- Summarising GAAP
- Integrating GAAP

Future developments in financial reporting
- Sustainability reporting
- EXtensible business reporting language (XBRL)

So, now that you know the objective of this chapter, let's review some of the concepts you have learned so far. Recall that in chapter 1 we explained that the objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity. Decisions include whether to buy, retain or sell shares in an entity for potential and existing shareholders; and for creditors decisions include whether to supply goods or services on credit or to lend funds to the entity. It is the accounting process that underlies the development of financial statements and accounting is defined as the process of identifying, measuring, recording and communicating the economic transactions and events of a business entity. Then, in the chapters that followed, we illustrated in detail each of these processes. By now you have had many opportunities to identify, measure and record transactions and prepare financial reports.

Take some time to reflect on your learning. How did you know which economic events were accounting transactions? How did you know how to record a purchase of equipment? How did you know what was to be recorded as an asset or a liability? How did you know when to recognise revenues and expenses? How did you know what to report and who you were reporting to? The answer to all of these questions is that you integrated and applied the rules, principles, theories and the *Conceptual Framework for Financial Reporting* (the *Conceptual Framework*) underlying accounting.

This chapter has been entitled 'analysing and integrating GAAP'. The accounting concepts, accounting principles and qualitative characteristics, together with accounting standards, are collectively referred to as Australian **generally accepted accounting principles (GAAP)**. Australian GAAP is similar to New Zealand GAAP with the exception of differential reporting discussed later in the chapter.

As indicated in the opening story, the *Conceptual Framework* is currently undergoing development and review. Throughout the chapter we will explore the *Conceptual Framework* as well as some of the future developments in accounting.

CONCEPTS AND PRINCIPLES UNDERLYING ACCOUNTING

LEARNING OBJECTIVE 1

Explain and apply the concepts and principles underlying the recording of accounting information.

In chapter 1, we introduced the concepts and principles that underlie the recording of accounting transactions. You have used those concepts and principles time and time again in recording the transactions in the numerous exercises and problems you have completed. Let's revisit them briefly to integrate your understanding of how to apply them and how important they are to preparing financial reports useful for decision making.

MONETARY PRINCIPLE

The **monetary principle** requires that the items included in the accounting records must be able to be expressed in monetary terms. Given the many transactions you have recorded to date, this might seem so obvious that it doesn't bear revisiting; however, we need to do so, as the monetary principle has important implications for financial reporting. Recall that only economic events that can be quantified in dollar terms are recorded in the financial reports. This means that some information that may in fact be helpful to a variety of users in making decisions will not be found in the financial reports (e.g. land — size, location and zoning). It is easy to identify transactions that can be quantified in monetary terms. Just look at the items that are listed in the main financial reports, including sales, cost of sales, administrative expenses, interest expenses, cash, accounts receivable and payable, bank loans and issued share capital just to name a few.

DECISION MAKING

We also need to consider *how* we measure these items. Measurement is discussed in various accounting standards and in the *Conceptual Framework*. This will be explored with examples in a later part of this chapter.

ACCOUNTING ENTITY CONCEPT

The **accounting entity concept** states that every entity can be separately identified and accounted for. This is particularly important for sole proprietorships and partnerships as they are not separate legal entities. It is important that the owners do not confuse the entity's transactions with their personal transactions, or the transactions of any other entity. For example, if a sole trader purchased a car for personal use, obtaining the funds from their personal bank account, when applying the accounting entity concept, it would not be recorded in the accounts of the entity. However, if the owner purchased a car from their personal bank account for use within the business, then, based on the accounting entity concept, this transaction would be a capital contribution and would be recorded as a debit to an asset (motor vehicles), and a credit to equity (capital).

Helpful hint

The reporting entity concept is discussed in statement of accounting concepts 1. Australian business entities and standard setters will use this concept until the new concept is added to the *Conceptual Framework.*

A related concept is the *reporting entity concept*. While the accounting entity concept applies to all accounting entities, not all entities are reporting entities. Currently the *Conceptual Framework* does not deal with this important concept. An exposure draft (ED/2010/2 *Conceptual Framework for Financial Reporting: The Reporting Entity*) was released which set out the proposed views on the *reporting entity concept*. The reporting entity is discussed in a later section.

ACCOUNTING PERIOD CONCEPT

The **accounting period concept** states that the life of a business entity can be divided into artificial periods and that useful reports covering those periods can be prepared for the entity. Most, if not all, entities report on cash flows and performance for periods of 1 year and on the financial position at the end of each period. However, listed companies (reporting entities) report at least every 6 months to shareholders, and many prepare monthly reports for internal purposes. Throughout the book we have provided real financial reports for numerous listed companies. For example, in chapter 1 we provided the financial reports for Domino's, and in chapter 12 we provided the financial reports for Woolworths Limited and Wesfarmers Limited. Both of these companies report their performance and cash flows for one financial period and prepare a statement of their financial position at the end of the period. It is important to note that this concept has implications for the recording of transactions that affect more than one period.

Helpful hint

Recall that entities provide comparative figures for one or more previous years in addition to the current period figures in the financial statements.

Recall in chapter 3 we discussed that for revenues, expenses, assets and liabilities to be recorded in the correct accounting period we need to record adjusting entries for prepayments and accruals. In short, adjusting entries are needed to ensure that the recognition criteria are followed for assets, liabilities, revenues and expenses. For example, an insurance premium may cover more than one accounting period. It is important to recognise as an expense the portion of the insurance payment that relates to the current period, while the portion that relates to the next accounting period is recognised as an asset (prepaid insurance). Numerous examples of adjusting entries are provided in chapter 3. We suggest you review this chapter if you cannot recall all of the types of adjusting entries or how to prepare them.

At this point it is helpful to reflect on how accounting concepts and principles and recognition criteria are interrelated. In the insurance example provided above we can see that the accounting period concept and the expense recognition criteria are interrelated.

GOING CONCERN PRINCIPLE

DECISION MAKING

The going concern principle is that the business will remain in operation for the foreseeable future. The **going concern principle** states that financial statements are prepared on a going concern basis unless management either intends to or must liquidate the business or cease trading (IAS 1/AASB 101, paragraph 25). Of course, many businesses do fail but, in general, it is reasonable to assume that the business will continue operating. Management must make an assessment of the validity of the going concern principle when preparing financial reports in accordance with accounting standards. The going concern principle underlies much of what we do in accounting. To give you just one example, if the going concern principle is not assumed, then plant and equipment should be stated at their liquidation value (selling price less cost of disposal), not at their cost. Liquidation values are the most indicative of an entity's current financial position if it will not be operating in the future, as it is likely that the assets will be sold, the creditors paid and any remaining funds distributed to owners. The going concern principle is inappropriate only when liquidation of the business appears likely.

COST PRINCIPLE

The **cost principle** states that all assets are initially recorded in the accounts at their purchase price or cost. This is applied not only at the time the asset is purchased, but also over the time the asset is held. For example, if Woolworths Limited was to purchase land for $500 000, it would initially be recorded at $500 000. But what would the company do if, by the end of the next year, the land had increased in value to $600 000? The answer is that under the cost principle the land would continue to be reported at $500 000. However, we also know that the purpose of general purpose financial reports is to provide useful information for decision makers. Are outdated land values useful? Perhaps not; therefore, to provide useful information, sometimes entities need to deviate from the cost principle.

Helpful hint

Critics of the cost principle contend that fair value would be more useful to decision makers. Proponents of cost measurement say that cost is the best measure because it can be verified easily from transactions between two parties, whereas fair value is often subjective.

In chapter 8 we discussed the recording and reporting of non-current assets. In that chapter, examples of asset revaluations were provided. Recall that after the initial recognition of an asset at cost (which is its fair value at the time of acquisition), an entity may choose to revalue its non-current assets to fair value. A revaluation is a reassessment of the fair value of a non-current asset at a particular date. After the initial recognition of a property, plant and equipment (PPE) asset at cost, IAS 16/AASB 116 requires each class of PPE to be measured on either the cost basis or the revalued basis. Assets can be revalued upwards or downwards as relevant. When the PPE asset is measured using the revaluation basis, any impairment loss is treated as a revaluation decrease. As you can see, the principles and the standards need to be applied together when preparing financial statements. Please review chapter 8 if you cannot recall how to record non-current assets.

Helpful hint

General purpose financial reports are reports intended to meet the information needs of existing and potential investors, lenders and other creditors who cannot require reporting entities to provide information directly to them.

FULL DISCLOSURE PRINCIPLE

The **full disclosure principle** requires that all circumstances and events that could make a difference to the decisions that users of general purpose financial reports might make should be disclosed in the financial reports. Some important financial information is not easily reported in the financial reports due to its uncertainty or difficulty in terms of its measurement. Recall in chapter 9 we discussed the recording and reporting of liabilities. In that chapter we introduced contingent liabilities. Liabilities are classified as contingent when the amount of the future sacrifice is so uncertain that it cannot be measured reliably, or when they do not satisfy the probability criterion, or when they are dependent upon the occurrence of an uncertain future event outside the control of the entity. Examples include an unresolved lawsuit brought against the entity and the potential liability resulting from a tax audit in progress. Contingent liabilities are not recognised in the financial reports as they are either not probable or they are not able to be measured reliably, or both. This means they do not satisfy the probability criterion and the measurement criterion for the recognition of liabilities. So, once again we see how the principles must be applied in conjunction with accounting standards. Despite the entity not being able to measure contingent liabilities with accuracy, under the full disclosure principle, information about contingent liabilities must be disclosed in the notes to the financial reports if this information can have a material impact on the decisions made by users of financial reports.

To summarise, the accounting concepts and principles are shown graphically in figure 13.1 (overleaf).

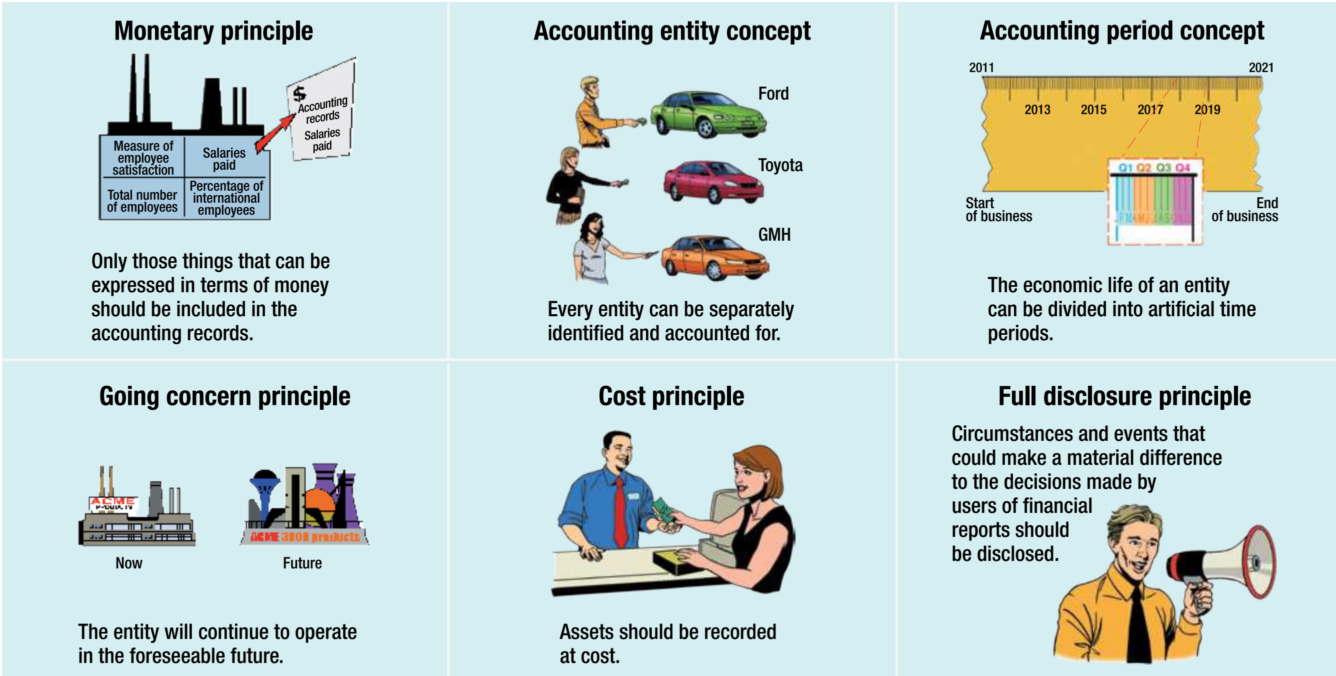


Figure 13.1 Accounting concepts and principles

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. Explain the two concepts and four principles underlying the recording of accounting information.
2. Describe any interrelationships between the concepts, principles, accounting standards and the *Conceptual Framework*.
3. Explain how both the cost principle and asset revaluations can coexist.

>> DO IT

Peter Liu has recently begun his accounting studies and is very confused about the concepts and principles underlying the recording of accounting information. He has been asked prepare a class presentation on one of the homework questions on this topic. His tutorial is only 1 day away; he is very nervous and needs help. Given you have nearly finished your introductory accounting unit he has asked you for assistance. The question Peter needs to present is: For each of the following transactions, explain the *main* concept or principle that underlies its recording:

1	Buildings	3 000 000	
	Mortgage liability		3 000 000
	(Purchased buildings using a mortgage loan for funding)		
2	Insurance expense	20 000	
	Prepaid insurance	20 000	
	Cash		40 000
	(Paid 2 years' insurance in cash)		

Include in your discussion any other relevant guidance that should be considered when recording these transactions.

REASONING: To answer this question, you explain to Peter that he first needs to review each of the concepts and principles underlying the recording of accounting information.

These include the monetary principle, accounting entity concept, accounting period concept, going concern principle, cost principle and full disclosure principle. Then, once he has a good understanding of the concepts and principles, he will be able see which of these apply to the cases in the homework problem. It is important to notice that the question asks for the main concept or principle. Sometimes more than one can apply, so the main one must be chosen. For example, the monetary principle may apply in both cases as the transactions are recorded in dollars; however, the monetary principle may not be the main one, as explained below. Finally, while the focus of the question is on concepts and principles, as requested, it is important to explain to Peter that in practice the principles and concepts aren't considered in isolation but work together with accounting standards and the *Conceptual Framework* which provide guidance for recording transactions, for example, the recognition criteria for assets, liabilities, revenues and expenses.

SOLUTION: After some discussion with you, Peter was able to come up with the following solution for his class presentation.

The first transaction involved the purchase of buildings using a mortgage loan for funding. The main underlying principle is the *cost principle,* which states that all assets are initially recorded in the accounts at their purchase price or cost. After initial recognition of a non-current asset at cost, it is important to consider the standard on non-current assets, IAS 16/AASB 116, which requires each class of property plant and equipment to be measured on either the cost basis or the revalued basis.

Helpful hint
Recall from chapter 8 that if an item of PPE is revalued, the entire class of PPE to which that asset belongs shall be revalued (IAS 16/AASB 116, paragraph 36).

The second transaction involved the payment of 2 years' insurance in cash. Half the payment was recorded as an expense and half as an asset. The main underlying concept is the *accounting period concept,* which states that the life of a business can be divided into artificial periods and that useful reports covering those periods can be prepared for the business. In this case, only half of the insurance payment belonged as an expense in the first reporting period. The other half would be an expense in the next reporting period, and so it was recorded as a prepayment (an asset) in the current period.

As noted in the reasoning section above, concepts and principles are not applied in isolation, and in this case expense and asset recognition criteria as outlined in the *Conceptual Framework* are also relevant. Recognition criteria are discussed in a later section.

CONCEPTUAL FRAMEWORKS

LEARNING OBJECTIVE 2
Describe the *Conceptual Framework for Financial Reporting* (the *Conceptual Framework*).

In this section we explore some of the historical, recent and future developments in conceptual frameworks. We also overview the current *Conceptual Framework for Financial Reporting* (the *Conceptual Framework*) issued by the International Accounting Standards Board (IASB). The *Conceptual Framework* applies in Australia and New Zealand although they have a different standard-setting process (refer to chapter 1 for the differences). A **conceptual framework** consists of a set of concepts defining the nature, purpose and content of general purpose financial reporting to be followed by preparers of general purpose financial reports and standard setters.

Historians would argue that to understand where we are now and where we are headed in the future, we need to know where we've come from. So, let's begin with a brief history of the development of conceptual frameworks.

HISTORICAL DEVELOPMENTS

In the opening story of the chapter we discussed a number of different accounting theories. While many theories of accounting have developed over time, prior to the late 1970s there was no generally accepted theory of financial accounting. This meant that the development of accounting standards for financial accounting practice was piecemeal as the standards were not based on any particular theory. This resulted in some inconsistencies between standards and therefore inconsistencies in accounting practice. To improve the standard-setting process and consistency in accounting practice, the development of a generally accepted theory of financial reporting was necessary. The theory was needed to outline the objectives of financial reporting and the required qualitative characteristics for financial information and to provide clear guidance on how to measure and account for economic events when recording transactions and preparing financial reports. The theory could be used to guide the standard-setting process and accounting practice.

Developing a generally accepted, normative theory of financial accounting and reporting has been attempted by several countries including the United States and the United Kingdom, as well as New Zealand and Australia. Historically, these countries have drawn upon one anothers' frameworks and exposure drafts in developing conceptual frameworks that suited the country's economic and financial reporting environments. For example, in Australia, unlike the United States, the *Conceptual Framework* applies to both the private and public sectors. There are many similarities between conceptual frameworks from around the world; however, most conceptual frameworks are only partially complete and there has never been a conceptual framework completed in any country which is broadly applicable across countries.

The United States has been particularly active in developing a conceptual framework and its Financial Accounting Standards Board (FASB) was actually among the first to develop a framework. The FASB defined their conceptual framework as a 'coherent system of interrelated objectives and fundamentals that is expected to lead to consistent standards . . . [prescribing] . . . the nature, function and limits of financial accounting and reporting' (Statement of Accounting Concepts 1: 'Objectives of financial reporting by business enterprises', 1978). This was way back in 1978. In 1989, the International Accounting Standards Board (IASB) issued the *Framework for the Preparation and Presentation of Financial Statements* — referred to as the *Framework* (1989). Historically, Australia was also quite active in developing a conceptual framework.

APPLICATION IN BUSINESS

International perspective

International Financial Reporting Standards (IFRSs) are a set of accounting standards developed by the International Accounting Standards Board (IASB) as the global standard for the preparation of general purpose financial statements. Approximately 120 nations and reporting jurisdictions including Australia and New Zealand, use International Financial Reporting Standards (IFRSs) as the primary Generally Accepted Accounting Principles (GAAP) for their domestic listed and unlisted companies in their consolidated financial statements for external financial reporting. However, there are some countries that have not. Countries currently considering adopting IFRSs include:

- United States
- Japan
- India
- Russia
- Malaysia
- Colombia.

There are many advantages to adopting IFRSs including that an entity can present its financial statements on the same basis as its foreign competitors, making comparisons easier, and companies with subsidiaries in other countries that require or permit IFRSs may be able to use one accounting language company-wide. So why are some nations holding back? Some believe that US GAAP is the gold standard, and that the quality will be lost with full acceptance of IFRSs. Others believe that the significant costs associated with adopting IFRSs outweigh the benefits. While the world still does not have a single set of standards, we are certainly on our way as more and more nations come on board.

Sources: American Institute of Certified Public Accountants 2014, 'International Financial Reporting Standards', www.ifrs.com; Deloitte, 'Adoption of IFRS by country', *IASPlus*, www.iasplus.com.

Prior to 2005, a conceptual framework was under development in Australia by the Australian Accounting Standards Board (AASB) and the Australian Accounting Research Foundation (AARF) jointly. Like the US, the Australian conceptual framework consisted of a series of Statements of Accounting Concepts (SACs). These statements outlined the nature, purpose and content of general purpose financial reporting for both the private and the public sectors. SAC 1 was concerned with the reporting entity, SAC 2 with the objective of general purpose financial reporting, SAC 3 with the qualitative characteristics of financial information and SAC 4 with the elements of financial statements.

Helpful hint

These organisations are discussed in chapter 1. Please refer to chapter 1 if you would like further detail.

In 2002, it was decided that Australian standards would converge with international accounting standards from 1 January 2005. However, some of the content in the Australian conceptual framework differed from the International Accounting Standards Board's *Framework* (1989). As part of the international convergence program, the AASB issued a conceptual framework (the *Framework*) which was equivalent to the *Framework* (1989) issued by the IASB. This resulted in the four SACs issued by the AASB prior to the decision to converge either being subsumed or retained alongside the *Framework*.

The statements concerned with qualitative characteristics (SAC 3) and the elements of financial statements (SAC 4) were subsumed in the *Framework*. The statements that covered the scope (SAC 1) and the objectives (SAC 2) of general purpose financial reports were temporarily retained as they were not already encompassed in the *Framework* like SAC 3 and SAC 4 were.

Helpful hint

Note that the conceptual framework issued by the AASB was called the *Framework*; the conceptual framework issued by the IASB in 1989 is referred to as the *Framework* (1989); and the conceptual framework released in 2010 is called the *Conceptual Framework*.

In 2006, the International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB) issued the first of a series of publications arising from a joint project to develop an improved conceptual framework (the *Conceptual Framework*). The comprehensive project was initially divided into eight phases.

Phase A	Objectives and qualitative characteristics
Phase B	Definitions of elements, recognition and derecognition
Phase C	Measurement
Phase D	Reporting entity concept
Phase E	Boundaries of financial reporting, and presentation and disclosure
Phase F	Purpose and status of the framework
Phase G	Application for the framework to not-for-profit entities
Phase H	Remaining issues, if any

The project was designed to span a number of years and it is currently ongoing. The extended time period was considered necessary to enable extensive consultation with the many and varied stakeholders at all stages of the project.

The consultation process involves the boards inviting interested parties to comment on the various phases of the proposed improved framework (the *Conceptual Framework*) by providing publicly available exposure drafts, discussion papers and holding roundtable discussions.

The aim of the joint project was to develop an improved common conceptual framework which could provide a sound foundation for the development of future accounting standards. This, in turn would support the development of internally consistent, principle-based standards that result in financial reporting practices that provide users with the information they need to make decisions.

When complete, the *Conceptual Framework* will be one document with several chapters rather than a series of concept statements as was the case with the FASB conceptual framework and the former Australian conceptual framework. The proposed improved *Conceptual Framework* will be focused on the private sector. However, once the project is complete, the boards will consider the applicability of the concepts for the not-for-profit and government sectors.

Helpful hint

The consultation process is part of the **due process**, where standard setters invite interested parties to contribute to the development of accounting standards.

The *Conceptual Framework* project progressed in 2008, when the IASB and FASB issued a number of consultative documents for public comment. The first document, issued May 2008, was an exposure draft (ED) of the first two chapters of the *Conceptual Framework*. Chapter 1 of the ED discussed the proposed changes surrounding the objective of financial reporting and chapter 2 of the ED re-examined the qualitative characteristics and constraints of decision-useful financial reporting information. Comments on these chapters were accepted until the closing date of 29 September 2008.

In 2010, an exposure draft was released exploring the changes to the definition of the reporting entity. The closing date for feedback on that exposure draft was 16 July 2010. Soon after, in September 2010, the IASB finally issued the *Conceptual Framework* *for Financial Reporting* (*Conceptual Framework*). It consists of an introduction, purpose and status, scope, three chapters (Chapter 2 'The reporting entity' is to be added when complete), as well as the board approval of the *Conceptual Framework*, the basis for conclusions and a table of concordance.

Given that Chapter 2 'The reporting entity' has yet to be added to the *Conceptual Framework*, Australia has retained SAC 1 on the reporting entity from the Australian conceptual framework developed many years ago.

RECENT DEVELOPMENTS

In July 2013, a discussion paper entitled *A Review of the Conceptual Framework for Financial Reporting* (DP/2013/1) was released because the IASB identified a number of issues with the existing *Conceptual Framework*. Problems include little guidance on how to identify a reporting entity and little guidance on measurement, presentation and disclosure in financial reports. Furthermore, the current definitions of liabilities and assets require improvement and some aspects of the *Conceptual Framework* do not reflect the current views of the IASB and so are out of date. The discussion paper was the IASB's first step towards developing a revised *Conceptual Framework*. Responses to the discussion paper were to be received by 14 January 2014.

FUTURE DEVELOPMENTS

In July 2014, the IASB issued a paper entitled *Effect of Board Redeliberations on DP A Review of the Conceptual Framework for Financial Reporting*. This paper reflects the tentative decisions made by the IASB and will be made available for public comment in an exposure draft of the revised *Conceptual Framework*. At the time of writing, the exposure draft had not been issued.

Currently the *Conceptual Framework* is incomplete and there are a number of future developments to come. DP/2013/1 (p. 15) outlines the key areas the IASB will focus on when developing the revised *Conceptual Framework*:

(a) elements of the financial statements (including the boundary between liabilities and equity)
(b) recognition and derecognition
(c) measurement
(d) presentation and disclosure (including the question of what should be presented in other comprehensive income (OCI))
(e) the reporting entity.

The IASB (www.ifrs.org) and FASB (www.fasb.org) web sites provide information on the progress of the project.

The boards have decided that they will need more time than they initially anticipated to finalise the *Conceptual Framework*. Given we now have a number of documents on the *Conceptual Framework* including the *Conceptual Framework for Financial Reporting* (*Conceptual Framework*) issued in September 2010; the discussion paper entitled *A Review of the Conceptual Framework for Financial Reporting* (DP/2013/1) and finally the paper entitled *Effect of Board Redeliberations on DP A Review of the Conceptual Framework for Financial Reporting* issued in July 2014, it is challenging to write up the current status of the *Conceptual Framework*. The current version of the *Conceptual Framework* provided is based on these three key documents and is discussed in some detail in the sections to follow. But, before we go into the detail, let's briefly recap where we are now and provide an overview of the *Conceptual Framework*.

OVERVIEW OF THE *CONCEPTUAL FRAMEWORK*

We first introduced the *Conceptual Framework* in chapter 1. We used the image of a window to present the *Conceptual Framework*, because a window is a lens through which we can view the world, in the same way as preparing external financial statements using a conceptual framework allows users to view the economic world in a particular way. Put simplistically, the *Conceptual Framework* consists of a set of concepts defining the nature, purpose and content of general purpose financial reporting to be followed by preparers of general purpose financial reports and standard setters.

In this section we revisit the *Conceptual Framework* and discuss its content at the time of writing this chapter. We begin with a brief overview of the *Conceptual Framework* as set out in chapter 1; however, we have changed the order of quadrants 3 and 4 of the illustrative window to facilitate the flow of the discussion in this chapter. In the sections that follow we explore in more depth some of the aspects of the *Conceptual Framework*. Given the *Conceptual Framework* is currently under development, where available the proposed changes are also explained.

In chapter 1 it was explained that the *Conceptual Framework* consists of four sections: the objective of general purpose financial reports, the reporting entity (SAC 1), the qualitative characteristics and the definition of elements in financial statements which contains the remaining text from the *Framework* (1989) issued by the IASB. The four main components are depicted in figure 13.2.

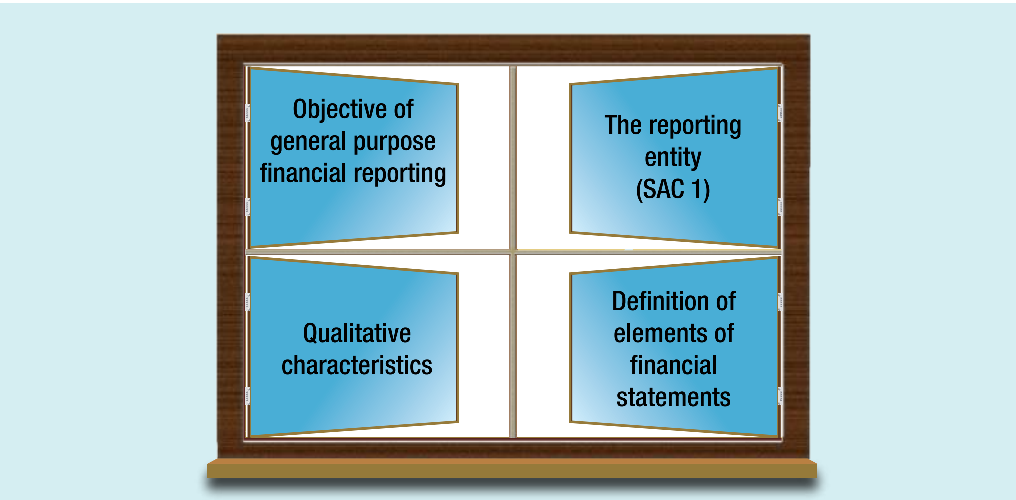


Figure 13.2 The current *Conceptual Framework*

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. Many countries throughout the world have at various times worked on the development of a conceptual framework. Discuss the advantages of developing a generally accepted, normative theory of financial accounting and reporting.
2. The AASB had issued four SACs prior to the decision to converge with international accounting standards. What were they?
3. Describe the *Conceptual Framework* briefly. (*Hint:* See figure 13.2 for an overview and refer back to chapter 1 for more detail.)

The *Conceptual Framework* provides guidance to preparers of financial information by defining the objective of general purpose financial reporting. Now let's look at this in greater detail.

THE OBJECTIVE OF GENERAL PURPOSE FINANCIAL REPORTING

LEARNING OBJECTIVE 3
Explain the objective of general purpose financial reporting.

Do you think it is important to have a clear, common objective for financial reporting? Perhaps we can think about this question by using a simple analogy. If you were going to construct a building, how would you know what type of building to build unless you knew the purpose the building was intended to serve and who would be using the building? If you are told the building is to house people, it would be helpful to know more details such as whether those people would require single or family accommodation and whether they had a low or high income to cover the rent payments. A building constructed to house people would be quite different in structure to a building constructed to serve as a shopping centre. So, as you can see, if you know the intended purpose for the building and who will use the building you have a clearer idea of what kind of building is required and you are more likely to satisfy the needs of the inhabitants of the building. The same goes for financial reporting.

STEWARDSHIP AND ACCOUNTABILITY OBJECTIVES

If we understand the objective of financial reporting, the users of the information and the decisions these users make, we are more likely to prepare financial reports that serve those users' needs. A number of different objectives or purposes of financial reporting have been suggested, for example the *stewardship* or *accountability* objectives (or perspectives) of financial reporting. These perspectives suggest that for entities where there is a separation of ownership from control (e.g. in a company where the shareholders do not manage the business), general purpose financial reports can support the stewardship or accountability function. Managers can use general purpose financial reports to show the owners they are fulfilling their stewardship function effectively and that the resources are being managed effectively and appropriately, and shareholders can use the reports to *check* on managers to make them accountable and make decisions about whether they are carrying out their stewardship duties effectively and efficiently to maximise shareholder value. In fact, in the July 2014 Board's redeliberations paper (p. 16) the IASB explained that it had decided tentatively to amend Chapter 1 of the *Conceptual Framework* to increase the prominence of stewardship as part of the objective of financial reporting by recognising that the information required to assess management's effectiveness as stewards does not fully overlap with the information required when users are assessing the future cash flows of the entity.

DECISION-USEFULNESS OBJECTIVE

An alternative purpose or objective of financial reporting is the decision usefulness perspective. This was the perspective adopted in the Australian conceptual framework Statement of Accounting Concepts 2 (SAC 2), which stated the objective of general purpose financial reports was to 'provide information to users that is useful for making and evaluating decisions about the allocation of scarce resources'. This is similar to the objective in the FASB's Concept Statement 1. However, Concept Statement 1 provides more specificity in that some of the users and some of their decisions are specifically mentioned. In particular, the statement specifies that a major objective of financial reporting is that it should provide information 'that is useful to present and potential investors and creditors and other users in making rational investment, credit and similar decisions'. In 2013, SAC 2 was withdrawn in the AASB CF 2013-1 *Amendments to the Australian Conceptual Framework* pronouncement. The objectives of general purpose financial reports in the *Conceptual Framework* now apply as outlined in the next section.

DECISION MAKING

The dual purposes of decision making and stewardship are highlighted in the following section on how measurement contributes to the objective of general purpose financial reports. The board's redeliberations paper (2014) explains that measurement contributes to the overall objective of financial reporting in that 'measurement is the process of quantifying in monetary terms information about the resources of an entity, claims against the entity and changes in those resources and claims. Such information helps users to assess the entity's *prospects for future cash flows* and assess *management's stewardship* of the entity's resources' (p. 10, *emphasis added*).

The *Conceptual Framework* is also based on the decision-usefulness perspective.

THE *CONCEPTUAL FRAMEWORK*

Chapter 1, 'The objective of general purpose financial reporting' forms the foundation of the *Conceptual Framework*. All the other elements flow from the objective. If we know why we need to report, then it follows we can determine who needs to report, what information should be provided and how the information is to be reported. This section is primarily based on the *Conceptual Framework* published in 2010 as the IASB has explicitly stated in its 2013 discussion paper that the board will not fundamentally reconsider chapters one and three of the *Conceptual Framework* published in 2010 dealing with the objective of financial reporting and the qualitative characteristics of useful financial information respectively. Furthermore, in the July 2014 board's redeliberations paper, the IASB confirmed the decision not to make changes to the description of the primary user group identified in Chapter 1 The Objective of General Purpose Financial Reporting, with the exception of increasing the prominence of the stewardship function as explained above and minor amendments as explained below.

In the *Conceptual Framework* published in 2010, the **objective of general purpose financial reporting** is:

> to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity. Those decisions involve buying, selling or holding equity and debt instruments, and providing or settling loans and other forms of credit (OB2).

In the boards's redeliberations paper (2014), the IASB's preliminary views on presentation and disclosure are to include the elements of the financial statements within the objective as follows:

> (a) the objective of primary financial statements is to provide summarised information about recognised assets, liabilities, equity, income, expenses, changes in equity, and cash flows that has been classified and aggregated in a manner that is useful to users of financial statements in making decisions about providing resources to the entity.

DECISION MAKING

Decisions include: buying, selling or retaining shares and providing loans, goods or services on credit or settling amounts owed to the entity. To make those decisions, users need information to help them assess the prospects for future net cash inflows to an entity. This will allow them to estimate the return they can expect from the resources they provide to the entity.

This definition highlights the primary users of general purpose financial reports to be existing and potential investors, lenders and other creditors, however, these users cannot generally require a reporting entity to provide information directly to them so they rely on **general purpose financial reports**.

It is acknowledged that general purpose financial reports cannot provide all of the information that each of the primary users may need, neither do they provide a valuation of an entity. However, they seek to provide information that will meet the needs of the maximum number of primary users. Hence, financial reports, together with other sources of information such as general economic conditions, political climate and industry conditions, allow primary users to estimate the value of the reporting entity and assess the prospects for future net cash inflows to an entity when making resource allocation decisions like investing and lending.

It is, however, acknowledged that other groups may also be interested in the financial reports. For example, the management of the reporting entity is one such group, but it was decided that management does not need to rely on general purpose financial reports because managers can obtain the financial information they need internally. Other parties such as regulators and members of the public may also find general purpose financial reports useful.

In the building analogy introduced on pages 801–2, we saw that understanding who the primary users of the building are to be, as well as details of their needs, would more likely result in a building that would satisfy their needs and achieve the purpose the building is constructed to fulfil. The same is true for financial reporting.

USERS AND USES OF FINANCIAL REPORTS

LEARNING OBJECTIVE 4

Identify the primary and other users, and their uses of financial reports.

Now that we know the objective for financial reporting, let's take a closer look at the users of financial reports and their information needs. We begin with an exploration of the primary users and their information needs as outlined in the *Conceptual Framework* and then discuss other users of financial reporting.

THE *CONCEPTUAL FRAMEWORK* — PRIMARY USERS

DECISION MAKING

Figure 13.3 (opposite) sets out the primary users of general purpose financial reports as **resource providers**, i.e. those users who provide resources to the entity and therefore require information to make decisions concerning the provision of those resources. Equity investors provide resources to an entity usually by investing cash for the purpose of receiving a return, and include shareholders, holders of partnership interests and other equity owners. Lenders provide resources to an entity by lending cash for the purpose of receiving a return in the form of interest.

Some questions that may be asked by investors and lenders about a company include the following:

- Is the company earning satisfactory profit?
- How does the company compare in size and profitability with its competitors?
- Will the company be able to pay its debts as they fall due?
- Is the company paying regular dividends to its shareholders?
- What is the company's potential for generating future cash flows?

To assess future net cash inflows, users require information about the entity's resources, the claims against the entity and how efficiently the entity's management and governing board have discharged their responsibilities in relation to the use of the entity's resources. So it appears that while the objective of general purpose financial reporting is founded on a decision-usefulness perspective — it is acknowledged that a stewardship perspective is also relevant.

Helpful hint

Shareholders, who can vote on retaining or replacing directors and determining management's remuneration, need information on which to base their decisions. Hence, information about stewardship is also important to these resource providers.

Has management put in place systems to protect the entity's resources against the unfavourable effects of economic factors such as price and technology change? Has management complied with applicable laws, regulations and contractual commitments? This information concerning management's responsibilities is partly provided in an entity's financial report in the corporate governance statement. See Domino's corporate governance statement in its 2013 annual report in the appendix to this book.

Other creditors may also provide resources to an entity as a result of their relationship with the entity, even though they are not primarily resource providers. The exposure draft on the objectives of general purpose financial reporting provided more explanation on the other creditors category of primary users of financial reports when compared with Chapter 1 of the *Conceptual Framework*.

Suppliers are considered to be other creditors when they extend credit to facilitate a sale, employees are considered to be other creditors when they provide their services (human resources) in exchange for remuneration, and customers are considered to be other creditors when they prepay for goods or services which are to be provided in the future. These parties are only considered resource providers to the extent that they provide the entity with resources in the form of credit or services, and they make decisions based on providing such resources. When they are not in this capacity they are referred to as other users.

THE *CONCEPTUAL FRAMEWORK* — OTHER USERS

Other users include government agencies, members of the public as well as suppliers, customers and employees (when not resource providers as explained above). The information needs and questions of other users vary considerably. For example, taxation authorities, such as the Australian Taxation Office (ATO), want to know whether the entity complies with taxation laws. Regulatory agencies, such as the Australian Securities and Investments Commission (ASIC) or the Australian Competition and Consumer Commission (ACCC), want to know whether the entity is operating within prescribed rules.

DECISION MAKING

While these other users have specialised information needs, they may find the financial reporting that meets the needs of resource providers useful. Like the primary users, the common information needs of other users include an assessment of the entity's future cash flows (amount, timing and uncertainty) and evidence that management has discharged its responsibilities to use the entity's resources efficiently and effectively. However, it is made clear that financial reporting is not primarily directed to other users but rather to equity investors, lenders and other creditors. Figure 13.3 summarises the three main categories of users.

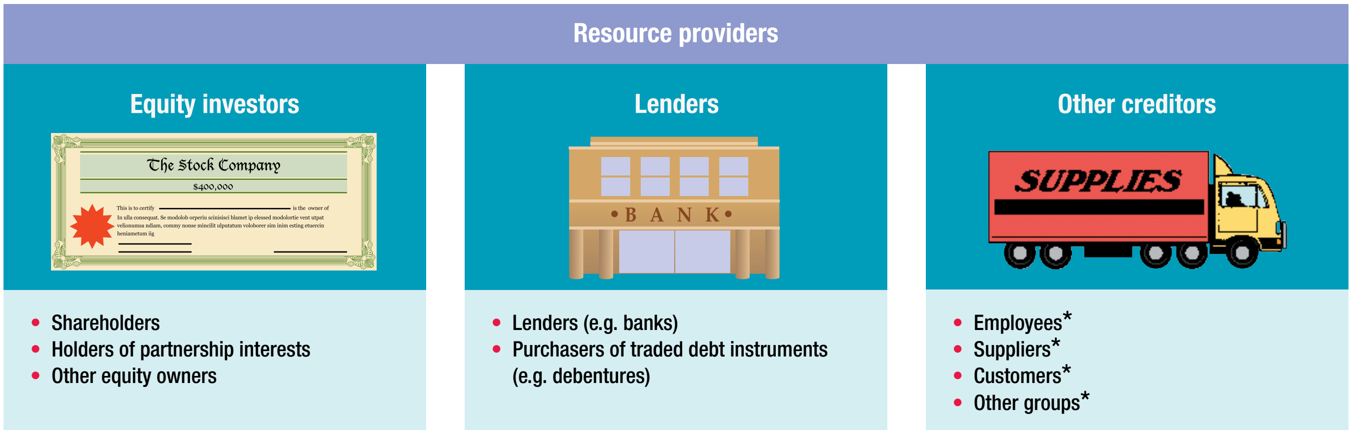


Figure 13.3 Categories of resource providers — *Conceptual Framework*

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. Explain the objective of general purpose financial reporting as outlined in the *Conceptual Framework*.
2. Identify the primary users of financial reporting as outlined in the *Conceptual Framework*.
3. Under what circumstances are employees, suppliers and customers considered as primary users?
4. Identify the other users of financial reporting as outlined in the *Conceptual Framework*.

Now that the objective of general purpose financial reporting and the primary users of that information have been discussed, the next step is to decide who needs to prepare general purpose financial reports.

THE REPORTING ENTITY

LEARNING OBJECTIVE 5
Explain the nature of a reporting entity.

At the time of writing this chapter, the section on the reporting entity was not available in the *Conceptual Framework*. In DP/2013/1, the board explain that no discussion of the reporting entity is included in the exposure draft because it has issued a discussion paper and an exposure draft on this topic. Appendix B of DP/2013/1 summarises the proposals in the reporting entity exposure draft and the comments received. Chapter 2 is intended to cover the concept of the reporting entity, but has yet to be finalised. Therefore, Australian business entities and standard setters use that section from the previous conceptual framework developed by the Australian Accounting Standards Board (the Australian conceptual framework).

THE REPORTING ENTITY — DEFINED

In chapter 1 of this text we described a number of different forms of business organisation including sole trader, partnership and company. While each of these forms of business prepares some kind of information for a variety of users, not all businesses are classified as reporting entities. The Australian *Conceptual Framework* defines the **reporting entity** in Statement of Accounting Concepts 1 (SAC 1) as an entity in which it is reasonable to expect the existence of users who depend on general purpose financial reports for information to enable them to make economic decisions. This is consistent with the discussion in the opening story where it was explained the entity perspective underlies the objective of general purpose financial reporting as defined in the *Conceptual Framework*.

Recall, based on the entity perspective, that the reporting entity is viewed as separate from its owners, having substance on its own. The resources provided to the entity by the owners, creditors and other capital providers become the resources of the entity and resource providers receive, in exchange, a claim on the resources of the entity. Hence, general purpose financial reports present the economic resources of the entity and the claims on those resources held by the resource providers.

Entity theory can be contrasted with proprietary theory, where the reporting entity doesn't have a substance of its own. Within this perspective, general purpose financial reports present the economic resources of the owners, the liabilities of the owners to various lenders and creditors, and the owners' residual equity in the reporting entity (i.e. assets minus liabilities).

THE REPORTING ENTITY — INDICATORS

DECISION MAKING

When deciding whether an entity is required to provide general purpose financial reports, we can use the decision-making toolkit provided below to guide the analysis. We need to begin by consulting SAC 1 to access the information needed for the decision. SAC 1 *Definition of the Reporting Entity*, identifies three main indicators (decision-making tools) to determine which of the forms of business organisation discussed so far in this chapter fall into the category of a reporting entity. That is, an entity is more likely to be classified as a reporting entity if it is (1) managed by individuals who are not owners of the entity, (2) politically or economically important, and (3) sizable in any of the following ways — sales, assets, borrowings, customers or employees. It appears then, in applying the indicators, subjective judgements must be made. For example, what value of sales or how many employees are considered sizeable enough for the business to be a reporting entity? In the main, reporting entities include public companies, some large private companies and government authorities.

It is important to determine whether an organisation is a reporting entity as reporting entities must prepare *external* general purpose financial reports that comply with accounting standards. All other entities will prepare information for internal use.

Reporting entities tend to be larger organisations and the financial information provided in external general purpose financial reports tends to be quite condensed. Both reporting and non-reporting entities also prepare internal reports that contain more detailed information. Examples of both internal and external reports were provided in chapter 1.

Let's see how the definition and indicators of a reporting entity as described in the Australian conceptual framework compare with the definition and features of a reporting entity as outlined in the exposure draft issued by the IASB on the reporting entity.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Is the entity required to provide general purpose financial reports?	Characteristics of the entity as outlined in SAC 1	Make a judgement about whether the entity is a reporting entity based on SAC 1 indicators. An organisation is more likely to be classified as a reporting entity if it has separation of ownership and management; is politically or economically important; and is sizeable in relation to sales, assets, borrowings, customers and employees.	If the entity is classified as a reporting entity, the entity is required to provide general purpose financial reports in accordance with GAAP.

ED/2010/2 CONCEPTUAL FRAMEWORK FOR FINANCIAL REPORTING: THE REPORTING ENTITY

As defined in paragraph 2 of ED/2010/2, 'a reporting entity is a circumscribed area of economic activities whose financial information has the potential to be useful to existing and potential equity investors, lenders and other creditors who cannot directly obtain the information they need in making decisions about providing resources to the entity in assessing whether management and the governing board of that entity have made efficient and effective use of the resources provided'. This definition is consistent with the definition in the Australian conceptual framework and is linked to the objective of general purpose financial reporting in the *Conceptual Framework*.

Rather than referring to indicators as in the Australian conceptual framework, the exposure draft identifies three features as necessary — but not always sufficient conditions — to identify a reporting entity. First, a reporting entity conducts, has conducted or will conduct economic activities. Second, the economic activities can be distinguished from other entities and the economic environment. Third, linking back to the objective of financial reporting, financial information about the economic entities will be useful in making decisions about providing resources to the entity and in assessing the efficiency and effectiveness of management and the governing board.

Helpful hint

In DP/2013/1 the IASB noted that important areas were not covered in the *Conceptual Framework*. For example, the existing *Conceptual Framework* provides very little guidance on how to identify a reporting entity. SAC 1 offers guidance as provided in the decision-making toolkit.

DIFFERENTIAL FINANCIAL REPORTING

In chapter 1, we outlined the financial reporting requirements where reporting entities are required to prepare general purpose financial reports (GPFRs) in accordance with the accounting standards. **Differential reporting** means applying different sets of rules for different categories of entities preparing general purpose financial reports.

The standards issued by the IASB are intended for the preparation of general purpose financial reports of profit-seeking entities who meet the definition of a reporting entity as discussed above. The issue is what GAAP rules to apply to *for-profit* entities who do not meet the reporting entity criteria. The IASB has developed *International Financial Reporting Standard for Small and Medium-sized Entities* (IFRS for SMEs), a self-contained standard of 230 pages, designed to meet the needs and capabilities of small- and medium-sized entities (SMEs). The IASB estimated over 95% of all companies around the world are SMEs.

There is another set of accounting standards, International Public Sector Accounting Standards (IPSAS) issued by the International Public Sector Accounting Standards Board (IPSASB) for use by public sector entities around the world in the preparation of GPFSs. These standards are based on IFRSs issued by the IASB but are tailored to meet needs of the public sector bodies. In this way there are three sets of rules for the preparation of GPFSs.

Until recently, Australia and New Zealand used *sector neutral* accounting standards; that is, the same standards were applied to for-profit companies and entities, public sector entities and not-for-profit entities who prepared external general purpose financial reports (GPFRs). Thus, a one-size-fits-all approach was in place. The reporting entity concept as discussed above is used to determine if an entity needs to prepare GPFRs. Non-reporting entities prepared special purpose financial reports (SPFRs).

However, with the revisions to the conceptual framework it would be no longer possible to issue GPFRs. The AASB response was to modify the reporting entity concept by allowing reporting entities that are not publicly accountable to apply a reduced disclosure version of the AASB standards and not to adopt the IASB's IFRS for small- and medium-sized entities (SMEs).

AASB 1053 *Application of Tiers of Australian Accounting Standards* establishes a differential financial reporting framework consisting of two tiers of reporting requirements for preparing general purpose financial reports. Tier 1 entities are required to apply the full AASB standards. Tier 1 entities are for-profit entities in the private sector that have public accountability, the Australian government, and State, Territory and Local governments entities.

Tier 2 entities are: for-profit private sector entities that do not have public accountability; all not-for-profit private sector entities; and public sector entities other than the

Australian government and State, Territory and Local governments. Tier 2 entities are required to apply the full recognition, measurement and presentation requirements of IFRSs, but have substantially reduced disclosure requirements. The disclosures required by Tier 2 and the disclosures required by the IASB's IFRS for SMEs are similar. However, the IFRS for SMEs does not include all the recognition and measurement requirements corresponding to those in IFRSs.

In 2011, the New Zealand government announced changes to the financial reporting requirements for New Zealand entities. These changes are enacted in the *Financial Reporting Act 2013*. The main change is that many small- and medium-sized New Zealand companies will no longer need to prepare accounting reports using New Zealand generally accepted accounting practice (GAAP). Complementary to this, the External Reporting Board (XRB) announced that, for financial reporting, New Zealand would change from a single set of sector-neutral accounting standards to a multi-sector and standards approach. The full effect of these changes will take effect in 2016. Now, New Zealand is similar to the international standards where the for-profit publicly accountable entities will use New Zealand equivalents to the International Financial Reporting Standards (NZ IFRS) and public benefit entities (PBE) (not-for-profit and government sector) will report using PBE standards, which are based primarily on International Public Sector Accounting Standards (IPSAS), modified as necessary for the New Zealand environment by the XRB. Further, within the two-sector reporting regime there are four tiers. Tier 1 in both sectors will use the full standards with fewer requirements as the tiers go down.

For reporting entities, the usefulness of the information is dependent upon its qualitative characteristics, that is, the attributes that make information useful. The qualitative characteristics of information as outlined in the *Conceptual Framework* are discussed below. Once again, it is important to reflect on the inter-relatedness of all aspects of the *Conceptual Framework*. Reporting entities are required to prepare general purpose financial reports. The objective of general purpose financial reports is to provide decision-useful information to resource providers. Usefulness is dependent upon its qualitative characteristics. Are you beginning to see the links? Are you beginning to see the *Conceptual Framework* coming together and how the parts are interrelated?

LEARNING OBJECTIVE 6

Identify and apply the qualitative characteristics and constraint on financial reporting.

QUALITATIVE CHARACTERISTICS AND CONSTRAINT ON FINANCIAL REPORTING

In chapter 1 we discussed in detail the fundamental and enhancing qualitative characteristics of information contained in general purpose financial reports outlined in the *Conceptual Framework*. They include: relevance, faithful representation, comparability, verifiability, timeliness and understandability. These are reviewed in the following section with examples of their application as relevant. Please read chapter 1 again if you cannot recall the qualitative characteristics in sufficient detail.

Now let's turn our attention to the needs of the primary users of financial reports. The *Conceptual Framework* identifies the objective of general purpose financial reporting as the provision of financial information about the reporting entity that is useful to existing and potential equity investors, lenders and other creditors in making their decisions about providing resources to the entity. But how is that objective best served? In what format should financial information be presented? These questions are addressed by Chapter 3 of the *Conceptual Framework*. The *Conceptual Framework* provides guidance on the qualitative characteristics that information contained in general purpose financial reports should have to achieve the objective of providing useful information for decision making. That is, the qualitative characteristics are the attributes that make the information in financial reports useful.

According to the *Conceptual Framework*, the qualitative characteristics are classified as either fundamental or enhancing depending on how they affect the usefulness of financial information. Enhancing qualitative characteristics and fundamental qualitative characteristics are complementary.

FUNDAMENTAL QUALITATIVE CHARACTERISTICS

For the information in general purpose financial reports to be useful, it must be relevant and provide a faithful representation of the economic phenomena it represents. Relevance and faithful representation are therefore classified as fundamental qualitative characteristics.

Relevance

Information is considered **relevant** if it is capable of making a difference in the decisions made by users. Information that has predictive value and/or confirmatory value is considered to be relevant. Information is considered to have predictive value if it can be used to develop expectations for the future. Information is considered to have confirmatory value if it confirms or contests users' past or present expectations. Information can often be both predictive and confirmatory.

DECISION MAKING

Users of financial reports need to make many decisions based on the information contained in general purpose financial reports (which include a statement of profit or loss and other comprehensive income, a statement of financial position, a statement of cash flows, a statement of changes in equity and the relevant notes). Decisions such as 'shall I invest in this entity?' or 'should I lend money to this entity?' require information on the entity's future profitability and ability to pay its debts as they fall due. It seems then that for information to be relevant it must have predictive value, to help users make predictions about the future, or provide feedback, to help users assess the accuracy of their past predictions and decisions.

Helpful hint

You can refer back to chapter 12 if you need to review ratio analysis and how measures of liquidity, solvency and profitability are valuable in making resource allocation decisions.

The *Conceptual Framework* suggests that information about past cash flows, financial performance and financial position can be used in predicting future cash flows, financial performance and financial position. Recall from chapter 11 that the cash inflows and cash outflows arising from operating activities are a valuable input into the decision-making processes of internal and external users of financial information. Positive cash flows arising from operating activities are a good indicator that the operations of the business can generate sufficient cash flows to maintain or expand the current level of operations, repay debt and pay dividends in the future. This book focuses on all aspects of financial accounting: recording, reporting and analysing, and decision making; that is why at the end of most chapters there is a section on analysing financial reports. The information provided in financial reports is relevant for use in ratio analysis, which can be used to assess an entity's profitability, liquidity and solvency. Based on these assessments, users of financial information can make decisions about resource allocations. Given an entity must generate sufficient cash flows for investors to receive future dividends as a return on their investment and sufficient cash flows are needed to repay lenders interest and principal, being able to predict the amount, timing and uncertainty of future cash flows is an important input into the decision-making processes of these users. Recall that liquidity is a measure of the entity's ability to meet its short-term obligations and solvency is its ability to meet long-term obligations.

Helpful hint

Materiality is relative; that is, what is material for one entity may be immaterial for another. A $10 000 error may not be important in the financial statements of a multimillion-dollar company, but it may be critical to a small business.

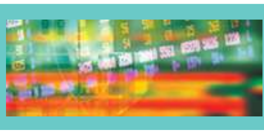
In concluding this section, it is helpful to note yet another example of the interrelationships and overlaps between the *Conceptual Framework* and the accounting concepts and principles described earlier in the chapter. For example, the purpose of the full disclosure principle is that all *relevant* information be provided. The relevance of the information is also affected by its **materiality**. Information is material if its omission or misstatement could affect users' decisions. In relation to a specific reporting entity, a practical application of materiality is that small expenditures for non-current assets (e.g. tools) are often expensed immediately rather than depreciated over their useful lives to save the additional administrative costs of recording depreciation year after year for an insignificant amount. These are considered immaterial because the effects on general purpose financial reports over their useful lives are not large enough to affect user's decisions about resource allocations. Another example of the practical application of materiality is the common practice by large companies of rounding amounts in their financial statements to the nearest thousand dollars. Sometimes materiality has nothing to do with size. For example, financial fraud, no matter what amount, would be considered material. Deciding whether an item is material or not requires professional judgement and is not always straightforward. In making judgments about the materiality of an item, accountants need to consider the nature and size of the entity and the decisions that the primary users of financial statements make.

Faithful representation

Information is a **faithful representation** of the economic phenomena it purports to represent if it is complete, neutral and free from material error. It is important that the information depicts the economic substance of the transactions, events or circumstances. At times, economic substance may not be the same as the legal form. To be complete, all of the information needed to represent the economic phenomena faithfully is included and there is no omission which could make the information misleading. Hence, like relevance, faithful representation is also linked to the full disclosure principle.

Information that is considered to be neutral is free from bias. Information is biased if it is intended to attain or induce a particular behaviour or result. Some of the information in general purpose financial reports is measured using estimates in conditions of uncertainty. Hence, it is not reasonable to expect that reports will be completely error free. However, despite this limitation, faithful representation is achieved when the inputs used to make the judgements and estimates reflect the best available information at the time.

Relevance and faithful representation work together in enhancing the decision usefulness of information. Relevance is applied to determine which economic phenomena to represent and then faithful representation is applied to determine which depictions best represent the underlying economic phenomena to assist users in making resource allocation decisions.



APPLICATION IN BUSINESS

Decision-making perspective

For the information in general purpose financial reports to be useful to users for decision making, it must be relevant and provide a faithful representation of the economic phenomena it represents. Do you believe that financial information can, in reality, be representationally faithful, that is, complete, neutral and free from bias? Have you ever thought about the *assumptions* we must hold about the world to see it in this light? Ruth Hines explores this very question in a journal article she wrote about the FASB's conceptual framework some time ago. She suggests it appears that the 'assumption underpinning the *Conceptual Framework* is that the relationship between financial accounting and economic reality is a unidirectional, reflecting or faithfully reproducing relationship: economic reality exists objectively, intersubjectively, concretely and independent of financial accounting practices; financial accounting reflects, mirrors, represents or measures the pre-existent reality'. This is how we would view financial reporting if we held an objectivist's view of the world.

On the other hand, if we held a subjectivist's view of the world, we would assume there is no such phenomenon as an economic reality to be measured objectively that exists independent of people's perceptions. That is, reality is subjective and the result of personal interpretation. Based on this assumption, accounting information is subjective and it requires judgements, estimates and interpretations and must, therefore, be biased and cannot be representationally faithful.

What is your view of the world and of the notion that accounting information is complete, neutral and unbiased and faithfully represents the transactions and events of an entity?

Source: Based on information from R. Hines 1991, 'The FASB's Conceptual framework, financial accounting and the maintenance of the social world', *Accounting Organizations and Society*, vol. 16, no. 4, pp. 313–31.

ENHANCING QUALITATIVE CHARACTERISTICS

Enhancing qualitative characteristics include comparability, verifiability, timeliness and understandability. These characteristics are called enhancing characteristics as they enhance the decision usefulness of relevant information faithfully represented in financial statements. The enhancing qualitative characteristics are summarised in figure 13.4.

Comparability	Verifiability	Timeliness	Understandability
1. Between different companies 2. Between different years of the same company	1. Faithful representation 2. Independent observer consensus	Capable of influencing decisions	Able to be understood by proficient users

Figure 13.4 Enhancing qualitative characteristics of financial information in general purpose financial reports

Comparability

Information that is comparable facilitates users identifying similarities and differences between different economic phenomena. Consistency refers to the use of the same accounting policies between entities, at the same point in time, or the same entity over time. Consistency supports the achievement of **comparability**.

In accounting, comparability is achieved when an entity uses the same or consistent accounting principles each year and different entities use the same accounting principles. At one level, we could argue that accounting information is comparable because it is based on certain qualitative characteristics, principles and concepts. However, standards still allow for some variation in methods of measurement and presentation. For example, recall from chapter 5 that there are different ways to measure inventory (e.g. specific identification; first in, first-out; or average cost). Recall from chapter 8 that there are different ways to record depreciation (e.g. straight-line or diminishing balance). In the examples provided in chapters 5 and 8, it was clear that the different methods resulted in different amounts for profit and different amounts for assets, impacting comparability.

To make comparisons across entities easier, within the *Conceptual Framework* and AASB 108 'Accounting Policies, Changes in Accounting Estimates and Errors' each entity must disclose the accounting methods used. From these disclosures, the external user can determine whether the financial information is comparable and try to make adjustments. Unfortunately, converting the accounting numbers of entities that use different methods is not simple. To further complicate matters, accounting standards differ between countries, making the comparison of entities from different countries more difficult. Through the IASB, standard setters around the world have worked towards harmonising accounting standards based on IFRSs, thus increasing comparability.

Users of financial reports are not only interested in comparing different entities but also in comparing the same entity's financial results over time when making resource allocation decisions. Recall in chapter 12 we looked at statement of financial position data for Woolworths Limited and Wesfarmers Limited and explored a number of tools for comparative analysis. For example, horizontal analysis is a technique for evaluating a series of financial data to determine trends. However, for this analysis to be meaningful we needed to confirm that the same principles were used from year to year otherwise we could be 'comparing apples with oranges', so to speak.

Verifiability

Information is verifiable if it faithfully represents the economic phenomena it is meant to represent. **Verifiability** means that independent observers could reach a consensus — but not necessarily 100% agreement — that a particular depiction is a faithful representation. Direct verification is through direct observation, like counting cash to verify cash balance reported on the statement of financial position or counting inventory to determine quantities in stock. Indirect verification is where techniques or calculations are used to check the representation. For example, verifying the ending inventory balance in the statement of financial position by checking quantities and costs using the same cost flow assumption. See chapter 5 for more information on calculating ending inventory using different cost flow assumptions.

Timeliness

Timeliness is measured by whether the information is available to users before it ceases to be relevant; that is, the information is received while it is still capable of influencing the decisions users make based on the information. Financial information may lose its relevance if it is not reported in a timely manner; however, some information may remain timely even long after the reporting period as the information is used to determine trends.

Application of timeliness means that the preparer should not take so long to collect and prepare financial information that the reported information loses its relevance. Application of this principle may mean that some transactions and events are reported before all the facts are known. For example, recall in chapter 3 that accruals for electricity or telephone expenses are estimated when the invoice has not been received by year-end but the expense has been incurred. Recall also in chapter 7 that estimates for the allowance for doubtful debts are reported in the accounts rather than waiting for the debts to go bad. Hence, if preparers of financial reports waited until all the information was available, it could be too late for users who have to make decisions about investing in or lending to an organisation in the interim.

Understandability

Understandability is the last of the enhancing qualitative characteristics and relates to the quality of information that assists users to understand the meaning of the information provided when making resource allocation decisions. Let's face it, what would be the point of having information if it were incomprehensible. It makes sense, then, that the *Conceptual Framework* lists understandability as an enhancing qualitative characteristic of general purpose financial reports.

Understandability refers to the extent to which information can be understood by proficient users; that is, users who have reasonable knowledge of accounting and business activities. It is not practicable to require financial reports to be understandable to novices. That is why ultimately whether information is understandable depends on the capabilities of the individual user, and why novice users should seek professional advice if the information is too complex for their level of understanding.

When you first began your accounting studies and saw the Domino's Pizza accounts in chapter 1, you may have found that you did not really understand the information contained in the financial reports. However, by chapter 12, as you worked through the analysis of financial reports in each chapter, perhaps you'd acquired sufficient knowledge about accounting and business to be able to understand the Woolworths Limited and Wesfarmers Limited accounts and the resulting ratio analyses. So, understandability is not about simplifying the information provided; in fact, the *Conceptual Framework* requires information about complex matters be included in reports if it is relevant to users in making their decisions.

Understandability depends on the capabilities of users; however, classifying, characterising and presenting information clearly and concisely will enhance understandability. While enhancing qualitative characteristics improve the usefulness of financial information and should be maximised where possible, it is important to note that they are only enhancing because they cannot make information decision-useful if the information is irrelevant or not faithfully represented. The decision usefulness objective of general purpose financial reporting ensures that the information is helpful to shareholders, potential investors, lenders and other creditors when making decisions about the allocation of scare resources. It can provide insights into many key questions that form the basis for resource allocation decisions.

DECISION MAKING

- Is the company generating sufficient cash flows to repay debts and distribute dividends?
- Will the company generate sufficient funds to replace assets as needed?
- Can the organisation survive in the short and long term?
- Will I receive an adequate return on my investment?

The qualitative characteristics we have discussed are intended to provide users of financial reports with the most useful information for decision making. However, if taken to the extreme, the pursuit of useful financial information could be far too costly to an entity. Therefore, cost is a constraint on the information provided by financial reporting.

CONSTRAINT ON FINANCIAL REPORTING

Providing decision-useful information imposes costs, and the benefits of providing the information should outweigh the costs. Costs can include those associated with collecting, processing, verifying and disseminating information. Assessing whether benefits outweigh costs is usually more qualitative than quantitative and is often incomplete. In an attempt to ensure benefits outweigh costs, it is important to consider whether one or more enhancing qualitative characteristics may be sacrificed to reduce costs.

Figure 13.5 summarises the fundamental and enhancing qualitative characteristics of financial information and the constraint of providing financial information as outlined in the *Conceptual Framework*.

Fundamental qualitative characteristics	**Enhancing qualitative characteristics**	**Constraint of providing financial information**
Relevance	Comparability	Cost
Faithful representation*	Verifiability	
	Timeliness	
	Understandability	

*Complete, neutral, free from material error.

Figure 13.5 Fundamental and enhancing qualitative characteristics and constraint of financial information

APPLICATION IN BUSINESS

Management perspective

Management's explanations within financial reports can provide many valuable insights into the data presented. They can help users to understand the information provided, and enhance their ability to assess the entity's performance and form expectations about the future. Given management knows more about the entity than the primary and other users, management can explain the transactions, events and circumstances of the entity and hence improve the usefulness of the financial reports. In chapter 12 we calculated numerous ratios, and management's explanations were used on many occasions to shed further light on the ratios calculated. See chapter 12 for examples if you cannot recall them.

Further, the financial information provided in financial reports often depends upon, or is affected by, the assumptions, methods, judgements and estimates made by management. Users are better able to evaluate and understand the information provided if management can provide insights into the uncertainties that led to the judgements and estimates as well as the assumptions and methods management have employed in preparing financial reports.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. Define reporting entity as outlined in the Australian conceptual framework.
2. Explain the indicators of a reporting entity as outlined in the Australian conceptual framework.
3. Discuss the definition and features of a reporting entity as outlined in the exposure draft on the reporting entity.
4. Explain differential reporting.
5. Explain the fundamental qualitative characteristics of financial information.
6. Explain the enhancing qualitative characteristics of financial information.
7. Describe the constraint underlying financial statements in the *Conceptual Framework*.

To recap and summarise the discussion thus far, Chapter 1 of the *Conceptual Framework* discusses the objective of general purpose financial reporting. Chapter 2 on the reporting entity is yet to be added, hence in Australia SAC 1 (from the Australian conceptual framework) applies. The qualitative characteristics of useful information are outlined in Chapter 3. The final chapter has not been replaced and is in fact the text from the framework for the preparation of financial statements (*Framework* (1989)). Chapter 4 discusses the definition, recognition criteria and measurement of elements in financial statements.

LEARNING OBJECTIVE 7

Define assets, liabilities, equity, income and expenses and apply recognition criteria.

DEFINITION, RECOGNITION AND MEASUREMENT OF ELEMENTS IN FINANCIAL REPORTS

When you first began your studies, you needed to learn many new terms and concepts; that is, you needed to learn the language of accounting. These concepts were introduced in chapter 1. Then, in chapter 3, you learned about the accrual basis of recording transactions and events. You now know that reporting entities record accounting transactions and events using **accrual-based accounting** rather than cash-based accounting. For accrual-based accounting the transactions and events are recorded in the periods in which they meet the revenue, expense, asset and liability recognition criteria. This can occur before, as, or after cash has been received or paid. You also now understand what general purpose financial reports are and how they communicate information about an entity to users.

General purpose financial reports include a statement of profit or loss and other comprehensive income, a statement of financial position, a statement of cash flows, a statement of changes in equity and the notes to the financial statements. These statements portray the effects of transactions and events in relation to the entity, by grouping them into broad classes or elements. The *Conceptual Framework* defines assets, liabilities, equity, income and expenses, that is, each of the main **elements in financial statements**. It also sets out the criteria for their recognition. Definitions and recognition criteria are crucial in recording transactions. For example, if you don't define assets how will you know what an asset is? How would you know when and how to record an asset if you don't have recognition criteria? The definitions and recognition criteria for the main elements of financial statements are discussed in the next section.

ASSETS — DEFINITION AND RECOGNITION CRITERIA

At the time of writing, the IASB noted in the board's redeliberations paper 2014 that the definitions of assets and liabilities as provided in the *Conceptual Framework* could be clarified. These would be made available for public comment in the future exposure draft of a revised *Conceptual Framework*. For this reason, the definitions for assets and liabilities as provided in the *Conceptual Framework* are provided as well as an overview of the IASB's suggested amendments for public discussion.

Definition

Helpful hint

Finance leases are discussed in more detail in chapter 9.

Assets are defined in the *Conceptual Framework* as 'a resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity' (paragraph 4.4a). Let's look at the essential characteristics individually.

First, the entity must have control over the asset. In chapter 8 we illustrated the recording of a number of ways assets can be acquired, for example, by cash, as an exchange or on credit. While control often means ownership of the asset, ownership is not an essential characteristic. Take for example the case of a finance lease, where the legal ownership of the leased asset remains with the lessor; however, the substance and therefore the economic reality is that the lessee acquires the right to use the leased asset. The leased asset is a resource providing future economic benefits to the lessee. Hence, a finance lease satisfies the definition of an asset (and a liability) and is recognised as such in the lessee's statement of financial position, even though the legal title to the leased asset remains with the lessor.

A second essential characteristic is that the control of the future economic benefits must be as a result of a past transaction or event. Generally, this is after the purchase of the asset has taken place. We have recorded the purchase of many assets throughout the chapters. Recall, based on the cost principle, that assets are initially recorded at cost. It is important to note that resources to be purchased in the future are not considered an asset of the entity until the exchange takes place. For example, recall our discussion of consignment stock in our chapters on inventory. While the consignee might have possession of goods on consignment the consignee does not have control. If the consignee does not sell the consigned goods within the agreed consignment period, the goods are returned to the consignor. However, to further complicate matters, payment is not an essential characteristic of an asset; a donated resource, once the entity has control of the future economic benefits, meets the definition of an asset as well.

Finally, the resource must be able to provide future economic benefits or service potential, such that it can contribute directly or indirectly to the future cash flows or cash equivalents of the entity. Of the numerous transactions involving assets you have recorded, can you remember the many different ways assets can provide future economic benefits? For example, an asset can be sold for cash or exchanged for another asset; it can be used to settle a liability or it can be used to produce goods or services that result in future cash flows from clients and customers. How many did you recall correctly?

The definition of an asset identifies its essential features but does not attempt to specify the criteria that need to be met before it can be recognised in the statement of financial position. Hence, it is not sufficient to record assets based only upon the definition of assets. We also need the recognition criteria, which are discussed next.

Recognition criteria

Recognition is the process of recording in the financial reports any item that meets the definition of an element and satisfies the criteria for recognition. If you look at a statement of profit or loss or statement of financial position you will see each item depicted both in words and with a monetary amount. When recording transactions, preparers need to make decisions about when to recognise assets in the accounting records and on the statement of financial position. The decision-making toolkit guides this analysis by identifying the relevant information as well as the tools for analysis — the asset recognition criteria. Assets that satisfy the recognition criteria should be incorporated in the statement of financial position when:

(a) it is probable that the future economic benefits will flow to the entity
(b) the asset has a cost or value that can be measured with reliability (paragraph 4.38).

Helpful hint

Reliability is not a qualitative characteristic in the *Conceptual Framework*; however, it was in the *Framework* (1989). In that context information is considered reliable when it is complete, neutral and free from error.

DECISION MAKING

The first recognition criterion results from the fact that business entities operate in uncertain environments. We use the concept of probability to refer to the degree of uncertainty that surrounds whether the future economic benefits will flow to or from the entity in relation to a transaction or event. To assess the degree of probability of the future economic benefits, all of the evidence available when the financial reports are prepared is used. To illustrate, recall in chapter 7 we needed to assess the likelihood of the flow of future economic benefits from receivables. When it was probable that a receivable would be collected, it was recognised as an asset. However, we also know that some degree of non-payment is normally considered probable, and, as such, a doubtful debts expense representing the expected reduction in economic benefits was also recognised, meeting the expense recognition criteria.

The second recognition criterion requires that each item possesses a cost or value that can be measured with reliability. In most of the exercises and examples illustrated throughout this book, determining cost has been straightforward as the cost of the asset was provided. Based on the decision-making toolkit analysis, assets should be recognised when it is probable that the future economic benefits will flow to the entity and the asset has a cost or value that can be measured with reliability. General purpose financial reports are prepared to provide resource providers with information to make their resource allocation decisions such as lending or investing. Recognising assets too early overstates current period assets; recognising assets too late understates current period assets, which distorts the financial information available to users and can adversely affect their ability to make informed decisions.

DECISION MAKING

However, for some items such as a provision for warranties, the cost or value is not straightforward and must be estimated. This is considered to be an essential part of the preparation of financial reports and does not undermine their reliability. However, for cases where a reasonable estimate cannot be made, the item is not recognised in the financial reports. For example, internally developed brand names are not recognised in the financial reports. However, when a brand name is purchased, the exchange provides a cost that can be measured with reliability.

There are a number of circumstances where an asset is not recorded in the statement of financial position. The first is when an item meets the definition of an asset but fails to meet the criteria for recognition. Under these circumstances, the item should be disclosed in the notes if it is considered to be relevant to users' evaluations of the financial position, financial performance and/or cash flows of the entity. Finally, an asset is not recognised in the statement of financial position if it is considered improbable that economic benefits will flow to the entity beyond the current accounting period. In this case, the expenditure is recorded as an expense in the statement of profit or loss. You have recorded numerous examples of this type of transaction. For example, payment of electricity, wages, fuel, stationery and advertising. You can refer to chapters 2, 3 and 4 for examples. The important thing to note for these transactions is that the economic benefits will not flow to the entity *beyond* the current accounting period. To the extent that they do, the cost is recorded as an asset. For example, when insurance is paid in advance for the following accounting period, a prepayment (an asset) is recorded.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
At what point should the entity recognise (record) assets?	Need to understand the nature of the entity's business and the definition and recognition criteria for assets.	Assets should be recognised when it is probable that the future economic benefits will flow to the entity and the asset has a cost or value that can be measured with reliability.	Recognising assets too early overstates current period assets; recognising it too late understates current period assets.

LIABILITIES — DEFINITION AND RECOGNITION CRITERIA

Definition

A **liability** is defined in the *Conceptual Framework* as 'a present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits' (paragraph 4.4b). The same definition is provided in IAS 37/AASB 137 *Provisions, Contingent Liabilities and Contingent Assets*. Let's look at the essential characteristics individually.

First, the entity must have a present obligation. This means the entity has a duty to act or perform in a certain way in the future. For example, in chapter 3 we illustrated transactions involving revenue received in advance (recorded as a liability). In this case, the entity had a present obligation to deliver goods or provide services at a future date. In chapter 9, we illustrated the recording of many other types of liabilities including mortgage and lease liabilities. In the case of a mortgage, the future obligation is a payment of cash to cover the principal and interest components for each repayment. In general, a legal debt constitutes a liability; however, liabilities do not have to be legal debts. For example, a warranty provision is not a legal liability; however, an entity will honour this liability when it arises if it is one of the entity's business practices for maintaining good customer relations.

A second essential characteristic is that the obligation must be as a result of a past transaction or event. To illustrate, an intention to buy an asset in the future does not give rise to a present obligation. Generally, the obligation arises after the purchase of the asset has taken place.

Finally, a liability must result in an outflow of resources or economic benefits such that it can reduce directly or indirectly the future cash flows or cash equivalents of the entity. Of the many transactions involving liabilities you have recorded, can you remember the many different ways liabilities can be settled or discharged? For example, a liability can be settled by paying cash, this is the most obvious. Can you remember other ways? As mentioned above, in the case of revenue received in advance, the liability can be discharged by providing goods or services. In the case of accounts payable, these can be discharged by issuing another liability such as notes payable. Liabilities can also be discharged by issuing shares instead of repaying the liability in cash. How many did you recall correctly?

It is not sufficient to record liabilities based only upon the definition of liabilities. We also need the recognition criteria, which are discussed below.

Recognition criteria

When recording transactions, preparers need to make decisions about when to recognise liabilities in the accounting records and on the statement of financial position. The decision-making toolkit guides this analysis by identifying the relevant information as well as the tools for analysis — the recognition criteria for liabilities. As outlined in the *Conceptual Framework*, a liability is recognised in the statement of financial position when:

DECISION MAKING

(a) it is probable that an outflow of resources embodying economic benefits will result from the settlement of a present obligation
(b) the amount at which the settlement will take place can be measured reliably (paragraph 4.46).

Based on the decision-making toolkit analysis, liabilities should be recognised when it is probable that an outflow of resources embodying economic benefits will result from the settlement of a present obligation and the amount at which the settlement will take place can be measured reliably. General purpose financial reports are prepared to provide resource providers with information to make their resource allocation decisions such as lending or investing. Recognising liabilities too early overstates current period liabilities; recognising them too late understates current period liabilities, which distort the financial information available to users, adversely affecting their ability to make informed decisions.

Alternative terminology
Liabilities are also called *debts*.

Simply put, a liability is reported when the future sacrifice of economic benefits is probable and can be reliably measured. Many liabilities are straightforward. To illustrate, accounts payable are recorded as liabilities once the goods are delivered or the service has been provided. A bank loan is recorded once the money is transferred from the bank to the entity's bank account.

Liabilities for which the amount of the future sacrifice is so uncertain that they cannot be measured reliably are classified as contingent liabilities. Liabilities are also classified as contingent if they do not satisfy the probability criterion, or if they are dependent upon the occurrence of an uncertain future event outside the control of the entity. Examples include an unresolved lawsuit brought against the entity and the potential liability resulting from a tax audit in progress. While contingent liabilities are not recognised because they are not probable and/or are unable to be measured reliably, the information about contingent liabilities must be disclosed in the notes to the financial statements if the liability is possible and considered to be material.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
At what point should the entity recognise (record) liabilities?	Need to understand the nature of the entity's business and the definition and recognition criteria for liabilities.	Liabilities should be recognised when it is probable that an outflow of resources embodying economic benefits will result from the settlement of a present obligation and the amount at which the settlement will take place can be measured reliably.	Recognising liabilities too early overstates current period liabilities; recognising them too late understates current period liabilities.

Proposed changes to the definitions and recognition criteria for assets and liabilities

Based on the feedback from DP/2013/1, the board believes that the definitions of assets and liabilities could be clarified. The definitions reference 'expected inflows or outflows of economic benefits' and various parties have interpreted this as suggesting that the asset or the liability is the ultimate inflow or outflow of economic benefits, rather than the underlying resource or obligation.

To avoid any future misunderstandings, the IASB's preliminary view is that it should amend the definitions of assets and liabilities. Their tentative decisions in this regard can be found on page 3 of the *IASB Staff Paper July 2014, Effect of Board redeliberations on DP A Review of the Conceptual Framework for Financial Reporting* (see http://www.ifrs.org/Current-Projects/IASB-Projects/Conceptual-Framework/Documents/Effect-of-Board-decisions-DP-July-2014.pdf).

It is important to note that the new definitions are the board's *preliminary* decisions for the exposure draft (ED) of a revised *Conceptual Framework*, which will be drafted and made available for public comment. The ED was not available at the time of writing this chapter. In the meantime, definitions of assets and liabilities and recognition criteria as outlined in the *Conceptual Framework* (2010) apply.

EQUITY — DEFINITION

Equity is defined in the *Conceptual Framework* as 'the residual interest in the assets of the entity after deducting all its liabilities' (paragraph 4.4c). Put simply, equity is what remains when we subtract liabilities from assets. The accounting equation can be restated from Assets = Liabilities + Equity to Equity = Assets − Liabilities. This equation shows that equity cannot be defined independently of the other elements in the statement of financial position; that is, equity is the residual. In the board's redeliberations paper (2014), the IASB noted that *Conceptual Framework* should retain the current definition of equity as the residual interest in the assets of the entity after deducting all its liabilities.

Can you recall what transactions or events affect equity? The most obvious is that gains increase equity and losses decrease equity. Owners can also affect equity. For example, injections of capital into the business by owners such as share purchases increase equity whereas drawings, dividends or share buybacks decrease equity.

Can you think of any other transactions or events that affect equity? Here's a hint, it has to do with asset valuations. Have you got it now? That's right, asset revaluations can affect equity. Recall that a revaluation upwards is recorded as a debit to the revalued asset and a credit to the revaluation surplus which is an equity account. A reversal of a previous increase will decrease equity. If you can't remember how to record the journal entries, please review chapter 8.

Equity can be presented in subcategories. For example, in a corporate entity, equity can be classified into funds contributed by shareholders (share capital), retained earnings and reserves representing appropriations of retained earnings. This completes the discussion of the elements found in the statement of financial position. We now turn to the elements in the statement of profit or loss.

INCOME — DEFINITION AND RECOGNITION CRITERIA

Profit is generally used as the main measure of performance. The elements directly related to the measurement of profit are income and expense. The statement of profit or loss reports on income less expenses resulting in profit. However, you already knew that, right? In DP/2013/1 the board noted that it intends to leave the discussion of gains, revenue, expenses and losses in the *Conceptual Framework* largely unchanged; however, in the board's redeliberations paper 2014, they noted that the revised *Conceptual Framework* will include guidance on economic benefits, broadly consistent with the guidance in paragraph 35 of IFRS/AASB 15 *Revenue from Contracts with Customers* discussed below.

Definition

Income is defined in the *Conceptual Framework* as 'increases in economic benefits during the accounting period in the form of inflows or enhancements of assets or decreases of liabilities that result in increases in equity, other than those relating to contributions from equity participants' (paragraph 4.25a). It is important to note that, like the definition of equity, the definition of income is linked to the definitions of assets and liabilities.

Can you recall the many types of income you have recorded over the period you have been studying accounting? If you are thinking about sales revenue, interest income, gains on the sale of non-current assets and discounts received, then you would be correct. Well done! As you can see, the definition of income is wide in its scope and includes any increases in equity except contributions of capital; that is, income includes revenue and gains.

Income is defined in the *Conceptual Framework* as encompassing both revenue and gains. The *Conceptual Framework* defines revenue as increases in economic benefits arising in the course of ordinary activities of an entity. It includes sales revenue, fees, interest, dividends, royalties and rent. Gains are other increases in economic benefits. They are no different in nature from revenue but are labelled as gains either because they do not arise in the ordinary course of business or because they are reported as a net amount, such as the gain on the sale of non-current assets.

How wide is the definition of income? Let's test the definition by looking at revenue received in advance. Would this be classified as income based on this definition? The answer is no, as the economic benefits that flow to the entity in the form of cash are matched with an increase in a liability. According to the definition, a decrease in liabilities is needed, not an increase, therefore revenue received in advance is initially classified as a liability, not income. Once the entity discharges its obligation the income can be recorded. Recall the entry to record the income is a debit to revenue received in advance and credit to sales revenue. The definition of income identifies the essential features of income but does not attempt to specify the criteria that would need to be met before it is recognised in the statement of profit or loss.

Recognition

A definition of income is helpful in determining *what* is to be recorded as income but preparers also need guidelines on *when* to record or recognise income in preparing financial statements. For example, entities that sell goods (merchandising entities) need to first purchase goods then sell them to customers and collect the cash. The operating cycle is the length of time it takes for a business to acquire goods, sell them to customers and collect the cash from the sale. The decision that arises is to determine at which point in the operating cycle should sales revenue be recognised.

Determining the amount of revenue to be reported in a given accounting period can be difficult. Generally, revenue should be recognised in the accounting period in which the service is performed or the goods delivered. Proper reporting requires a thorough understanding of the nature of the entity's business and the appropriate application of the criteria for the recognition of revenues to facilitate the recording process. In short, adjusting entries are needed to ensure that the recognition criteria are followed for assets, liabilities, revenues and expenses. The *Conceptual Framework* outlines income recognition criteria.

DECISION MAKING

As outlined in the *Conceptual Framework,* income (which includes revenues and gains) is recognised in the statement of profit or loss ‘when an increase in future economic benefits related to an increase in an asset or a decrease of a liability has arisen that can be measured reliably’. The decision-making toolkit guides the analysis by identifying the relevant information as well as the tools for analysis including the recognition criteria for income in determining when to recognise income in the financial statements; that is, the recognition of income occurs simultaneously with the recognition of increases in assets or decreases in liabilities To illustrate, a sale of goods on credit results in an increase in accounts receivable (asset) and a corresponding increase in sales revenue (income). For revenue received in advance, once the service has been provided there is a decrease in revenue received in advance (liability) and an increase in sales revenue (income).

In the context of revenue recognition, the concept of probability refers to the degree of uncertainty that the future economic benefits will flow to the entity. The assessment of probability, or the degree of uncertainty, is made on the basis of evidence available when the financial statements are prepared. Ordinarily, this assessment is also made at the time the transaction that gives rise to the revenue occurs, thereby allowing the transaction to be recorded. However, when preparing the financial statements, the accountant must reconsider any information available at this time to assess whether the revenue should be reported as such in financial reports.

The requirement that revenue can be measured reliably does not mean it must be measured with absolute certainty. In some routine transactions, such as cash sales, measurement may be certain. However, in many instances, revenue must be estimated.

In applying the recognition criteria, many businesses adopt procedures for recognising revenue when it is earned. For example, when a surgeon earns revenue by conducting surgery on a patient, a claim against the patient arises for the doctor’s fee. At that time, the amount of the fee could be measured reliably because the doctor would know what surgery has been performed, and the flow of benefits would be probable because the doctor would have a valid claim against the patient for the fee. Based on the decision-making toolkit analysis, recognising income too early overstates current period income; recognising it too late understates current period income. Because general purpose financial reports are prepared to provide primary users with information to make their resource allocation decisions such as lending or investing, the correct application of income recognition criteria is essential.

Standards for revenue recognition

As explained in chapter 3, IAS 18/AASB 118 *Revenue* prescribes five principles for the recognition of revenue from the sale of goods and four principles for the recognition of revenue from the provision of services. Please refer to chapter 3 for more detail. Basically, for merchandising organisations revenue is recognised when the goods are delivered. The application of the revenue recognition tests for a service business is described below.

In a service entity, revenue is recognised at the time the service is performed. For example, assume a dry-cleaning business cleans clothing on 30 June, but customers do not pick up and pay for their clothes until the first week of July. Using the revenue recognition criteria, revenue is recorded in June when the service is performed, not in July when the cash is received. At 30 June, the tests for the recognition of revenue are met.

There is also a new standard for revenue recognition. IFRS/AASB 15 *Revenue from Contracts with Customers* was released in May 2014 and will be mandatory for reporting periods commencing 1 January 2017, but may be adopted earlier. The project was commissioned because of concerns by users of financial reports that there was not a set of robust principles regarding when to recognise revenue. This resulted in many inconsistencies in the application of the current standards on revenue recognition. In the new standard a five-step model framework is adopted to identify when revenue should be recognised. Please refer to chapter 3 for an explanation of the five steps.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
At what point should the entity recognise (record) income?	Need to understand the nature of the entity's business, the definition and the recognition criteria for income.	Income should be recognised when an increase in future economic benefits related to an increase in an asset or a decrease of a liability has arisen that can be measured reliably. Generally, for a service business, revenue is recognised when the service is performed. For a business that sells goods, when the goods have been delivered.	Recognising income too early overstates current period income; recognising it too late understates current period income.

EXPENSES — DEFINITION AND RECOGNITION CRITERIA

Recall that profit is generally used as the main measure of performance. The elements directly related to the measurement of profit are income and expense.

Definition

As defined in the *Conceptual Framework* **expenses** are 'decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or incurrences of liabilities that result in decreases in equity, other than those relating to distributions to equity participants' (paragraph 4.25b). It is important to note that, like the definitions of equity and income, the definition of expenses is linked to the definitions of assets and liabilities.

Can you recall the many types of expenses you have recorded during your accounting studies? If you recall electricity, insurance, wages and interest expenses, just to name a few, you would be correct! As you can see, the definition of expenses is wide in its scope and includes any decreases in equity except distributions of equity to equity participants (owners and shareholders).

The *Conceptual Framework* defines expenses as encompassing both losses and expenses. Expenses are decreases in economic benefits. They include expenses that arise in the ordinary activities of the entity such as cost of sales, wages and payments for rent. Losses refer to expenses that do not necessarily arise in the ordinary course of business such as the loss from a fire or flood, as well as reductions in economic benefits that are reported on a net basis (i.e. net of any associated revenue) such as a loss on the sale of non-current assets. Put simply, expenses are decreases in equity during an accounting period that are not distributions to the owner(s).

The consumption of economic benefits is easily determined for some transactions such as using cash to pay rent for the current period. However, some economic benefits such as buildings and equipment last for numerous accounting periods. Measuring the amount of economic benefits consumed in each accounting period can be difficult. This makes it difficult to determine how much of the cost of assets such as buildings and equipment should be allocated to expenses in each accounting period. The allocation of a cost of an asset to expense is called? Depreciation . . . that's right. If you need to review the different methods of depreciation, please refer to chapter 8.

Recognition

The definition of expenses is helpful in determining what is to be recorded as an expense but, as for revenues, we need guidelines on when to record or recognise expenses. The *Conceptual Framework* provides expense recognition criteria. Expenses should be recognised when 'a decrease in future economic benefits related to a decrease in an asset or an increase of a liability has arisen that can be measured reliably' (paragraph 4.49). Many expenses for merchandising and service entities involve little uncertainty as they result from the production or delivery of goods or services during an accounting period. Examples include wages and salaries expense, supplies (e.g. stationery) and electricity or gas. It is important to note that an expense is recognised when the reduction in assets or the increase in liabilities is recognised, and that this may occur before, as or after cash is paid. Referring to the previous dry-cleaning business example, although wages may not be paid on 30 June for the hours worked by employees in providing dry-cleaning services, the expense is recognised as the increase in liabilities (wages payable) has occurred and the future outflow can be measured reliably.

DECISION MAKING

Based on the decision-making toolkit analysis, expenses should be recognised when a decrease in future economic benefits related to a decrease in an asset or an increase of a liability has arisen that can be measured reliably. General purpose financial reports are prepared to provide resource providers with information to make their resource allocation decisions such as lending or investing. Recognising expenses too early overstates current period expenses; recognising them too late understates current period expenses, which distort the financial information available to users, adversely affecting their ability to make informed decisions.

DECISION-MAKING TOOLKIT

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
At what point should the entity recognise (record) expenses?	Need to understand the nature of the entity's business, definition and recognition criteria for expenses.	Expenses should be recognised when a decrease in future economic benefits related to a decrease in an asset or an increase of a liability has arisen that can be measured reliably.	Recognising expenses too early overstates current period expenses; recognising them too late understates current period expenses.

Where the expenses result directly and jointly from the same transaction as the revenues, e.g. the cost of services provided or the cost of sales, expenses should be recognised on the basis of a direct association with revenues. This recognition technique is sometimes referred to as 'matching' of expenses with revenues — the simultaneous recognition of revenues and related expenses. The nature of, and methods for, recording cost of sales were explored in chapters 4 and 5.

Determining the amount of revenues and expenses to be reported in each accounting period is facilitated by revenue and expense recognition criteria. Relationships between revenue recognition, expense recognition and the accounting period concept which form part of GAAP are depicted in figure 13.6.

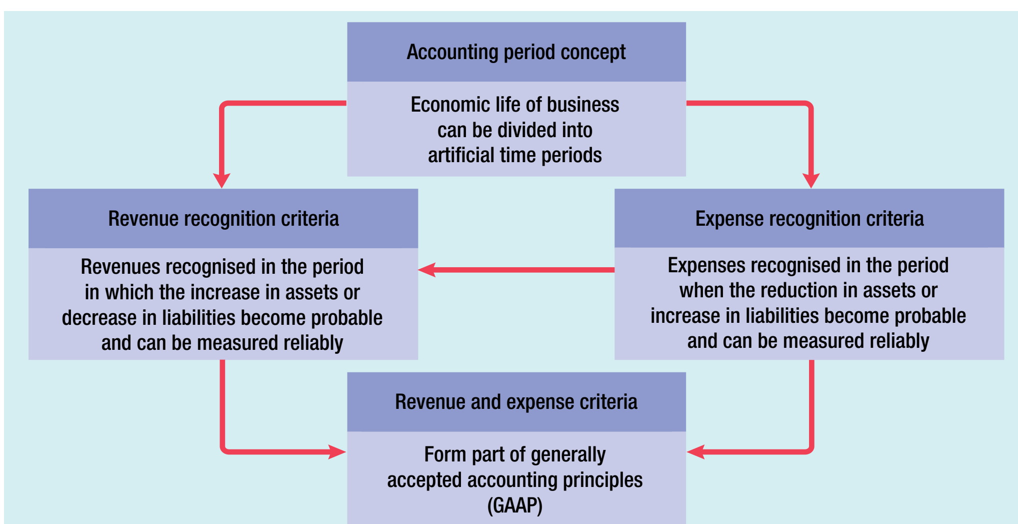


Figure 13.6 Relationships between revenue recognition, expense recognition and the accounting period concept

Note: The recognition criteria in figure 13.6 are the same as the *Conceptual Framework* which is currently under revision. The criteria in the decision-making toolkit are from the new accounting standard IFRS/AASB 15 *Revenue from Contracts with Customers.*

APPLICATION IN BUSINESS

Management perspective

The recognition and measurement of income and expenses, and hence profit, depends in part on the concepts of capital and capital maintenance used by the entity in preparing its financial statements. Before an entity can determine profit for a period it is required to determine a measurement basis for assets, liabilities and capital. Two concepts of capital are outlined in the *Conceptual Framework*. The first is the financial capital concept. This concept measures capital as the dollar value of assets less the dollar value of liabilities, that is, equity, or in terms of the purchasing power of the dollar amount recorded as equity. Hence, profit exists after the entity has maintained its capital, which is measured as either the dollar value or the purchasing power of the dollar value at the beginning of the period.

The second concept of capital is the physical capital concept. This concept is measured in terms of the operating capacity of the entity's assets. Profit only exists after the entity has set aside sufficient capital to maintain the operating capacity of its assets. Capital maintenance concepts received considerable focus during the 1960s through to the 1980s, but have received little attention of late. It is a complex topic which is often studied in more depth in the later years, rather than at the introductory stages, of accounting studies.

In DP/2013/1, the IASB noted its plans to keep the existing descriptions and discussion of capital maintenance concepts largely unchanged in the revised *Conceptual Framework*. However, should the board undertake a project on accounting for high inflation the capital maintenance concepts may be reconsidered.

To sum up and conclude this section on the definition and recognition criteria of elements in financial statements, we'd like you to reflect on any similarities you may have noticed in the recognition criteria. If you noticed that an item that meets the definition of an element should be recognised if *it is probable that any future economic benefit associated with the item will flow to or from the entity, and the item has a cost or value that can be measured with reliability* you have correctly recognised the basic criteria that are applied to assets, liabilities, revenues and expenses.

You may have also noticed the interrelationships between the elements. That is, an item that meets the definition and recognition criteria for a particular element, for example, an asset, automatically requires the recognition of another element, for example, income or a liability. Further, if an item fails to meet the recognition criteria at a certain point in time, it may qualify for recognition at a later date as a result of a change in circumstances or events. If, on the other hand, an item possesses the essential characteristics of an element but fails to meet the recognition criteria, it may warrant disclosure in the notes if it is considered to be relevant to the users of the financial statements in making decisions.

Finally, you may have noticed that the definitions of equity, income and expenses are related to the definitions of assets and liabilities. For example, income is defined as 'increases in economic benefits during the accounting period in the form of inflows or enhancements of assets or decreases of liabilities that result in increases in equity, other than those relating to contributions from equity participants'. Thus, the measurement of equity, income and expenses are dependent on the measurement of assets and liabilities. Measurement of the elements of financial reports is discussed following.

MEASUREMENT OF THE ELEMENTS OF FINANCIAL REPORTS

The *Conceptual Framework* states that **measurement** 'is the process of determining the monetary amounts at which the elements of the financial reports are to be recognised and carried in the statement of financial position and income statement [statement of profit or loss]' (paragraph 4.54). The measurement basis that is most commonly used by entities when preparing general purpose financial reports is historical cost; however, historical cost is usually combined with other bases of measurement.

Four bases of measurement are historical cost, current cost, realisable value and present value. A simplified explanation of the four bases as outlined in the *Conceptual Framework* is provided below.

Helpful hint

The *Conceptual Framework* adopts a mixed measurement model, namely, historical cost, current cost, realisable value and present value.

- *Historical cost*. Assets are recorded at the amount of cash paid (or the fair value of the consideration given in exchange) at the time they are purchased. Liabilities are recorded in the amount expected to be paid to settle the obligation in the ordinary course of business operations which generally represents the amount of proceeds received in exchange for the obligation.
- *Current cost*. Under this base, assets are reported at the amount that would be required to replace the asset. Liabilities are reported at the amount of cash (or cash equivalents) needed to settle the obligation currently.
- *Realisable (settlement) value*. Assets are reported at the dollar value that the business could obtain if they sold the asset. Liabilities are reported at the amount needed to settle the liability in the ordinary course of business operations.
- *Present value*. Assets are reported at the present discounted value of the future net cash inflows that the asset is expected to generate in the ordinary course of business. Liabilities are reported at the present discounted value of the future net cash outflows that are expected to be used to settle the liabilities in the ordinary course of business operations.

Can you recall the use of alternative measurement bases discussed in the preceding chapters? For example, in chapter 1 we explained that assets are initially recorded at their historical cost based on the cost principle. However, subsequently, in chapter 8 we illustrated that they may also be accounted for based on the revalued basis; hence, they may be revalued upwards or downwards to their fair value. Fair value is a subset of the realisable (settlement) value in the *Conceptual Framework*. Another example of a possible measure of realisable value is the fair value less any costs incurred in selling the asset. In chapter 5 we explored the reporting of inventories. Inventories are usually carried at the lower of cost and net realisable value. We can see from these examples that a number of different measurement bases can be used in the preparation of financial reports, and so measurement can have an impact on the decisions users of general purpose financial reports make based on the measurements reported.

In DP/2013/1 the board noted that the existing *Conceptual Framework* provides little guidance on measurement and when particular measurements should be used. Hence, the IASB intends to provide further guidance in a revised *Conceptual Framework*.

Helpful hint

Note how measurement is linked to the purpose of financial reports — to provide information to the primary users for their resource allocation decisions as well as helping managers discharge their stewardship responsibilities.

The IASB's preliminary views on measurement can be found on page 10 of the *IASB Staff Paper July 2014, Effect of Board redeliberations on DP A Review of the Conceptual Framework for Financial Reporting* (see http://www.ifrs.org/Current-Projects/IASB-Projects/Conceptual-Framework/Documents/Effect-of-Board-decisions-DP-July-2014.pdf).

Furthermore, the number of different measurements used by an entity should be the smallest number needed to provide relevant information to users of general purpose financial reports. Unnecessary measurement changes should be avoided and the benefits of providing the information to users must outweigh the costs to the reporting entity.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

1. Define assets, liabilities, equity, income and expenses as defined in the *Conceptual Framework*.
2. Explain asset, liability, revenue and expense recognition criteria as outlined in the *Conceptual Framework*.

>> DO IT

During year 1, Ray Ltd invoiced its customers $100 000 for services performed. It received $75 000 cash in year 1 and the balance in year 2. Expenses paid during year 1 amounted to $45 000 but another $13 000 of expenses were not paid until year 2. Calculate the profit for year 1 based on the income and expense recognition criteria.

REASONING: Income is recognised when an increase in future economic benefits related to an increase in an asset or a decrease of a liability has arisen that can be measured reliably. Expenses are recognised when a decrease in future economic benefits related to a decrease in an asset or an increase of a liability has arisen that can be measured reliably

SOLUTION: Profit is $42 000, calculated as $100 000 (invoiced) less $45 000 (cash expenses paid) and $13 000 (incurred but still unpaid) or $100 000 − ($45 000 + $13 000) = $42 000.

INTEGRATING PRINCIPLES, CONCEPTS, STANDARDS AND THE *CONCEPTUAL FRAMEWORK*

LEARNING OBJECTIVE 8

Integrate principles, concepts, standards and the *Conceptual Framework*.

The aim of this section is to provide an overview of GAAP and summarise how the various aspects of GAAP are related. This section is necessarily brief to keep it simple, and the detail is provided in this and other chapters throughout the book.

SUMMARISING GAAP

Recall that GAAP consists of accounting standards, underlying accounting concepts and principles and the *Conceptual Framework*. Figure 13.7 summarises the various aspects of GAAP. The text that follows summarises how it all fits together.

Generally accepted accounting principles (GAAP)

Reporting question	Conceptual element of GAAP	Source authority
Who is required to prepare general purpose financial reports (preparers)?	Reporting entity	Statement of Accounting Concepts 1 (the Australian conceptual framework)
What is the purpose of general purpose financial reporting?	Objective of financial reporting	*Conceptual Framework*
Who uses general purpose financial reports (recipients)?	Users of financial reports	*Conceptual Framework*
What is reported in general purpose financial reports?	Qualitative characteristics and constraints	*Conceptual Framework*
How are items reported in general purpose financial reports?	Definition of elements and recognition criteria	*Conceptual Framework*
	Concepts and principles	Evolved over time, *Conceptual Framework*, accounting standards
	Rules	Accounting standards, Corporations Act
	Measurement	*Conceptual Framework*, accounting standards

Figure 13.7 Summarising the various aspects of GAAP

Alternative terminology

Statement of Accounting Concepts is abbreviated to SAC.

Helpful hint

Recall Chapter 2 on the reporting entity is yet to be added to the *Conceptual Framework* hence SAC 1 from the Australian conceptual framework is still used.

The section on the reporting entity in the Australian conceptual framework (SAC 1) defines which entities are required to prepare general purpose financial reports. Recall that a reporting entity is defined as an entity in which it is reasonable to expect the existence of users who depend on general purpose financial reports for information to enable them to make economic decisions.

The *Conceptual Framework* not only identifies *who* is required to report, it also explains the *objective* of general purpose financial reports. The objective is 'to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity' (paragraph OB2). Once we know who is required to report and why they report, it is important to understand who is being reported to, that is, the users of general purpose financial reports.

Three categories of primary users are identified: existing potential investors, lenders and other creditors. These are summarised in figure 13.3 (p. 805). The *Conceptual Framework* also outlines *what* is reported in general purpose financial reports in the sections outlining the qualitative characteristics and constraint on financial information. The *Conceptual Framework* also provides guidance on *how* items are reported. The guidance is provided in the sections on the definition of elements and recognition criteria. Thus, the *Conceptual Framework* is an important part of GAAP.

In addition to the *Conceptual Framework*, other aspects of GAAP outline *what* is reported in general purpose financial reports as well as *how* those items are reported in general purpose financial reports. The various other aspects include the concepts and principles, the accounting standards backed by legislation, as well as the measurement rules as outlined in the standards and the *Conceptual Framework*. Recall from earlier in this chapter that the concepts and principles have evolved over time and include the monetary principle, the accounting entity concept, the accounting period concept, the going concern principle, the cost principle and the full disclosure principle.

INTEGRATING GAAP

It is important to recognise that the various aspects of GAAP do not operate in isolation, but are interrelated. Examples of the interrelationships have been provided throughout this chapter. For example, recall that reporting entities are required to prepare general purpose financial reports; the objective of general purpose financial reporting is to provide decision-useful information to users; and usefulness is dependent upon the information's qualitative characteristics. Recall also that the accounting period concept and the revenue and expense recognition criteria are interrelated. Are you beginning to see some of the links?

International note

The IFRS Interpretations Committee issues authoritative interpretations clarifying how to apply accounting standards. Standard-setting boards like the AASB adopt them.

Before we complete this section, it is important to identify the *order* in which the various aspects of GAAP must be applied. After the Corporations Act accounting standards are the first point of guidance for preparers. Accounting standards and authoritative interpretations of accounting standards must be followed as they have legislative backing, which means they are required by law. If the standards are silent on an accounting issue, preparers can seek guidance from the *Conceptual Framework*. The concepts and principles that traditionally underlie accounting are applied where there is no guidance on an issue in the *Conceptual Framework*. Further, if any conflicts arise between standards, the *Conceptual Framework* or concepts and principles, the various aspects of GAAP are still applied in the order listed above. To summarise, GAAP is applied as follows: first the Corporations Act, then accounting standards and interpretations are consulted, then the *Conceptual Framework* and finally the underlying concepts and principles.

LEARNING OBJECTIVE 9

Appreciate, at an introductory level, various future developments in financial reporting.

FUTURE DEVELOPMENTS IN FINANCIAL REPORTING

Earlier in this chapter in the section on conceptual frameworks we explained that the International Accounting Standards Board (IASB) and the US Financial Accounting Standards Board (FASB) are currently conducting a joint project to develop the *Conceptual*

Framework. Throughout the chapter we have discussed its current status and the proposed changes that have been developed to date. Given this is a comprehensive project and has eight phases, many of which are yet to be completed, there are future developments on the horizon.

Other developments in financial reporting include sustainability reporting and eXtensible Business Reporting Language (XBRL).

SUSTAINABILITY REPORTING

You have probably heard the term 'sustainability' used many times and in many contexts. One aspect focuses on the environment and humanity's impact on it. While each of us makes an imprint on our environment with daily use of electricity, driving of cars and adding huge amounts of household waste to public waste facilities, businesses have the capacity to have an even larger effect on the environment.

Mining, deforestation, toxic wastes in rivers and oceans, and natural resource consumption are only some of the negative impacts that businesses all around the world have on our natural environment. It is not sufficient just to talk about it; it is more important to look at what are we doing to try to reduce the effects. Have you ever thought about your impact on the environment? Are you doing anything to reduce your environmental footprint?

There is no one definition of sustainability, however, there appears to be some agreement that it is concerned with three main areas: economic, environmental and social. In a business context, most major businesses now report on their performance in relation to their economic, social and environmental impacts.

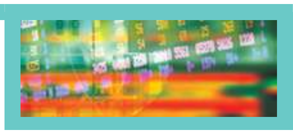
The social dimension of sustainability focuses on the impact of business on individuals as well as communities; for example, the negative impact of timber and mining companies on local communities and the lack of rights for workers in international 'sweatshops' with appalling working conditions and low pay. It also includes the positive impacts, such as the development of infrastructure, that businesses can bring to a local community.

The environmental dimension is concerned with the impact of business on the environment; for example, negative impacts such as air, water and land pollution or positive impacts such as supporting and replenishing ecosystems.

Sustainability is about making sure the social, economic and environmental needs of our world are met and kept healthy for future generations. Sustainable development must not be only about economic growth, but also environmental quality and social equity. Many companies disclose information on the impact of their business on society and the environment. Mostly this has been on a voluntary basis. To see for yourself, access some large company web sites and you will find information on how they are trying to reduce their impact on the environment. However, we need to do more.

Currently, social and environmental disclosures are voluntary with the exception of a few countries. For example, France requires its publicly listed companies to issue sustainability reports by law, and in Australia a law introduced by the Howard government requires businesses over a certain size to report. However, there are increasing pressures on companies from shareholders and other stakeholders to measure, report on and reduce their environmental impact. There are also increasing pressures on governments to take appropriate actions. In order to improve the situation, we need reliable measurement systems. Can the accountants meet the challenge?

Triple bottom line (TBL) reporting is one way accountants attempt to meet the challenge. It has three main components: economic, environmental and social. The aim is to provide stakeholders with information about the firm's practices and their impact in relation to the three main components of sustainability. In this way, the traditional bottom line of 'profit' is not the bottom line given in a TBL perspective. According to TBL reporting, the bottom line should reflect the entity's social and environmental impact. Measurement, however, is problematic and there are efforts to try to standardise and improve measurement and reporting.



APPLICATION IN BUSINESS

Investor perspective

Did you know that you could make more money by investing in companies with higher standards of carbon disclosure? The reason is that these companies tend to have better corporate governance which is in turn is positively related to better share performance. For several years now, the Carbon Disclosure Project (CDP) has been collecting and publishing information about how companies manage and report on environmental risk. The CDP is a not-for-profit organisation that works globally to motivate companies to take action to reduce their environmental footprint. The CDP has developed the 'CDLI' (i.e. the Carbon Disclosure Leadership Index) as well as the 'CPLI' (i.e. the Carbon Performance Leadership Index). The CDLI measures how well companies measure and disclose environmental risk (i.e. it measures the completeness and quality of a company's response). The CPLI score assesses the level of action that a company takes to minimise its impact on climate change, as well as other aspects of a company's performance related to climate change. Companies that score well in the CDP do generate superior profitability and growth in dividends for investors. In 2014, companies that performed well enough to be included on CPLI have approximately $92 trillion . . . yes trillion . . . in combined assets. That is one third of the world's invested capital overall. Local companies on the CDLI include Qantas Airways, David Jones, New Zealand Banking Group (ANZ), Commonwealth Bank of Australia, Rio Tinto, Westpac Banking Corporation and Woolworths. There were 76 Australian companies included in the CDP 2014 report, with five of those companies achieving the standard of 'performance leaders' (on the CPLI). So how have the companies on the CPLI performed financially? Companies on the CPLI do generate superior returns for their investors. In the 2014 report, companies that made up the CPLI outperformed the Dow Jones Sustainability World Index by 19.6% and the Bloomberg World Index by 9.6%. That suggests that as an investor you may be able to maximise returns by investing in CPLI companies. However, you may want to give a thought to the fact that companies with higher standards of carbon disclosure are not necessarily environmentally friendly companies; for example, mining and cigarette companies would fall into this category. So, if your objective is to maximise returns and support the environment, then you may need to take a closer look at the companies and their products and services before you invest!

Source: Based on CDP 2014, *The A List: The CDP climate performance leadership index 2014*; CDP 2013, *Investment, transformation and leadership: S&P 500 climate change report 2013*; and CDP 2013, *CDP Australian and New Zealand climate change report 2013*.

In the same way we are moving towards one *Conceptual Framework* and one set of international standards for financial reporting, we need a framework and set of standards for sustainability reporting. Global Reporting Initiative (GRI) offers a reporting framework which provides guidance on how organisations can disclose their sustainability performance.

GRI is emerging as a dominant global reference framework and is now at version 4 which is an update and completion of the fourth generation of sustainability reporting guidelines. The guidelines are in two parts as detailed below:

The guidelines are presented in two parts.

Part 1 — Reporting principles and standard disclosures contains:
- reporting principles
- standard disclosures
- criteria to be applied by an organisation to prepare its sustainability report 'in accordance' with the guidelines' definitions of key terms.

Part 2 — Implementation manual contains explanations of how to:
- apply the reporting principles
- prepare the information to be disclosed
- interpret the various concepts in the guidelines.

References to other sources, a glossary and general reporting notes are also included.

The main categories (economic, environmental and social) and subcategories for the report are provided in figure 13.8 below.

Categories and aspects in the guidelines

Category	**Economic**	**Environmental**
Aspects*	• Economic performance • Market presence • Indirect economic impacts • Procurement practice	• Materials • Energy • Water • Biodiversity • Emissions • Effluents and waste • Products and services • Compliance • Transport • Overall • Supplier environmental assessment • Environmental grievance mechanisms

Category	**Social**			
Sub-Categories	**Labor practices and decent work**	**Human rights**	**Society**	**Product responsibility**
Aspects*	• Employment • Labor/Management relations • Occupational health and safety • Training and education • Diversity and equal opportunity • Equal remuneration for women and men • Supplier assessment for labor practices • Labor practices grievance mechanisms	• Investment • Non-discrimination • Freedom of association and collective bargaining • Child labor • Forced or compulsory labor • Security practices • Indigenous rights • Assessment • Supplier human rights assessment • Human rights grievance mechanisms	• Local communitites • Anti-corruption • Public policy • Anti-competitive behavior • Compliance • Supplier assessment for impacts on society • Grievance mechanisms for impacts on society	• Customer health and safety • Product and services labeling • Marketing communications • Customer privacy • Compliance

Figure 13.8 Categories and aspects in the GRI guidelines

Source: Global Reporting Initiative 2013, *GRI G4 sustainability reporting guidelines — principles and standard disclosures*, p. 9.

The Framework has been developed through a process of systematic discussion with a large number of individuals from over 60 countries. The stakeholder groups represented include business, civil society, academia, labour and other professional institutions. The process is ongoing and involves open and inclusive discussion from a global perspective. The aim is to continue to develop guidelines as our understanding of good reporting on key sustainability issues grows.

DECISION MAKING

Measuring environmental impact is a difficult task. Accounting has traditionally measured business activities in dollar terms. How can accountants measure the impact that businesses have on the environment? How do we measure the impact of an open-cut mine on the landscape? How do we measure the effects of an oil spill that kills marine life? With the use of eXtensible Business Reporting Language (XBRL) we are attempting to standardise our measurements of financial information. Is it possible to standardise our measurement of environmental impacts?

APPLICATION IN BUSINESS

Management perspective

Do you buy coffee, tea or hot chocolate in takeaway cups every day? Imagine how many disposable cups end up in landfill every day, month and year. Abigail Forsyth, a café owner was appalled by the amount of waste from her business alone and decided to declare war on throwaway coffee cups in 2009. She was going to make a difference and invented her eco-friendly alternative — KeepCups.

The statistics are scary. Five hundred billion disposable coffee cups go into landfill worldwide every year and these do not decompose. Abigail explained that there's enough plastic in just 28 disposable cups and lids to make one of her KeepCups. The best thing is that KeepCups can be re-used up to 1500 times, and then recycled, despite being made from four single-component plastics.

The good news is that it has caught on all over the world and now Abigail exports her environmentally friendly coffee cups internationally, selling in 32 countries. Her business turns over A$6 million a year, employs 20 staff, and has offices in Australia, the United States and the United Kingdom.

Abigail is one of many green entrepreneurs making money while taking care of the environment.

Source: S. Dempsey 2014, 'A cup worth keeping strikes a sustainable chord with coffee-istas worldwide', *InTheBlack*, 2 September, www.itbdigital.com.

EXTENSIBLE BUSINESS REPORTING LANGUAGE (XBRL)

Business entities use their accounting information systems to record, analyse and communicate the economic transactions of a business. In general, while businesses collect and report on similar information, they can vary widely in the format and level of detail of the information they collect and report. These differences make it difficult for organisations to share information reliably or cost effectively.

To further complicate matters, elements of financial reports can be defined differently, different accounting methods can be used, and in different countries reporting requirements can vary. This creates difficulties for multinational companies that operate and report all over the world. This is where XBRL can help.

XBRL stands for eXtensible Business Reporting Language (XBRL). It is a language for describing exactly which information is included in a report. The language can even take into account differences in definitions and measurements of elements in other countries. It is a language for capturing financial information within a business's own information processing systems. The goal of XBRL is to make the analysis and reporting of financial information more consistent and reliable, and easier to facilitate. The financial information based on XBRL can be used to report to shareholders, banks, regulators and other parties as required.

So how will this be achieved? To report financial information in a consistent form, the creators of XBRL have developed a taxonomy or vocabulary that can affect the format of financial information throughout the complete life cycle of that information (i.e. the reporting supply chain); that is, from the initial creation of source documents such as purchase orders, invoices and cash receipts to the collection and summarisation processing in the finance department. Organisations and companies use the language to 'tag' information (i.e. financial data) in financial reports. This makes it easier to compare companies, both within a country, and also internationally between companies. XBRL will also facilitate the completion of reports required by regulatory agencies and the preparation of financial reports. How impressive is that?

Have you ever heard or read about XBRL before reading about it here? Believe it or not, XBRL has been around for a while. It began to be developed in the late 1990s with a global consortium of the world's largest companies, regulators, securities exchanges, software developers, accounting firms and professional associations with the aim of facilitating standard and more efficient business reporting. Using XBRL also helps moving towards financial reporting that is consistent internationally. Also, communication between companies and clients or consumers is increasingly via digital technology and social media, for example, via email, or Facebook, or through advertisements on our mobile phones. As this type of communication continues to grow, it makes sense (and is more important) for companies to start using the same forms of communication to report financial information. The *Conceptual Framework for Financial Reporting 2010* includes a number of sections on the 'Basis for Conclusions' for each of the chapters in the *Conceptual Framework*. In the Basis for Conclusions in Chapter 1: The objective of general purpose financial reporting, it was noted in BC1.5 that advances in technology, such as XBRL may make general purpose financial reporting obsolete. In the future, technologies like XBRL may allow reporting entities to make the information available for different users to assemble themselves in different report formats that would suit their individual information needs! Now that is flexible reporting!

APPLICATION IN BUSINESS

International perspective

In late August 2007, the Australian government announced approval for a long-term program to reduce the reporting burden for Australian businesses. It involved the development of standard business reporting supported by the development of an XBRL reporting taxonomy. Standardising technology in business reporting enables cost and time efficiencies for businesses and regulatory agencies to be achieved.

For example, the technology has been developed such that reports can be prefilled from the company's accounting systems and sent electronically to the various regulatory agencies as required. Standard Business Reporting (SBR) is now available at the Australian Taxation Office (ATO), offering Australian businesses, accountants, bookkeepers, tax agents, business activity statement (BAS) agents (activity statements only) and payroll professionals a quicker and simpler way to complete and lodge reports for government. This means businesses can now automatically create and securely send to the ATO selected forms online directly from their financial, accounting or payroll software.

The United States, Japan and Singapore have taken the lead in mandating the use of XBRL in financial report lodgements. In some countries (e.g. the United States) corporate regulators have taken the use of XBRL technology one step further. They are using it to help fight crimes in the finance industry. However, the widespread uptake of standardised reporting, or mandating standardised reporting, using XBRL technologies has been much slower in Australia. This is *despite* the Australian government plan to reduce the reporting burden for companies, dating back to August 2007, noted above. The Australian Securities and Investments Commission (ASIC) has been able to accept XBRL lodgements since July 2010, yet the benefits of using XBRL, including 'competitive advantage, lower compliance costs and better dissemination of financial information to stakeholders', have not persuaded companies to adopt it broadly given 'the costs of incorporating XBRL into the financial reporting supply chain'.

How long can Australia afford to lag behind the international trends?

Sources: D. Hardidge and R. Subramanian 2014, 'Moving toward XBRL', *InTheBlack,* May, pp. 70–1; and Australian Taxation Office's web site, www.ato.gov.au.

LEARNING REFLECTION AND CONSOLIDATION

>> REVIEW IT

Explain possible developments in financial reporting that may occur in the future.

USING THE DECISION-MAKING TOOLKIT

Forden Ltd is a sizeable Australian car manufacturer selling cars all over the world. It employs many thousands of Australians in its factories and showrooms. Many of the shareholders of Forden Ltd attend annual general meetings to ensure management has been operating the business as efficiently and effectively as possible. The company has spent a significant amount for property, plant and equipment financed largely through borrowings.

Provided below are several transactions and events in relation to Forden Ltd for the year ended 30 June 2016.

1. The company paid for a 1-year insurance policy from Insurance Brokers Ltd on 1 March 2016, costing $12 000, paid in advance.
2. The company sub-leased part of its premises to Sheet Metals R Us Ltd for a period of 3 years, beginning 1 January 2016. Sheet Metals R Us Ltd paid $50 000 on this date, and is required to pay further instalments of $50 000 in 2017 and 2018.
3. Currently there is a law suit against the company as a local environmental group found the company was polluting a local lake with toxic waste from its factory. The payout is estimated to be somewhere between $100 000 to $200 000 if the law suit is successful.
4. In the past, the company has always donated $20 000 each year to a local charity. This has been the case for the last 10 years. At 30 June 2016, nothing has been recorded in the accounts.
5. On 31 December 2015, the company issued a further $90 000 share capital to raise funds for a possible expansion.

REQUIRED

(a) For each transaction or event, determine the appropriate amount of income, expenses, assets, liabilities and equity that should be recorded by the company and record the journal entry. Include in your answer your reasoning based on the recognition criteria for the elements in financial statements as outlined in the *Conceptual Framework*. Ignore the effects of GST.

(b) Explain how Forden Ltd can determine if it is a reporting entity.

SOLUTION

(a) 1. The company paid for a 1-year insurance policy from Insurance Brokers Ltd on 1 March 2016, costing $12 000, paid in advance. The company should recognise $8000 as an asset and $4000 for insurance expense.

Prepaid insurance	8 000	
Insurance expense	4 000	
Cash		12 000
(To record 8 months prepaid insurance July 2016–February 2017 and 4 months insurance expense March–June 2016)		

Reasoning: As outlined in the *Conceptual Framework*, assets should be recognised when it is probable that the future economic benefits will flow to the entity and the asset has a cost or value that can be measured with reliability. In this case, it is probable that the firm will enjoy the economic benefits of being insured for 8 months of the following accounting period and the amount can be reliably measured. Both recognition criteria have been met for assets and so the prepaid insurance asset should be recognised.

Expenses should be recognised when decreases in assets or increases in liabilities that result in a decrease in equity are probable. In this case, there was a decrease in cash and a decrease in equity for the insurance expense that can be measured reliably recall that an asset is not recognised in the statement of financial position if it is considered improbable that economic benefits will flow to the entity beyond the current accounting period. In this case, $4000 of the expenditure is recorded as an expense in the statement of profit or loss as it will not provide economic benefits beyond the current accounting period.

2. The company sub-leased part of its premises to Sheet Metals R Us Ltd for a period of 3 years, beginning on 1 January 2016. Sheet Metals R Us Ltd paid $50 000 on this date, and is required to pay further instalments of $50 000 in 2017 and 2018.

Cash	50 000	
Rent revenue		25 000
Rent received in advance		25 000
(To record revenue and revenue received in advance)		

Forden Ltd should recognise $50 000 as an asset (cash), $25 000 as income and $25 000 as a liability (rent received in advance).

As outlined in the *Conceptual Framework*, assets should be recognised when it is probable that the future economic benefits will flow to the entity and the asset has a cost or value that can be measured with reliability. In this case, $50 000 cash has flowed into the organisation, meeting both recognition criteria. Income should be recognised when an inflow of future economic benefits is probable and can be measured reliably. Generally, for a service business, revenue is recognised when the service is performed. In this case, at the 30 June, Forden Ltd has completed the service (providing the rental premises to Sheet Metals R Us for 6 months) and the economic benefits (cash) have been received by the company and can therefore be reliably measured. All income recognition criteria have been satisfied.

Liabilities should be measured when it is probable that an outflow of resources embodying economic benefits will result from the settlement of a present obligation and the amount at which the settlement will take place can be measured reliably. As at 30 June 2016, Sheet Metals R Us Ltd has paid 6 months' rental income in advance. Hence, the present obligation, the outflow of resources, is to either provide rental premises for a period of 6 months or repay the cash. The amount has already been received so it can be determined reliably. Both criteria for recognising liabilities have been met.

3. Currently there is a law suit against the company as a local environmental group found the company was polluting a local lake with toxic waste from its factory. The payout is estimated to be somewhere between $100 000 and $200 000 if the law suit is successful.

In this case, no amount would be recognised in the financial statements but would be disclosed in the notes, as a law suit of this nature is classified as a contingent liability. Contingent liabilities are liabilities for which the amount of the future sacrifice is so uncertain that it cannot be measured reliably, that do not satisfy the probability criterion, or are dependent upon the occurrence of an uncertain future event outside the control of the entity. Contingent liabilities are not recognised in the financial statements. However, information about contingent liabilities must be disclosed in the notes to the financial statements if they are material.

(continued)

4. In the past, the company has always donated $20 000 each year to a local charity. This has been the case for the last 10 years. At 30 June 2016, nothing has been recorded in the accounts.

   In this case, no liability is recorded as there is currently no present obligation for an outflow of resources. This case does not meet the liability recognition criteria.
5. On 31 December 2015, the company issued a further $90 000 share capital to raise funds for a possible expansion.

   In this case, $90 000 should be recognised as an asset (cash) and $90 000 as equity (share capital).

Cash	90 000	
Share capital		90 000
(To record an increase in paid up capital)		

   The inflow of cash meets both of the recognition criteria for assets as outlined in part 2. There are no specific recognition criteria for equity; hence, we can turn to the definitions of income and equity for guidance. Income is defined in the *Conceptual Framework* as 'increases in economic benefits during the accounting period in the form of inflows or enhancements of assets or decreases of liabilities that result in increases in equity, other than those relating to contributions from equity participants'. As this inflow of cash is from equity participants, it is not income.

   Equity is defined in the *Conceptual Framework* as 'the residual interest in the assets of the entity after deducting all its liabilities'. Put simply, equity is what remains when we subtract liabilities from assets; that is, Equity = Assets − Liabilities.

   In this case, Equity = $90 000 − $0. This equation shows that equity cannot be defined independently of the other elements in the statement of financial position; that is, equity is the residual.

   We also know that equity can be presented in subcategories. In a corporate entity, equity can be classified into funds contributed by shareholders (share capital), retained earnings, and reserves representing appropriations of retained earnings.

(b) The Australian conceptual framework defines the reporting entity as an entity in which it is reasonable to expect the existence of users who depend on general purpose financial reports for information to enable them to make economic decisions (Statement of Accounting Concepts 1). Three main indicators are used to decide whether a business organisation is a reporting entity. First, if the entity is managed by individuals who are not the owners of the entity. Second, if the entity is politically or economically important. Third, if the entity is sizeable measured in relation to sales, assets, borrowings, customers and employees. Based on the criteria, and the information about Forden Ltd provided in the question, we can make a judgement about whether Forden Ltd is a reporting entity:

1. Separation of ownership and management — many of the shareholders of Forden Ltd attend annual general meetings to ensure management has been operating the business as efficiently and effectively as possible.
2. Is economically important — Forden Ltd employs many thousands of Australians.
3. Sizeable — sales — Forden Ltd is a sizeable Australian car manufacturer selling cars all over the world.
4. Sizeable — assets/borrowings — the company has spent a significant amount for property, plant and equipment financed largely through borrowings.

   Based on the above analysis, it appears that Forden Ltd satisfies many of the indicators of a reporting entity and is likely to be a reporting entity.

SUMMARY OF LEARNING OBJECTIVES

1 Explain and apply the concepts and principles underlying the recording of accounting information.
There are two concepts and four principles that underlie the recording of accounting information. In many cases, more than one principle or concept can apply to each transaction. For example, the monetary principle requires that only those things that can be expressed in monetary terms be included in the accounting records. Hence, all accounting transactions will be based on the monetary principle, but may also be based on others. The accounting entity concept states that every entity can be separately identified and accounted for. The accounting period concept states that the life of a business can be divided into artificial periods and that useful reports covering those periods can be prepared for the business. The going concern principle states that the business will remain in operation for the foreseeable future. The full disclosure principle requires that all circumstances and events that could make a difference to the decisions financial statement users might make should be disclosed in the financial statements. The cost principle states that all assets are initially recorded in the accounts at their purchase price or cost. It is important to note that the concepts and principles are not applied in isolation but in conjunction with accounting standards and the *Conceptual Framework*.

2 Describe the *Conceptual Framework for Financial Reporting* (the *Conceptual Framework*).
The *Conceptual Framework* consists of a set of concepts defining the nature, purpose and content of general purpose financial reporting to be followed by preparers and standard setters. It has four main components: the objective of general purpose financial reporting, the reporting entity (SAC 1), the definition of elements in financial statements and the qualitative characteristics. A definition of the reporting entity is missing from the *Conceptual Framework* issued by the IASB, hence Australia retains SAC 1 from the Australian conceptual framework. Currently the joint project being undertaken by the IASB and US FASB is yet to be completed.

3 Explain the objective of general purpose financial reporting.
The objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to present and potential equity investors, lenders and other creditors in making their decisions about providing resources to the entity.

4 Identify the primary and other users, and their uses of financial reports.
Two categories of users of financial information are identified. Primary users include: equity investors, lenders and other creditors. Other users include: government agencies, members of the public, as well as suppliers, customers and employees (when not resource providers and therefore other creditors).

5 Explain the nature of a reporting entity.
The Australian conceptual framework defines the reporting entity as an entity in which it is reasonable to expect the existence of users who depend on general purpose financial reports for information to enable them to make economic decisions (Statement of Accounting Concepts 1). Three main indicators are used to decide whether a business organisation is a reporting entity. First, if the entity is managed by individuals who are not the owners of the entity. Second, if the entity is politically or economically important. Third, if the entity is sizeable measured in relation to sales, assets, borrowings, customers and employees. Based on these criteria, reporting entities include public companies and some large private companies as well as government authorities.

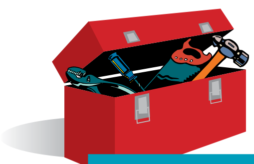
At the time of writing the section on the reporting entity was not available in the *Conceptual Framework*. However, an exposure draft (ED/2010/2 Conceptual Framework for Financial Reporting: The Reporting Entity) was released which set out the proposed views on the *reporting entity concept*.

6 Identify and apply the qualitative characteristics and constraint on financial reporting.
The objective of general purpose financial reporting is to provide useful information for decision making. Qualitative characteristics are the attributes that make the information in financial reports useful. The qualitative characteristics are classified as either fundamental or enhancing depending on how they affect the usefulness of financial information. Fundamental qualitative characteristics include relevance and faithful representation. Enhancing qualitative characteristics include: comparability, verifiability, timeliness and understandability. While the qualitative characteristics are intended to provide users of financial statements with the most useful information for decision making, if taken to the extreme, the pursuit of useful financial information could be far too costly to the entity. Therefore, cost is a constraint on financial reporting.

7 Define assets, liabilities, equity, income and expenses and apply recognition criteria.
The *Conceptual Framework* defines assets, liabilities, equity, income and expenses, that is, each of the main elements included in financial statements. It also sets out the criteria for their recognition. Definitions and recognition criteria are crucial in recording transactions. In the *Conceptual Framework*, assets are defined as

a resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity. Liabilities are present obligations of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits. Equity is the residual interest in the assets of the entity after deducting all its liabilities. Income is defined as increases in economic benefits during the accounting period in the form of inflows or enhancements of assets or decreases of liabilities that result in increases in equity, other than those relating to contributions from equity participants. Expenses are decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or incurrences of liabilities that result in decreases in equity, other than those relating to distributions to equity participants.

An item that meets the definition of an element included in financial statements should be recognised if it is probable that any future economic benefit associated with the item will flow to or from the entity; and the item has a cost or value that can be measured with reliability. These are the basic criteria that are applied when recognising assets, liabilities, revenues and expenses.



8 Integrate principles, concepts, standards and the *Conceptual Framework*.
Generally accepted accounting principles (GAAP) consist of accounting standards, underlying accounting concepts and principles, and the *Conceptual Framework*. The various aspects of GAAP do not operate in isolation, but are interrelated. For example, the accounting period concept and the revenue and expense recognition criteria are interrelated. The *order* in which the various aspects of GAAP must be applied is as follows: accounting standards are the first point of guidance for preparers and must be followed as they have legislative backing. Where the standards are silent on an accounting issue, preparers can seek guidance from the *Conceptual Framework*. The concepts and principles that underlie accounting are applied where there is no guidance in the *Conceptual Framework*.

9 Appreciate, at an introductory level, various future developments in financial reporting.
There are a number of future developments in financial reporting, including the International Accounting Standards Board (IASB) and US Financial Accounting Standards Board (FASB) joint project to develop a *Conceptual Framework*. This comprehensive project is yet to be completed. Hence, there are future developments on the horizon. Other developments in financial reporting include eXtensible Business Reporting Language (XBRL) and sustainability reporting.

DECISION-MAKING TOOLKIT — A SUMMARY

Decision/Issue	Info needed for analysis	Tool or technique to use for decision	How to evaluate results to make decision
Is the entity required to provide general purpose financial reports?	Characteristics of the entity as outlined in SAC 1	Make a judgement about whether the entity is a reporting entity based on SAC 1 indicators. An organisation is more likely to be classified as a reporting entity if it has separation of ownership and management; is politically or economically important; and is sizeable in relation to sales, assets, borrowings, customers and employees.	If the entity is classified as a reporting entity, the entity is required to provide general purpose financial reports in accordance with GAAP.
At what point should the entity recognise (record) assets?	Need to understand the nature of the entity's business and the definition and recognition criteria for assets.	Assets should be recognised when it is probable that the future economic benefits will flow to the entity and the asset has a cost or value that can be measured with reliability.	Recognising assets too early overstates current period assets; recognising them too late understates current period assets.
At what point should the entity recognise (record) liabilities?	Need to understand the nature of the entity's business and the definition and recognition criteria for liabilities.	Liabilities should be recognised when it is probable that an outflow of resources embodying economic benefits will result from the settlement of a present obligation and the amount at which the settlement will take place can be measured reliably.	Recognising liabilities too early overstates current period liabilities; recognising them too late understates current period liabilities.

At what point should the entity recognise (record) income?	Need to understand the nature of the entity's business and the definition and the recognition criteria for income.	Income should be recognised when an increase in future economic benefits related to an increase in an asset or a decrease of a liability has arisen that can be measured reliably. Generally, for a service business, revenue is recognised when the service is performed. For a business that sells goods, revenue is recognised when the goods have been delivered.	Recognising income too early overstates current period income; recognising it too late understates current period income.
At what point should the entity recognise (record) expenses?	Need to understand the nature of the entity's business and definition and recognition criteria for expenses.	Expenses should be recognised when a decrease in future economic benefits related to a decrease in an asset or an increase of a liability has arisen that can be measured reliably.	Recognising expenses too early overstates current period expense; recognising them too late understates current period expense.

GLOSSARY

Accounting entity concept A concept that every entity can be separately identified and accounted for. Economic events can be identified with a particular unit of accountability, so that financial reports are prepared from the perspective of the entity, not its owners or other parties (p. 794).

Accounting period concept An accounting concept that the economic life of an entity can be divided into discrete periods of time and that useful reports covering these periods can be prepared by the entity (p. 794).

Accrual-based accounting The accounting basis in which transactions and events are recorded in the periods in which they meet the recognition criteria for assets, liabilities, revenues and expenses. Recognition can occur before, as or after cash is paid or received (p. 814).

Assets Resources controlled by an entity as a result of past events and from which future economic benefits are expected to flow to the entity (p. 814).

Comparability Ability to compare the accounting information of different entities or the same entity over time because the same accounting measurement and principles are used (p. 811).

Conceptual framework A conceptual framework consists of a set of concepts to be followed by the preparers of financial statements and standard setters (p. 797).

Cost principle All assets are initially recorded in the accounts at their purchase price or cost (p. 795).

Differential reporting The application of different sets of rules for different categories of entities when preparing general purpose financial reports (p. 807).

Due process A consultation process where standard setters invite interested parties to contribute to the development of accounting standards (p. 799).

Elements in financial statements As defined in the *Conceptual Framework* include assets, liabilities, equity, income and expenses (p. 814).

Equity The residual interest in the assets of the entity after deducting all its liabilities (p. 818).

Expenses Decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or incurrences of liabilities that result in decreases in equity, other than those relating to distributions to equity participants (p. 821).

Faithful representation Information is a faithful representation of the economic phenomena it purports to represent if it is complete, neutral a free from material error (p. 810).

Full disclosure principle Accounting principle that dictates that circumstances and events that make a difference to financial statement users should be disclosed (p. 795).

Generally accepted accounting principles (GAAP) Accounting concepts, principles, qualitative characteristics and standards having substantial authoritative support, that are recognised as a general guide for financial reporting purposes (p. 793).

General purpose financial reports Financial reports intended to meet the information needs of users who are unable to command reports to suit their specific needs (p. 803).

Going concern principle States that the financial statements are prepared on a going concern basis unless management either intends to or must liquidate the business or cease trading (p. 794).

Income Increases in economic benefits during the accounting period in the form of inflows or enhancements of assets or decreases of liabilities that result in increases in equity, other than those relating to contributions from equity participants (p. 819).

Liability A present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits (p. 816).

Materiality The condition on reporting information if its omission or misstatement could influence the decisions of users of financial reports (p. 809).

Measurement The process of determining the monetary amounts at which the elements of the financial reports are to be recognised and carried in the statement of financial position and the statement of profit or loss (p. 823).

Monetary principle A principle stating that the items included in an entity's accounting records must be able to be expressed in monetary terms (p. 793).

Objective of general purpose financial reporting Is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing reserves to the entity (p. 803).

Recognition Process of recording in the statement of profit or loss or statement of financial position any item that meets the definition of an element in financial statements and satisfies the recognition criteria (p. 815).

Relevant Accounting information is considered to be relevant if the information makes a difference in a decision (p. 809).

Reporting entity An entity in which it is reasonable to expect the existence of users who depend on general purpose financial reports for information to enable them to make economic decisions (p. 805).

Resource providers The primary users of financial reports — those with a claim on the entity's resources as expected in the *Conceptual Framework* (p. 804).

Timeliness Whether the communication of financial information is in the time frame within which decisions are made (p. 812).

Understandability The extent to which information can be understood by proficient users (p. 812).

Verifiability The extent to which independent observers could reach a consensus that a particular depiction is a faithful representation of the economic phenomena it is meant to represent (p. 811).

DEMONSTRATION PROBLEM

A number of independent situations are provided below:

(a) The owner of a small hairdressing salon recorded the purchase of a Mercedes sports car using funds from the business as indicated below. The car was purchased for personal use.

Motor vehicles	60 000	
Cash		60 000

(b) The size of the entity's land was listed in the statement of financial position (see below). The entity did not want to disclose an outdated land value.

Non-current assets	
Land	100 000 acres

(c) A company is currently undergoing a tax audit. It is probable that the company will be required to pay a substantial amount in unpaid taxes, but the exact amount will not be determined until the audit is complete. The entity has not recorded any amount in the financial statements.

(d) The auditors for a large company made an incorrect assumption that the company was headed for bankruptcy.

(e) A magazine company recorded $9000 cash received for 1-year subscriptions as income even though half related to magazines to be delivered in the next accounting period.

Cash	9 000	
Subscription revenue		9 000

REQUIRED

For each of the situations presented, explain which accounting principles or concepts have been violated. Where possible, provide the correct journal entry to record the transaction or event (ignore GST). Where relevant, provide any other applicable generally accepted accounting principles to support your answer.

SOLUTION TO DEMONSTRATION PROBLEM

(a) The accounting entity concept states that every entity can be separately identified and accounted for. It is important that the owners do not confuse the entity's transactions with their personal transactions, or the transactions of any other entity. The correct journal entry would be:

Drawings	60 000	
Cash		60 000

(b) This situation violates two accounting principles: the cost principle and the monetary principle. The monetary principle requires that only those things that can be expressed in monetary terms be included in the accounting records. The cost principle states that all assets are initially recorded in the accounts at their purchase price or cost. The entity should record its assets either at cost or fair value. Recall that after the initial recognition of an asset at cost, an entity may choose to revalue its non-current assets to fair value. IAS 16/AASB 116 requires each class of property plant and equipment to be measured on either the cost basis or the revalued basis. The entity could therefore recognise the land at its cost or at it revalued amount in the statement of financial position.

(c) The full disclosure principle requires that all circumstances and events that could make a difference to the decisions financial statement users might make should be disclosed in the financial statements. The fact that it is likely that the company will need to pay a substantial amount in unpaid taxes should be disclosed. This situation represents a contingent liability, which is a liability for which the amount of the future sacrifice is so uncertain that it cannot be measured reliably. While contingent liabilities are not recognised in the financial statements, information about contingent liabilities must be disclosed in the notes to the financial statements.

(d) This situation is a violation of the going concern principle. The going concern principle states that the business will remain in operation for the foreseeable future.

(e) This situation is a violation of the accounting period concept, which states that the life of a business can be divided into artificial periods and that useful reports covering those periods can be prepared for the business. In this case, income was overstated by $4500. Also relevant to this situation are the recognition tests for assets, income and liabilities. As outlined in the *Conceptual Framework*, assets should be recognised when it is probable that the future economic benefits will flow to the entity and the asset has a cost or value that can be measured with reliability. In this case, $9000 cash has flowed into the organisation, meeting both recognition criteria, and is correctly recorded. Income should be recognised when an inflow of future economic benefits is probable and can be measured reliably. For a business that sells goods, revenue is recognised when the goods have been delivered. In this case, the company has provided goods worth $4500 and the economic benefits (cash) have been received by the company and can therefore be reliably measured. For the $4500, the income recognition criteria have been satisfied.

(continued)

Problem-solving strategies

1. Review the accounting concepts and principles discussed in the chapter.
2. Recall that the concepts and principles are not applied in isolation but in conjunction with other generally accepted accounting principles (GAAP).
3. GAAP in Australia is a combination of statutory rules (accounting standards) and interpretations, the concepts and principles, as well as the *Conceptual Framework*.
4. Determine which accounting concepts and principles have been violated and determine if there are any other relevant GAAP that apply to the situation.
5. Explain the violation based on the concepts and principles and other relevant GAAP.
6. Finally prepare the correct journal entry where relevant (ignore GST).

Liabilities should be measured when it is probable that an outflow of resources embodying economic benefits will result from the settlement of a present obligation and the amount at which the settlement will take place can be measured reliably. At the end of the accounting period, the magazine company customers have paid 6 months' magazine subscriptions in advance. Hence the present obligation, the outflow of resources, is to either provide the magazines for a period of 6 months or repay the cash. The amount has already been received so it can be determined reliably. Both criteria for recognising liabilities have been met and the $4500 should be recorded as a liability.

The correct journal entry would be as follows:

Cash	9 000	
Subscription revenue		4 500
Subscription revenue received in advance		4 500

SELF-STUDY QUESTIONS *Answers are at the end of the chapter.*

(LO1) 1. The accounting entity concept states that:
(a) the life of an entity can be divided into artificial periods.
(b) useful reports covering an accounting period can be prepared for the entity.
(c) activities of an entity should be kept separate and distinct from the activities of its owner(s).
(d) the entity's assets and the owner's assets are accounted for together.

(LO1) 2. The cost principle states that:
(a) assets should be recorded at cost and subsequently adjusted when the market value changes.
(b) every entity can be separately identified and accounted for.
(c) all assets should be initially recorded at their cost.
(d) only transaction data capable of being expressed in monetary amounts should be included in the accounting records.

(LO1) 3. Valuing assets at their market value rather than at their cost is inconsistent with the:
(a) monetary concept.
(b) accounting entity concept.
(c) cost principle.
(d) all of the above.

(LO1) 4. Which of the following is not a concept or a principle underlying the recording of accounting information?
(a) The monetary concept.
(b) The accounting entity concept.
(c) The going concern principle.
(d) The reliability principle.

(LO2) 5. The *Conceptual Framework*:
(a) consists of 4 sections.
(b) includes the objective of general purpose financial reporting.
(c) defines the elements in financial reports and the qualitative characteristics.
(d) all of the above.

(LO2) 6. The *Conceptual Framework*:
(a) has been completed and is awaiting approval by the International Accounting and Reporting Board (IARB).
(b) is in the process of being prepared by the IARB.
(c) is the result of a joint project between the International Accounting Standards Board (IASB) and Financial Accounting Standards Board (FASB).
(d) none of the above.

(LO2) 7. Due process:
(a) is where governments from around the world work together to prepare unified accounting standards.
(b) is the process where all interested parties are consulted and invited to provide feedback when standards are developed.
(c) is the process entities go through to collect cash when payments are due.
(d) is the process reporting entities go through to make sure that all users who are due the information receive the information as part of the due process.

(LO3) 8. The objective of general purpose financial reporting as defined in the *Conceptual Framework* is:
(a) to provide information that is useful to present and potential investors in making rational investment, credit and similar decisions.
(b) to provide information that is useful to creditors in making rational investment, credit and similar decisions.
(c) to provide financial information about the reporting entity that is useful to primary users in making decisions about providing resources to the entity.
(d) to provide information that is useful to present and potential investors for making and evaluating decisions about the allocation of scarce resources.

(LO4) 9. The primary users of financial information as outlined in the *Conceptual Framework* are:
(a) resource providers, recipients of goods and services and parties performing a review or oversight function.
(b) existing and potential equity investors, lenders and other creditors.
(c) resource providers, existing equity investors and other creditors.
(d) potential equity investors, recipients of goods and services and other creditors.

(LO4) 10. The primary users of financial information in the category of other creditors as outlined in the *Conceptual Framework* include:
(a) employees, suppliers and customers.
(b) employees, lenders and customers.
(c) lenders, suppliers and customers.
(d) employees, lenders, customers and suppliers.

(LO5) 11. Accounting entities:
(a) are all reporting entities.
(b) are never reporting entities.
(c) are sometimes also reporting entities.
(d) are both accounting entities and reporting entities.

(LO5) 12. The criteria used to determine if an entity is a reporting entity include:
(a) separation of ownership from management.
(b) size measured in relation to sales, assets, borrowings, customers and employees.
(c) political and economic importance.
(d) all of the above.

(LO5) 13. Reporting entities generally don't include:
(a) public companies.
(b) government authorities.
(c) some large private companies.
(d) sole traders.

(LO6) 14. The enhancing qualitative characteristics of financial information outlined in the *Conceptual Framework* include:
(a) understandability, timeliness, verifiability and comparability.
(b) understandability, verifiability, reliability and comparability.
(c) understandability, relevance, faithful representation and timeliness.
(d) understandability, relevance, reliability and confidentiality.

(LO6) 15. Which of the following is a fundamental qualitative characteristic of information as outlined in the *Conceptual Framework*?
(a) Comparability.
(b) Understandability.
(c) Faithful representation.
(d) Verifiability.

(LO6) 16. Which of the following is considered to be a constraint of providing financial information in the *Conceptual Framework* ?
(a) Full disclosure.
(b) Understandability.
(c) Materiality.
(d) Cost.

(LO7) 17. In the *Conceptual Framework,* an asset is defined as:
(a) a resource owned by the entity as a result of past events and from which future economic benefits are expected to flow to the entity.
(b) a resource controlled by the entity from which future economic benefits are expected to flow to the entity.
(c) a resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity.
(d) a resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow out of the entity.

(LO7) 18. In the *Conceptual Framework,* expenses are defined as:
(a) decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or incurrences of liabilities that result in decreases in equity, other than those relating to distributions to equity participants.

(b) increases in economic benefits during the accounting period in the form of outflows or depletions of assets or incurrences of liabilities that result in decreases in equity, other than those relating to distributions to equity participants.
(c) decreases in economic benefits during the accounting period in the form of inflows of assets or incurrences of liabilities that result in decreases in equity, other than those relating to distributions to equity participants.
(d) decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or incurrences of liabilities that result in decreases in equity, including those relating to distributions to equity participants.

(LO7) 19. As outlined in the *Conceptual Framework*, income should be recognised:
(a) when an inflow of future economic benefits is certain and can be measured reliably.
(b) when the cash is received.
(c) when an inflow of future economic benefits is probable and can be measured reliably.
(d) when an outflow of future economic benefits is probable and can be measured reliably.

(LO7) 20. Which of the following statements is not true in relation to the definitions and/or recognition criteria for elements in financial reports as outlined in the *Conceptual Framework*?
(a) The definitions of equity, income and expenses are related to the definitions of assets and liabilities.
(b) The measurement of equity, income and expenses are dependent on the measurement of assets and liabilities.
(c) The measurement of income and expenses are dependent on the measurement of equity.
(d) Income is defined as increases in economic benefits during the accounting period in the form of inflows or enhancements of assets or decreases of liabilities that result in increases in equity, other than those relating to contributions from equity participants.

(LO8) 21. When preparing general purpose financial reports, the elements of GAAP should be applied in the following order:
(a) underlying concepts and principles, accounting standards, the *Conceptual Framework*.
(b) accounting standards, the *Conceptual Framework*, underlying concepts and principles.
(c) the *Conceptual Framework*, accounting standards, underlying concepts and principles.
(d) none of the above.

(LO8) 22. Which of the following has/have been identified as future developments for financial reporting?
(a) A definition of the reporting entity as part of the *Conceptual Framework* for financial reporting.
(b) eXtensible Business Reporting Language (XBRL).
(c) Emissions trading as part of sustainability reporting.
(d) All of the above.

QUESTIONS

1. Explain the concepts and principles that underlie accounting.
2. Explain how accounting concepts, principles and recognition criteria are interrelated and provide guidance when recording certain transactions. Provide at least one example to illustrate your answer.
3. What is the *Conceptual Framework*?
4. What are the advantages or benefits of the *Conceptual Framework* for financial reporting? Do you believe that these benefits can actually be achieved?
5. Explain what is meant by the reporting entity concept as proposed in the exposure draft ED/2010/2. In your answer, discuss the feature. Do you believe that the accounting entity concept is helpful?
6. Differential reporting means applying different sets of rules for different categories of entities preparing general purpose financial reports. Identify the different categories of entities and explain their reporting requirements.
7. Explain the objective of general purpose financial reporting as defined in the *Conceptual Framework*. Why is it necessary to have an objective?
8. Identify the primary users and their uses of financial information as outlined in the *Conceptual Framework*.

9. Compare and contrast the primary users of financial reports and their information needs as outlined in the *Conceptual Framework* with the other users of financial reports.
10. Provide a brief summary of each of the qualitative characteristics and the constraint on providing financial information as outlined in the *Conceptual Framework*.
11. Two qualitative characteristics that financial information should possess are relevance and faithful representation. Explain these concepts and discuss whether you believe one is more important than the other, or if are they equally important?
12. The *Conceptual Framework* identifies a number of qualitative characteristics that financial information should possess if it is to be useful for decision making. Faithful representation is one such characteristic. Do you believe that financial information can, in reality, be neutral and free from material error? Explain your answer.
13. The *Conceptual Framework* outlines a constraint on providing financial reports. Explain this constraint.
14. General purpose financial reports are only one source of information for users when making a variety of decisions. What other sources of information are available to users and why is it important that they obtain them? Support your discussion with examples.
15. Explain why general purpose financial reports should be seen more as models of transactions and events that have occurred in relation to an entity rather than an exact depiction of transactions and events.
16. The *Conceptual Framework* identifies qualitative characteristics as fundamental or enhancing. Describe each of the qualitative characteristics. What makes a qualitative characteristic fundamental or enhancing? Do you believe this is an important distinction?
17. Cost is a constraint that limits the information provided by financial reporting. Explain whether fundamental or enhancing qualitative characteristics can be sacrificed to reduce costs. Justify the reasons for your answer.
18. Define liabilities and outline the recognition criteria for liabilities as outlined in the *Conceptual Framework*.
19. Define income and expenses as outlined in the *Conceptual Framework*.
20. Define assets and explain the recognition criteria for assets as outlined in the *Conceptual Framework*.
21. How is equity defined in the *Conceptual Framework*? Provide examples of transactions or events that affect equity. Provide examples of transactions and events that do not affect equity.
22. At what point should an entity recognise income? Provide examples to support your explanation.
23. What are the two basic common recognition criteria that are applied to assets, liabilities, revenues and expenses?
24. There are four bases of measurement outlined in the *Conceptual Framework*. Briefly describe each of these. Identify common alternative measurement bases that can be found in general purpose financial reports.
25. Briefly outline how the elements of GAAP are applied.
26. Outline three future developments in financial reporting.

BRIEF EXERCISES

Identify the concepts and principles underlying accounting. (LO1)

BE13.1 The statements below refer to the concepts and principles underlying the recording of accounting information. Identify if they are true or false.

(a) The accounting period concept states that the life of a business can be divided into various periods to more accurately reflect the profit and smooth out seasonal fluctuations in profit between different periods.
(b) The cost principle states that all accounting transactions and events are recorded in the accounts at their cost.
(c) The going concern principle states that the business will remain in operation for the foreseeable future.

Apply the concepts and principles underlying accounting. (LO1)

BE13.2 A number of independent economic events are presented below and overleaf. Comment on each case. In your discussion, identify if any concepts and/or principles underlying the recording of accounting transactions have been incorrectly applied.

(a) The owner of the business included his personal vehicle expenses in the entity's statement of profit or loss.

(b) A major lawsuit has been filed against a children's toy manufacturer as a number of children were injured due to the manufacturer's products not complying with safety standards. The solicitors acting for the company believe there is a high probability of the company having to pay out a large amount in damages; however, nothing is reported in the financial statements as the amount is unknown.
(c) Land and buildings were reported in the statement of financial position at their estimated selling price. This amount was substantially higher than the outdated cost figures.

Identify and explain the concepts and principles underlying accounting. (LO1)

BE13.3 Each of the concepts and principles underlying the recording of accounting transactions is *incorrectly* stated below. Correct each of the statements.
(a) The going concern principle states that if the business will remain in operation for the foreseeable future, assets should not be recorded at cost but at the amount they can be sold for. This will provide current and future investors with more up-to-date information to be able to assess future profitability.
(b) The full disclosure principle requires that any circumstances and events that might be of interest to financial statement users should be disclosed in the financial statements.
(c) The accounting entity concept states that the personal transactions of the owners should be accounted for separately from the entity's transactions, unless the entity is a sole trader or a partnership as they are not separate legal entities.

Describe conceptual frameworks. (LO2)

BE13.4 A number of statements in relation to conceptual frameworks are provided below. Identify if they are true or false.
(a) Prior to 1970 there was no generally accepted theory of financial reporting.
(b) One of the many theories of accounting is the capitalist theory of accounting.
(c) The development of a generally accepted theory of accounting is necessary to improve the standard-setting process and consistency in accounting practice.
(d) A conceptual framework for accounting consists of a set of concepts defining the nature, purpose and content of general purpose financial reporting.
(e) Preparers of general purpose financial reports are bound by law to follow the *Conceptual Framework*.

Identify the primary and other users of financial reports. (LO4)

BE13.5 In the table listing *categories of users* provided below, place a tick (✓) in the correct column to identify which user categories are primary users or other users as outlined in the *Conceptual Framework*.

User category	Primary users	Other users
Potential equity investors		
Regulators		
Existing equity investors		
Lenders		
Members of the public		
Other creditors		
Financial advisers		
Customers		

Identify the primary and other users of financial reports. (LO4)

BE13.6 A list of users and a list of financial information needs have been provided opposite. Identify the most likely information needs for each user by drawing a line between the columns to link each user with their information needs. One example is provided to illustrate the process.

Users	Information needs
Managers	Information to calculate the amount of tax owing and whether the entity complies with tax laws
Investors	Information on whether an entity will continue to honour product warranties and support its product lines
Creditors	Information to determine whether the entity is operating within prescribed rules
Customers	Information on whether the entity has the ability to pay increased wages and benefits, and offer job security
Employees and trade unions	Information to determine whether to grant credit based on risks and ability of the entity to repay debts
Government authorities	Information to determine whether to invest based on future profitability, return or capital growth
Regulatory agencies	Information to plan, organise and run a business

Identify and apply the indicators of a reporting entity. (LO5)

BE13.7 Identify which of the following indicators is more likely to result in an entity being classified as a reporting entity.
(a) The entity is owned and managed by the same individuals.
(b) The entity is politically or economically important.
(c) The entity is sizeable measured in relation to customer satisfaction.
(d) The entity is sizeable measured in relation to sales.
(e) The entity has a small number of assets.
(f) The entity has large borrowings.

Identify the qualitative characteristics and constraint on financial reports. (LO6)

BE13.8 From the list below, identify which of the items are considered to be qualitative characteristics or a constraint on financial information as outlined in the *Conceptual Framework*.
(a) Cost
(b) Reliability
(c) Comparability
(d) Understandability
(e) Affordability
(f) Transferability
(g) Timeliness
(h) Relevance

Identify the qualitative characteristics of financial information. (LO6)

BE13.9 In the *Conceptual Framework*, the qualitative characteristics underlying financial reporting are classified as fundamental and enhancing. From the list below, identify which are fundamental and which are enhancing.
(a) Relevance
(b) Materiality
(c) Timeliness
(d) Comparability
(e) Cost
(f) Verifiability
(g) Conservatism
(h) Faithful representation
(i) Understandability

Define the elements in financial statements as outlined in the Conceptual Framework. (LO7)

BE13.10 Each of the following definitions has one or more errors. Identify the error and correct it.
(a) **Assets** are defined in the *Conceptual Framework* as future economic benefits controlled by the entity as a result of past events and from which resources are expected to flow from the entity.

(b) **Expenses** are defined in the *Conceptual Framework* as increases in economic benefits during the accounting period in the form of outflows or depletions of assets or incurrences of liabilities that result in decreases in equity, other than those relating to distributions to equity participants.
(c) **Equity** is defined in the *Conceptual Framework* as the residual interest in the equity of the entity after deducting all its liabilities.
(d) **Income** is defined in the *Conceptual Framework* as increases in economic benefits during the accounting period in the form of inflows or enhancements of assets or decreases of liabilities that result in increases in equity, as well as contributions from equity participants.

EXERCISES

Apply the concepts and principles underlying accounting.
(LO1)

E13.1 Brief definitions of the concepts and principles that underlie the recording of accounting transactions are provided below.

The **accounting entity concept** states that every entity can be separately identified and accounted for.

The **accounting period concept** states that the life of a business can be divided into artificial periods and that useful reports covering those periods can be prepared for the business.

The **going concern principle** states that the business will remain in operation for the foreseeable future.

The **cost principle** states that all assets are initially recorded in the accounts at their purchase price or cost.

The **full disclosure principle** requires that all circumstances and events that could make a difference to the decisions financial statement users might make should be disclosed in the financial statements.

Required
For each of the definitions listed above, provide one transaction that illustrates the application of that concept or principle.

Apply the concepts and principles underlying accounting.
(LO1)

E13.2 Slavko Mitrovic is one of the owners of Salami 4 U, a small business that manufactures and sells organic salami and other small goods. Slavko also manages the business on a part-time basis, sharing the responsibilities with the other partners. Using the business cheque book by accident, Slavko recently purchased a car for his beautiful wife Natasha Mitrovic as a birthday present. Natasha is a sales representative for a large computer company and will be using the car in her job. Based on the cheque butt, the accountant recorded the transaction in the accounts of Salami 4 U as follows.

Motor Vehicles	20 000	
Cash		20 000
(Purchase of motor vehicle)		

One day later, Slavko realised his error and decided to purchase some salami making equipment worth $20 000 out of his personal account to correct his error. Not realising the transactions were linked, the accountant recorded the transaction in the accounts as follows.

Plant and Equipment	20 000	
Owner's Capital—Slavko Mitrovic		20 000
(Capital contribution by owner—purchase of equipment for business by Slavko Mitrovic from personal funds)		

Required
(a) For each of the transactions recorded above:
(i) Determine if they have been recorded correctly or incorrectly based on the concepts and principles that underlie the recording of accounting transactions.

(ii) If any transactions have been recorded incorrectly, discuss how the accounting concept(s) or principle(s) have been breeched.
(iii) If any transactions have been recorded incorrectly, prepare BOTH the correcting entry to correct the recorded error as well as the correct journal entry that should have been recorded by the accountant in the first instance. Ignore GST.

(b) What if the car had been purchased for use by Slavko only when he was working in the business? Under these circumstances, explain whether the transactions have been recorded correctly or incorrectly based on the concepts and principles that underlie the recording of accounting transactions.

E13.3 A list of concepts, principles and recognition criteria are provided below.

Apply the concepts, principles, recognition criteria and constraint underlying accounting. (LO1,6,7)

1	Accounting entity concept
2	Monetary principle
3	Accounting period concept
4	Cost principle
5	Materiality
6	Full disclosure principle
7	Going concern principle
8	Revenue recognition criteria
9	Expense recognition criteria

Required

For each of the situations provided below, identify, by number, the applicable accounting concept, principle, recognition criterion or constraint. Do not use each number more than once.

(a) Plant assets were not reported at liquidation value in the entity's accounts. (*Hint:* Do not use the cost principle.)
(b) Personal and business record keeping was kept separate for the entity.
(c) All relevant financial information was reported in the general purpose financial reports for the entity.
(d) The dollar was used as the 'measuring stick' to report financial performance and position.
(e) Accounting standards were followed for all items that were reasonably expected to affect decisions made by users of financial statements.
(f) Information on financial performance was provided for the year ending June 2017.
(g) Expenses were recorded when the flow of economic benefits from the entity was probable and could be reliably measured.
(h) Market value changes subsequent to purchase were not recorded in the financial statements.

E13.4 A number of accounting reporting situations are provided below.

Apply the concepts, principles, recognition criteria and constraint underlying accounting. (LO1,6,7)

(a) Tick Tock Ltd recognises revenue at the end of the production cycle but before sale has been made. The selling price as well as the quantity that can be sold, is not certain.
(b) Cap, Caps and Hats Ltd is a medium size firm listed on the Australian and New Zealand securities exchanges. It is currently in its third year of operations; however, it has not issued one set of financial statements. (*Hint:* Do not use the full disclosure principle.)
(c) Books and More Ltd is carrying inventory at its current net realisable value of \$90 000. Inventory had an original cost of \$110 000.
(d) Aunty Jane's Toy Emporium Ltd reports only current assets and current liabilities on its statement of financial position. Property, plant and equipment and bills payable are reported as current assets and current liabilities, respectively. Property, plant and equipment is reported at the amount for which it could be sold at short notice. Liquidation of the entity is unlikely.

(e) Surf's Up Ltd has inventory on hand that cost $400 000. The entity reports inventory on its statement of financial position at its current net realisable value of $425 000.
(f) Brad Spit, the manager of Top Time Movies Ltd, purchased a computer for his personal use. He paid for the computer with company funds and debited the Computers account.

Required

For each situation, explain whether a concept, principle, recognition criterion or constraint has been violated. Provide only one answer for each situation.

Apply the concepts, principles, recognition criteria and constraint underlying accounting.
(LO1,6,7)

E13.5 A list of concepts, principles and recognition criteria are provided below.

1	Accounting entity concept
2	Monetary principle
3	Accounting period concept
4	Cost principle
5	Full disclosure principle
6	Going concern principle
7	Revenue recognition criteria
8	Expense recognition criteria

Required

For each of the items in the list above, prepare a journal entry (ignore GST) and explain how the journal entry is guided by the accounting concept, principle, recognition criterion or constraint. For example, for the accounting entity concept:

Drawings	25 000	
Cash		25 000
(Purchase of motor vehicle from entity funds for personal use)		

In this case, the accounting entity concept guides the recording of the transaction. The accounting entity concept indicates that the personal transactions of the owner should be recorded separately from the transactions of the entity. Hence, the purchase of the vehicle for personal use out of company funds is recorded as a withdrawal of capital rather than an asset of the entity.

Apply recognition criteria as outlined in the Conceptual Framework.
(LO7)

E13.6 Liabilities can be classified as provisions, contingent liabilities or other liabilities.

Required

Classify each of the following liabilities as (1) provisions, (2) contingent liabilities or (3) other liabilities.
(a) An unquantifiable liability for restoring a polluted river.
(b) Accounts payable.
(c) Wages payable.
(d) Obligation for unexpired warranty costs.
(e) Trade creditors.
(f) Obligations for employees' long service leave.
(g) Accrued interest liability.
(h) Mortgage loan.
(i) Guarantee for another's loan, which will be payable if the other party defaults.

Apply recognition criteria underlying accounting.
(LO7)

E13.7 Computer Games Ltd reported a profit of $50 560 for the year ending 31 December 2016. However, upon closer examination of the accounting records, the chief financial officer noticed the following important information:
1. Service Revenues included an advance of $20 000 for computer games to be delivered in March of the following year.
2. There was $2300 of advertising supplies on hand at 31 December that was recorded as Supplies Expense.

3. Prepaid Insurance included an amount of $12 000, which is the whole amount paid on 1 October 2016 for a 1-year policy.
4. The following invoices had not been paid: advertising for week of 24 December, $2500; repairs made on 10 December, $2000; and electricity expense, $800.
5. At 31 December, 2 days' wages had not been accrued or paid, amounting to $400.
6. The business took out a loan of $240 000 on 1 January 2016 at an annual interest rate of 10%. The amount for interest expense for the month of December was not accrued.

Required

Explain the generally accepted accounting principles that were not followed in preparing the statement of profit or loss and their effect (under or overstatement) on the results.

E13.8 Using the information provided in E13.7 above:

Apply recognition criteria as outlined in the Conceptual Framework. (LO7)

(a) Prepare the journal entries to record the missing transactions or events. Ignore GST.
(b) What if the accountant had in fact recorded the missing transactions correctly? Calculate the correct income for the year ended 31 December 2016. Show all workings.

E13.9 A list of independent transactions is provided below.

Apply recognition criteria as outlined in the Conceptual Framework. (LO7)

(a) Steel Tubes Ltd received $200 000 cash from a customer in December 2016 in payment for special-purpose tubing that is to be manufactured and shipped to the customer in February 2017. Ignore GST.
(b) Tough Tyres Ltd received an item of equipment as settlement for goods sold on credit for $3000. Ignore GST.
(c) The court has ordered Mining Deep Ltd to repair the environmental damage the mining has caused. The company has not yet received a quote of the estimated costs from a specialist environmental repair landscaping company and, as such, does not know the cost of the repair.

Required

Identify if an asset, liability, revenue or expense should be recognised in the year ending December 2016 and prepare the journal entry to record each transaction. Ignore GST.

E13.10 The *Conceptual Framework* defines assets and outlines a number of criteria for their recognition. Shiny Shoes Ltd has the following items:

Apply definition and recognition criteria for assets. (LO7)

(a) Large inventory of shoes.
(b) One antique boot in a display cabinet donated by a customer. The boot looks nice in the store and is a talking point; however, it has no commercial value as the other boot is missing.
(c) Shoes held on consignment.
(d) Three staff members.
(e) Shelving to display shoes.

Required

For each of the items listed above, explain whether you would recognise it as an asset in the statement of financial position. Refer to the definition and recognition criteria outlined in the *Conceptual Framework* to support your answer.

E13.11 The *Conceptual Framework* defines liabilities and outlines a number of criteria for their recognition. a-Forden and a-Holden Custom Cars Ltd identifies the following items:

Apply definition and recognition criteria for liabilities. (LO7)

(a) Purchased tyres, glass and steel on account.
(b) Received $100 000 in deposits for custom cars to be built in the next financial period.
(c) Employed two new staff members and agreed to pay them $75 000 per annum. They begin work next week.
(d) One of a-Forden and a-Holden Custom Cars Ltd's customers is suing the company as he is not happy with the colour scheme the company used to paint the custom car. The customer chose the colour scheme at the time of signing the contract and has

now changed his mind. The lawsuit is for $15 000. a-Forden and a-Holden Custom Cars believe they might lose the case.

(e) When constructing a car in the factory, one of a-Forden and a-Holden Custom Cars Ltd's employees dumped excess paint and other waste products into the local river running behind the factory. The company has been ordered by the court to pay damages; however, the exact amount is yet to be determined.

Required

For each of the items listed above, explain whether you would recognise it as a liability in the statement of financial position. Refer to the definition and recognition criteria outlined in the *Conceptual Framework* to support your answer.

Apply definition and recognition criteria for revenues.
(LO7)

E13.12 The *Conceptual Framework* defines revenues and outlines a number of criteria for their recognition. Surfin' Magazines Ltd identifies the following independent transactions and events:

(a) Received $24 000 in subscriptions for magazines to be delivered once per month for the next 12 months.
(b) Received dividends from IAG for shares owned by the business.
(c) Paid interest on a loan to purchase a delivery vehicle.
(d) Received a discount for early payment of a supplier's invoice.
(e) Delivered magazines for the month for customers who had paid in advance.
(f) Delivered magazines and invoices to customers who had not prepaid their subscriptions.

Required

For each of the items listed above, explain whether you would recognise it as revenue in the statement of profit or loss. Refer to the definition and recognition criteria outlined in the *Conceptual Framework* to support your answer.

Apply definition and recognition criteria for expenses.
(LO7)

E13.13 The *Conceptual Framework* defines expenses and outlines a number of criteria for their recognition. Night Golf Course Ltd identifies the following independent transactions and events:

(a) Paid $240 000 for public liability insurance for the next 12 months.
(b) Paid dividends to shareholders.
(c) Paid interest on the mortgage on the property.
(d) Allowed $2000 in discounts for early payment of accounts due from purchases made by customers at the pro shop.
(e) Received $3 million from members who paid their yearly fee in advance.
(f) Received the electricity bill which had not yet been paid.

Required

For each of the items listed above, explain whether you would recognise it as an expense in the statement of profit or loss. Refer to the definition and recognition criteria outlined in the *Conceptual Framework* to support your answer.

PROBLEM SET

Identify the concepts or principles violated.
(LO1)

PSA13.1 Beautiful Wedding Memorabilia Pty Ltd had a number major business transactions and events during 2017. An extract is provided below.

(a) Merchandise inventory with a cost of $68 000 is reported at its net realisable value of $100 000 in the statement of financial position.
(b) The owner of Beautiful Wedding Memorabilia Pty Ltd, Ima McBride, used company funds to purchase a computer for personal use for $2500. She recorded it as a decrease in Cash and increase in Office Equipment.
(c) The manager of Beautiful Wedding Memorabilia Pty Ltd wanted to make its 2017 profit look better, so she added in memorabilia sales that occurred on the first two days of 2018.
(d) The manager of Beautiful Wedding Memorabilia Pty Ltd wanted to make its 2017 profit look even better, so she did not record an interest payment incurred but not due to be paid until 1 January 2018 for $15 000.

(e) Beautiful Wedding Memorabilia Pty Ltd is currently being sued by a bride as she was injured when one of the company's wedding snow globes shattered. It is expected that the company will have to pay damages; however, the amount is currently uncertain and so the accountant has decided not to include it anywhere in the financial statements.

Required

For each situation,

(a) Identify if any concept or principle has been violated.
(b) Discuss what should have been done and provide evidence for your answer.
(c) Record the correct journal entries and discuss the correct accounting treatment for each of the transactions or events as appropriate.

PSA13.2 The accountant for Moo Cow Farm Ltd has identified the following independent situations:

Apply concepts, principles, constraint and recognition criteria.
(LO1,6,7)

(a) Fence repair tools are expensed when purchased.
(b) Unpaid farm hand salaries are recognised as an expense.
(c) The accountant assumes that the dollar is the measuring unit used to prepare general purpose financial reports.
(d) The accountant separates financial information into time periods for reporting purposes.
(e) The market value changes subsequent to purchase of farm land and buildings are not recorded in the accounts. (*Hint:* Do not use the revenue recognition criteria.)
(f) The accountant ensures that personal and business record keeping are separately maintained.
(g) The auditor ensures that all relevant financial information is reported.
(h) The accountant ensures the recognition of revenues when increases in assets or decreases in liabilities result in a reliably measured increase in equity, other than capital contributions.
(i) The accountant would like to provide more detailed information to shareholders; however, it would be too costly to provide over and above what is currently required.

Required

Explain the accounting concept, principle constraint or recognition criterion that describes each of the situations listed above. Use the list of concepts, principles constraint and recognition criteria provided below and do not use each one more than once. Refer to the relevant GAAP in your discussion to justify your answer.

(a) Accounting entity concept
(b) Going concern principle
(c) Monetary principle
(d) Accounting period concept
(e) Full disclosure principle
(f) Revenue recognition criteria
(g) Expense recognition criteria
(h) Cost principle
(i) Materiality

PSA13.3 A first-year accounting student provided the following answer to an examination question on the conceptual framework:

Describe the Conceptual Framework.
(LO2)

WHAT IS THE CONCEPTUAL FRAMEWORK (15 MARKS)
The *Conceptual Framework* looks like a window that you can see the world through and has four sections. It talks about accounting concepts. It talks about what accounting is about. It tells accountants how to prepare financial statements. It is helpful to standard setters.

The four parts are:

(a) the accounting entity, which states that the transactions of the owners should be separate from that of the business
(b) the objective of businesses, which states the objective of a business is to make profit to be able to pay dividends to the owners
(c) the qualitative characteristics, which include the monetary principle, the accounting period concept and the going concern and cost principles
(d) the definition of elements in the financial statements, which is the last window. For example, accounts receivable is defined as 'the right to receive cash upon the sale of goods or provision of services to a customer'.

Required
Assume you are the teacher marking this answer.
(a) For each of the points made by the student in their answer, identify which are correct and which are incorrect. Justify your assessment of their work by referring to the *Conceptual Framework* to support your discussion.
(b) Provide the student with a model or correct answer to the question to assist their learning.

Explain the objective of general purpose financial reports. (LO3)

PSA13.4 In a recent annual general meeting of Thrifty Tyres Ltd, one of the shareholders stated: 'the objective of general purpose financial reports is to make the directors and management accountable'. The other shareholders at the meeting cheered and agreed.

Required
As a director of Thrifty Tyres Ltd, you feel obligated to respond to the shareholders to ensure they understand the objective of general purpose financial reports as defined in the *Conceptual Framework*. Your response includes the following points:
(a) Explain two suggested alternative objectives for general purpose financial reporting.
(b) Identify the objective for general purpose financial reporting adopted in the *Conceptual Framework*
(c) What information about management and the governing board would be useful to users as outlined in the *Conceptual Framework*?

Identify the primary and other users of financial reports. (LO4)

PSA13.5 A group of first-year accounting students are in the library preparing their homework exercises for next week's class. A disagreement arises as one student claims that 'in the *Conceptual Framework* it suggests that the primary users of general purpose financial reports are the resource providers. That means the shareholders. I think this is unfair as in the *Conceptual Framework* creditors should be identified as the primary users as they have more to lose'. A second student steps in and says 'well you really don't have a clue. You have it all mixed up. I think you need to review the *Conceptual Framework* before you confuse everyone'.

Required
You have just reviewed the users of general purpose financial reports as outlined in the *Conceptual Framework* and the proposed improved conceptual framework and have been asked to explain your findings to the other students. In your answer, you include a discussion of:
(a) the primary categories of users as identified in the *Conceptual Framework*
(b) the other users as identified the *Conceptual Framework*
(c) Explain why the *Conceptual Framework* distinguishes between primary and other users.

Explain the nature of a reporting entity. (LO5)

PSA13.6 The following statement was set as a class discussion question: 'All accounting entities are reporting entities'.

Required
(a) Explain the accounting entity concept.
(b) Define a reporting entity as outlined in the *Framework*.
(c) Do you agree with the statement above? Explain your answer.
(d) Outline the three main indicators used to decide whether a business organisation is a reporting entity.
(e) Based on the main indicators outlined in your answer to part (d), identify the main categories of organisation that are generally classified as reporting entities.
(f) Why is it important to link the definition of a reporting entity to the objective of financial reporting?

Identify and apply the qualitative characteristics of financial information. (LO6)

PSA13.7 The financial controller and managing director of Busy B Cleaning Ltd were arguing over how to report the company's recent land acquisition. The land was purchased at 2 million and due to rezoning it now has a fair value of 5 million. The financial controller claims it should be presented at cost as this provides reliable information and that is what the shareholders want. The managing director claims that the cost is outdated information as it is no longer relevant to shareholders and the current fair value is more useful.

Required

You have been called in as an independent consultant to help resolve this issue. You are required to prepare a report for the company. The report should include discussion on the following points:

(a) Relevance and faithful representation as defined in the *Conceptual Framework*.
(b) Whether relevance is more or less important than reliability.
(c) The alternative ways land can be reported based on GAAP.
(d) Your recommendation as to how the land should be reported, including justification for your answer.
(e) Whether financial information can be neutral and free from material error.

PSA13.8 You are the accountant for Braidwood Hair Ltd. The managing director of the company has asked you to stop purchasing assets for the company and to start leasing them using finance leases. He claims that, given the ownership of the leased asset remains with the lessor, Braidwood Hair Ltd will not have to report the asset nor the liability in the statement of financial position. You are not sure if this is true or not and have decided to research the topic and prepare a report for the managing director on your findings.

Apply definition and recognition criteria as outlined in the Conceptual Framework. (LO7)

Required

Prepare a report which includes the following information:

(a) Define assets and liabilities as outlined in the *Conceptual Framework*.
(b) Outline the recognition criteria for assets and liabilities as explained in the *Conceptual Framework*.
(c) Explain the difference between a finance and an operating lease. (*Hint:* Also see the discussion on leases in chapter 9.)
(d) Identify whether finance leases meet the definition and recognition criteria for assets and liabilities as outlined in the *Conceptual Framework*.

PSA13.9 You are the assistant accountant for Travel The World Bags Ltd. The following transactions and events occurred during the year ending 31 December 2017.

Apply definition and recognition criteria as outlined in the Conceptual Framework. (LO5,7)

(a) In December 2017, Travel The World Bags Ltd received a payment from a customer for $2500 for roller bags that were out of stock and would not be delivered until January 2018.
(b) Travel The World Bags Ltd made $400 000 net credit sales in 2017. As at the end of the year, $300 000 had been collected from customers. Based on the receivable collection history of the company, 96% of net credit sales are usually collected.
(c) During the stocktake, the accountant noticed that $3000 of inventory was no longer saleable as it had been damaged by water.
(d) Consignment stock totalling $15 000 was counted during the stocktake.
(e) Travel The World Bags Ltd paid $9900, which was the amount owing to a supplier less an early settlement discount of $100.
(f) One of Travel The World Bags Ltd's trucks overturned during a delivery and caused serious injury to two people involved in the accident. The driver was negligent and the company is being sued for damages. While the amount for the payout is yet to be determined, it is estimated that it could be in the vicinity of $500 000.
(g) Travel The World Bags Ltd paid a 1-year insurance policy for $12 000 on 1 November 2017.
(h) The electricity bill arrived on 31 December 2017 for $2500. The amount is due to be paid on 15 January 2018.

Required

For each of the items listed above:

(a) Discuss the appropriate way to account for each item. Include in your discussion references to the definitions and recognition criteria outlined in the *Conceptual Framework* to support your answer.

(b) Prepare the journal entries as required (ignore the effects of GST).
(c) Discuss how Travel The World Bags Ltd would determine if it was a reporting entity.

Summarise and integrate GAAP.
(LO8)

PSA13.10 In the last week of semester, the accounting lecturer stated that there will definitely be a 20% essay question in the final exam on GAAP. Imagine you are preparing the summary notes to assist your revision for the final exam.

Required

Prepare notes for the final exam that:
(a) summarise and explain the main aspects of GAAP
(b) identify and explain three of the many interrelationships between the elements of GAAP.
(c) Go to www.globalreporting.org/Home and answer the following questions.
  (i) What is the GRI?
  (ii) What are the benefits of GRI Reporting?
  (iii) Explain the GRI Reporting Framework.

BUILDING BUSINESS SKILLS

FINANCIAL REPORTING AND ANALYSIS

FINANCIAL REPORTING PROBLEM: *Domino's Pizza Enterprises Ltd*

BBS13.1 The financial statements of Domino's are presented in the appendix at the back of this book. In the notes to the financial statements, Domino's identify the various ways that revenues, expenses, assets and liabilities are recognised.

Required

(a) Review the section on 'Revenue recognition' in 'Note 3 Significant accounting policies'. Explain the different forms of revenue recorded by Domino's and, in particular, the different ways the company recognises each type of revenue.

(b) Are the methods Domino's uses for revenue recognition consistent with the revenue recognition criteria discussed in the chapter?

(c) Review the section on 'Goods and services tax' in 'Note 3 Significant accounting policies'. How are revenues, expenses and assets recognised?

(d) Review the section on inventories 'Note 3 Significant accounting policies'. How are inventories measured and reported?

FINANCIAL ANALYSIS ON THE WEB

BBS13.2 ***Purpose:*** This exercise explores information contained in notes to the financial statements for an Australian company.

Required

(a) Access Coca-Cola Amatil Ltd's annual report for the year ending 2013 from the company's web site www.ccamatil.com.

(b) Review section (a) on 'Revenue' in 'Note 1 Summary of significant accounting policies'. Explain the different forms of revenue recorded by Coca-Cola and, in particular, the different ways the company recognises each type of revenue.

(c) Are Coca-Cola's methods of revenue recognition consistent with the revenue recognition criteria discussed in the chapter?

(d) Compare Coca-Cola's types of revenue and methods of revenue recognition with those of Domino's Ltd.

A GLOBAL FOCUS

BBS13.3 ***Purpose:*** This exercise explores information contained in notes to the financial statements for a US-based company.

Address: The Coca-Cola Company www.thecoca-colacompany.com

Steps:

1. Select **Investors, Financial Reports and Information, 2013 Annual Report on Form 10-K.**
2. Select the PDF file.

Required

(a) In the annual report, find the note on 'Critical accounting policies and estimates' and read the sections on revenue recognition. Explain Coca-Cola's policy for recognising revenue.

(b) Is the way that Coca-Cola recognises revenue consistent with the revenue recognition criteria discussed in the chapter?

CRITICAL THINKING

GROUP DECISION CASE

BBS13.4 Vital Health Ltd is a vitamin shop that commenced business on 1 April 2016. Wang Jiànkāng is a health fanatic and a good manager but a poor accountant. From the trial balance prepared by a part-time bookkeeper, Wang prepared a statement of profit or loss for the year ended 31 March 2017. Wang knew something was wrong with the statement because profit up to February had not exceeded $28 000. Knowing that you are an experienced accountant, he asks you to review the statement of profit or loss and other data. You first look at the trial balance. In addition to the account balances reported in the statement of profit or loss, the general ledger contains the following selected balances at 31 March 2017.

Advertising supplies on hand	$14 000
Prepaid insurance	22 400
Bank loan	28 000

VITAL HEALTH LTD
Statement of profit or loss
for the year ended 31 March 2017

Revenues		
Service revenue		$168 000
Operating expenses		
Advertising	$ 8 540	
Wages	59 080	
Electricity	5 460	
Depreciation	1 680	
Repairs	5 600	
Total operating expenses		80 360
Profit		$ 87 640

You then make further enquiries and discover the following:

1. Service revenues include advanced money for vitamins to be delivered after March, $16 800.
2. There was $3220 of advertising supplies on hand at 31 March 2017.
3. Prepaid insurance resulted from the payment of a 1-year policy on 1 October 2016.
4. The following invoices have not been paid: advertising for week of 24 March 2017, $3500; repairs made on 10 March 2017, $2800; and electricity expense, $1120.
5. At 31 March 2017, two days' wages had not been paid, amounting to $560.
6. The business took out the loan on 1 January 2017 at an annual interest rate of 10%.

Required

With the class divided into groups, answer the following.

(a) Prepare a correct statement of profit or loss for the year ended 31 March 2017.

(b) Explain to Wang the generally accepted accounting principles that he did not follow in preparing the statement of profit or loss and the effect on the results.

SUSTAINABILITY

BBS13.5 The following is an extract from the 2013 annual report of Coca-Cola Amatil Ltd (CCA).

> **Corporate Social Responsibility**
> CCA believes in and strongly supports social and environmental activities through its community and environmental programs. These programs help to sustain business performance by strengthening the communities in which the Company operates, improving business efficiency and developing strong relationships with stakeholders, ultimately leading to increased shareholder returns. CCA's sustainability report, 'Sustainability@CCA', measures the Company's achievements under four pillars — Environment, Marketplace, Workplace and Community.

Required
(a) Access CCA's sustainability report at www.ccamatil.com.
(b) Summarise CCA's achievements in the areas of environment and community.

COMMUNICATION ACTIVITY

BBS13.6 On 15 June 2015, Statistics R Us Pty Ltd signed a contract to provide market research services to a client for \$1 million. The research would be undertaken during the years ended 30 June 2016 and 30 June 2017. Half of the research would be performed in the year ended 30 June 2016 and an amount of \$600 000 would be received that year. The remaining half of the research would be performed in the year ended 30 June 2017 and \$300 000 would be received. The remaining \$100 000 would be received in August 2017. The managing director, Prime Numbers, believes that the \$1 million should be recognised as revenue in June 2015 because the contract has been signed. The finance director, Square Root, argues that no amount should be recognised in 2015; that \$600 000 should be recognised as revenue in the year ending 30 June 2016 and \$300 000 in the year ended 30 June 2017; and that the remaining \$100 000 should be recognised in August 2017.

Required
Prepare a report to the board of directors outlining the appropriate treatment for the revenue arising from the research contract. In your report, refer to the relevant definitions and recognition criteria as outlined in the *Conceptual Framework* to support your recommendations.

ETHICS CASES

BBS13.7 Toffee and More Ltd produces several varieties of candy. An action has been brought against the entity by a customer who broke a tooth while eating one of the entity's fudge bars. The managing director of Toffee and More Ltd, Sweet Tooth, has suggested that this should not be reported as a contingent liability because the entity might win the case, and any mention of this in the financial statements could encourage more lawsuits and increase the entity's liability.

Required
(a) Who are the stakeholders in this situation?
(b) Who would be potentially harmed or disadvantaged by non-disclosure of the contingent liability?
(c) Are the managing director's actions ethical?

BBS13.8 Healthy Living Ltd provides private healthcare cover for its customers. At the end of the reporting period, the business information system manager, Con Puter, found that the company's accounting system had been infected by a computer virus and any general ledger account balances could not be relied upon. Con advised the chief financial officer, Abit Crooked, and the chief executive officer, Alot Crooked, that the profit reports would be delayed extensively while the software was cleaned up and the virus removed. Alot Crooked said that he needed to issue a press release for the profit figures and didn't want this to be delayed because shareholders would think something was wrong with the company. He explained to his brother, Abit Crooked, it was not in the shareholders' best interest to delay profit figures and asked him to estimate them so that the press release would not be late. Abit Crooked argued that he did not have documentation or other sources of information on which to base the estimates because they depended on the computer to determine how many health cover insurance contracts had been sold. Alot Crooked suggested that this should not be a problem because accounting uses a lot of estimates and judgements. He added that this was what was meant by timeliness, which Alot Crooked recalled was mentioned in an accounting textbook he had read a long time ago.

Required

(a) Who are the stakeholders in this situation?
(b) Is Alot Crooked correct about the estimation of revenue, expenses and profit for the period being consistent with the timeliness constraint?
(c) Would the actions requested by Alot Crooked be consistent with generally accepted accounting principles?
(d) Would reporting estimated figures be ethical?
(e) What do you think would be the possible consequences of a significant error in the estimation that overestimated profit?

Answers to self-study questions

1. c 2. c 3. c 4. d 5. d 6. c 7. b 8. c 9. a 10. a
11. c 12. d 13. d 14. a 15. c 16. d 17. c 18. a 19. c
20. c 21. b 22. d

Case studies
Wendy Pabst

CASE STUDY INTRODUCTION

This case study runs in tandem with chapters one to twelve in the textbook and includes most of the topics explored in those chapters. Although the case is based on a fictitious business, the scenarios and challenges this business faces are typical of the processes and issues business owners and managers may encounter.

The case offers the students continuity in their learning as they explore the new topics introduced in each chapter with the same business case. As each chapter builds on previous chapters, it is suggested that students attempt each of the case questions in order, so as to gain the most from the entire case study. Completing the activities in one chapter supports students to be well prepared for the next.

The questions in each chapter for the case are comprehensive in that they involve a combination of research, analysis, decision making, recording and reporting. The templates for recording entries in journals, ledgers and worksheets are available within the course management system that accompanies the text. Note the journals and worksheets vary to suit the requirements for the case for each chapter, so ensure the correct worksheets are selected as required.

With the exception of chapter 4, all chapters in both the textbook and the case, ignore the effect of goods and services tax (GST) on transactions.

Completing this continuous case study will support students in integrating their understanding of accounting by completing questions on recording and reporting as well as decision making and analysis.

Wendy Pabst

CHAPTER 1

An introduction to accounting

DECISION MAKING

CS1.1 David Johnson has decided to start a business and is a new client of your small public accounting practice called Trent Accounting Services. He has come to seek your advice about what form of business organisation/structure he should use to set up his business given his circumstances.

David Johnson is a computer technician and was working for a computer repair company. He would now like to be his own boss, so he plans to start up a business in that field with the objective of later developing the business into one that also sells a variety of electronic items such as phones, tablets, notebooks, laptops, PlayStation equipment and games. The business name he would like to use if possible is Electronic Emporium. He estimates his turnover in the first year of operation will be around $60 000 and he does not anticipate employing any staff until business turnover increases.

David and his wife Jasmine live in a country town. They do not have any children as yet. He would like to include his wife in the business, but she is currently employed full time. He is also concerned about putting the family home and a rental property at risk should the business fail. Both properties are held in David's name.

Required

Of the three main forms of business organisation (sole proprietorship, partnership and company) covered in chapter 1, which form(s) would you recommend to David for his business and which would you not recommend, and why? In reaching a conclusion, your answer should include at least two advantages and two disadvantages for each of these business structures with reference to David's particular circumstances.

RESEARCH AND REPORT

CS1.2 In addition to advice about which business structure David should use, he has asked for advice on how to go about setting up the business. David would like to understand any legal requirements for each of the business structures.

Required

Research the requirements for setting up each of the three forms of business organisation previously discussed and write a report. In your report explain the requirements to:

(a) register a business name and/or incorporate a company

(b) register for income tax purposes and the goods and services tax

(c) name the relevant authorities involved for parts (a) and (b).

Hint: Prepare a report on the requirements applicable in either Australia or New Zealand, whichever country you reside in.

The following URLs are provided to assist you.

Australia:

www.ato.gov.au/Business/Starting-and-running-your-small-business/Starting-your-business

www.business.gov.au/Pages/default.aspx

www.asic.gov.au/for-business/registering-a-business-name

www.asic.gov.au/for-business/starting-a-company

New Zealand:

www.business.govt.nz/starting-and-stopping/entering-a-business/starting-a-business

www.business.govt.nz/companies/learn-about/starting-a-company

CHAPTER 2

The recording process

ANALYSING, DECISION MAKING, RECORDING AND REPORTING

CS2.1 David Johnson has decided that a company is the best business structure for him and on 15 July Electronic Emporium Pty Ltd was incorporated as a private company with David as the sole director/shareholder. The company now has a tax file number and an Australian Business Number (Australian students), an IRD number (New Zealand students), and David has chosen not to register the company for GST at present.

David has signed a lease on a shop for 2 years with an option to renew for a further 3 years. He has opened a bank account in the company's name with the ANZ Bank, and at the same time applied for a loan of $50 000 from the bank to enable him to set up the shop and provide him with working capital. He contracted a shopfitter to fit out the shop, which opened for business on 24 July.

As David's accountant you have recommended that the following accounts be used ***as a guide*** when setting up the chart of accounts for the general ledger: accountancy fees (600), accounts payable (200), accounts receivable, advertising expense, bank fees, bank loan (280), borrowing expenses, cash at bank (100), depreciation expense, discount allowed, dividends, electricity expense, insurance expense, interest expense, motor vehicles expense, motor vehicles (160), accumulated depreciation—motor vehicles (161), office supplies expense, prepaid advertising (130), prepaid insurance, prepaid rent, rent expense, repairs expense, retained earnings, service revenue (400), share capital (300), shareholders loan account, shop equipment and fittings, accumulated depreciation— shop equipment and fittings, and telephone expense.

These are the transactions for the month.

July	15	David deposited $10 000 to open the business bank account. This was his investment in the company in exchange for 10 000 ordinary shares.
	17	The bank deposited the $49 500 loan funds into the bank after deducting $500 in costs to establish the loan. (*Hint:* Post the costs to establish the loan to borrowing expenses.)
	18	Paid rent of $1485 to Atlas Realty (cheque no. 1).
	20	Paid Adams Shopfitters $20 000 for display cabinets, counters and shelving (cheque no. 2).

July	21	Paid the local newspaper (*Community Times*) $1000 for a series of weekly advertisements to commence this week (cheque no. 3).
	22	Paid $1500 to Bayview Insurance Brokers for a 1-year business insurance policy commencing 21 July (cheque no. 4).
	23	Purchased from Tony's Second-hand Mart, a cash register for $350, a lounge suite for $400 and a table and chairs for $380 for the shop (cheque no. 5).
	24	David contributed equipment valued at $5000 for repairing computers to the business. At present he does not want to take cash out of the business, so this will take the form of an interest free loan to be repaid two years from now.
	31	Banked $2520 cash and cheques from servicing computers since the shop opened.

Required

(a) Use the worksheet provided below and opposite to create the chart of accounts ensuring that you correctly classify the accounts by type, i.e. asset, liability, equity, revenue, cost of sales and expenses. A few account numbers have been provided as a guide. Asset accounts begin with the number 1, liabilities with 2, equity with 3, income with 4, cost of sales with 5, and expenses with 6. (*Hint:* Number expense and prepayment accounts 5 numbers apart, and for all other accounts number the accounts 10 numbers apart. Exceptions are related non-current asset accounts, which use consecutive numbers for the cost of the asset and the corresponding accumulated depreciation for that asset.)

The current/non-current column is for the asset and liability accounts in the statement of financial position. Recall that current assets are cash and other assets that are reasonably expected to be converted to cash or used in the business within 1 year or the operating cycle, whichever is longer, and non-current assets are assets that are not expected to be consumed or sold within 1 year or the operating cycle and have not been purchased for trading purposes. Current liabilities are obligations reasonably expected to be paid within the next year or operating cycle, whichever is the longer, and non-current liabilities are liabilities that are not expected to be paid within 1 year or the operating cycle.

Account name	Asset, liability, equity, revenue, expense	Current/ non-current	Account no.
Accountancy fees	Expense		600
Accounts payable	Liability	Current	200
Accounts receivable			
Advertising expense			
Bank fees			
Bank loan			
Borrowing expense			
Cash			
Depreciation expense			
Discount allowed			
Dividends			
Electricity expense			
Insurance expense			
Interest expense			
Motor vehicles expense			
Motor vehicles			
Acc. depreciation—motor vehicles			
Office supplies expense			
Prepaid advertising			
Prepaid insurance			

Account name	Asset, liability, equity, revenue, expense	Current/ non-current	Account no.
Prepaid rent			
Rent expense			
Repairs expense			
Retained earnings			
Service revenue			
Share capital			
Shareholders loan account			
Shop equipment and fittings			
Acc. depreciation—shop equipment and fittings			
Telephone expense			

(b) Use the general journal to record the transactions for July, with narrations. (*Hint:* Record the insurance as a prepayment and all other costs (where appropriate) as expenses. More information on how to account for some on these items on an accrual basis is provided in the next chapter.)
(c) Set up the general ledger T accounts and post the journal entries to them. Remember to include posting references as they provide an audit trail. Use pencil to subtotal and calculate the balance of each account. Do not close off these accounts as they will be used again in the next chapter.
(d) Prepare a trial balance on 31 July.

CHAPTER 3

Accrual accounting concepts

ANALYSING, DECISION MAKING, RECORDING AND REPORTING

CS3.1 It is the end of the month and even though David has not been in business very long he is anxious to see how the business is doing. He hopes he has made a profit because he needs to be able to make a reasonable living out of the business.

Required
(a) First, use the worksheet provided to record the trial balance figures from the previous chapter. Second, using the information provided below, record the adjusting entries to account for prepayments, accruals and depreciation expenses. (*Hint:* Round all calculations to the nearest dollar.)
- Rent is $990 per calendar month and rent has been paid for the period up to the end of August.
- The advertising was for a series of five weekly advertisements and only two of these were used in July.
- The commencement date for the annual business insurance premium is 21 July.
- A telephone was installed in the shop on 21 July, but the bill has not yet been received. David estimates the monthly bill will be $150. Accrue an amount equal to 10 days out of the 31 days only.
- The company is to pay for the electricity usage for half of the month of July, but will not receive a bill until mid-September. David estimates the bill will be approximately $360.
- Depreciation on shop equipment and fittings is $132 for July.
- Interest charged to the bank loan account for July is $96.

Complete the worksheet as demonstrated in chapter 3, by determining the adjusted trial balance and the figures that should appear in the statement of profit or loss and statement of financial position.
(b) Record the adjusting entries in the general journal and post them to the general ledger accounts developed in the previous chapter.

(c) Prepare a statement of profit or loss, statement of changes in equity, and a statement of financial position for July.
(d) Record the closing journal entries in the general journal, and post them to the general ledger. Close off the general ledger accounts. (*Hint:* Enter into the chart of accounts a profit or loss summary account (330).)
(e) Prepare a post-closing trial balance.

DECISION MAKING

CS3.2 David (the shareholder/director) really does not understand much about accounting so he assumed that all expenses should be accounted for as an expense when paid, and therefore he could not understand when you, as his accountant, explained that the insurance premium should be recorded as a prepaid expense.

Required
(a) Explain to David the necessity of making adjusting entries at the end of an accounting period. Include in your discussion some of the accounting concepts involved and why they are important.
(b) What would have been the effect on profit if these adjusting entries had not been made, and would the reports have been useful for decision making without the necessary adjustments?

CHAPTER 4

Inventories

David has received requests from customers for laptop computers and other related items, so he has decided that now is the time to expand his computer service business to include the sale of electronic equipment. David plans to keep Electronic Emporium Pty Ltd as a very small business so that keeping track of inventory levels will not be a problem. The periodic inventory system is the simplest method for recording inventory; however, the perpetual inventory system has the advantage of providing current inventory and cost of sales values at any time that information is required.

RECORDING AND REPORTING

CS4.1 In the appendix to chapter 4, we introduce accounting for GST. This question in the case study can be completed without GST or with GST using either the rates for Australia or New Zealand. Inventory can be accounted for using either the periodic or the perpetual method. We have provided the option of completing the case with these methods.

Please refer to the instructions from your lecturer as to how this case should be completed. The information you need for the alternative treatments for recording merchandising transactions in the general journal using either (or both) the periodic or perpetual inventory system(s) are as follows:
(a) ignore GST
(b) record the transactions using the Australian rate of 10% GST
(c) record the transactions using the New Zealand rate of 15% GST.

Your chart of accounts and general ledger will need to be updated to include the following accounts: inventory (120), GST paid (150), GST collected (250), sales revenue (410), sales returns and allowances (420), discount received (430), purchases (500) or cost of sales (505), purchase returns and allowances (510), and freight costs (520).

Hints:
1. If you have already used the suggested account numbers in your chart of accounts, use the closest available number.
2. The use of some of the accounts suggested above will depend on the method selected for accounting for inventory — periodic versus perpetual.
3. Use the accounts receivable and accounts payable accounts for all transactions that involve credit terms.

4. To calculate the GST included in a transaction, divide by 11 for Australia and 7.667 for New Zealand, and then round to the nearest dollar. If no mention is made of GST, then that is because there is no GST in that transaction.
5. GST included in sales is posted to the GST collected account and GST included in purchases is posted to the GST paid account. Any discounts allowed or received will include GST. Please refer to the examples in the appendix to chapter 4 for guidance.
6. Cost of sales figures for the perpetual inventory system only are quoted as A$ for Australian students and NZ$ for New Zealand students.
   Transactions for the month:

Aug.	3	Received inventory from Samsung on terms of n/30. The total value of its invoice was $12 200 including a freight charge of $100. All figures include GST.
	5	Cash sales to the value of $1590 including GST were made and the money banked. (Cost of sales: ignore GST $1000, A$910, NZ$870.)
	10	Received inventory from Sony on terms of 2/7, n/30. The total value of its invoice was $5500 including GST.
	11	Credit sale to Clear Vision Opticians on terms of n/15. The total value of this sale was $3279 including GST. (Cost of sales: ignore GST $2130, A$1938, NZ$1854.)
	13	Clear Vision Opticians returned one of the items sold to it because the screen was cracked. Electronic Emporium Pty Ltd issued a credit note for $298 including GST. (Cost of sales for this item is: ignore GST $210, A$191, NZ$183.)
	14	Sent cheque no. 6 for $5390 to Sony in payment of the amount owing to it less discount.
	17	Credit sale to ABC Accountants on terms on 5/7, n/30. The total value of this sale was $1888 including GST. (Cost of sales: ignore GST $1210, A$1101, NZ$1053.)
	18	A repayment of $1000 was made on the bank loan.
	21	Cash sales for the week, totalling $4750 including GST were banked. (Cost of sales: ignore GST $2575, A$2345, NZ$2230.)
	23	Received and banked a cheque for $1794 from ABC Accountants in payment of the amount owing by it, less discount.
	25	Received and paid the telephone bill of $165 including GST with cheque no. 7.
	31	The inventory item returned to Electronic Emporium Pty Ltd by a customer was returned to Samsung as the damage occurred in transit. An adjustment (credit) note was received from Samsung for $210 including GST.

Required

(a) Use the general journal to record the transactions for August, with narrations.
(b) Post the journal entries to the general ledger. This is a continuation from the previous chapters, so use existing and new general ledger accounts, remembering to include posting references. Use pencil to subtotal and calculate the balance of each account. Do not close off these accounts as they will be used again in the next chapter.
(c) Prepare a trial balance as at 31 August.

DECISION MAKING

CS4.2 Turnover for the short time the company has been trading was $2520 in July and around $11 000 in August. At the time of registering the business with the tax authority it was a service business and the estimate of an annual turnover of less than $60 000 seemed reasonable. The business is now growing much faster than expected and it is looking as though David may have underestimated the annual turnover.

Required
Is the company required to register for GST now, and if not when should it register? Should the company voluntarily register for GST? When preparing your response, include the research you completed in the chapter 1 case study and the results of trading in August. Do you believe there is any advantage in registering for GST now?

CHAPTER 5

Reporting and analysing inventory

ANALYSING, DECISION MAKING, RECORDING AND REPORTING

CS5.1 It is the end of the month and David is happy with the good start to his merchandising venture. He has completed a physical stocktake, to make sure stock levels are as expected, and so that a value for inventory on hand at the end of August could be calculated. The values shown in the table below are provided to assist with the preparation of the statement of profit or loss using the periodic inventory system.

	Qty	Unit cost	Total cost
PlayStation PS4 console	5	$330	$ 1 650
PlayStation PS4 games	30	35	1 050
Samsung Galaxy S5 mobile phone	13	500	6 500
Samsung Galaxy 16GB tablet	6	210	1 260
Sony PlayStation controller	5	45	225
			$10 685

Required
(a) When completing this part of the case, ignore the effects of GST. (A worksheet with the trial balance figures from the previous chapter is available within the course management system that accompanies the text.) Then using the information provided below, prepare on the worksheet the adjusting journal entries to account for prepayments, accruals and depreciation.
- Prepayments expired during the month are:
  - rent, $990
  - advertising, $600
  - insurance, $125
- Accrual adjustments:
  - transfer the amount recorded as telephone payable to the expense account
  - electricity, accrue $180
- Depreciation on shop equipment and fittings is $218 for August
- Interest charged to the bank loan account for August is $211.

  Complete the worksheet by determining the adjusted trial balance and the figures that should appear in the statement of profit or loss and statement of financial position.

(b) Record the adjustments in the general journal and post them to the general ledger accounts used in the previous chapter.
(c) Prepare two statements of profit or loss, one using the periodic inventory system and one using the perpetual inventory system.
(d) Record closing journal entries in the general journal, and post them to the general ledger. Close off the general ledger accounts.

ANALYSING

CS5.2 David Johnson started this business with the aim of making a good living. However, to date he has not paid himself wages or dividends because the business is new and growing. Ultimately, the business must generate sufficient profits to pay wages to David and possibly another employee. The business has completed two periods of trading, with one period as a merchandising company.

Required

(a) Calculate the following ratios using the data in the worksheet based on August financial statements (ignore GST).
- Gross profit.
- Operating expenses to sales.
- Return on assets.
- Profit margin.
- Inventory turnover.
- Days in inventory. (*Hint:* Divide into 31, not 365.)
- Current ratio.

(b) Comment on your findings. Remember to bear in mind that the information gleaned from the relevant ratios used to evaluate profitability will be fairly limited because they are for a short period only.

CHAPTER 6

Accounting information systems

RECORDING AND REPORTING

CS6.1 Business is improving. David has received various orders from the local primary and high schools for substantial quantities of laptop computers to be delivered as they gradually bring classes online. The schools have requested that the company also maintain the laptops, as and when required. Good record keeping is now much more important, and for that reason David has decided to employ someone to complete the bookkeeping function on a casual basis. David has also negotiated better buying costs with suppliers that will enable him to increase his margin, while continuing to maintain competitive selling prices.

Samantha Farmer is the new bookkeeper and her role, on the days she is there, is to collect all relevant source documents, record them in the appropriate journals, and keep the subsidiary ledgers up-to-date. The average cost method will be used for inventory. End-of-month processing includes balancing special journals, posting to the general ledger and preparing reports.

Required

(a) Enter opening balances for the accounts receivable, accounts payable and inventory subsidiary ledgers. Balances are provided in the schedules below and overleaf.

(b) Record the transactions overleaf in either a special journal or the general journal.

(c) Post transactions to the subsidiary ledgers (daily) and general ledger (monthly) as required. Round the average cost to the nearest dollar. (*Hint:* Only pencil the totals for cash at bank as there will be additional entries to be recorded in the next chapter.)

(d) Prepare schedules of accounts receivable, accounts payable and inventory and verify against control accounts in the general ledger.

Subsidiary ledger balances:

Schedule of accounts receivable
as at 31 August

Customer	Invoice no.	Terms	Date of invoice	Amount due
Clear Vision Opticians	1	n/15	11 August	$ 2 981

Schedule of accounts payable
as at 31 August

Supplier	Invoice no.	Terms	Date of invoice	Amount due
Samsung Electronics Aust.	3669	n/30	3 August	$ 11 990

Schedule of inventory
as at 31 August

Code	Description	Quantity	Amount	Selling price
PS4C	PlayStation PS4 console	5	$ 1 650	$545
PS4G	PlayStation PS4 games	30	1 050	79
SGMO	Samsung Galaxy S5 mobile phone	13	6 500	795
SGTB	Samsung Galaxy 16GB tablet	6	1 260	298
SOPC	Sony PlayStation controller	5	225	89
			$10 685	

Transactions for the month:

Sept. 1 Received 100 copies of Microsoft Office (code MIOF) $75 each from Microsoft Australia, invoice no. 9978 for $7500 (terms n/15).
3 Paid rent of $990 to Atlas Realty (cheque no. 8).
4 Received 100 Dell Inspiron laptops $250 each (code DINS) from Dell Australia, invoice no. 2960 for $25 000 (terms n/7).
7 Credit sale (invoice no. 4) to the Willow Shire Council on terms of n/30, the following: 1 Samsung Galaxy S5 mobile phone $795 and 3 Dell Inspiron laptops $398 each.
9 Sent cheque no. 9 to Dell Australia in payment of the amount due to it.
11 Banked cash sales totalling $4260 of the following inventory items:
- 20 PlayStation PS4 games
- 2 PlayStation PS4 consoles
- 2 Samsung Galaxy S5 mobile phones.

14 Received the following inventory items from Sony Australia together with its invoice no. 7757 for $4520 (terms 2/7, n/30):
- 100 PlayStation PS4 games, $30 each
- 5 PlayStation PS4 consoles, $280 each
- 3 Sony PlayStation controllers, $40 each.

16 Received and paid the electricity bill for $380 with cheque no. 10.
17 Sent cheque no. 11 to Sony Australia in payment of the amount owing.
18 Credit sale (invoice no. 5) to Willow Primary School on terms of n/30, the following:
- 40 Dell Inspiron laptops, $398 each
- 40 Microsoft Office, $142 each.

21 Credit sale (invoice no. 6) to Willow High School on terms of n/30, the following:
- 30 Dell Inspiron laptops, $398 each
- 30 Microsoft Office, $142 each.

22 Received a bill from Trent Accounting Services for $500 for services provided.
25 Banked cash sales totalling $4129 for the week of the following:
- 28 PlayStation PS4 games
- 1 PlayStation PS4 consoles
- 2 Sony PlayStation controllers
- 3 Samsung Galaxy 16gb tablets
- Servicing computer equipment $300.

26 Paid wages of $425 to Samantha Farmer with cheque no. 12.
28 Received and banked a cheque from Willow Primary School for $5000.
30 Paid Evans Electrical $290 for some electrical repairs in the shop (cheque no. 13).

DECISION MAKING

CS6.2 The company now has an employee and there are rules and regulations that must be adhered to. What does David need to understand about the company's obligations in respect of that employee, and any authorities that must be notified that the company is now an employer?

Required
Research and discuss or report on the obligations applicable to either Australia or New Zealand. The URLs below are provided to assist you.

Australia:
www.ato.gov.au/Business/Starting-and-running-your-small-business/Engaging-workers/Payments-to-employees
www.fairwork.gov.au/find-help-for/small-business

New Zealand:
http://dol.govt.nz/workplace/knowledgebase/item/1505
http://dol.govt.nz/infozone/businessessentials/employ/getting-staff-started

ANALYSING AND DECISION MAKING

CS6.3 Samantha Farmer performs a number of duties. These include banking, writing up the books of account, preparing reports, preparing cheques, and on occasions helping with customers and doing deliveries.

Required
In chapter 6, the text lists five principles of internal control. Discuss to what extent these are applicable for this company. Identify any strengths and weaknesses in internal control and make recommendations for changes if required to strengthen the system.

DECISION MAKING

CS6.4 The information shown on the inventory, customer and supplier cards (available within the course management system that accompanies the text) is very limited. There is other information that could have been included, but these cards have been kept very simple deliberately. One of the advantages of a computerised system is that a lot more data can be included with minimal effort.

Required
Select one of the cards and suggest at least three other pieces of information that should be on that card. Explain how each piece of information on that card would be useful to David.

CHAPTER 7

Reporting and analysing cash and receivables

RECORDING AND REPORTING

CS7.1 It is the end of another month and the company has received the bank statement for the month. In prior periods David didn't bother doing a bank reconciliation. He couldn't see the necessity for completing one because there was never any difference between the bank account balance in his accounts and that shown on the bank statements. However, during the period the business has been operating David has paid for a number of things out of his own pocket and these have not been included in financial statements prepared to date. Now it is time to reimburse him and include those expenses in the company's accounts. Being the only person involved in the business he didn't bother setting up a petty cash fund.

Required
(a) Begin the process of preparing for a bank reconciliation by ticking off all the items that appear on the bank statement provided overleaf and in the special journals. Then complete the journals to include items that appear on the bank statement but are not as yet in the company accounts.
(b) On 30 September, Samantha wrote cheque no. 14 in the amount of $245 to reimburse David for stamps and stationery (office supplies) $95, and fuel used in delivering goods, seeing customers and so on (motor expenses) $150. This needs to be included with the transactions for September.
(c) Total the special journals and complete the posting of transactions for the month.
(d) Complete the bank reconciliation and prepare a reconciliation report.

ANZ BANK Willow Branch Account: Electronic Emporium Pty Ltd Period: 1 September to 30 September					
Date		**Particulars**	**Debit**	**Credit**	**Balance**
Sept.	1	Balance			38 484 Cr
	4	Cheque 8	990		37 494 Cr
	11	Deposit		4 260	
		Cheque 9	25 000		16 754 Cr
	15	Loan repayment	1 000		15 754 Cr
	17	Cheque 10	380		15 374 Cr
	18	Cheque 11	4 430		10 944 Cr
	25	Deposit		4 129	15 073 Cr
	28	Deposit		5 000	
		Cheque 12	425		19 648 Cr
	30	Bank fees	15		19 633 Cr

DECISION MAKING AND RECORDING

CS7.2 Although it has been a good month for sales, the company has just been advised that Clear Vision Opticians has gone into liquidation and it appears Electronic Emporium Pty Ltd is unlikely to recover any of the money owed to it by this business. This is a somewhat sobering lesson for David, that a company should not make a sale without completing a thorough credit check first.

Required

(a) There are two alternative treatments for accounting for bad debts. Explain to David what they are and the advantages and disadvantages of each. Then make a recommendation as to which method Electronic Emporium Pty Ltd should use to write off this bad debt.
(b) Use the general journal to write off the balance owed to the company by Clear Vision Opticians, and post the transaction to the general ledger. You are to use the direct write-off method (recall the direct write-off method is used in a company when bad debts are immaterial) when recording this transaction, but do not let these instructions influence the outcome of your discussion in part (a).

ANALYSING

CS7.3 The company has been providing credit terms to customers for two months now and David would like to know how long it is taking to get the money in. It is vital he collects cash from credit sales as quickly as possible so that he can meet his commitments including loan repayments, payments to suppliers and wages for his employee.

Required

Calculate the receivables turnover and average collection period, *both* prior to writing off the bad debt, and after writing it off. The figures for net credit sales for September and net receivables can be obtained from special journals, schedule of accounts receivable, accounts receivable subsidiary ledger accounts and the general ledger accounts that you prepared in the previous chapter. (*Hint:* The period is one month (30 days) not one year.)

CHAPTER 8

Reporting and analysing non-current assets

RECORDING AND REPORTING

CS8.1 At the start of September, David realised that he had been using his personal vehicle, a Holden utility, to meet with prospective customers and to deliver goods. So, he decided to transfer the vehicle into the company's name and to have the company pay for all the running costs. A local car dealer valued the vehicle at \$26 000. The company currently does not have sufficient cash to pay for the vehicle, so David has decided to treat it as a loan to the company to be repaid under the same arrangements as the other equipment he provided. During the month, the company traded in the old cash register on a new one because the old one purchased in July could no longer provide printouts for sales needed to keep control of inventory and sales records.

Required

Use the general journal to record the following transactions.

(a) The acquisition of the motor vehicle on 1 September at the valuation provided by the car dealer.

(b) The acquisition of the new POS cash register from MCR Cash Registers for \$2800 less \$100 on the old cash register that was traded-in. The date of this acquisition was 15 September and the company has given Electronic Emporium Pty Ltd interest-free credit terms of 90 days.

(c) The cash register was acquired on 25 July and cost \$350. The carrying amount of this asset was \$345 at the end of August. Calculate and record the depreciation to the date of disposal and the gain or loss on disposal.

(d) Calculate and record the depreciation for the month on these assets. Round figures to the nearest dollar.

1. All the shop equipment and fittings are depreciated using the straight-line method with no residual value and an estimated useful life of 10 years.
   - (i) The display cabinets, counters and shelving were acquired on 20 July and cost \$20 000.
   - (ii) The computer repair equipment was acquired on 24 July and cost \$5000.
   - (iii) The lounge suite, table and chairs were acquired on 25 July and cost \$780.
2. The motor vehicle has an estimated useful life of 8 years and a residual value of approximately \$4500. Depreciate this asset using the diminishing value method and a rate of 20%.
3. The POS cash register has an estimated useful life of 5 years and a residual value of \$500. It is to be depreciated using the straight-line method.

(e) Balance the general ledger accounts (in pencil) and prepare a trial balance.

ANALYSING

CS8.2 The company has made a significant investment in non-current assets and it is therefore important that the assets provide a return that justifies the investment.

Required

(a) Calculate the following for August and September:

1. Average useful life of PPE assets (*Hint:* Multiply the depreciation expense for the month by 12 to determine the annual depreciation rate before calculating the ratio.)
2. Asset turnover.

(b) Comment on the results.

CHAPTER 9

Reporting and analysing liabilities

RECORDING

CS9.1 Electronic Emporium Pty Ltd has now been trading for not quite three months, but three accounting periods and, although the monthly financial statements were interesting, David is keen to see what the profit for the year to date is. He is sure the business is now generating enough profit to pay his wages, so would like the financial statements to include wages for him for September, even though he hasn't actually written a cheque to pay himself as yet. In order to provide a more complete picture of profitability, liquidity and solvency there are a few more journal entries that must be recorded for the month. These will include some new payables now that wages are being paid. There are also some further entries required to account for portions of prepaid expenses applicable.

Allowance for doubtful debts and warranties are not required because the company uses the direct write-off method for bad debts (as write-offs are immaterial) and any claims against warranties on the products sold will be the responsibility of the manufacturer, not this company.

Required

Record the following transactions in the general journal and post to the general ledger.

(a) The PAYG (pay-as-you-go) withholding tax deducted from Samantha Farmer's wages was $35. (Update the chart of accounts with a new current liability account no. 220 PAYG withholding payable or the nearest account number if you have already used this account number.)

(b) Superannuation payable for Samantha Farmer is $44. (Create a new expense account no. 662 and current liability account no. 225 or the nearest account numbers if you have already used these account numbers.)

(c) The company will be paying David $500 per week; therefore, $2000 is to be recorded as wages payable. (Use new account no. 230 or the nearest account number if you have already used this account number.)

(d) Note: Until the wages are actually paid there is no liability for superannuation, and the $2000 wages payable is the gross wage figure so includes the liability for PAYG withholding.

(e) Interest on the bank loan is $203 for the month.

(f) Insurance expense applicable for the month is 1/12 of the premium paid.

(g) The electricity bill has come in and been paid, so transfer the balance of the electricity payable account to the expense account.

REPORTING

CS9.2 As explained previously, David is anxious to see the year-to-date figures. With a computerised accounting system the monthly, year-to-date, and comparison figures can be produced very quickly and simply. With a manual system it is a bit more time consuming. In order to produce year-to-date profit figures, the income and expense figures from the three accounting periods will have to be combined, and the simplest way to do that is in a specialised worksheet.

Required

Use the specialised worksheet provided to record figures for each of the three accounting periods. Cross add only the income and expense figures in the worksheet for the year-to-date trial balance and use only the September figures for statement of financial position type accounts. Do not include the retained earnings figure in the year-to-date trial balance or you will be double counting the profit for July and August. Complete the columns for the statement of profit or loss and the statement of financial position.

The figures you are to use are those shown for the adjusted trial balance in the worksheet for July (chapter 3) and the August adjusted trial balance figures from the perpetual worksheet (chapter 5). The September figures will come from the general ledger accounts for September in the question above.

DECISION MAKING AND REPORTING

CS9.3 Some of the accounts in Electronic Emporium Pty Ltd's chart of accounts were classified simply as either current or non-current, when in fact they may be both. These accounts are prepaid insurance, bank loan and shareholders loan account. It is some time since these were first recorded, so to refresh your memory, the loan from the bank is to be repaid within five years. It is currently being repaid at the rate of $1000 per month. The shareholder loan is not interest bearing and is to be repaid as soon as possible. (*Hint:* it must be classified as a current liability.)

Required

(a) Decide what proportion of these accounts should be current and what proportion should be non-current as at the end of August and September, using 30 June as the end of the financial year.

(b) Prepare the statement of profit or loss for the year to date.

(c) Prepare the statement of financial position based on your decision in (a) and with comparative figures (August and September). You are also to:
  (i) group all prepayments and show them as either current or non-current
  (ii) group all non-current assets and describe them as 'property, plant and equipment'
  (iii) group payables (other than accounts payable) and describe them as 'other payables'
  (iv) describe the bank and shareholders loans as 'borrowings'.

Note: Although the shareholder's loan is in reality an 'other payable', group it with the bank loan for analysis purposes in the next question.

ANALYSING

CS9.4 David knows how important it is for the company to be able to meet its liabilities as and when they fall due, and without too much difficulty. He also understands that the company's lenders want to be assured that the company is profitable and will be around in the future to meet its long-term commitments. David being one of the lenders is also keen to make sure he is eventually repaid the money owed to him.

Required

Calculate the following ratios for August and September and comment on your findings:
- Liquidity ratios:
  - Working capital.
  - Current ratio.
  - Quick ratio.
- Solvency ratios:
  - Debt to total assets ratio.
  - Times interest earned ratio.

The interest rate on the bank loan is 5% p.a. and the shareholders loan is interest free. Calculate the times interest earned ratio on the data recorded to date, and then calculate the ratio again assuming a 5% p.a. interest rate on the shareholder loan. Then comment on the results.

The shareholder loan began on 24 July with a loan of $5000. An additional $26 000 was loaned to the company on 1 September.

CHAPTER 10

Reporting and analysing equity

RECORDING

CS10.1 David Johnson as the sole shareholder/director of Electronic Emporium Pty Ltd has been approached by a number of people who are interested in acquiring shares in the company. He has carefully considered the matter and discussed it with you, his accountant. He is aware that in order to grow the company needs more capital, but he is concerned that he may lose control of the company if there are other shareholders and directors. The advice given is that since there are a number of interested parties, a private placement of shares would be an appropriate course of action and, prior to this, David should convert $11 000 of the amount owed to him into 11 000 ordinary shares of $1.00 each so that he remains the majority shareholder. He should also pay himself the wages owed to him. Then, after the private placement of 20 000 shares at $2.50 each is made, the level of debt is to be reduced by repaying the balance of the shareholders loan.

Required

(a) The following transactions are required to put the accountant's instructions into effect in the books of account. Record the transactions in the general journal and then post them to the general ledger.

Oct.	1	Journalise the conversion of $11 000 of the shareholders loan to share capital.
	1	A cheque was issued to David Johnson for $1900. This was to pay wages owed to him, less PAYG withholding.
	15	20 000 ordinary shares issued by private placement at $2.50 each. The cash received has been banked.
	16	A cheque was issued to David Johnson for $20 000 in settlement of the money loaned by him to the company.

(b) Record the summary figures provided below as the transactions for the month of October in the general journal and post to the general ledger. This will then provide you with data for October. Date all transactions 31 October.

(a) Payments from the bank account:		**33 226**
Accounts payable	27 190	
Less: Discount received		124
Wages	3 000	
Less: PAYG withholding payable		200
Advertising expense	800	
Bank fees	25	
Loan repayment	1 000	
Motor vehicles expense	280	
Rent expense	990	
Telephone expense	265	
(b) Deposits to the bank account:	**39 072**	
Accounts receivable		21 989
Sales revenue		17 083
(Cost of sales $9571)		
(c) Credit purchases:		**72 900**
Inventory	72 200	
Freight costs	200	
Accountancy fees	500	
(d) Credit sales:	**43 200**	
Sales revenue		43 200
(Cost of sales $26 000)		
(e) Other transactions for the month:		
Superannuation expense	475	
Insurance expense	125	
Depreciation expense:		
Motor vehicles	426	
Shop equipment and fittings	261	
Interest expense	200	

REPORTING

CS10.2 Before deciding whether or not to declare and pay a dividend the owners would like to see if trading for the month has increased the bottom line. The payment of a dividend will depend on profitability and the availability of cash, as there has been a big increase in inventory levels purchased on credit, which in turn means more liabilities to pay.

Required

Use the worksheet provided for the period ending 31 October. Enter the year-to-date balances from the worksheet in chapter 9, and then enter the net figures posted to the various accounts in October. Add these two columns together to arrive at the year-to-date trial balance as at 31 October. Transfer those figures in the appropriate financial statement columns and determine the year-to-date profit.

RECORDING

CS10.3 Electronic Emporium Pty Ltd is still a private company, but with five shareholders, two directors, and 41 000 ordinary shares issued. David Johnson holds 21 000 of these with the other four shareholders holding 5000 ordinary shares each. It has been a good month and the directors have decided to declare and pay a 5c dividend to the shareholders. To avoid depletion of funds available to pay creditors, it was decided that 2.5c of this would be paid in cash and the other 2.5c be reinvested in the company by way of additional shares to each of the shareholders, i.e. a share dividend.

Required

(a) Use the general journal to record the following transactions:

   (i) The cash dividend paid on 31 October.

   (ii) The issue of shares in satisfaction of the dividend declared and paid on 31 October. David Johnson will receive 210 shares of $2.50 each and the other shareholders 50 shares each at the same price.

(b) Post to the general ledger.

ANALYSING

CS10.4 The new investors are interested in the company's dividend record and its earnings performance. As this is the first time the company has paid a dividend the information on that will be limited, but earnings performance before and after the issue of new shares will be of interest to the shareholders.

Required

(a) Calculate the dividend payout based on the year-to-date profit figure.

(b) Calculate the return on ordinary shareholders' equity for the months of September and October. Shareholder's equity should include the share dividend.

(c) Comment on the results.

RESEARCH

CS10.5 When David was considering the raising of extra capital for his business, he decided to choose a private placement of shares rather than going with his grandiose idea of taking the company public.

Required

As David's accountant, explain what is involved in a public issue of shares and why it was wise for David to choose a private placement. Use the internet to research the topic and then explain why Electronic Emporium Pty Ltd had to remain a private company.

CHAPTER 11

Statement of cash flows

ANALYSING AND REPORTING

CS11.1 Electronic Emporium Pty Ltd is not a public company and therefore the inclusion of a statement of cash flows in its financial statements is not mandatory. The company has only been trading for just over three months, so in a way that will simplify the calculations required to produce a statement of cash flows for the period because all the beginning balances were zero.

Required

Prepare a statement of cash flows using the direct method, including notes for non-cash investing and financing activities and the reconciliation of profit to operating cash flows (indirect method). Use the general ledger and year-to-date figures in the worksheet from chapter 10, but remember to adjust the figures in the worksheet to include the dividends declared and paid after the worksheet was prepared.

ANALYSING AND DECISION MAKING

CS11.2 The goals of the company are to continue expanding the variety of inventory it sells, invest in a computerised accounting system that will provide it with faster and easier access to important information, and pay cash dividends of around 5c per share to the shareholders at least every quarter.

Required

Analyse the statement of cash flows and comment on whether the company currently has the ability to generate sufficient operating cash flows to make the investment planned and pay the cash dividends planned.

CHAPTER 12

Financial statement analysis and decision making

ANALYSING

CS12.1 Two years have now passed and David wants to evaluate the profitability, solvency and liquidity of the company because the rate of growth appears to have slowed a little. Comparative figures are provided below for Electronic Emporium Pty Ltd. These financial statements do not include income tax. This is an item that you usually find in published financial statements, but it has been ignored in these financial statements in order to simplify them for analysis purposes.

ELECTRONIC EMPORIUM PTY LTD
Statement of profit or loss
for the year ended 30 June 2016

	2016	2015
Operating revenue		
Sales revenue		
Net sales revenue	$491 551	$509 971
Less: **Cost of sales**		
Cost of sales	302 608	305 714
Freight costs	500	1 100
Total cost of sales	$303 108	$306 814
Gross profit	$188 443	$203 157
Other operating revenue		
Service revenue	5 880	8 540
Discount received	322	578
Total other operating revenue	$ 6 202	$ 9 118
	$194 645	$212 275
Operating expenses		
Selling expenses		
Advertising expense	$ 4 620	$ 4 200
Depreciation expense	8 583	7 330
Motor vehicles expense	4 182	3 768
Rent expense	12 296	11 385
Total selling expenses	$ 29 681	$ 26 683
Administrative expenses		
Accountancy fees	$ 1 500	$ 1 000
Electricity expense	2 174	1 890
Insurance expense	1 774	1 416
Office supplies expense	622	777
Repairs expense	860	818
Superannuation expense	7 562	3 595
Telephone expense	2 495	1 663
Wages expense	79 600	37 860
Total administrative expenses	$ 96 587	$ 49 019
Financial expenses		
Bad debts expense	$ —	$ 2 981
Bank fees	126	120
Borrowing expenses	100	100
Discount allowed	1 519	2 066
Interest expense/(income)	1 136	2 187
(Profit)/Loss on disposal	(55)	244
Total financial expenses	$ 2 826	$ 7 698
Total operating expenses	$129 094	$ 83 400
Net profit	$ 65 551	$128 875

ELECTRONIC EMPORIUM PTY LTD
Statement of changes in equity
for the year ended 30 June 2016

	2016	2015
Share capital		
Beginning balance	$ 76 122	$ —
Shares issued	—	76 122
Ending balance	$ 76 122	$ 76 122
Retained earnings		
Beginning balance	$120 533	$ —
Profit	65 551	128 875
Dividends	(8 780)	(8 342)
Ending balance	$177 304	$120 533
Total equity	$253 426	$196 655

ELECTRONIC EMPORIUM PTY LTD
Statement of financial position
as at 30 June 2016

	2016	2015
Assets		
Current assets		
Cash and cash equivalents	$111 148	$ 32 400
Accounts receivable	31 990	40 740
Inventory	147 483	143 296
Prepayments	174	184
Total current assets	$290 795	$216 620
Non-current assets		
Prepayments	$ 200	$ 300
Motor vehicles (net)	20 825	21 667
Shop equipment and fittings (net)	30 493	26 689
Total non-current assets	$ 51 518	$ 48 656
Total assets	$342 313	$265 276
Liabilities		
Current liabilities		
Accounts payable	$ 40 225	$ 23 700
Accrued expenses	6 833	3 734
Bank loan	2 500	1 000
Total current liabilities	$ 49 558	$ 28 434
Non-current liabilities		
Bank loan	$ 39 329	$ 40 187
Total non-current liabilities	$ 39 329	$ 40 187
Total liabilities	$ 88 887	$ 68 621
Net assets	$253 426	$196 655
Equity		
Share capital	$ 76 122	$ 76 122
Retained earnings	177 304	120 533
Total equity	$253 426	$196 655

ELECTRONIC EMPORIUM PTY LTD Statement of cash flows for the year ended 30 June 2016		
	2016 $	2015 $
Cash flows from operating activities		
Cash receipts from customers	$ 504 662	$ 472 724
Cash payments:		
To suppliers	(292 823)	(429 532)
For operating expenses	(113 463)	(63 829)
Net cash provided by operating activities	$ 98 376	$ (20 637)
Cash flows from investing activities		
Purchase of property, plant and equipment	$ (32 490)	$ (56 030)
Sale of property, plant and equipment	21 000	100
Net cash used by investing activities	$ (11 490)	$ (55 930)
Cash flows from financing activities		
Increase in borrowings	$ 24 990	$ 50 000
Repayment of borrowings	(24 348)	(8 813)
Issue of ordinary shares	—	71 000
Payment of dividend	(8 780)	(3 220)
Net cash provided by financing activities	$ (8 138)	$ 108 967
Net increase in cash and cash equivalents	$ 78 748	$ 32 400
Cash and cash equivalents at the beginning of the year	32 400	—
Cash and cash equivalents at the end of the year	$ 111 148	$ 32 400

Required

Prepare either (or both) a vertical or horizontal analysis report on the statement of profit or loss for the two periods. Calculate the total selling, administrative and financial expenses as a percentage of sales, not the individual items within those classifications.

Calculate the following ratios for two years:

- Liquidity:
  - Current ratio.
  - Quick ratio.
  - Receivable turnover in days (Cash sales for 2016 were $107 920 and $124 686 for 2015).
  - Inventory turnover in days.
- Solvency:
  - Debt to total assets.
  - Times interest earned.
  - Free cash flow.
- Profitability:
  - Gross profit.
  - Profit margin.
  - Return on assets.
  - Return on equity.

DISCUSSION/REPORTING

CS12.2 Shareholders do not necessarily come from an accounting background, therefore, a whole lot of ratios may not mean much to them.

Required

Present a report (written or verbal) to the owners of the company. Begin by commenting on the trends in profit between the years as indicated by the vertical and/or horizontal analysis report, e.g. that profit improved (deteriorated) between year 1 and year 2, and then explain the main reason(s) for that change, e.g. a reduction in the cost of sales. The next part of the report should explain what each of the groups of ratios indicates, e.g. liquidity is looking very good because even though inventory turnover declined slightly there has been a big improvement in the current and quick ratios, and receivable turnover has remained steady and so on.

appendix A

Domino's Pizza annual report 2013 (abridged)

CHAIRMAN'S MESSAGE

The past 12 months has seen the introduction of a number of significant new platforms to the business across the Australian, New Zealand and European markets.

We have invested considerably in digital advancements in all five markets over the past year, the results of which can be seen in the Company's solid financial results.

The company achieved an underlying[1] Net Profit After Tax of $30.4 million, up 13.0% on the previous year.

The year's double digit profit growth, was generated from Total Network Sales of $848.6 million. Same Store Sales for the full year grew 2.0% over the corresponding period last year.

The Company will pay shareholders a final fully-franked dividend of 15.4 cents per share, in addition to the interim dividend of 15.5 per share. This brings the full year dividend to 30.9 cents. In addition to the dividends, a $30 million capital return was made to shareholders during FY13 bringing the total return to shareholders in the year to 73.7 cents per share.

We have seen great results from focussing on improving the quality, service and image of our products and stores. This includes our store refurbishment program with the roll-out of our new Entice image and strong product launches in all five markets.

Domino's Pizza Enterprises (DPE) added 67 new stores to the network including 27 new stores in Australia and New Zealand and a record 40 new organic stores in Europe, taking the year-end count for the Group to 970.

With Australia and New Zealand continuing to lead the way in digital and online innovations, the milestones achieved in this area of the business are also reflected in the results and are beginning to build momentum in Europe.

We will continue to make leaps and bounds in this area and set new benchmarks to highlight our achievements across the various markets, as technology continues to play such a significant role in our sales success. The fact that more than half of sales are now coming from digital platforms provides an insight to its importance now and in the future.

We also look forward to the opportunity for substantial store growth as we embark on an exciting new chapter, with the acquisition of 75% interest in Domino's Pizza Japan (DPJ)- the company's biggest ever acquisition. We are confident Japan is a growth market with huge potential and we look forward to taking you on this journey with us.

On behalf of the Directors, I thank our shareholders for your continued support. Your ongoing commitment to DPE provides us with the foundations to drive future growth. Additionally, our ongoing solid financial performance would not be possible without the support and commitment of our senior management, franchisees and store employees. Your trust and belief in the brand allows us the opportunity to continue to explore new opportunities for growth, as well as keep up with retail trends and customer demands to improve our business for the future.

[1] Underlying profit is the Statutory profit contained in Appendix 4E of the Domino's FY13 Annual Report adjusted for significant items specific to the 2013 Financial Year. These items were specifically in relation to 2013 and therefore FY12 Statutory profit was not adjusted. Significant charges included transactions, acquisitions and additional legal charges relating to acquisition activity and additional costs over those planned with the ongoing legal claims in France. As the Underlying profit is different to the Statutory profit, we note that this has not been subject to audit. Refer to Appendix for a complete reconciliation between Underlying and Statutory profit.

CORPORATE SOCIAL RESPONSIBILITY

The Domino's brand has continued its support for a variety of charities and not-for-profit organisations to raise money, host Doughraiser Fundraisers in local communities and give product away to support functions and various causes at a local level. We feel it's important to start at a grass roots level and support the local communities we integrate into.

DISASTER RECOVERY AND RELIEF

Domino's is proud to support communities across Australia and New Zealand every day of the year. However, never is it more important to have our ovens firing and pizzas cooking than in times of adversity. While pizza is our first passion, helping communities in difficult times and when they need it the most is something we are extremely passionate about.

This year we were able to move fast and mobilise food and people to assist in the Tasmanian Bush Fires, during the Queensland Floods including the Bundaberg devastation and in Ipswich when a family lost everything in a severe house fire just to mention a few.

DOUGHRAISER FUNDRAISERS

This year we continued to support plenty of great local causes through our Doughraiser Fundraiser program and even a national campaign called *Love Your Sister.*

We followed and continue to support ex *Secret Life of Us* star Samuel Johnson and his crew as they ride around Australia on a unicycle in a quest to raise much needed funds and awareness for Breast Cancer. Samuel's sister Connie was diagnosed with the disease and his commitment stems from keeping promises he made to her - raising a million dollars for Breast Cancer, raising awareness of the disease and at the same time, breaking the Guinness World Record for the longest journey ever made on a unicycle.

Not only did we offer $10,000 for groceries but plenty of Domino's stores hosted Doughraiser Fundraisers to show their support as Samuel rode into town.

PARTNERS FOUNDATION

PARTNERS
FOUNDATION

give today, need tomorrow

Founded in 1997, The Partners Foundation is Domino's internal non-profit organisation. It assists team members in times of special need or tragedy as a result of natural disasters, unexpected personal distress, on-the-job accidents and other emergencies.

Formed on the principle of *'give today, need tomorrow'* the Partners Foundation is all about looking after our own employees in all situations which has helped build our strong team culture.

Since its inception, The Partners Foundation has provided more than $550,000 in aid to team members and their families facing crisis situations related to accidents, illness or other personal tragedies.

DOMINO'S AND THE ENVIRONMENT

As the delivery experts, we need to ensure we are continually improving our service times and wowing our customers with speedy delivery times. We do this by keeping the hustle in the store and not on the street, keeping our delivery territories tight and accessible and ensuring our delivery fleet is suited to our surrounding area.

Over the past year we have refined our delivery fleet from cars to scooters and now to electric scooters and electric bicycles. Not only has this offered cost savings to franchisees and stores, but we are seeing rapid improvements in delivery times where scooters and bicycles beat the traffic congestion, parking constraints and fuel frenzies that are unavoidable with cars.

Electric bicycles have been successfully trialled in inner city stores across Hobart, Melbourne and the Gold Coast.

Producing zero emissions and minimising stores' impact on the environment, the results have been extremely encouraging for further roll out.

To improve our supply flow in Europe, we have introduced extremeley efficient double load trucks. These trucks meet the Euro6 standard and they can transport twice as much as our normal trucks. This will not only save us on diesel, but also considerably reduce CO_2 emissions. We are continuously investing in environmentally friendly solutions, such as this initiative.

Our new utility tracking device is being tested in stores to lower electricity and gas consumption, as well as monitor store and cool room temperatures. The system is already proving to have a positive impact with a significant reduction in gas consumption and a saving in electricity usage recorded.

KEY FINANCIAL INDICATORS

	2007	2008	2009	2010	2011	2012	2013*
NETWORK SALES	518.9	591.2	676.4	694.3	746.4	805.3	848.6
Revenue	230.1	229.6	239.0	236.1	246.7	264.9	294.9
EBITDA	22.0	25.3	28.3	32.5	39.1	48.1	55.9
Depreciation & amortisation	(6.8)	(6.2)	(6.4)	(8.0)	(8.7)	(10.0)	(12.8)
EBIT	15.2	19.1	21.8	24.5	30.4	38.1	43.1
Interest	(2.9)	(2.1)	(1.6)	(0.8)	(0.7)	(0.5)	(0.4)
NPBT	12.3	17.0	20.3	23.7	29.7	37.6	42.7
Tax	(3.2)	(5.2)	(4.9)	(5.9)	(8.2)	(10.7)	(12.3)
PRO-FORMA NPAT	9.1	11.8	15.4	17.8	21.4	26.9	30.4
After tax share issue costs	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NPAT	9.1	11.8	15.4	17.8	21.4	26.9	30.4
EARNINGS PER SHARE (BASIC)	14.8	18.4	22.6	26.2	31.3	38.9	43.4
DIVIDENDS PER SHARE	10.9	10.9	12.4	17.8	21.9	27.1	30.9
KEY OPERATING DATA							
NETWORK SALES GROWTH %	44.4%	13.9%	14.4%	2.6%	7.5%	7.9%	5.4%
REVENUE GROWTH %	33.1%	(0.2%)	4.1%	(1.2%)	4.5%	7.4%	11.3%
EBITDA GROWTH %	(10.9%)	15.0%	11.7%	15.1%	20.2%	23.1%	16.2%
EBITDA MARGIN %	9.6%	11.0%	11.8%	13.8%	15.8%	18.2%	19.0%
EBIT MARGIN %	6.6%	8.3%	9.1%	10.4%	12.3%	14.4%	14.6%
Franchised stores	533	629	669	717	760	796	831
Corporate stores	130	112	107	106	106	112	139
TOTAL NETWORK STORES	663	741	776	823	866	908	970
Corporate store %	19.6%	15.1%	13.8%	12.9%	12.2%	12.3%	14.3%

The above table has not been audited.

* Based on underlying results which is the Statutory profit contained in Appendix 4E of the Domino's FY13 Annual Report adjusted for significant items specific to the 2013 Financial Year as outlined in the 2012-2013 Full Year Market Presentation.

CORPORATE GOVERNANCE STATEMENT

OVERVIEW

Corporate Governance is an important matter to Domino's Pizza Enterprises Limited ("DPE Limited" or the "Company") and the Board of Directors (the "Board"). The Board endorses the 2nd edition of the Australian Securities Exchange ("ASX") Corporate Governance Council's Corporate Governance Principles and Recommendations with 2010 Amendments ("ASX Principles") originally issued by the ASX Corporate Governance Council in August 2007.

Set out below is a table describing the various ASX Principles and statements as to the Company's compliance or otherwise with them. Terms used in the table have the meanings given to them in the ASX Principles unless otherwise defined.

Principle No.	Best practice recommendation	Compliance	Reason for non-compliance
Principle 1 –	**Lay solid foundations for management and oversight**		
1.1	Establish the functions reserved to the Board and those delegated to senior executives and disclose these functions.	Refer to page 7	Not applicable
1.2	Disclose the process for evaluating the performance of senior executives.	Refer to page 16	Not applicable
1.3	Provide the information in the Guide to reporting on Principle 1.	Refer to page 7 & 16	Not applicable
Principle 2 –	**Structure the Board to add value**		
2.1	A majority of the Board should be independent directors.	Refer to page 7	Not applicable
2.2	The Chair should be an independent director.	Refer to page 7	Not applicable
2.3	The roles of the Chair and Chief Executive Officer should not be exercised by the same individual.	Refer to page 7	Not applicable
2.4	The Board should establish a nomination committee.	Refer to page 8	Not applicable
2.5	Disclose the process for evaluating the performance of the Board, its committees and individual directors.	Refer to page 11	Not applicable
2.6	Provide the information in the Guide to reporting on Principle 2.	Refer to page 7, 8 & 11	Not applicable
Principle 3 –	**Promote ethical and responsible decision-making**		
3.1	Establish a code of conduct and disclose the code or summary of the code as to: • the practices necessary to maintain confidence in the Company's integrity • the practices necessary to take into account their legal obligations and the reasonable expectations of their stakeholders • the responsibility and accountability of individuals for reporting and investigating reports of unethical practices.	Refer to page 8	Not applicable
3.2	Establish a policy concerning diversity and disclose the policy or a summary of that policy.	Refer to page 9	Not applicable
3.3	Disclose in each Annual Report the measurable objectives for achieving gender diversity set by the Board in accordance with the Diversity Policy and progress towards achieving them.	Refer to page 9	Not applicable
3.4	Disclose in each Annual Report the proportion of women employees in the whole organisation, women in senior executive positions and women on the Board.	Refer to page 9	Not applicable
3.5	Provide the information in the Guide to reporting on Principle 3.	Refer to page 8 & 9	Not applicable
Principle 4 –	**Safeguard integrity in financial reporting**		
4.1	The Board should establish an audit committee.	Refer to page 8	Not applicable
4.2	The audit committee should be structured so that it: • consists only of non-executive directors • consists of a majority of independent directors • is chaired by an independent Chair, who is not Chair of the Board • has at least three members.	Refer to page 8	Not applicable
4.3	The audit committee should have a formal Charter.	Refer to page 8	Not applicable
4.4	Provide the information in the Guide to reporting on Principle 4.	Refer to page 8	Not applicable
Principle 5 –	**Make timely and balanced disclosure**		
5.1	Establish written procedures designed to ensure compliance with ASX Listing Rule disclosure requirements and to ensure accountability at a senior executive level for that compliance and disclose those policies or a summary of those policies.	Refer to page 10	Not applicable
5.2	Provide the information in the Guide to reporting on Principle 5.	Refer to page 10	Not applicable

CORPORATE GOVERNANCE STATEMENT CONTINUED

Principle No.	Best practice recommendation	Compliance	Reason for non-compliance
Principle 6 –	**Respect the rights of shareholders**		
6.1	Design a communication policy for promoting effective communication with shareholders and encouraging their participation at general meetings and disclose their policy or a summary of that policy.	Refer to page 10	Not applicable
6.2	Provide the information in the Guide to reporting on Principle 6.	Refer to page 10	Not applicable
Principle 7 –	**Recognise and manage risk**		
7.1	Establish policies for the oversight and management of material business risks and disclose a summary of those policies.	Refer to page 11	Not applicable
7.2	The Board should require management to design and implement the risk management and internal control system to manage the Company's material business risks and report to it on whether those risks are being managed effectively. The Board should disclose that management has reported to it as to the effectiveness of the Company's management of its material business risks.	Refer to page 11	Not applicable
7.3	The Board should disclose whether it has received assurance from the Chief Executive Officer (or equivalent) and the Chief Financial Officer (or equivalent) that the declaration provided in accordance with section 295A of the Corporations Act is founded on a sound system of risk management and internal control and that the system is operating effectively in all material respects in relation to financial reporting risks.	The Board has received the declaration	Not applicable
7.4	Provide the information in the Guide to reporting on Principle 7.	Refer to page 11	Not applicable
Principle 8 –	**Remunerate fairly and responsibly**		
8.1	The Board should establish a remuneration committee.	Refer to page 8	Not applicable
8.2	The remuneration committee should be structured so that it: • consists of a majority of independent directors • is chaired by an independent Chair • has at least three members.	Refer to page 16	Not applicable
8.3	Clearly distinguish the structure of non-executive directors' remuneration from that of executive directors and senior executives.	Refer to page 16	Not applicable
8.4	Provide the information in the Guide to reporting on Principle 8.	Refer to page 8 & 16	Not applicable

The Board has adopted a Corporate Governance Charter, a Code of Conduct for Directors and Officers, a comprehensive set of Board policies regarding: Independence and Conflicts of Interest, Risk Management, Board Performance Evaluation, Chief Executive Officer Performance Evaluation, Continuous Disclosure, Diversity, External Communications and Securities Trading and an Audit Committee Charter to assist in the discharge of its Corporate Governance responsibilities. Copies are available from the Company's registered office or may be downloaded from the Company's website under the investor section.

The Board has in place Corporate Governance practices that it considers to be the most appropriate for DPE Limited. The Board also recognises that Corporate Governance is not a static matter, and needs reviewing regularly as DPE Limited evolves. This statement describes the main Corporate Governance practices in place during the year.

ROLE OF THE BOARD

The Board is responsible for guiding and monitoring DPE Limited on behalf of shareholders. While at all times the Board retains full responsibility, in discharging its stewardship it makes use of committees. Specialist committees are able to focus on a particular responsibility and provide informed feedback to the Board. The Board seeks to identify the expectations of shareholders, as well as other regulatory obligations. In addition, the Board is also responsible for identifying areas of significant business risk and ensuring arrangements are in place to adequately manage those risks.

The Board is responsible, and primarily accountable to the shareholders, for the effective Corporate Governance of the Company. The Board is responsible for directing management to optimise the Company's performance and increase shareholder wealth by:

- providing strategic direction and approving the annual operating budget;
- appointing and appraising the Managing Director/Chief Executive Officer, ensuring that there are adequate plans and procedures for succession planning;
- ensuring a clear relationship between performance and executive directors' and executives' compensation;
- ensuring that the performance of senior executive (including executive directors) is monitored and evaluated;
- approving and monitoring major capital expenditure programs;
- monitoring the operating and financial performance of the Company;
- overseeing the Company and developing key Company policies, including its control and accountability systems;
- ensuring compliance with laws, regulations, appropriate accounting standards and corporate policies (including the Code of Conduct);
- ensuring that the market and shareholders are fully informed of material developments; and
- recognising the legitimate interests of stakeholders.

Those matters not specifically reserved for the Board are the responsibility of management, but are subject to oversight by the Board. The Corporate Governance of the Company is carried out through delegation of appropriate authority to the Chief Executive Officer and, through the Chief Executive Officer, to management of the Company.

Letters of appointment

Directors receive formal letters of appointment setting out the key terms, conditions and expectations of their appointment. The Managing Director/Chief Executive Officer's responsibilities and terms of employment, including termination entitlements, are also set out in an executive service agreement. Executive service agreements are also prepared for the key management personnel, covering duties, time commitments, induction and the Corporate Governance Framework.

Board Meetings

The Board held 16 formal meetings during the year. Attendance at the 2013 Board and Committee meetings is detailed on page 15 of the Annual Report.

CRITERIA FOR BOARD MEMBERSHIP

For directors appointed by the Board, the Board will consider the range of skills and experience required in light of:

- the strategic direction and progress of the Company;
- the current composition of the Board; and
- the need for independence.

A director appointed by the Board must stand for election at the next Annual General Meeting ("AGM"). Apart from the Managing Director, all directors are subject to re-election by rotation at least once every three years.

STRUCTURE OF THE BOARD

At the date of this report the Board comprises five directors and includes:

- four independent non-executive directors (including the Chairman of the Board),
- one executive director.

Chairman of the Board is Mr Ross Adler. DPE Limited's Managing Director/Chief Executive Officer is Mr Don Meij. Board members' respective qualifications, skills, experience and dates of appointment are detailed on the Corporate Directory page of the Annual Report.

The compensation paid to DPE Limited's directors for the year ended 30 June 2013 is set out in the Remuneration Report on pages 16 to 23.

Independence of Directors

The Board comprises a majority of independent non-executive directors who, together with the executive director, have extensive commercial experience and bring independence, accountability and judgement to the Board's deliberations to ensure maximum benefit to shareholders and employees.

At each Board meeting the Board requires each independent director to disclose any new information which could, or could reasonably be perceived to, impair the director's independence. In devising its policy on independence, the Board's emphasis is to encourage independent judgement amongst all directors, at all times, irrespective of their background. Nonetheless, the Board in its nominations capacity will assess annually the 'independence' of each director in light of the ASX Principles.

Independent Advice

To enable DPE Limited's Board and its committees to fulfill their roles, it is considered appropriate that independent experts' advice may be obtained at DPE Limited's expense, after first indicating to the Chairman the nature of the advice to be sought and the party from whom the advice is to be sought. The Chairman will ensure that the party from whom the advice is to be sought has no conflict with DPE Limited in providing that advice.

Re-election of Directors

In accordance with DPE Limited's Constitution, at each AGM of DPE Limited, one third of the directors (excluding the Managing Director) must stand for re-election. If their number is not three or a multiple of three, then the number nearest but not exceeding one third must stand for re-election. The directors to retire in every year are those who have been longest in office since their last election and, as between directors appointed on the same day, must (unless otherwise agreed between themselves) be determined by lot. In addition, no director other than the Managing Director may hold office for more than three years without standing for re-election, and any director appointed by the Board since the last AGM must stand for re-election at the next AGM. All retiring directors are eligible for re-election.

CORPORATE GOVERNANCE STATEMENT CONTINUED

Board Committees

The Board has established a number of committees to assist in the execution of its responsibilities. The following committees were in place at the date of this report:

- Nomination and Remuneration Committee; and
- Audit Committee.

Details of these committees are discussed below.

NOMINATION AND REMUNERATION COMMITTEE

The Board has established the Nomination and Remuneration Committee, which comprises the entire Board.

The principal responsibilities of the Committee are:

- advising the Board on directorship appointments, with particular attention to the mix of skills, experience and independence;
- ensuring fulfilment of the Board's policies on Board composition;
- developing Board succession plans;
- reviewing and making recommendations on the appropriate compensation of directors;
- ensuring that equity-based executive compensation is paid in accordance with thresholds set in plans approved by shareholders; and
- ensuring disclosure of the information required in each Annual Report of the Company.

The Company's compensation policy links the nature and amount of executive directors' and key management personnel's emoluments to the Company's financial and operational performance.

Further details of the Nomination and Remuneration Committee are included in the Remuneration Report on pages 16 to 23.

Membership of and attendance at the 2013 Committee meetings are detailed in the Directors' Report on page 15.

AUDIT COMMITTEE

DPE Limited has a Board convened Audit Committee which:

- is comprised entirely of non-executive directors of DPE Limited;
- has a majority of independent directors; and
- has a Chairman, who is not Chairman of the Board of DPE Limited.

Committee Charter

The Committee has a Charter to govern its operations. The Charter is reviewed every two years, and, if appropriate, updated by the Board on recommendation from the Audit Committee.

Membership of the Committee

Committee members are appointed by the Board. Under the Committee's Charter, members will have a range of diverse and yet complementary skills and will be financially literate.

Purpose of the Committee

The role of the Audit Committee is to assist the Board in discharging its obligations with respect to ensuring:

- accurate and reliable financial information prepared for use by the Board; and
- the integrity of the Company's internal controls affecting the preparation and provision of that financial information in determining policies or for inclusion in the financial statements.

In carrying out these functions, the Committee maintains unobstructed lines of communication between the Committee, the internal auditors, the external auditors, and DPE Limited's management.

Duties and Responsibilities of the Committee

The Committee advises the Board on all aspects of internal and external audit, the adequacy of accounting and risk management procedures, systems, control and financial reporting. Specific responsibilities include:

- recommending to the Board the appointment, re-appointment and removal of external auditors;
- monitoring the independence of the external auditors;
- recommending and supervising the engagement of the external auditors and monitoring auditor performance;
- reviewing the effectiveness of management information and other systems of internal control;
- reviewing all areas of significant financial risk and arrangements in place to contain those to acceptable levels;
- reviewing significant transactions that are not a normal part of the Company's business;
- monitoring the internal controls and accounting compliance with the Corporations Act 2001, ASX Listing Rules, reviewing external audit reports and ensuring prompt remedial action; and
- reviewing the Company's full year ASX Appendix 4E, Annual Report and half-year Appendix 4D, prior to submission to the Board.

Rotation of the External Audit Engagement Partners

The Corporations Act 2001 has introduced a five year rotation requirement for audit partners. DPE Limited's external auditor, Deloitte Touche Tohmatsu has an internal policy which is consistent with this requirement.

Independence of the external auditors

The Committee will consider annually any non-audit services provided by the external auditors to determine whether the provision of those non-audit services is compatible with the independence of the external auditors. Policies are in place to restrict the type of non-audit services which can be provided by the external auditors.

Internal audit

Ernst & Young has been engaged to undertake an independent and objective internal audit review function charged with evaluating, testing and reporting on the adequacy and effectiveness of management's control of operational risk. The internal auditors will provide regular reports to the Audit Committee.

Chief Executive Officer and Chief Financial Officer sign-off to the Board in respect of DPE Limited's financial statements

The sign-off required from the Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO") that DPE Limited's financial statements present a true and fair view, in all material respects, of DPE Limited's financial condition and operational results in accordance with the relevant Accounting Standards, is contained within the representations required as part of Recommendation 7.2 of the ASX Principles.

The experience and qualifications of members of the Audit Committee are set out in Corporate Directory section of the Annual Report. Membership of and attendance at 2013 Committee meetings are detailed in the Directors' Report on page 15.

CODE OF CONDUCT FOR DPE LIMITED DIRECTORS

The Board has a formal Directors' Code of Conduct which sets the standards to which each director, the Company Secretary and all executives will adhere whilst conducting their duties. The Code requires a director, amongst other things, to:

- act honestly, in good faith and in the best interests of the Company as a whole;
- perform the functions of office and exercise the powers attached to that office with a degree of care and diligence that a reasonable person would exercise if they were a director in the same circumstances; and
- consider matters before the Board having regard to any possible personal interests, the amount of information appropriate to properly consider the subject matter and what is in the best interests of the Company.

All directors and officers of the Company must, as far as possible, act with the utmost integrity and objectivity, striving at all times to enhance the reputation and performance of the Company, and where possible, to act in accordance with the interests of the shareholders, staff, clients and all other stakeholders in the Company.

DIVERSITY POLICY

Diversity is an important aspect of the Company's success. DPE Limited has adopted a Diversity Policy which aims to ensure that:

- employment decisions are transparent, equitable and fair;
- a safe and supportive workplace is provided in which differences are valued and respected;
- recruitment decisions take account of the diversity of the community; and
- employees have the ability to contribute and access opportunities based on merit.

In accordance with its Diversity Policy, the Board has adopted measurable objectives for achieving gender diversity in Australia. Those measurable objectives, and the performance against those objectives for the 2013 financial year, are outlined in the following table:

OBJECTIVE	INITIATIVES TO FACILITATE ACHIEVEMENT OF THE OBJECTIVE	STATUS OF THE OBJECTIVE[i]
Maintain a fair and balanced level of participation by women in Corporate Services[ii].	A diversity support program has been initiated by DPE Limited.	Ongoing – as at 30 June 2013, 46% of the Corporate Services staff were women.
Maintain a balanced level of participation by women as in-store staff.	As part of the program equal employment treatment is to be given without regard to gender.	Ongoing – as at 30 June 2013, 43% of the in-store staff were women.
Increase the level of participation by women in management at regional and store level.	Under the diversity support program, equal treatment is to be given in training and promotion.	Ongoing – as at 30 June 2013, the following proportions of women are in management: • State Managers – 20%; • Regional Managers –18%; and • Store Managers – 30%
Achieve a high parental leave return rate.	The Company has implemented a parental leave policy for full and part-time employees in Corporate Services	Ongoing – as at 30 June 2013, the Company achieved a 100% parental leave return rate.

(i) The statistics are in respect of Australia only.
(ii) Corporate Services means staff working at the Company's Australian head office.

The following table shows the proportional representation of men and women at various levels within the Company's Australian workforce in 2013:

ROLE	WOMEN (%)
Non-executive directors	Nil
Senior executives	10%
Other	26%
Total in the whole organisation	26%

CORPORATE GOVERNANCE STATEMENT CONTINUED

WORKPLACE GENDER EQUALITY

The *Workplace Gender Equality Act 2012* (the WGE Act) puts a focus on promoting and improving gender equality and outcomes for both women and men in the workplace. All non-public sector employers with 100 or more employees are required to report annually under the WGE Act.

The Company has submitted its 2013 report to the Workplace Gender Equality Agency. A copy of this report can be found in the Investors section of the Company's website www.dominos.com.au/corporate/investors/workplace-gender-equality.

SECURITIES TRADING POLICY

The Company has adopted a policy that imposes certain restrictions on officers, employees and franchisees trading in the securities of the Company. The restrictions have been imposed to prevent inadvertent contraventions of the insider trading provisions of the Corporations Act 2001.

The key aspects of the policy are:

- trading whilst in the possession of material price-sensitive information is prohibited;
- trading is permitted without approval in the three week period after the release to the ASX of the half-yearly and annual results, the end of the AGM or at any time the Company has a prospectus open, but only if they have no inside information and the trading is not for short-term or speculative gain; and
- trading in other circumstances is only permitted if the person is personally satisfied that they are not in possession of inside information and they have obtained approval. Permission will be given for such trading only if the approving person is satisfied that the transaction would not be contrary to law, for speculative gain or to take advantage of inside information.

DPE Limited's price-sensitive information is information which a reasonable person would expect to have a material effect on the price or value of DPE Limited's securities.

CONTINUOUS DISCLOSURE POLICY

The Company has adopted a Continuous Disclosure policy so as to comply with its continuous disclosure obligations. The policy aims to:

- assess new information and co-ordinate any disclosure or releases to the ASX, or any advice required in relation to that information, in a timely manner;
- provide an audit trail of the decisions regarding disclosure to substantiate compliance with the Company's continuous disclosure obligations; and
- ensure that employees, consultants, associated entities and advisers of the Company understand the obligations to bring material information to the attention of the Company Secretary.

Accountabilities and responsibilities

For administrative convenience, DPE Limited has nominated the Company Secretary as the person responsible for communications with the ASX. In addition, the Company Secretary has responsibility for overseeing and co-ordinating disclosure of information to the ASX and communicating with the CEO and CFO in relation to continuous disclosure matters. The Company Secretary and Chief Financial Officer are also responsible for overseeing and co-ordinating disclosure of information to the media and to analysts, brokers and shareholders and communicating with the Board in relation to continuous disclosure matters.

Disclosure principle

In order to ensure DPE Limited meets its obligations of timely disclosure of such information, DPE Limited adheres to the following practice:

- immediate notification to the ASX of information concerning DPE Limited that a reasonable person would expect to have a material effect on the price or value of DPE Limited's securities as prescribed under Listing Rule 3.1, except where such information is not required to be disclosed in accordance with the exception provisions of the ASX Listing Rules.

External communications

Under this Policy, only those DPE Limited employees who have been authorised by the Chairman or CEO can speak on behalf of the Company to the media, analysts or investors. DPE Limited will not disclose price-sensitive information to any investor or analyst before formally disclosing the information to the market.

Release of briefing materials/media releases

All draft DPE Limited media releases and external presentations are reviewed by senior management to determine if they are subject to the continuous disclosure requirements. The purpose of that review is to ensure:

- the factual accuracy of any information;
- there is no material omission of information; and
- that the information will be disclosed in a timely manner.

As a result of that review, any written material containing price-sensitive information to be used in briefing media, institutional investors or analysts, must be lodged with the ASX prior to the brief commencing. As soon as practicable after confirmation of receipt by the ASX, the briefing material is posted to DPE Limited's corporate website.

COMMUNICATIONS POLICY

The Board aims to ensure that DPE Limited's shareholders are informed of all major developments affecting the Company's state of affairs. Information is communicated to shareholders through:

- The full Annual Report. All shareholders have to elect to receive a copy of the full Annual Report, unless they have elected not to receive one, and a copy is available on request. Current corporations legislation allows for the default option of receiving annual reports via the internet. Shareholders must be given notification of this change and be given the opportunity to elect to receive a hard copy of the Annual Report.
- Disclosures made to the ASX. DPE Limited endeavours to post announcements on its corporate website the same day they are released to the ASX.
- Notices and Explanatory Memoranda of each AGM or other meeting of shareholders.
- The AGM. DPE Limited encourages shareholders to attend DPE Limited's AGM to canvass relevant issues of interest. If shareholders are unable to attend the AGM personally, they are encouraged to participate through the appointment of a proxy or proxies.

The corporate website is located at http://www.dominos.com.au and contains:

- the full financial statements of DPE Limited;
- all media releases made to the ASX by DPE Limited. Each media release posted to the website clearly shows the date it was released to the market;
- a Company profile;
- contact details for DPE Limited's head office; and
- copies of corporate governance policies.

This website has a dedicated investor information section which is intended to facilitate quick and easy access for shareholders.

Attendance of the external auditor at the DPE Limited AGM

It is both DPE Limited's policy and the policy of the auditor for the lead engagement partner to be present at the AGM to answer questions about the conduct of the audit and the preparation and content of the Auditors' Report. These policies are consistent with the Corporations Act 2001. Shareholders attending the AGM are made aware they can ask questions of the auditor concerning the conduct of the audit.

RISK MANAGEMENT POLICY

The Board adopts an active approach to risk management which recognises that the Company is engaged in activities, which necessarily demand that the Company take certain usual business, entrepreneurial and operational risks. Accordingly, and in the interests of the enhanced performance of the Company, the Board embraces a responsible approach to risk management, as a risk-aware Company, but not necessarily a risk-averse one.

Specifically in managing risk, the Company and the Board adhere to the following principles:

- When considering new strategies or projects, management analyse the major risks of those opportunities being secured or being lost and considers appropriate strategies for minimising those risks where they are identified.
- The Company will, when thought prudent by the CEO or the Board, take appropriate external advice to determine the best way to manage a particular risk.
- Financial risk will be managed by the whole of the Board working closely with the CEO and the CFO to ensure that the financial statements and other financial reporting are rigorously tested prior to submission to audit.
- To complement risk management by the Company, appropriate insurances are put in place and advice taken from the Company's brokers or insurers where necessary to cover the usual extraordinary risks which arise in the circumstances of the Company.
- The Company's approach to risk management, and the effectiveness of its implementation, is reported by exception to the Board at least annually.

Through the use of its internal review function, the management of the Company has reported to the Board that the risk management policies adopted by the Company are the best to manage the material business risks of each part of the Company's business operations.

The Board has received assurance from the CEO and CFO that the declaration provided in accordance with section 295A of the Corporations Act is founded on a sound system of risk management and internal control and that the system is operating effectively in all material aspects in relation to the financial reporting risks.

BOARD AND BOARD COMMITTEE AND SENIOR EXECUTIVE PERFORMANCE EVALUATION

A formal review of Board and Committee performance is undertaken annually by the Chairman. All reviews include open discussions by the Board of the results of the evaluations.

The performance of senior executives (except the Chief Executive Officer) is periodically evaluated and monitored by the Chief Executive Officer and measured against agreed key performance indicators. The performance of the Chief Executive Officer is periodically reviewed and monitored by the Chairman and measured against agreed key performance indicators.

Performance evaluations for the Board Committees and senior executives (including the Chief Executive Officer) have occurred in the reporting period in accordance with the procedures described above.

Role of the Company Secretary and the Board's access to information

All directors have unrestricted access to the Company Secretary. The Company Secretary is responsible for advising the Board on all Corporate Governance matters, for co-ordinating the completion and despatch of the agenda and Board papers for each meeting, and ensuring the Board receives sufficient information and in a form and timeframe to enable the Board to discharge its duties effectively. Directors may meet independently with management at any time to discuss areas of interest or concern.

Board Agendas and Minutes

Agendas for Board meetings include all matters operational, financial, strategic and compliance which are important to DPE Limited. Whilst most agenda items have a degree of detail and background information included in the pre-meeting papers, a few items may be listed on the agenda as discussion points. Papers are distributed to Board members in a timely manner prior to each meeting of the Board. The minutes of each meeting of the Board record the place, date, time of commencement and conclusion, along with the names of all attendees and any apologies. The Company Secretary prepares the minutes of each meeting of the Board and is expected to use language which is non-emotive and impartial. All draft minutes will be set down for review and approval at the next meeting of the Board. The Company Secretary maintains a file copy of all papers circulated to the Board prior to Board meetings, along with any documents tabled at meetings and a signed copy of all minutes. These records are held in a secure manner so as to prevent any unauthorised amendments or alterations.

ASX Corporate Governance Recommendations

At the date of this report the Company considers that the above Corporate Governance practices comply with the ASX Principles. The information required to be disclosed by those recommendations is found both in this Corporate Governance Statement and in the Directors' Report on pages 12 to 23.

DIRECTORS' REPORT

The directors of Domino's Pizza Enterprises Limited ("DPE Limited" or the "Company") submit herewith the annual financial report of the Company for the financial year ended 30 June 2013. In order to comply with the provisions of the Corporations Act 2001, the Directors Report as follows:

Information about the directors and senior management

The names and particulars of the directors of the Company during or since the end of the financial year are:

NAME	POSITION	
Ross Adler	Non-Executive Chairman	Appointed 23 March 2005
Barry Alty	Non-Executive Director	Appointed 23 March 2005
Grant Bourke	Non-Executive Director	Appointed 24 August 2001
Paul Cave	Non-Executive Director	Appointed 23 March 2005
Don Meij	Managing Director/Chief Executive Officer	Appointed 24 August 2001

Particulars of directors' qualifications, experience and any special responsibilities are detailed in Corporate Directory section of the Annual Report.

Directorships of other listed companies

There were no directorships of other listed companies held by directors in the 3 years immediately before the end of the financial year.

Directors' shareholdings

The following table sets out each director's relevant interest in shares, debentures, and rights or options in shares or debentures of the Company as at the date of this report.

	DOMINO'S PIZZA ENTERPRISES LIMITED		
DIRECTORS	FULLY PAID ORDINARY SHARES NUMBER	SHARE OPTIONS NUMBER	CONVERTIBLE NOTES NUMBER
Ross Adler	202,221	-	-
Barry Alty	104,443	-	-
Grant Bourke	1,547,032	-	-
Paul Cave	382,000	-	-
Don Meij	2,787,556	900,000	-

Remuneration of directors and senior management

Information about the remuneration of directors and senior management is set out in the Remuneration Report of this Directors' Report on pages 16 to 23.

Share options granted to directors and senior management

During and since the end of the financial year, an aggregate 854,167 share options were granted to the following directors and senior management of the Company as part of their remuneration.

DIRECTORS AND SENIOR MANAGEMENT	NUMBER OF OPTIONS GRANTED	ISSUING ENTITY	NUMBER OF ORDINARY SHARES UNDER OPTION
Allan Collins	57,500	DPE Limited	57,500
Andrew Rennie	166,667	DPE Limited	166,667
Craig Ryan	25,000	DPE Limited	25,000
Don Meij	500,000	DPE Limited	500,000
John Harney	25,000	DPE Limited	25,000
Richard Coney	80,000	DPE Limited	80,000

Company Secretary

Craig Ryan
General Counsel

Craig is a solicitor of the Supreme Court of Queensland, Australian Capital Territory and New South Wales and a Solicitor of the High Court of Australia with over 15 years' experience. Craig joined the Company as General Counsel on 8 August 2006 and was appointed to the position of Company Secretary on 18 September 2006. Craig holds a Bachelor of Arts and a Bachelor of Laws from the University of Queensland and a Master of Laws from the University of New South Wales. Craig is also a Chartered Secretary with Chartered Secretaries Australia.

Principal activities

The Consolidated entity's principal activities in the course of the financial year were the operation of retail food outlets and the operation of franchise services. During the financial year there were no significant changes in the nature of those activities.

Review of operations

The result for the financial year ended 30 June 2013 was as follows:

	2013 \$'000	2012 \$'000
Profit before related income tax expense	40,765	37,644
Income tax expense	(12,108)	(10,708)
Profit after related income tax expense	**28,657**	26,936

The following are the key operational highlights for the year.

Australia and New Zealand:

- ANZ EBITDA is up 14.1% for the year. Excluding the significant items of the Domino's Japan and Nick Knight acquisitions, underlying EBITDA is up 17.5%.
- Same Store Sales (SSS) were much stronger in H2 13 (2nd half of FY12/13) than the first half, finishing the year +1.4%, rolling +6.6% in FY11/12.
- The improvement in SSS was heavily influenced by the launch of the Chef's Best range in March 2013. This new range offers customers a product with restaurant quality toppings, premium taste and priced from as low as \$8. Almost 1 in 5 orders contains at least one Chef's Best pizza to date.
- We have added 27 new stores to the network this year.
- We have successfully rolled out our new online ordering platforms using HTML5 technology, greatly enhancing the customer experience and our ability to interact with customers.
- We expect the move to HTML5 along with a more aggressive online marketing campaign to deliver substantial growth to our network sales in FY13/14.

Europe

- DMP Europe EBITDA was down 0.7% on FY11/12. Excluding the significant items of additional legal costs relating to ongoing litigation (Speed Rabbit Pizza France) and European management restructuring costs, underlying EBITDA is up 7.3%. In an attempt to grow the European business at an accelerated rate, we have opened a significant number of new corporate stores in the past two years. Whilst we have achieved good top line sales, fast growth has resulted in weaker food and labour management, thus impacting profit margins.
- Record organic store growth of 40 new stores (18 France, 20 The Netherlands and 2 Belgium) has enabled total network sales to grow by 12.8%.
- SSS growth in Europe was +3.1%, rolling +6.3% in FY11/12.
- We successfully launched a new iPhone app and mobile website in France in March 2013.
- The rollout of the global POS system (Pulse) in The Netherlands is progressing, with all stores expected to be converted by the end of October 2013.
- With the implementation of Pulse, we expect to roll out the majority of the ANZ digital platforms to The Netherlands by December 2013, in the process delivering a strong lift in sales.
- Legal claims with Speed Rabbit Pizza France are ongoing. DPE maintains the view that these claims are tactical and unsubstantiated.

The points above have not been audited.

Changes in state of affairs

There were no significant changes in the state of affairs of the Consolidated entity that occurred during the financial year.

Subsequent events

On 13 August 2013, the Group announced that Aurora Australia Co., Ltd, a newly-formed and wholly-owned subsidiary of Domino's Pizza Enterprises Limited, had entered into a share purchase agreement with Bain Capital Domino Hong Kong Limited (Bain) to purchase 100% of the ordinary shares in K.K. DPJ Holdings 1 (Holdings). Holdings is the parent company of Domino's Pizza Japan, Inc. (DPJ) which holds the master franchisee rights for Domino's Pizza in Japan. Immediately following completion of the acquisition Bain will reinvest approximately ¥4 billion (A\$45 million) to subscribe for 25% of the issued shares in Aurora Australia Co., Ltd. The net effect is that the Group will acquire a 75% equity interest in DPJ for ¥12.0 billion (A\$135 million).

The acquisition will be funded by a combination of debt and equity. The debt funding will be provided under a new bilateral facility agreement with the Commonwealth Bank of Australia and an amendment to the Group's existing facility agreement with Westpac Banking Corporation. The new debt facilities will enable DPE to on-lend approximately ¥9.0 billion (A\$101 million) of debt to DPJ. The facilities will be denominated in Japanese yen and Australian dollars, have a five-year term and have foreign currency and interest rate exposures that will be managed pursuant to hedging arrangements. On 13 August 2013, the Group also announced a proposed 5 for 23 fully underwritten accelerated pro-rata renounceable rights issue to raise up to A\$156 million to fund the acquisition. The parties have entered into a Shareholders' Agreement which regulates the operation and funding of Aurora Australia Co., Ltd.

Completion is conditional on: (a) the debt providers not defaulting on their obligations to provide loans under the facility agreements, and; (b) on the underwriting agreement not being: (i) unlawfully terminated by the underwriter on or before 28 August 2013, or; (ii) otherwise terminated due to customary market fall, hostility and market failure underwriting termination events. Completion is also subject to other customary conditions precedent including compliance with the terms of the acquisition agreement, no intervening illegality, no breach of representations and warranties and no material adverse change relating to DPJ.

The acquisition is expected to complete in September 2013.

DIRECTORS' REPORT CONTINUED

Future developments

In Australia and New Zealand, the focus is on the sell down of corporate stores, opening new franchise stores, continuing our strong online business including aggressive online, print, point of sale and television marketing, reviewing margin pressures and putting additional resources into our training department to drive operational standards. In Europe, the focus is on having The Netherlands stores running on Pulse POS, rolling out new digital platforms from ANZ, store growth, and reviewing arrangements with suppliers to maximise efficiencies and economies in commissaries.

Environmental regulations

The Consolidated entity, while not subject to any significant environmental regulation or mandatory emissions reporting, voluntarily measures its carbon emissions using the National Greenhouse and Energy Reporting Act 2007.

Dividends

In respect of the financial year ended 1 July 2012, as detailed in the Directors' Report for the financial year, a final dividend of 14.1 cents per share franked to 100% at 30% corporate income tax rate was paid to the holders of fully paid ordinary shares on 14 September 2012.

In respect of the financial year ended 30 June 2013, an interim dividend of 15.5 cents per share franked to 100% at 30% corporate income tax rate was paid to the holders of fully paid ordinary shares on 12 March 2013.

In respect of the financial year ended 30 June 2013, the Company will be paying a final dividend of 15.4 cents per share franked to 100% at 30% corporate income tax rate to the holders of fully paid ordinary shares on 13 September 2013.

Shares under option or issued on exercise of options

Details of unissued shares or interests under option as at the date of this report are:

ISSUING ENTITY	NUMBER OF SHARES UNDER OPTION	CLASS OF SHARES	EXERCISE PRICE OF OPTION	EXPIRY DATE OF OPTIONS
DPE Limited	156,000	Ordinary	$3.45	31 August 2013
DPE Limited	270,000	Ordinary	$3.07	31 August 2014
DPE Limited	400,000	Ordinary	$6.07	2 November 2017
DPE Limited	500,000	Ordinary	$9.21	2 November 2017
DPE Limited	386,667	Ordinary	$6.07	10 August 2015[(i)]
DPE Limited	416,667	Ordinary	$9.21	10 August 2016[(ii)]

(i) Expiry date 12 months after vesting date (on or about 10 August 2014)
(ii) Expiry date 12 months after vesting date (on or about 10 August 2015)

The holders of these options do not have the right, by virtue of the option, to participate in any share issue or interest issue of the Company or of any other body corporate or registered scheme.

Details of shares or interests issued during or since the end of the financial year as a result of exercise of an option are:

ISSUING ENTITY	NUMBER OF SHARES ISSUED	CLASS OF SHARES	AMOUNT PAID FOR SHARES	AMOUNT OF UNPAID SHARES
DPE Limited	293,000	Ordinary	$3.50	$nil

Indemnification of officers and auditors

The Company has entered into deeds of indemnity, insurance and access with each director. To the extent permitted by law and subject to the restrictions in s.199A of the Corporations Act 2001, the Company must continuously indemnify each director against liability (including liability for costs and expenses) for an act or omission in the capacity of director. However, this does not apply in respect of any of the following:

- a liability to the Company or a related body corporate;
- a liability to some other person that arises from conduct involving a lack of good faith;
- a liability for costs and expenses incurred by the director in defending civil or criminal proceedings in which judgment is given against the officer or in which the officer is not acquitted; or
- a liability for costs and expenses incurred by the director in connection with an unsuccessful application for relief under the Corporations Act 2001 in connection with the proceedings referred to above.

The Company has also agreed to provide the directors with access to Board documents circulated during the directors' term in office.

During the financial year, the Company paid a premium in respect of a contract insuring the directors of the Company, the Company Secretary and all senior management of the Company and of any related body corporate against a liability incurred as such a director, secretary or senior management to the extent permitted by the Corporations Act 2001.

The Company has not otherwise, during or since the financial year, indemnified or agreed to indemnify an officer or auditor of the Company or of any related body corporate against a liability incurred as such an officer or auditor.

The directors have not included details of the nature of the liabilities covered or the amount of the premium paid in respect of the directors' and officers' liability and legal expenses insurance contract as such disclosure is prohibited under the terms of the contract.

Directors' meetings

The following table sets out the number of directors' meetings (including meetings of committees of directors) held during the financial year and the number of meetings attended by each director (while they were a director or committee member). During the financial year, eight board meetings, three nomination and remuneration committee meetings and six audit committee meetings were held.

	BOARD OF DIRECTORS		NOMINATION & REMUNERATION COMMITTEE		AUDIT COMMITTEE	
DIRECTORS	HELD	ATTENDED	HELD	ATTENDED	HELD	ATTENDED
Ross Adler	16	16	5	5	6	6
Barry Alty	16	14	5	4	6	6
Grant Bourke	16	15	5	4	6	6
Paul Cave	16	16	5	5	6	6
Don Meij	16	16	5	5	6	6

Non-audit services

Details of amounts paid or payable to the auditor for non-audit services provided during the year by the auditor are outlined in note 41 to the financial statements.

The directors are satisfied that the provision of non-audit services, during the year, by the auditor (or by another person or firm on the auditor's behalf) is compatible with the general standard of independence of auditors imposed by the Corporations Act 2001.

The directors are of the opinion that the services as disclosed in note 41 to the financial statements do not compromise the external auditor's independence, based on the advice received from the Audit Committee, for the following reasons:

- all non-audit services have been reviewed and approved to ensure that they do not impact the integrity and objectivity of the auditor, and
- none of the services undermine the general principles relating to auditor independence as set out in Code of Conduct APES 110 Code of Ethics for Professional Accountants issued by the Accounting Professional & Ethical Standards Board, including reviewing or auditing the auditor's own work, acting in a management or decision-making capacity for the Company, acting as advocate for the Company or jointly sharing economic risks and rewards.

Auditor's independence declaration

The auditor's independence declaration is included on page 24 of the Annual Report.

Rounding off of amounts

The Company is a Company of the kind referred to in ASIC Class Order 98/0100, dated 10 July 1998, and in accordance with that Class Order amounts in the Directors' Report and the Financial Report are rounded off to the nearest thousand dollars, unless otherwise indicated.

REMUNERATION REPORT

This Remuneration Report, which forms part of the Directors' Report, sets out information about the remuneration of Domino's Pizza Enterprises Limited's directors and its senior management for the financial year ended 30 June 2013.

The prescribed details for each person covered by this report are detailed below under the following headings:

- director and senior management details
- remuneration policy
- relationship between the remuneration policy and Company performance
- remuneration of directors and senior management
- key terms of employment contracts

DIRECTOR AND SENIOR MANAGEMENT DETAILS

The following persons acted as directors of the Company during or since the end of the financial year:

NAME	POSITION
Ross Adler	Non-Executive Chairman
Barry Alty	Non-Executive Director
Grant Bourke	Non-Executive Director
Paul Cave	Non-Executive Director
Don Meij	Managing Director/ Chief Executive Officer

The term 'senior management' is used in this Remuneration Report to refer to the following persons. Except as noted, the named persons held their current position for the whole of the financial year and since the end of the financial year:

Richard Coney,
Group Chief Financial Officer

John Harney,
Group Chief Procurement Officer

Craig Ryan,
General Counsel and Company Secretary

Allan Collins,
Chief Marketing Officer

Andrew Megson,
Chief Executive Officer Europe (i) (iii)

Melanie Gigon,
President – France

Andre ten Wolde,
President – Netherlands (i)

Andrew Rennie,
Chief Operating Officer

Patrick McMichael,
Australia / New Zealand Franchise Development Manager

Chris O'Dwyer,
NSW Franchise Operations Manager (ii)

(i) On 30 July 2012, Andrew Megson returned to Australia and took the role of National Franchise Operations Manager. At the same time, Andre ten Wolde became the President – the Netherlands.

(ii) On 30 July 2012 Chris O'Dwyer took the role of NSW Franchise Operations Manager and was no longer the National Franchise Operations Manager and therefore ceased to be a KMP.

(iii) On 1 June 2013 Andrew Megson took the newly created role of CEO Europe.

REMUNERATION POLICY

The Board has a Nomination and Remuneration Committee. The Committee assists the Board by reviewing and approving remuneration policies and practices.

The Remuneration Committee, as delegated by the Board:

- reviews and approves the executive remuneration policy;
- reviews and makes recommendations to the Board on corporate goals and objectives relevant to the CEO, and the performance of the CEO in light of those objectives;
- makes recommendations to the Board on the remuneration of non-executive directors; and
- reviews and makes recommendations to the Board on equity-based plans.

An independent remuneration consultant is engaged by the Remuneration Committee to ensure that the reward practices and levels for senior management are consistent with market practice.

The Board, in conjunction with its Nomination and Remuneration Committee, is responsible for approving the performance objectives and measures for the CEO and providing input into the evaluation of performance against them.

The Nomination and Remuneration Committee is responsible for making recommendations to the Board on compensation policies and packages applicable to the Board members and the Chief Executive Officer. The Managing Director/Chief Executive Officer is responsible for making recommendations on compensation packages applicable to the other key management personnel of the Company.

Egan & Associates, an independent remuneration consultant is engaged by the Remuneration Committee to ensure that the reward practices and levels for senior management are consistent with market practice. A statement of recommendation from the remuneration consultant has been received by the board for the 2013 financial year. Payment of $25,410 (2012: $62,003) has been made to the remuneration consultant for the services provided on the remuneration recommendation. Additional services provided in the current year were in relation to the issuing of options under the Domino's Pizza Executive Share and Option Plan ("ESOP"). No other advice has been provided by the remuneration consultant for the financial year.

In order to ensure that the remuneration recommendation would be free from undue influence by members of the key management personnel to whom the recommendation relates to, the board has ensured that the remuneration consultant is not a related party to any member of the key management personnel. As such, the board is satisfied that the remuneration recommendation was made free from undue influence by the member or members of the key management personnel to whom the recommendation relates.

The performance of the Company depends upon the quality of its directors, and its secretaries and other key management personnel. To prosper, the Company must attract, motivate and retain highly skilled directors and other key management personnel. The compensation structure is designed to strike an appropriate balance between fixed and variable remuneration, rewarding capability and experience and providing recognition for contribution to the Company's overall goals and objectives.

The Board Remuneration Policy is to ensure the compensation package properly reflects the person's duties and responsibilities and level of performance; and that compensation is competitive in attracting, retaining and motivating people of the highest quality. Directors and other key management personnel may receive bonuses on the achievement of specific goals related to the performance of the Company (including operational results).

RELATIONSHIP BETWEEN THE REMUNERATION POLICY AND COMPANY PERFORMANCE

The compensation structures explained below are designed to attract suitably qualified candidates, reward the achievement of strategic objectives, and achieve the broader outcome of creation of value for shareholders. The compensation structures take into account:

- the capability and experience of the key management personnel;
- the key management personnel's ability to control the relevant segments' performance;
- the Consolidated entity's performance including:
  - the Consolidated entity's earnings;
  - the growth in earnings per share and return on shareholder wealth; and
- the amount of incentives within each key management personnel's compensation.

Compensation packages include a mix of fixed and variable compensation and short-term and long-term performance-based incentives. The mix of these components is based on the role the individual performs.

In addition to their salaries, the Consolidated entity also provides non-cash benefits to its key management personnel, and contributes to a post-employment superannuation plan on their behalf.

Fixed compensation

Fixed compensation consists of base compensation (which is calculated on a total cost basis and includes any fringe benefits tax ("FBT") charges related to employee benefits including motor vehicles), as well as employer contributions to superannuation funds.

Compensation levels are reviewed annually by the Nomination and Remuneration Committee and Managing Director/Chief Executive Officer through a process that considers individual, segment and overall performance of the Consolidated entity. In addition, external consultants provide analysis and advice to ensure the directors and executives' compensation is competitive in the marketplace. An executive's compensation is also reviewed on promotion.

Performance-linked compensation

Performance-linked compensation includes both short-term and long-term incentives and is designed to reward key management personnel for meeting or exceeding their financial and personal objectives. The short-term incentive ("STI") is an 'at risk' bonus provided in the form of cash, while the long-term incentive ("LTI") is provided as options over ordinary shares of the Company under the rules of the ESOP.

Short-term incentive bonus

Each year the Nomination and Remuneration Committee sets the key performance indicators ("KPI's") for the Managing Director/Chief Executive Officer and the Managing Director/Chief Executive Officer sets the KPI's for the other key management personnel. The KPI's generally include measures relating to the Consolidated entity, the relevant segment, and the individual, and include financial, people, customer, strategy and risk measures. The measures are chosen as they directly align the individual's reward to the KPI's of the Consolidated entity and to its strategy and performance. The Company undertakes a rigorous and detailed annual forecasting and budget process. The Board believes achievement of the annual forecast and budget is therefore the most relevant short-term performance condition.

The financial performance objectives include but are not limited to "Earnings before Interest, Tax, Depreciation and Amortisation" ("EBITDA"), "Net Profit", "Corporate store EBITDA", "Franchise operations EBITDA" and Net Profit After Tax ("NPAT"), compared to budget and last year. The non-financial objectives vary with position and responsibility and include measures such as achieving strategic outcomes, percentage savings, customer satisfaction, hygiene and training and staff development.

At the end of the financial year the Nomination and Remuneration Committee and Managing Director/Chief Executive Officer assess the actual performance of the Consolidated entity, the relevant segment and individual against the KPI's set at the beginning of the financial year. No bonus is awarded where performance objectives are not achieved.

The Managing Director/Chief Executive Officer recommends to the Nomination and Remuneration Committee the performance bonus amounts of individuals for approval by the Board. The method of assessment was chosen as it provides the Committee with an objective assessment of the individual's performance.

Long-term incentive

Options are issued under the ESOP (made in accordance with thresholds set in plans approved by the Board on 11 April 2005), and it provides for key management personnel to receive a number of options, as determined by the Board, over ordinary shares. Options issued under the ESOP will be subject to performance conditions that are detailed on page 22.

The Nomination and Remuneration Committee considers this equity performance-linked compensation structure to be appropriate as key management personnel only receive a benefit where there is a corresponding direct benefit to shareholders.

The tables below set out summary information about the Consolidated entity's earnings and movements in shareholder wealth for the five years to 30 June 2013:

	30 JUNE 2013 $'000	1 JULY 2012 $'000	3 JULY 2011 $'000	4 JULY 2010 $'000	28 JUNE 2009 $'000
Revenue	294,890	264,687	246,659	236,074	239,015
Net profit before tax	40,765	37,644	29,668	23,722	20,263
Net profit after tax	28,657	26,936	21,435	17,814	15,353

	30 JUNE 2013	1 JULY 2012	3 JULY 2011	4 JULY 2010	28 JUNE 2009
Share price at start of year	10.05	6.22	5.45	3.20	3.65
Share price at end of year	11.17	10.05	6.22	5.45	3.20
Interim dividend per share [1]	15.5 cents	13.0 cents	10.4 cents	6.0 cents	4.4 cents
Final dividend per share [1]	15.4 cents	14.1 cents	11.5 cents	11.8 cents	8.0 cents
Basic earnings per share	40.9 cents	38.9 cents	31.3 cents	26.2 cents	22.6 cents
Diluted earnings per share	40.5 cents	38.4 cents	30.9 cents	25.9 cents	22.5 cents

1 Franked to 100% at 30% corporate income tax rate.

DIRECTORS' REPORT CONTINUED

REMUNERATION OF DIRECTORS AND SENIOR MANAGEMENT

2013[i]	SHORT TERM EMPLOYEE BENEFITS SALARY & FEES $	BONUS $	NON-MONETARY $	POST-EMPLOYMENT BENEFITS SUPER-ANNUATION $	OTHER LONG-TERM EMPLOYEE BENEFITS[ii] $	TERMINATION BENEFITS $	SHARE-BASED PAYMENT OPTIONS & RIGHTS $	TOTAL $	PERCENTAGE OF COMPENSATION FOR THE YEAR CONSISTING OF OPTIONS %
Non-executive directors									
Ross Adler	160,000	-	3,065	14,408	-	-	-	177,473	-
Barry Alty	92,000	-	3,065	8,284	-	-	-	103,349	-
Grant Bourke	80,000	-	3,065	6,966	-	-	-	90,031	-
Paul Cave	80,000	-	3,065	7,204	-	-	-	90,269	-
Executive director									
Don Meij	623,881	32,500	3,065	16,543	17,385	-	329,245	1,022,619	32.20%
Executive officers									
Richard Coney	293,695	33,333	41,555	16,596	8,963	-	46,435	440,577	10.54%
Andrew Megson[iii][iv]	258,468	-	2,759	15,510	44,776	-	-	321,513	-
Andrew Rennie	360,857	22,750	3,065	16,521	8,570	-	127,952	539,715	23.71%
Andre ten Wolde[iii]	182,381	15,096	26,932	29,802	-	-	-	254,211	-
Melanie Gigon	183,246	-	7,693	-	-	-	-	190,939	-
Craig Ryan	231,988	24,500	3,065	16,560	-	-	19,193	295,306	6.50%
Allan Collins	342,053	9,315	3,065	16,505	-	-	44,143	415,081	10.63%
John Harney	222,103	57,000	3,065	16,550	-	-	19,193	317,911	6.04%
Patrick McMichael	183,299	265,250	3,065	16,597	-	-	-	468,211	-
	3,293,971	**459,744**	**109,589**	**198,046**	**79,694**	**-**	**586,161**	**4,727,205**	**12.40%**

(i) The short-term bonus and long-term bonus and the options are dependent on satisfaction of performance conditions.
(ii) Relates to long term employee entitlements expense.
(iii) On 30 July 2012, Andrew Megson returned to Australia and took the role of National Franchise Operations Manager. At the same time, Andre ten Wolde became the President – The Netherlands.
(iv) On 1 June 2013, Andrew Megson took the newly created role of CEO Europe.

2012[i]	SHORT TERM EMPLOYEE BENEFITS SALARY & FEES $	BONUS $	NON-MONETARY $	POST-EMPLOYMENT BENEFITS SUPER-ANNUATION $	OTHER LONG-TERM EMPLOYEE BENEFITS[ii] $	TERMINATION BENEFITS $	SHARE-BASED PAYMENT OPTIONS & RIGHTS $	TOTAL $	PERCENTAGE OF COMPENSATION FOR THE YEAR CONSISTING OF OPTIONS %
Non-executive directors									
Ross Adler	160,000	-	3,007	14,376	-	-	-	177,383	-
Barry Alty	92,000	-	3,007	8,280	-	-	-	103,287	-
Grant Bourke	80,000	-	3,007	7,200	-	-	-	90,207	-
Paul Cave	80,000	-	3,007	7,200	-	-	-	90,207	-
Executive director									
Don Meij	584,662	468,750	3,007	15,860	22,907	-	147,390	1,242,576	11.86%
Executive officers									
Richard Coney	260,915	124,384	41,497	15,794	5,245	-	23,894	471,729	5.07%
Andrew Megson	283,023	41,515	65,540	-	-	-	5,692	395,770	1.44%
Andrew Rennie	333,768	136,500	3,007	15,797	45,031	-	63,322	597,425	10.60%
Melanie Gigon	184,193	64,764	3,172	-	-	-	2,070	254,199	0.81%
Craig Ryan	184,370	50,965	3,007	15,790	-	-	9,610	263,742	3.64%
Allan Collins	352,184	72,000	3,007	15,353	-	-	21,137	463,681	4.56%
John Harney	181,412	80,000	3,007	15,795	-	-	9,610	289,824	3.32%
Chris O'Dwyer	199,703	21,000	3,007	15,790	-	-	10,066	249,566	4.03%
Patrick McMichael	165,911	267,500	3,007	15,949	-	-	-	452,367	-
	3,142,141	**1,327,378**	**143,286**	**163,184**	**73,183**	**-**	**292,791**	**5,141,963**	**5.69%**

(i) The short-term bonus and long-term bonus and the options are dependent on satisfaction of performance conditions.
(ii) Relates to long term employee entitlements expense.

No director or senior management person appointed during the period received a payment as part of his or her consideration for agreeing to hold the position.

DIRECTORS' REPORT CONTINUED

BONUSES AND SHARE-BASED PAYMENTS GRANTED AS COMPENSATION FOR THE FINANCIAL YEAR

Bonuses

Don Meij, Richard Coney, Andrew Rennie, Craig Ryan, Allan Collins and John Harney were granted on 12 August 2013 a cash bonus for their performance during the year ended 30 June 2013. Patrick McMichael and Andre ten Wolde received a bonus during the year on achieving their performance criteria. The amounts were determined and approved by the Managing Director/Chief Executive Officer and the Nomination and Remuneration Committee.

No other bonuses were granted during 2013.

Short-term incentive bonus

	INCLUDED IN COMPEN-SATION $ (i)	PERCENTAGE VESTED IN YEAR %	PERCENTAGE FORFEITED IN YEAR % (ii)
Directors			
Don Meij	32,500	5	95
Key management personnel			
Richard Coney	33,333	22	78
Andrew Megson	-	-	100
Andrew Rennie	22,750	13	87
Andre ten Wolde	15,096	20	80
Melanie Gigon	-	-	100
Craig Ryan	24,500	35	65
Allan Collins	9,315	10	90
John Harney	57,000	60	40
Patrick McMichael	265,250	100	-

(i) Amounts included in compensation for the financial year represent the amount that vested in the financial year based on achievement of personal goals and satisfaction of specified performance criteria. No amounts vest in future financial years in respect of the bonus schemes for the current financial year.
(ii) The amounts forfeited are due to the performance or service criteria not being met in relation to the current financial year.

Long term bonuses

There were no long term cash bonuses granted for the financial year ended 30 June 2013.

Executive share and option plan

The Company established the ESOP to assist in the recruitment, reward, retention and motivation of directors and executives of the Company ("the participants").

In accordance with the provisions of the scheme, executives within the Company, to be determined by the Board, are granted options for no consideration to purchase parcels of shares at various exercise prices. Each option confers an entitlement to subscribe for and be issued one share, credited as fully paid, at the exercise price.

Options issued under the ESOP may not be transferred unless the Board determines otherwise. The Company has no obligation to apply for quotation of the options on the ASX. However, the Company must apply to the ASX for official quotation of shares issued on the exercise of the options.

At any one time, the total number of options on issue under the ESOP that have neither been exercised nor lapsed will not exceed 5.0% of the total number of shares in the capital of the Company on issue prior to 30 April 2009.

Effective 30 April 2009, the Company must not issue any shares or grant any option under this plan if, immediately after the issue or grant, the sum of the total number of unissued shares over which options, rights or other options (which remain outstanding) have been granted under this plan and any other Group employee incentive scheme would exceed 7.5% of the total number of shares on issue on a Fully Diluted Basis at the time of the proposed issue or grant.

Fully Diluted Basis means the number of shares which would be on issue if all those securities of the Company which are capable of being converted into shares, were converted into shares. If the number of shares into which the securities are capable of being converted cannot be calculated at the relevant time, those shares will be disregarded.

During the prior and current financial year, the following share-based payment arrangements were in existence:

OPTIONS SERIES	GRANT DATE	EXPIRY DATE	GRANT DATE FAIR VALUE	EXERCISE PRICE (iii)	VESTING DATE
(6) Issued 8 December 2006**	8 December 2006	31 August 2013	$0.86	$3.45	31 August 2011
(8) Issued 22 August 2007*	22 August 2007	31 August 2013	$0.37 (i)	$3.45	31 August 2011
(9) Issued 10 September 2007*	10 September 2007	31 August 2013	$0.43 (ii)	$3.45	31 August 2011
(10) Issued 3 December 2008**	3 December 2008	31 August 2014	$0.42	$3.07	31 August 2011
(11) Issued 30 April 2009*	30 April 2009	31 August 2014	$0.44	$3.07	31 August 2011
(12) Issued 2 November 2011	2 November 2011	2 November 2017	$1.39	$6.07	2 November 2014
(13) Issued 2 November 2011***	2 November 2011	10 August 2015	$1.43	$6.07	10 August 2014
(14) Issued 7 November 2012	7 November 2012	2 November 2017	$1.17	$9.21	7 November 2015
(15) Issued 7 November 2012****	7 November 2012	10 August 2016	$1.16	$9.21	10 August 2015

* It is a condition of exercise that the optionholder be an employee of the Company at 31 August 2011.
** It is a condition of exercise that the optionholder be a director of the Company as at 31 August 2011.
*** Expiry date 12 months after vesting date (on or about 10 August 2014).
**** Expiry date 12 months after vesting date (on or about 10 August 2015).

(i) 1 tranche consisting of 158,000 options were nominal at grant date.
(ii) 1 tranche consisting of 40,000 options were nominal at grant date.
(iii) The exercise price reduced due to the Capital Returns on the 21 December 2012 by $0.214 and 21 June 2013 by $0.214.

OPTIONS SERIES	PERFORMANCE CONDITIONS
(6) Issued 8 December 2006	Net profit before tax in Europe to exceed budget
(8) Issued 22 August 2007	Net profit before tax to exceed budget
(9) Issued 10 September 2007	Net profit before tax to exceed budget
(10) Issued 3 December 2008	Proportion of options based on EPS growth performance
(11) Issued 30 April 2009	Proportion of options based on EPS growth performance
(12) Issued 2 November 2011	Proportion of options based on EPS growth performance
(13) Issued 2 November 2011	Proportion of options based on EPS growth performance
(14) Issued 7 November 2012	Proportion of options based on EPS growth performance
(15) Issued 7 November 2012	Proportion of options based on EPS growth performance

Options and shares issued on the exercise of series (12) and (14) will be subject to an escrow period commencing on the date of issue and ending on 2 November 2016. There are no further service or performance criteria that need to be met in relation to options granted before the beneficial interest vests in the recipient.

During the year, the following directors and senior management exercised options that were granted to them as part of their compensation. Each option converts into one ordinary share of DPE Limited.

NAME	NO. OF OPTIONS EXERCISED	NO. OF ORDINARY SHARES OF DPE LIMITED ISSUED	AMOUNT PAID	AMOUNT UNPAID
Richard Coney	65,000	65,000	$227,500	$nil
Craig Ryan	40,000	40,000	$140,000	$nil
Andre ten Wolde	100,000	100,000	$350,000	$nil

DIRECTORS' REPORT CONTINUED

The following table summarises the value of options granted, exercised or lapsed during the financial year to directors and senior management:

NAME	VALUE OF OPTIONS GRANTED AT THE GRANT DATE (i) $	VALUE OF OPTIONS EXERCISED AT THE EXERCISE DATE $	VALUE OF OPTIONS LAPSED AT THE DATE OF LAPSE (ii) $
Don Meij	583,800	–	–
Richard Coney	92,680	630,500	–
Andrew Rennie	193,084	–	–
Allan Collins	66,614	–	–
John Harney	28,963	–	–
Craig Ryan	28,963	388,000	–
Andre ten Wolde	–	921,000	–

(i) The value of options granted during the period is recognised in compensation over the vesting period of the grant, in accordance with Australian accounting standards.
(ii) The value of options lapsing during the period due to the failure to satisfy a vesting condition is determined assuming the vesting condition had been satisfied.

CONTRACTS FOR SERVICES OF KEY MANAGEMENT PERSONNEL

Executive service contracts

NAME	TERM OF CONTRACT	CONTRACT COMMENCEMENT	NOTICE TERMINATION – BY COMPANY	NOTICE TERMINATION – BY EXECUTIVE	TERMINATION PAYMENT
Richard Coney	Ongoing	16 May 2005	6 months	6 months	Amount equal to 6 months compensation
Craig Ryan	Ongoing	8 August 2012	3 months	3 months	Amount equal to 3 months compensation
Allan Collins	Ongoing	8 January 2013	3 months	3 months	Amount equal to 3 months compensation
Andrew Megson	Ongoing	30 July 2012	3 months	3 months	Amount equal to 6 months compensation
Don Meij	5 yrs	2 November 2011	12 months	12 months	Amount equal to 12 months compensation
Andrew Rennie	3 yrs	16 August 2010	6 months	6 months	Amount equal to 6 months compensation
John Harney	Ongoing	2 July 2010	3 months	3 months	Amount equal to 3 months compensation
Chris O'Dwyer	Ongoing	22 September 2011	3 months	3 months	Amount equal to 3 months compensation
Patrick McMichael	Ongoing	23 December 2011	3 months	3 months	Amount equal to 3 months compensation
Melanie Gigon	3 yrs	2 August 2010	6 months	6 months	Amount equal to 6 months compensation
Andre ten Wolde	Ongoing	30 July 2012	3 months	3 months	Amount equal to 3 months compensation

The directors believe that the compensation for each of the key management personnel is appropriate for the duties allocated to them, the size of the Company's business and the industry in which the Company operates. The service contracts outline the components of compensation paid to the executive directors and key management personnel but do not prescribe how compensation levels are modified year to year. Compensation levels are reviewed each year to take into account cost-of-living changes, any change in the scope of the role performed by the key management personnel and any changes required to meet the principles of the Remuneration Policy.

Each of the key management personnel has agreed that during their employment and for a period of up to six months afterwards, they will not compete with the Company, canvass, solicit, induce or encourage any person who is or was an employee of the Company at any time during the employment period to leave the Company or interfere in any way with the relationship between the Company and its clients, customers, employees, consultants or suppliers.

Don Meij, Managing Director/Chief Executive Officer, has a contract of employment with Domino's Pizza Enterprises Limited dated 2 November 2011. The contract specifies the duties and obligations to be fulfilled by the Managing Director/Chief Executive Officer and provides that the Board and Managing Director/Chief Executive Officer will, early in each financial year, consult and agree objectives for achievement during that year.

Don Meij's contract provides that he may terminate the agreement by giving twelve month's written notice. He may also resign on one month's notice if there is a change in control of the Company, and he forms the reasonable opinion that there has been material changes to the policies, strategies or future plans of the Board and, as a result, he will not be able to implement his strategy or plans for the development of the Company or its projects. If Don Meij, resigns for this reason, then in recognition of his past service to the Company, on the date of termination, in addition to any payment made to him during the notice period or by the Company in lieu of notice, the Company must pay him an amount equal to the salary component and superannuation that would have been paid to him in the 12 months after the date of termination.

A change in control occurs when any shareholder (either alone or together with its associates) having a relevant interest in less than 50% of the issued shares in the Company acquires a relevant interest in 50% or more of the shares on issue at any time in the capital of the Company or the composition of a majority of the Board changes for a reason other than retirement in the normal course of business or death.

Non-executive directors

The Constitution of the Company provides that non-executive directors are entitled to receive compensation for their services as determined by the Company in a general meeting. The Company has resolved that the maximum aggregate amount of directors' fees (which does not include compensation of executive directors and other non-director services provided by directors) is $600,000 per annum. The non-executive directors may divide that compensation among themselves as they decide. Non–executive directors are entitled to be reimbursed for their reasonable expenses incurred in connection with the affairs of the Company. A non-executive director may also be compensated as determined by the directors if that director performs additional or special duties for the Company. A former director may also receive a retirement benefit of an amount determined by the Board of Directors in recognition of past services, subject to the ASX Listing Rules and the Corporations Act 2001.

Non-executive directors do not receive performance-based compensation. Directors' fees cover all main Board activities.

Fees for the current financial year for the non-executive directors were $80,000 per director per annum (2012: $80,000), $92,000 per annum for the Chairman of the Audit Committee (2012: $92,000) and for the Chairman of the Board was $160,000 per annum (2012: 160,000).

Signed in accordance with a resolution of the directors made pursuant to s.298(2) of the Corporations Act 2001.

On behalf of the Directors

Ross Adler
Chairman
Sydney, 13 August 2013

Don Meij
Managing Director/Chief Executive Officer
Sydney, 13 August 2013

AUDITOR'S INDEPENDENCE DECLARATION

Domino's Pizza Enterprises Limited

Deloitte Touche Tohmatsu
ABN 74 490 121 060

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13 August 2013

The Directors
Domino's Pizza Enterprises Limited
Level 5, KSD1
485 Kingsford Smith Drive
HAMILTON QLD 4007

Dear Directors,

Domino's Pizza Enterprises Limited

In accordance with section 307C of the Corporations Act 2001, I am pleased to provide the following declaration of independence to the directors of Domino's Pizza Enterprises Limited.

As lead audit partner for the audit of the financial statements of Domino's Pizza Enterprises Limited for the financial year ended 30 June 2013, I declare that to the best of my knowledge and belief, there have been no contraventions of:

(i) the auditor independence requirements of the Corporations Act 2001 in relation to the audit; and

(ii) any applicable code of professional conduct in relation to the audit.

Yours sincerely

Deloitte Touche Tohmatsu

DELOITTE TOUCHE TOHMATSU

P G Forrester
Partner
Chartered Accountants

INDEPENDENT AUDITOR'S REPORT

TO THE MEMBERS OF DOMINO'S PIZZA ENTERPRISES LIMITED

Deloitte Touche Tohmatsu
ABN 74 490 121 060

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REPORT ON THE FINANCIAL REPORT

We have audited the accompanying financial report of Domino's Pizza Enterprises Limited, which comprises the statement of financial position as at 30 June 2013, the statement of comprehensive income, the statement of cash flows and the statement of changes in equity for the year ended on that date, notes comprising a summary of significant accounting policies and other explanatory information, and the directors' declaration of the consolidated entity, comprising the company and the entities it controlled at the year's end or from time to time during the financial year as set out on pages 27 to 87.

Directors' Responsibility for the Financial Report

The directors of the company are responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards and the Corporations Act 2001 and for such internal control as the directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error. In Note 3, the directors also state, in accordance with Accounting Standard AASB 101 Presentation of Financial Statements, that the consolidated financial statements comply with International Financial Reporting Standards.

Auditor's Responsibility

Our responsibility is to express an opinion on the financial report based on our audit. We conducted our audit in accordance with Australian Auditing Standards. Those standards require that we comply with relevant ethical requirements relating to audit engagements and plan and perform the audit to obtain reasonable assurance whether the financial report is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial report. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial report, whether due to fraud or error. In making those risk assessments, the auditor considers internal control, relevant to the company's preparation of the financial report that gives a true and fair view, in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the directors, as well as evaluating the overall presentation of the financial report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

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Member of Deloitte Touche Tohmatsu Limited

INDEPENDENT AUDITOR'S REPORT CONTINUED

TO THE MEMBERS OF DOMINO'S PIZZA ENTERPRISES LIMITED

AUDITOR'S INDEPENDENCE DECLARATION

In conducting our audit, we have complied with the independence requirements of the Corporations Act 2001. We confirm that the independence declaration required by the Corporations Act 2001, which has been given to the directors of Domino's Pizza Enterprises Limited, would be in the same terms if given to the directors as at the time of this auditor's report.

Opinion

In our opinion:

(a) the financial report of Domino's Pizza Enterprises Limited is in accordance with the Corporations Act 2001, including:

(i) giving a true and fair view of the Consolidated entity's financial position as at 30 June 2013 and of its performance for the year ended on that date; and

(ii) complying with Australian Accounting Standards and the Corporations Regulations 2001; and

(b) the consolidated financial statements also comply with International Financial Reporting Standards as disclosed in Note 3.

REPORT ON THE REMUNERATION REPORT

We have audited the Remuneration Report included in pages 16 to 23 of the directors' report for the year ended 30 June 2013. The directors of the company are responsible for the preparation and presentation of the Remuneration Report in accordance with section 300A of the Corporations Act 2001. Our responsibility is to express an opinion on the Remuneration Report, based on our audit conducted in accordance with Australian Auditing Standards.

Opinion

In our opinion the Remuneration Report of Domino's Pizza Enterprises Limited for the year ended 30 June 2013, complies with section 300A of the Corporations Act 2001.

Deloitte Touche Tohmatsu

DELOITTE TOUCHE TOHMATSU

P G Forrester
Partner
Chartered Accountants
Parramatta, 13 August 2013

DIRECTORS' DECLARATION

The directors declare that:

(a) in the directors' opinion, there are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable;

(b) in the directors' opinion, the attached financial statements are in compliance with International Financial Reporting Standards, as stated in note 3.1 to the financial statements;

(c) in the directors' opinion, the attached financial statements and notes thereto are in accordance with the Corporations Act 2001, including compliance with accounting standards and giving a true and fair view of the financial position and performance of the Consolidated entity; and

(d) the directors have been given the declarations required by s.295A of the Corporations Act 2001.

Signed in accordance with a resolution of the directors made pursuant to s.295(5) of the Corporations Act 2001.

On behalf of the Directors

Don Meij
Managing Director/Chief Executive Officer
Sydney, 13 August 2013

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME
FOR THE YEAR ENDED 30 JUNE 2013

	NOTE	2013 $'000	2012 $'000
Revenue	5	188,631	168,466
Other revenue	7	106,259	96,421
Other gains and losses	8	3,564	3,161
Food and paper expenses		(85,150)	(78,679)
Employee benefits expense	11	(76,260)	(65,264)
Plant and equipment costs		(9,331)	(8,588)
Depreciation and amortisation expense	11	(12,792)	(10,029)
Occupancy expenses		(9,103)	(7,837)
Finance costs	9	(405)	(451)
Marketing expenses		(11,430)	(11,477)
Store related expenses		(7,182)	(5,887)
Communication expenses		(6,351)	(6,669)
Other expenses		(39,685)	(35,523)
Profit before tax		**40,765**	**37,644**
Income tax expense	10	(12,108)	(10,708)
Profit for the year from continuing operations	11	**28,657**	**26,936**
Other comprehensive income			
Items that may be reclassified subsequently to profit or loss:			
Exchange differences arising on translation of foreign operations		5,990	(3,778)
Gain on cash flow hedges taken to equity		-	137
Gain/(loss) on net investment hedge taken to equity		(1,351)	223
Income tax relating to components of other comprehensive income		1,389	(108)
Other comprehensive income for the period (net of tax)		**6,028**	**(3,526)**
Total comprehensive income for the year		**34,685**	**23,410**
Earnings per share:			
From continuing operations			
Basic (cents per share)	12	40.9 cents	36.9 cents
Diluted (cents per share)	12	40.5 cents	36.4 cents

Notes to the financial statements are included on pages 34 to 87.

CONSOLIDATED STATEMENT OF FINANCIAL POSITION
AS AT 30 JUNE 2013

	NOTE	2013 $'000	2012 $'000
ASSETS			
Current assets			
Cash and cash equivalents	37	18,691	40,340
Trade and other receivables	13	26,412	21,018
Other financial assets	14	1,286	2,449
Inventories	15	6,685	5,706
Current tax assets	10	191	-
Other	21	6,315	3,781
		59,580	**73,294**
Assets classified as held for sale	16	803	704
Total current assets		**60,383**	**73,998**
Non-current assets			
Other financial assets	14	4,415	5,698
Property, plant & equipment	18	49,693	35,031
Deferred tax assets	10	40	829
Goodwill	19	57,113	46,927
Other intangible assets	20	17,427	12,809
Other	21	680	27
Total non-current assets		**129,368**	**101,321**
Total assets		**189,751**	**175,319**
LIABILITIES			
Current liabilities			
Trade and other payables	22	38,055	34,172
Borrowings	23	7,082	11,534
Other financial liabilities	24	508	-
Current tax liabilities	10	2,550	3,544
Provisions	25	3,109	2,360
Total current liabilities		**51,304**	**51,610**
Non-current liabilities			
Borrowings	23	32,589	2,509
Other financial liabilities	24	303	252
Provisions	25	441	574
Deferred tax liabilities	10	2,395	3,098
Other	26	137	235
Total non-current liabilities		**35,865**	**6,668**
Total liabilities		**87,169**	**58,278**
Net assets		**102,582**	**117,041**
EQUITY			
Capital and reserves			
Issued capital	28	40,855	69,872
Reserves	29	(1,985)	(8,648)
Retained earnings	30	63,712	55,817
Total equity		**102,582**	**117,041**

Notes to the financial statements are included on pages 34 to 87.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY
FOR THE YEAR ENDED 30 JUNE 2013

	ISSUED CAPITAL $'000	HEDGING RESERVE $'000	FOREIGN CURRENCY TRANSLATION RESERVE $'000	OTHER RESERVE $'000	RETAINED EARNINGS $'000	TOTAL $'000
Balance at 4 July 2011	64,523	2,044	(9,064)	1,578	45,835	104,816
Profit for the period	-	-	-	-	26,936	26,936
Other comprehensive income	-	252	(3,778)	-	-	(3,526)
Total comprehensive income for the period	-	252	(3,778)	-	26,936	23,410
Shares issued	5,349	-	-	-	-	5,349
Recognition of share based payments	-	-	-	320	-	320
Payment of dividends	-	-	-	-	(16,954)	(16,954)
Balance at 1 July 2012	**69,872**	**2,296**	**(12,842)**	**1,898**	**55,817**	**117,041**
Balance at 2 July 2012	69,872	2,296	(12,842)	1,898	55,817	117,041
Profit for the period	-	-	-	-	28,657	28,657
Other comprehensive income	-	38	5,990	-	-	6,028
Total comprehensive income for the period	-	38	5,990	-	28,657	34,685
Shares issued	1,025	-	-	-	-	1,025
Capital return	(30,042)	-	-	-	-	(30,042)
Recognition of share based payments	-	-	-	635	-	635
Payment of dividends	-	-	-	-	(20,762)	(20,762)
Balance at 30 June 2013	**40,855**	**2,334**	**(6,852)**	**2,533**	**63,712**	**102,582**

Notes to the financial statements are included on pages 34 to 87.

CONSOLIDATED STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED 30 JUNE 2013

	NOTE	2013 $'000	2012 $'000
Cash flows from operating activities			
Receipts from customers		327,142	295,099
Payments to suppliers and employees		(282,864)	(250,792)
Interest received		1,103	1,785
Interest and other costs of finance paid		(405)	(451)
Income taxes paid		(11,796)	(7,963)
Net cash generated by operating activities	37	**33,180**	37,678
Cash flows from investing activities			
Payments for investments and business operations, net of cash and inventory acquired	36	(19,077)	(11,876)
Loans repaid from third parties and franchisees		2,516	2,106
Payment for property, plant & equipment		(25,037)	(17,658)
Proceeds from sale of businesses and other non-current assets		21,069	22,924
Payments for intangible assets		(9,866)	(7,474)
Net cash used in investing activities		**(30,395)**	(11,978)
Cash flows from financing activities			
Proceeds from borrowings		43,721	-
Repayment of borrowings		(20,506)	(24)
Return of Share Capital		(30,042)	-
Dividends paid		(20,762)	(16,954)
Proceeds from issue of equity securities		1,025	5,349
Net cash used in financing activities		**(26,564)**	(11,629)
Net increase/(decrease) in cash and cash equivalents		**(23,779)**	14,071
Cash and cash equivalents at the beginning of the year		**40,340**	28,085
Effects of exchange rate changes on the balance of cash held in foreign currencies		2,130	(1,816)
Cash and cash equivalents at the end of the year	37	**18,691**	40,340

Notes to the financial statements are included on pages 34 to 87.

NOTES TO THE FINANCIAL STATEMENTS

1. GENERAL INFORMATION

Domino's Pizza Enterprises Limited is a public company listed on the Australian Stock Exchange (trading under the symbol 'DMP'), incorporated and operating in Australia, New Zealand, France, Belgium and The Netherlands. The ultimate parent company is Domino's Pizza Enterprises Limited.

Domino's Pizza Enterprises Limited's registered office and its principal place of business are as follows:

Registered office	Principal place of business
KSD1, L5 485 Kingsford Smith Drive Hamilton Brisbane Queensland 4007 Tel: +61 (0)7 3633 3333	KSD1, L5 485 Kingsford Smith Drive Hamilton Brisbane Queensland 4007 Tel: +61 (0)7 3633 333

The entity's principal activities are the operation of retail food outlets and operation of franchise services.

2. ADOPTION OF NEW AND REVISED ACCOUNTING STANDARDS

2.1 Standards and Interpretations affecting amounts reported in the current period (and/or prior periods)

The following new and revised Standards and Interpretations have been adopted in the current period and the effects if any, have been adjusted in these financial statements.

Standards affecting presentation and disclosure

Amendments to AASB 101 'Presentation of Financial Statements'

The amendment (part of AASB 2011-9 'Amendments to Australian Accounting Standards - Presentation of Items of Other Comprehensive Income' introduce new terminology for the statement of comprehensive income and income statement. Under the amendments to AASB 101, the statement of comprehensive income is renamed as a statement of profit or loss and other comprehensive income and the income statement is renamed as a statement of profit or loss. The amendments to AASB 101 retain the option to present profit or loss and other comprehensive income in either a single statement or in two separate but consecutive statements. However, the amendments to AASB 101 require items of other comprehensive income to be grouped into two categories in the other comprehensive income section: (a) items that will not be reclassified subsequently to profit or loss and (b) items that may be reclassified subsequently to profit or loss when specific conditions are met. Income tax on items of other comprehensive income is required to be allocated on the same basis – the amendments do not change the option to present items of other comprehensive income either before tax or net of tax. The amendments have been applied retrospectively, and hence the presentation of items of other comprehensive income has been modified to reflect the changes. Other than the above mentioned presentation changes, the application of the amendments to AASB 101 does not result in any impact on profit or loss, other comprehensive income and total comprehensive income.

Amendments to AASB 101 'Presentation of Financial Statements'

The amendments (part of AASB 2012-5 'Further Amendments to Australian Accounting Standards arising from Annual Improvements 2009-2011 Cycle') requires an entity that changes accounting policies retrospectively, or makes a retrospective restatement or reclassification to present a statement of financial position as at the beginning of the preceding period (third statement of financial position), when the retrospective application, restatement or reclassification has a material effect on the information in the third statement of financial position. The related notes to the third statement of financial position are not required to be disclosed.

Standards and Interpretations affecting the reported results or financial position

There are no new and revised Standards and Interpretations adopted in these financial statements affecting the reporting results or financial position.

2.2 Standards and Interpretations in issue not yet adopted

At the date of authorisation of the financial statements, the Standards and Interpretations listed below were in issue but not yet effective. We have undertaken an assessment of the standards that we currently believe could affect us, and at this stage do not expect these to significantly affect the reporting results or financial position for the consolidated entity in the future.

STANDARD/INTERPRETATION	EFFECTIVE FOR ANNUAL REPORTING PERIODS BEGINNING ON OR AFTER	EXPECTED TO BE INITIALLY APPLIED IN THE FINANCIAL YEAR ENDING
AASB 9 'Financial Instruments', and the relevant amending standards	1 January 2015	30 June 2016
AASB 10 'Consolidated Financial Statements' and AASB 2011-7 'Amendments to Australian Accounting Standards arising from the consolidation and Joint Arrangements standards'	1 January 2013	30 June 2014
AASB 11 'Joint Arrangements' and AASB 2011-7 'Amendments to Australian Accounting Standards arising from the consolidation and Joint Arrangements standards'	1 January 2013	30 June 2014
AASB 12 'Disclosure of Interests in Other Entities' and AASB 2011-7 'Amendments to Australian Accounting Standards arising from the consolidation and Joint Arrangements standards'	1 January 2013	30 June 2014
AASB 127 'Separate Financial Statements' (2011) and AASB 2011-7 'Amendments to Australian Accounting Standards arising from the consolidation and Joint Arrangements standards'	1 January 2013	30 June 2014
AASB 128 'Investments in Associates and Joint Ventures' (2011) and AASB 2011-7 'Amendments to Australian Accounting Standards arising from the consolidation and Joint Arrangements standards'	1 January 2013	30 June 2014
AASB 13 'Fair Value Measurement' and AASB 2011-8 'Amendments to Australian Accounting Standards arising from AASB 13'	1 January 2013	30 June 2014
AASB 119 'Employee Benefits' (2011) and AASB 2011-10 'Amendments to Australian Accounting Standards arising from AASB 119 (2011)'	1 January 2013	30 June 2014
AASB 2011-4 'Amendments to Australian Accounting Standards to Remove Individual Key Management Personnel Disclosure Requirements'	1 July 2013	30 June 2014
AASB 2012-2 'Amendments to Australian Accounting Standards – Disclosures – Offsetting Financial Assets and Financial Liabilities'	1 January 2013	30 June 2014
AASB 2012-3 'Amendments to Australian Accounting Standards – Disclosures – Offsetting Financial Assets and Financial Liabilities	1 January 2014	30 June 2015
AASB 2012-5 'Amendments to Australian Accounting Standards arising from Annual Improvements 2009-2011 Cycle	1 January 2013	30 June 2014
AASB 2012-10 'Amendments to Australian Accounting Standards – Transition Guidance and Other Amendments'	1 January 2013	30 June 2014

At the date of authorisation of the financial statements, the following IASB Standards and IFRIC Interpretations were also in issue but not yet effective, although Australian equivalent Standards and Interpretations have not yet been issued.

Standard/Interpretation	EFFECTIVE FOR ANNUAL REPORTING PERIODS BEGINNING ON OR AFTER	EXPECTED TO BE INITIALLY APPLIED IN THE FINANCIAL YEAR ENDING
None at time of publication.	None at time of publication.	None at time of publication.

NOTES TO THE FINANCIAL STATEMENTS CONTINUED

3. SIGNIFICANT ACCOUNTING POLICIES

3.1 Statement of compliance

These financial statements are general purpose financial statements which have been prepared in accordance with the Corporations Act 2001, Accounting Standards and Interpretations, and comply with other requirements of the law.

The financial statements comprise the consolidated financial statements of the Consolidated entity for the 52-week period ended 30 June 2013. For the purposes of preparing the consolidated financial statements, the Company is a for-profit entity.

Accounting Standards include Australian Accounting Standards. Compliance with Australian Accounting Standards ensures that the financial statements and notes of the Company and the Consolidated entity comply with International Financial Reporting Standards ('IFRS').

The financial statements were authorised for issue by the directors on 13 August 2013.

3.2 Basis of preparation

The consolidated financial statements have been prepared on the basis of historical cost, except for the revaluation of certain financial instruments. Historical cost is based on the fair values of the consideration given in exchange for assets. All amounts are presented in Australian dollars, unless otherwise noted.

The Company is a company of the kind referred to in ASIC Class Order 98/0100, dated 10 July 1998, and in accordance with that Class Order amounts in the financial report are rounded off to the nearest thousand dollars, unless otherwise indicated.

The following significant accounting policies have been adopted in the preparation and presentation of the financial report:

3.3 Basis of consolidation

The consolidated financial statements incorporate the financial statements of the Company and entities controlled by the Company (its subsidiaries) (referred to as 'the Consolidated entity' in these financial statements). Control is achieved where the Company has the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities.

The results of subsidiaries acquired or disposed of during the year are included in the consolidated statement of comprehensive income from the effective date of acquisition or up to the effective date of disposal, as appropriate.

Where necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with those used by other members of the Consolidated entity.

All intra-group transactions, balances, income and expenses are eliminated in full on consolidation.

3.4 Business combinations

Acquisitions of subsidiaries and businesses are accounted for using the acquisition method. The consideration for each acquisition is measured at the aggregate of the fair values (at the date of exchange) of assets given, liabilities incurred or assumed, and equity instruments issued by the Consolidated entity in exchange for control of the acquiree. Acquisition-related costs are recognised in profit or loss as incurred.

Where applicable, the consideration for the acquisition includes any asset or liability resulting from a contingent consideration arrangement, measured at its acquisition-date fair value. Subsequent changes in such fair values are adjusted against the cost of acquisition where they qualify as measurement period adjustments (see below). All other subsequent changes in such fair values are adjusted against the cost of acquisition where they qualify as contingent consideration classified as an asset or liability are accounted for in accordance with relevant Standards. Changes in the fair value of contingent consideration classified as equity ware not recognised.

Where a business combination is achieved in stages, the Consolidated entity previously held interests in the acquired entity are remeasured to fair value at the acquisition date (i.e. the date the Consolidated entity attains control) and the resulting gain or loss, if any, is recognised in profit or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognised in other comprehensive income are reclassified to profit or loss, where such treatment would be appropriate if that interest were disposed of.

At the acquisition date, the identifiable assets acquired and the liabilities assumed are recognised at their fair value, except that:

- deferred tax assets or liabilities and liabilities or assets related to employee benefit arrangements are recognised and measured in accordance with AASB 112 Income Taxes and AASB 119 Employee Benefits respectively;
- liabilities or equity instruments related to the replacement by the Consolidated entity of an acquiree's share-based payment awards are measured in accordance with AASB 2 Share-based Payment; and
- assets (or disposal groups) that are classified as held for sale in accordance with AASB 5 Non-current Assets Held for Sale and Discontinued Operations are measured in accordance with that Standard.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Consolidated entity reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period (see below), or additional assets or liabilities are recognised, to reflect new information obtained about facts and circumstances that existed as of the acquisition date that, if known, would have affected the amounts recognised as of that date.

The measurement period is the period from the date of acquisition to the date the Consolidated entity obtains complete information about facts and circumstances that existed as of the acquisition date – and is subject to a maximum of one year.

3.5 Investments in associates

An associate is an entity over which the Consolidated entity has significant influence and that is neither a subsidiary nor an interest in a joint venture. Significant influence is the power to participate in the financial and operating policy decisions of the investee but has no control or joint control over those policies.

The results and assets and liabilities of associates are incorporated in these financial statements using the equity method of accounting, except when the investment is classified as held for sale, in which case it is accounted for in accordance with AASB 5 'Non-current Assets Held for Sale and Discontinued Operations'. Under the equity method, investments in associates are carried in the consolidated balance sheet at cost as adjusted for post-acquisition changes in the Consolidated entity's share of the net assets of the associate, less any impairment in the value of individual investments. Losses of an associate in excess of the Consolidated entity's interest in that associate (which includes any long-term interests that, in substance, form part of the Consolidated entity's net investment in the associate) are recognised only to the extent that the Consolidated entity has incurred legal or constructive obligations or made payments on behalf of the associate.

Any excess of the cost of acquisition over the Consolidated entity's share of the net fair value of the identifiable assets, liabilities and contingent liabilities of the associate recognised at the date of the acquisition is recognised as goodwill. The goodwill is included within the carrying amount of the investment and is assessed for impairment as part of that investment. Any excess of the Consolidated entity's share of the net fair value of the identifiable assets, liabilities and contingent liabilities over the cost of the acquisition, after reassessment, is recognised immediately in profit or loss.

Where a group entity transacts with an associate of the Consolidated entity, profits and losses are eliminated to the extent of the Consolidated entity's interest in the relevant associate.

3.6 Foreign currencies

The individual financial statements of each group entity are presented in its functional currency being the currency of the primary economic environment in which the entity operates (its functional currency). For the purpose of the consolidated financial statements, the results and financial position of each entity are expressed in Australian dollars ('$'), which is the functional currency of Domino's Pizza Enterprises Limited and the presentation currency for the consolidated financial statements.

In preparing the financial statements of the individual entities, transactions in currencies other than the entity's functional currency (foreign currencies) are recognised at the rates of exchange prevailing on the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Non-monetary items carried at fair value that are denominated in foreign currencies are retranslated at the rates prevailing on the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

Exchange differences are recognised in profit or loss in the period in which they arise except for:

- exchange differences on foreign currency borrowings relating to assets under construction for future productive use, which are included in the cost of those assets when they are regarded as an adjustment to interest costs on those foreign currency borrowings;
- exchange differences on transactions entered into in order to hedge certain foreign currency risks (see 3.24 below for hedge accounting policies); and
- exchange differences on monetary items receivable from or payable to a foreign operation for which settlement is neither planned or likely to occur, (therefore forming part of the net investment in a foreign operation), which are recognised initially in other comprehensive income and reclassified from equity to profit and loss on disposal or partial disposal of the net investment.

For the purpose of presenting the consolidated financial statements, the assets and liabilities of the Consolidated entity's foreign operations are expressed in Australian dollars using exchange rates prevailing at the end of the reporting period. Income and expense items are translated at the average exchange rates for the period, unless exchange rates fluctuated significantly during the period, in which case the exchange rates at the date of the transactions are used. Exchange differences arising, if any, are recognised in other comprehensive income and accumulated in equity (attributed to non-controlling interests as appropriate).

On disposal of a foreign operation (i.e. a disposal of the Consolidated entity's entire interest in a foreign operation, or a disposal involving loss of control over a subsidiary that includes a foreign operation, loss of joint control over a jointly controlled entity that includes a foreign operation, or loss of significant influence over an associate that includes a foreign operation), all of the accumulated exchange differences in respect of that operation attributable to the Consolidated entity are reclassified to profit or loss. Any exchange differences that have previously been attributed to non-controlling interests are derecognised, but they are not reclassified to profit or loss.

In the case of a partial disposal (i.e. no loss of control) of a subsidiary that includes a foreign operation, the proportionate share of accumulated exchange differences are re-attributed to non-controlling interests and are not recognised in profit or loss. For all other partial disposals (i.e. of associates or jointly controlled entities not involving a change of accounting basis), the proportionate share of the accumulated exchange differences is reclassified to profit or loss.

Goodwill and fair value adjustments arising on the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated at the closing rate.

3.7 Goods and services tax

Revenues, expenses and assets are recognised net of the amount of goods and services tax ("GST"), except:

(i) where the amount of GST incurred is not recoverable from the taxation authority, it is recognised as part of the cost of acquisition of an asset or as part of an item of expense; or

(ii) for receivables and payables which are recognised inclusive of GST.

The net amount of GST recoverable from, or payable to, the taxation authority is included as part of receivables or payables.

Cash flows are included in the cash flow statement on a gross basis. The GST component of cash flows arising from investing and financing activities which is recoverable from, or payable to, the taxation authority is classified within operating cash flows.

3.8 Revenue recognition

Revenue is measured at the fair value of the consideration received or receivable.

3.8.1 Sale of goods

Revenue from the sale of goods is recognised when the Consolidated entity has transferred to the buyer the significant risks and rewards of ownership of the goods.

3.8.2 Franchise income

Franchise income is recognised on an accrual basis in accordance with the substance of the relevant agreement.

3.8.3 Rendering of services

Service revenue relates primarily to store building services and is recognised by reference to the stage of completion of the contract.

3.8.4 Royalties

Royalty revenue is recognised on an accrual basis in accordance with the substance of the relevant agreement (provided that it is probable that the economic benefits will flow to the Consolidated entity and the amount of revenue can be measured reliably). Royalties determined on a time basis are recognised on a straight-line basis over the period of the agreement. Royalty arrangements that are based on sales and other measures are recognised by reference to the underlying arrangement.

3.8.5 Dividend and interest revenue

Dividend revenue from investments is recognised when the shareholder's right to receive payment has been established (provided that it is probable that the economic benefits will flow to the Consolidated entity and the amount of revenue can be reliably measured).

Interest revenue is recognised when it is probable that the economic benefits will flow to the Consolidated entity and the amount of revenue can be measured reliably. Interest revenue is accrued on a time basis, with reference to the principal outstanding and at the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount on initial recognition.

3.9 Share-based payments

Equity-settled share-based payments to employees and others providing similar services are measured at the fair value of the equity instrument at the grant date. The fair value is measured by use of a binomial model. The expected life used in the model has been adjusted, based on management's best estimate, for the effects of non-transferability, exercise restrictions, and behavioural considerations. Details regarding the determination of the fair value of equity-settled share-based transactions are set out in note 33.

The fair value determined at the grant date of the equity-settled share-based payments is expensed on a straight-line basis over the vesting period, based on the Consolidated entity's estimate of equity instruments that will eventually vest. At each reporting period, the Consolidated entity revises its estimate of the number of equity instruments expected to vest. The impact of the revision of the original estimates, if any, is recognised in profit or loss over the remaining vesting period, with corresponding adjustment to the equity-settled employee benefits reserve.

The policy described above is applied to all equity-settled share-based payments that were granted after 7 November 2002 that vested after 1 January 2005. No amount has been recognised in the financial statements in respect of the other equity-settled share-based payments.

Equity-settled share-based payment transactions with other parties are measured at the fair value of the goods and services received, except where the fair value cannot be estimated reliably, in which case they are measured at the fair value of the equity instruments granted, measured at the date the entity obtains the goods or the counterparty renders the service.

3.10 Taxation

Income tax expense represents the sum of the tax currently payable and deferred tax.

3.10.1 Current tax

The tax currently payable is based on taxable profit for the year. Taxable profit differs from profit as reported in the consolidated statement of comprehensive income because of items of income or expense that are taxable or deductible in other years and items that are never taxable or deductible. The Consolidated entity's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the end of this reporting period.

3.10.2 Deferred tax

Deferred tax is recognised on temporary differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit. Deferred tax liabilities are generally recognised for all taxable temporary differences. Deferred tax assets are generally for all deductible temporary differences to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilised. Such deferred tax assets and liabilities are not recognised if the temporary difference arises from goodwill or from the initial recognition of goodwill (other than in a business combination) or other assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit.

Deferred tax liabilities are recognised for taxable temporary differences associated with investments in subsidiaries and associates and interests in joint ventures except where the Consolidated entity is able to control the reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with these investments and interests are only recognised to the extent that it is probable that there will be sufficient taxable profits against which to utilise the benefits of the temporary differences they are expected to reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset is realised, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Consolidated entity expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they related to income taxes levied by the same taxation authority and the Consolidated entity intends to settle its current tax assets and liabilities on a net basis.

3.10.3 Current and deferred tax for the period

Current and deferred tax is recognised as an expense or income in the profit or loss, except when they relate to items that are recognised outside the profit or loss (whether in other comprehensive income or directly in equity), in which case the tax is also recognised outside the profit or loss, or where they arise from the initial accounting for a business combination. In the case of a business combination, the tax effect is included in the accounting for the business combination.

3.10.4 Tax consolidation

The Company and all its wholly-owned Australian resident entities are part of a tax consolidated group under Australian taxation law. Domino's Pizza Enterprises Limited is the head entity in the tax-consolidated group. Tax expense/income, deferred tax liabilities and deferred tax assets arising from temporary differences of the members of the tax-consolidated group are recognised in the separate financial statements of the members of the tax-consolidated group using the 'separate taxpayer within group approach' by reference to the carrying amounts in the separate financial statements of each entity and the tax values applying under tax consolidation. Current tax liabilities and assets and deferred tax assets arising from unused tax losses and relevant tax credits of the members of the tax-consolidated group are recognised by the Company (as head entity in the tax-consolidated group).

The entities in the tax-consolidated group have not entered into a tax sharing agreement or tax funding agreement. Income tax liabilities payable to the tax authorities in respect of the tax-consolidated group are recognised in the financial statements of the parent entity.

3.11 Cash and cash equivalents

Cash comprises cash on hand and demand deposits. Cash equivalents are short-term, highly liquid investments that are readily convertible to known amounts of cash, which are subject to an insignificant risk of changes in value and have a maturity of three months or less at the date of acquisition.

Bank overdrafts are shown within borrowings in current liabilities in the consolidated statement of financial position.

3.12 Financial assets

All financial assets are recognised and derecognised on trade date where the purchase or sale of a financial asset is under a contract whose terms require delivery of the financial asset within the timeframe established by the market concerned, and are initially measured at fair value, plus transaction costs, except for those financial assets classified as at fair value through profit or loss, which are initially measured at fair value.

Financial assets are classified into the following specified categories: financial assets 'at fair value through profit or loss' (FVTPL), 'held-to-maturity investments', 'available-for-sale' (AFS) 'financial assets', and 'loans and receivables'. The classification depends on the nature and purpose of the financial assets and is determined at the time of initial recognition.

3.12.1 Effective interest method

The effective interest method is a method of calculating the amortised cost of a debt instrument and of allocating interest income over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts (including all fees on points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the debt instrument, or (where appropriate) a shorter period, to the net carrying amount on initial recognition.

Income is recognised on an effective interest rate basis for debt instruments other than those financial assets as at FVTPL.

3.12.2 Financial assets at FVTPL

Financial assets are classified as at FVTPL when the financial asset is either held for trading or it is designated as at FVTPL.

A financial asset is classified as held for trading if:

- it has been acquired principally for the purpose of selling it in the near term; or
- on initial recognition it is a part of an identified portfolio of financial instruments that the Consolidated entity manages together and has a recent actual pattern of short-term profit-taking; or
- it is a derivative that is not designated and effective as a hedging instrument.

A financial asset other than a financial asset held for trading may be designated as at FVTPL upon initial recognition if:

- such designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise; or
- the financial asset forms part of a group of financial assets or financial liabilities or both, which is managed and its performance is evaluated on a fair value basis, in accordance with the Consolidated entity's documented risk management or investment strategy, and information about the grouping is provided internally on that basis; or
- it forms part of a contract containing one or more embedded derivatives, and AASB 139 Financial Instruments: Recognition and Measurement permits the entire combined contract (asset or liability) to be designated as at FVTPL.

Financial assets at FVTPL are stated at fair value, with any gains or losses arising on re-measurement recognised in profit or loss. The net gain or loss recognised in profit or loss incorporates any dividend or interest earned on the financial asset and is included in the 'other gains and losses' line item in the statement of comprehensive income. Fair value is determined in the manner described in note 32.

3.12.3 Held-to-maturity investments

Bills of exchange and debentures with fixed or determinable payments and fixed maturity dates where the Consolidated entity has the positive intent and ability to hold to maturity are classified as held-to-maturity investments. Held-to-maturity investments are recorded at amortised cost using the effective interest method less impairment, with revenue recognised on an effective yield basis.

3.12.4 Available-for-sale financial assets

Financial assets held by the Consolidated entity are classified as being AFS and are stated at fair value. Fair value is determined in the manner described in note 32. Gains and losses arising from changes in fair value are recognised directly in other comprehensive income and accumulated in the investments revaluation reserve, with the exception of impairment losses, interest calculated using the effective interest method, and foreign exchange gains and losses on monetary assets, which are recognised in profit or loss. Where the investment is disposed of or is determined to be impaired, the cumulative gain or loss previously accumulated in the investments revaluation reserve is reclassified to profit or loss.

Dividends on AFS equity instruments are recognised in profit and loss when the Consolidated entity's right to receive the dividends is established.

The fair value of AFS monetary assets denominated in a foreign currency is determined in that foreign currency and translated at the spot rate at the end of the reporting period. The foreign exchange gains and losses that are recognised in profit or loss are determined based on the amortised cost of the monetary asset. Other foreign exchange gains and losses are recognised in other comprehensive income.

3.12.5 Loans and receivables

Trade receivables, loans and other receivables that have fixed or determinable payments that are not quoted in an active market are classified as 'loans and receivables'. Loans and receivables are measured at amortised cost using the effective interest method less impairment. Interest income is recognised by applying the effective interest rate, except for short-term receivables when the recognition of interest would be immaterial.

NOTES TO THE FINANCIAL STATEMENTS CONTINUED

3.12.6 Impairment of financial assets

Financial assets, other than those at FVTPL, are assessed for indicators of impairment at the end of each reporting period. Financial assets are considered to be impaired where there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial asset, the estimated future cash flows of the investment have been affected.

For certain categories of financial asset, such as trade receivables, assets that are assessed not to be impaired individually are, in addition, assessed for impairment on a collective basis. Objective evidence of impairment for a portfolio of receivables could include the Consolidated entity's past experience of collecting payments, an increase in the number of delayed payments in the portfolio past the average credit period of 30 days, as well as observable changes in national or local economic conditions that correlate with default on receivables.

For financial assets carried at amortised cost, the amount of the impairment recognised is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the original effective interest rate.

The carrying amount of financial assets is reduced by the impairment loss directly for all financial assets with the exception of trade receivables, where the carrying amount is reduced through the use of an allowance account. When a trade receivable is considered uncollectible, it is written off against the allowance account. Subsequent recoveries of amounts previously written off are credited against the allowance account. Changes in the carrying amount of the allowance account are recognised in profit or loss.

When an AFS financial asset is considered to be impaired, cumulative gains or losses previously recognised in other comprehensive income are reclassified to profit or loss in the period.

With the exception of AFS equity instruments, if, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised, the previously recognised impairment loss is reversed through profit or loss to the extent the carrying amount of the investment at the date the impairment is reversed does not exceed what the amortised cost would have been had the impairment not been recognised.

In respect of AFS equity securities, impairment losses previously recognised in profit or loss are not reversed through profit or loss. Any increase in fair value subsequent to an impairment loss is recognised in other comprehensive income.

3.12.7 Derecognition of financial assets

The Consolidated entity derecognises a financial asset only when the contractual rights to the cash flows from the asset expire, or it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity. If the Consolidated entity neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Consolidated entity recognises its retained interest in the asset and an associated liability for amounts it may have to pay. If the Consolidated entity retains substantially all the risks and rewards of ownership of a transferred financial asset, the Consolidated entity continues to recognise the financial asset and also recognises a collateralised borrowing for the proceeds received.

3.13 Inventories

Inventories are stated at the lower of cost and net realisable value. Costs, including an appropriate portion of fixed and variable overhead expenses, are assigned to inventories by the method most appropriate to each particular class of inventory, with the majority being valued on a first in first out basis. Net realisable value represents the estimated selling price for inventories less all estimated costs of completion and costs necessary to make the sale.

3.14 Non-current assets held for sale

Non-current assets and disposal groups are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This condition is regarded as met only when the sale is highly probable and the asset (or disposal group) is available for immediate sale in its present condition. Management must be committed to the sale, which should be expected to qualify for recognition as a completed sale within one year from the date of classification.

When the Consolidated entity is committed to a sale plan involving the loss of control of a subsidiary, all of the assets and liabilities of that subsidiary are classified as held for sale when the criteria described above are met, regardless of whether the Consolidated entity will retain a non-controlling interest in its former subsidiary after the sale.

Non-current assets (and disposal groups) classified as held for sale are measured at the lower of their previous carrying amount and fair value less costs to sell.

3.15 Property, plant and equipment

Plant and equipment, leasehold improvements and equipment under finance leases are stated at cost less accumulated depreciation and impairment. Cost includes expenditure that is directly attributable to the acquisition of an item. In the event that settlement of all or part of the purchase consideration is deferred, cost is determined by discounting the amounts payable in the future to their present value as at the date of acquisition.

Depreciation is provided on property, plant and equipment excluding land. Depreciation is calculated on a straight-line basis so as to write off the cost of each asset over its expected useful life to its estimated residual value. Leasehold improvements are depreciated over the period of the lease or estimated useful life, whichever is the shorter, using the straight-line method. The estimated useful lives, residual values and depreciation method are reviewed at the end of each annual reporting period, with the effect of any changes recognised on a prospective basis.

Assets held under finance leases are depreciated over their expected useful lives on the same basis as owned assets or, where shorter, the term of the relevant lease.

The gain or loss arising on disposal or retirement of an item of property, plant and equipment is determined as the difference between the sales proceeds and the carrying amount of the asset and is recognised in profit or loss.

The following useful lives are used in the calculation of depreciation:

• Plant and equipment	1 – 10 years
• Equipment under finance leases	3 – 10 years

3.16 Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalisation.

All other borrowing costs are recognised in profit or loss in the period in which they are incurred.

3.17 Leasing

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards incidental to ownership of the leased asset to the lessee. All other leases are classified as operating leases.

3.17.1 Consolidated entity as lessee

Assets held under finance leases are initially recognised as assets of the Consolidated entity at their fair value at the inception date of the lease or, if lower, at the present value of the minimum lease payments. The corresponding liability to the lessor is included in the statement of financial position as a finance lease obligation.

Lease payments are apportioned between finance expenses and reduction of the lease obligation so as to achieve a constant rate of interest on the remaining balance of the liability. Finance expenses are recognised immediately in profit or loss, unless they are directly attributable to qualifying assets, in which case they are capitalised in accordance with the Consolidated entity's general policy on borrowing costs (see 3.16 above). Contingent rentals are recognised as an expense in the periods in which they are incurred.

Finance leased assets are amortised on a straight-line basis over the estimated useful life of the asset.

Operating lease payments are recognised as an expense on a straight-line basis over the lease term, except where another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed. Contingent rentals arising under operating leases are recognised as an expense in the period in which they are incurred.

In the event that lease incentives are received to enter into operating leases, such incentives are recognised as a liability. The aggregate benefits of incentives are recognised as a reduction of rental expense on a straight-line basis, except where another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed.

3.18 Goodwill

At cost less accumulated impairment losses, if any:

Goodwill arising in a business combination is recognised as an asset at the date that the control is acquired (the acquisition date). Goodwill is measured as the excess of the sum of the consolidation transferred, the amount of any non-controlling interests in the acquiree, and the fair value of the acquirer's previously held equity interest in the acquiree (if any) over the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities incurred.

If, after reassessment, the Consolidated entity's interest in the fair value of the acquiree's identifiable net assets exceeds the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree and the fair value of the acquirer's previously held equity interest in the acquiree (if any), the excess is recognised immediately in profit or loss as a bargain purchase gain. On disposal of a subsidiary, the attributable amount of goodwill is included in the determination of the profit or loss on disposal.

Review of potential impairment:

Goodwill is not amortised but is reviewed for impairment at least annually. For the purpose of impairment testing, goodwill is allocated to each of the Consolidated entity's cash-generating units expected to benefit from the synergies of the combination. Cash-generating units to which goodwill has been allocated are tested for impairment annually or more frequently when there is an indication that the unit may be impaired. If the recoverable amount of the cash-generating unit is less than the carrying amount, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit pro-rata on the basis of the carrying amount of each asset in the unit. An impairment loss recognised for goodwill is not reversed in a subsequent period.

3.19 Intangible assets

3.19.1 Intangible assets acquired separately

Intangible assets acquired separately are carried at cost less accumulated amortisation and accumulated impairment losses. Amortisation is recognised on a straight-line basis over their estimated useful lives. The estimated useful life and amortisation method are reviewed at the end of each annual reporting period, with the effect of any changes in estimates being accounted for on a prospective basis.

3.19.2 Internally-generated intangible assets – research and development expenditure

Expenditure on research activities is recognised as an expense in the period in which it is incurred.

An internally-generated intangible asset arising from development (or from the development phase of an internal project) is recognised if, and only if, all of the following have been demonstrated:

- the technical feasibility of completing the intangible asset so that it will be available for use or sale;
- the intention to complete the intangible asset and use or sell it;
- the ability to use or sell the intangible asset;
- how the intangible asset will generate probable future economic benefits;
- the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and
- the ability to measure reliably the expenditure attributable to the intangible asset during its development.

The amount initially recognised for internally-generated intangible assets is the sum of the expenditure incurred from the date when the intangible asset first meets the recognition criteria listed above. Where no internally-generated intangible asset can be recognised, development expenditure is recognised in profit or loss in the period in which it is incurred.

Subsequent to initial recognition, internally-generated intangible assets are reported at cost less accumulated amortisation and accumulated impairment losses, on the same basis as intangible assets acquired separately.

The following useful lives are used in the calculation of amortisation:

• Capitalised development intangibles	2 – 10 years
• Licenses	2 – 10 years

3.19.3 Intangible assets acquired in a business combination

Intangible assets acquired in a business combination are identified and recognised separately from goodwill and are initially recognised at their fair value at the acquisition date (which is regarded as their cost).

Subsequent to initial recognition, intangible assets acquired in a business combination are reported at cost less accumulated amortisation and accumulated impairment losses, on the same basis as intangible assets acquired separately.

3.20 Impairment of tangible and intangible assets excluding goodwill

At the end of each reporting period, the Consolidated entity reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). Where it is not possible to estimate the recoverable amount of an individual asset, the Consolidated entity estimates the recoverable amount of the cash-generating unit to which the asset belongs. Where a reasonable and consistent basis of allocation can be identified, corporate assets are also allocated to individual cash-generating units, or otherwise they are allocated to the smallest group of cash-generating units for which a reasonable and consistent allocation basis can be identified.

Intangible assets with indefinite useful lives and intangible assets not yet available for use are tested for impairment annually and whenever there is an indication that the asset may be impaired.

Recoverable amount is the higher of fair value less costs to sell and value in use. In assessing the value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (cash-generating unit) is reduced to its recoverable amount. An impairment loss is recognised immediately in profit or loss, unless the relevant asset is carried at the revalued amount, in which case the impairment loss is treated as a revaluation decrease (see 3.15 above).

Where an impairment loss subsequently reverses, the carrying amount of the asset (cash-generating unit) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset (cash-generating unit) in prior years. A reversal of an impairment loss is recognised immediately in profit or loss, unless the relevant asset is carried at fair value, in which case the reversal of the impairment loss is treated as a revaluation increase (see 3.15 above).

3.21 Employee benefits

A liability is recognised for benefits accruing to employees in respect of wages and salaries, annual leave, long service leave, and sick leave when it is probable that settlement will be required and they are capable of being measured reliably.

Liabilities recognised in respect of short-term employee benefits, are measured at their nominal values using the remuneration rate expected to apply at the time of settlement.

Liabilities recognised in respect of long term employee benefits are measured as the present value of the estimated future cash outflows to be made by the Consolidated entity in respect of services provided by employees up to reporting date.

Contributions to defined contribution superannuation plans are expensed when employees have rendered service entitling them to the contributions.

3.22 Provisions

Provisions are recognised when the Consolidated entity has a present obligation (legal or constructive) as a result of a past event, it is probable that the Consolidated entity will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at reporting date, taking into account the risks and uncertainties surrounding the obligation. Where a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows.

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, the receivable is recognised as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably.

3.22.1 Onerous contracts

Present obligations arising under onerous contracts are recognised and measured as a provision. An onerous contract is considered to exist where the Consolidated entity has a contract under which the unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received under it.

3.22.2 Make good obligations

A provision is recognised for the make good obligations in respect of restoring sites to their original condition when the premises are vacated. Management has estimated the provision based on historical data in relation to store closure numbers and costs, as well as future trends that could differ from historical amounts.

3.22.3 Contingent liabilities acquired in a business combination

Contingent liabilities acquired in a business combination are initially measured at fair value at the date of acquisition. At subsequent reporting periods, such contingent liabilities are measured at the higher of the amount that would be recognised in accordance with AASB 137 'Provisions, Contingent Liabilities and Contingent Assets' and the amount initially recognised less cumulative amortisation recognised in accordance with AASB 118 'Revenue'.

3.23 Financial liability and Equity Instruments

3.23.1 Classification as debt and equity

Debt and equity instruments are classified as either liabilities or as equity in accordance with the substance of the contractual arrangement.

3.23.2 Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. Equity instruments issued by the Consolidated entity are recorded at the proceeds received, net of direct issue costs.

3.23.3 Financial guarantee contract liabilities

Financial guarantee contract liabilities are measured initially at their fair values and, if not designated as at FVTPL, are subsequently at the higher of:

- the amount of the obligation under the contract, as determined in accordance with AASB 137 'Provisions, Contingent Liabilities and Contingent Assets'; and
- the amount initially recognised less, where appropriate, cumulative amortisation in accordance with the revenue recognition policies set out in 3.8 above.

3.23.4 Financial liabilities

Financial liabilities are classified as either financial liabilities 'at FVTPL' or 'other financial liabilities'.

3.23.5 Financial liabilities at FVTPL

Financial liabilities are classified as at FVTPL when the financial liability is either held for trading or it is designated as at FVTPL.

A financial liability is classified as held for trading if:

- it has been acquired principally for the purpose of repurchasing in the near term; or
- on initial recognition it is a part of an identified portfolio of financial instruments that the Consolidated entity manages together and has a recent actual pattern of short-term profit-taking; or
- it is a derivative that is not designated and effective as a hedging instrument.

A financial liability other than a financial liability held for trading is designated as at FVTPL upon initial recognition if:

- such designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise; or
- the financial liability forms part of a group of financial assets or financial liabilities or both, which is managed and its performance evaluated on a fair value basis, in accordance with the Consolidated entity's documented risk management or investment strategy, and information about the grouping is provided internally on that basis; or
- it forms part of a contract containing one or more embedded derivatives, and AASB 139 'Financial Instruments: Recognition and Measurement' permits the entire combined contract (asset or liability) to be designated as at FVTPL.

Financial liabilities at FVTPL are stated at fair value, with any gains or losses arising on re-measurement recognised in profit or loss. The net gain or loss recognised in profit or loss incorporates any interest paid on the financial liability and is included in the 'other gains and losses' line item in the statement of comprehensive income. Fair value is determined in the manner described in note 32.

3.23.6 Other financial liabilities

Other financial liabilities, including borrowings, are initially measured at fair value, net of transaction costs.

Other financial liabilities are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective yield basis.

The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period.

3.23.7 Derecognition of financial liabilities

The Consolidated entity derecognises financial liabilities when, and only when, the Consolidated entity's obligations are discharged, cancelled or they expire.

3.24 Derivative financial instruments

The Consolidated entity enters into a variety of derivative financial instruments to manage its exposure to interest rate and foreign exchange rate risk, including foreign exchange forward contracts and interest rate swaps. Further details of derivative financial instruments are disclosed in note 32.

Derivatives are initially recognised at fair value at the date a derivative contract is entered into and are subsequently remeasured to their fair value at each reporting period. The resulting gain or loss is recognised in profit or loss immediately unless the derivative is designated and effective as a hedging instrument, in which event, the timing of the recognition in profit or loss depends on the nature of the hedge relationship. The Consolidated entity designates certain derivatives as either hedges of the fair value of recognised assets or liabilities or firm commitments (fair value hedges), hedges of highly probable forecast transactions or hedges of foreign currency risk of firm commitments (cash flow hedges), or hedges of net investments in foreign operations.

A derivative with a positive fair value is recognised as a financial asset; a derivative with a negative fair value is recognised as a financial liability. A derivative is presented as a non-current asset or a non-current liability if the remaining maturity of the instrument is more than 12 months and it is not expected to be realised or settled within 12 months. Other derivatives are presented as current assets or current liabilities.

3.24.1 Hedge accounting

The Consolidated entity designates certain hedging instruments, which include derivatives, embedded derivatives and non-derivatives, in respect of foreign currency risk, as either fair value hedges, cash flow hedges, or hedges of net investments in foreign operations. Hedges of foreign exchange risk on firm commitments are accounted for as cash flow hedges.

At the inception of the hedge relationship, the entity documents the relationship between the hedging instrument and hedged item, along with its risk management objectives and its strategy for undertaking various hedge transactions. Furthermore, at the inception of the hedge and on an ongoing basis, the Consolidated entity documents whether the hedging instrument that is used in a hedging relationship is highly effective in offsetting changes in fair values or cash flows of the hedged item.

Note 32 sets out details of the fair values of the derivative instruments used for hedging purposes.

3.24.2 Fair value hedge

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recognised in profit or loss immediately, together with any changes in the fair value of the hedged item that is attributable to the hedged risk. The change in the fair value of the hedging instrument and the change in the hedged item attributable to the hedged risk are recognised in the line of the statement of comprehensive income relating to the hedged item.

Hedge accounting is discontinued when the Consolidated entity revokes the hedging relationship, when the hedging instrument expires or is sold, terminated, or exercised, or when it no longer qualifies for hedge accounting. The fair value adjustment to the carrying amount of the hedged item arising from the hedged risk is amortised to profit or loss from that date.

3.24.3 Cash flow hedge

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges are recognised in other comprehensive income. The gain or loss relating to the ineffective portion is recognised immediately in profit or loss, and is included in the 'other gains and losses' line item.

Amounts previously recognised in other comprehensive income and accumulated in equity are reclassified to profit or loss in the periods when the hedged item is recognised in profit or loss in the same line of the statement of comprehensive income as the recognised hedged item. However, when the forecast transaction that is hedged results in the recognition of a non-financial asset or a non-financial liability, the gains and losses previously deferred in equity are transferred from equity and included in the initial measurement of the cost of the asset or liability.

Hedge accounting is discontinued when the Consolidated entity revokes the hedging relationship, when the hedging instrument expires or is sold, terminated, or exercised, or no longer qualifies for hedge accounting. Any gains or losses accumulated in equity at that time remains in equity and is recognised when the forecast transaction is ultimately recognised in profit or loss. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was deferred in equity is recognised immediately in profit or loss.

3.24.4 Hedges in net investments in foreign operations

Hedges of net investments in foreign operations are accounted for similarly to cash flow hedges. Any gain or loss on the hedging instrument relating to the effective portion of the hedge is recognised in other comprehensive income and accumulated in the foreign currency translation reserve. The gain or loss relating to the ineffective portion is recognised immediately in profit or loss and included in the 'other gains and losses' line item.

Gains and losses on hedging instrument relating to the effective portion of the hedge accumulated in the foreign currency translation reserve are reclassified to profit or loss in the same way as exchange differences relating to the foreign operation as described at 3.6 above.

4. CRITICAL ACCOUNTING JUDGEMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY

In the application of the Consolidated entity's accounting policies, which are described in note 3, the directors are required to make judgements, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimates are revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

4.1 Critical judgements in applying the entity's accounting policies

There are no critical judgements, apart from those involving estimations (Refer note 4.2), that directors have made in the process of applying the Consolidated entity's accounting.

4.2 Key sources of estimation uncertainty

The following are the key assumptions concerning the future, and other key sources of estimation of uncertainty at the end of the reporting period, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year:

4.2.1 Impairment of goodwill

Determining whether goodwill is impaired requires an estimation of the value in use of the cash-generating units to which goodwill has been allocated. The value in use calculation requires the entity to estimate the future cash flows expected to arise from the cash-generating unit and a suitable discount rate in order to calculate present value.

The carrying amount of goodwill at the end of the reporting period was $57,113 thousand (2012: $46,927 thousand) as per note 19.

4.2.2 Fair value of derivatives and other financial instruments

As described in note 32, management uses their judgement in selecting an appropriate valuation technique for financial instruments not quoted in an active market. Valuation techniques commonly used by market practitioners are applied. For derivative financial instruments, assumptions are made based on quoted market rates adjusted for specific features of the instrument. Other financial instruments are valued using a discounted cash flow analysis based on assumptions supported, where possible, by observable market prices or rates. Details of assumptions are provided in note 32.

4.2.3 Employee benefits

Management judgement is applied in determining the following key assumptions used in the calculation of long service leave at balance date:

- future increases in wages and salaries;
- future on-cost rates; and
- experience of employee departures and period of service.

Refer to note 25 for further details on the key management judgements used in the calculation of long service leave.

4.2.4 Useful lives of other intangibles

As described in note 3.19.2, management uses their judgement to assess the useful lives of capitalised development intangibles and licenses. This is based on the estimated life of the asset and future economic benefits of the asset. The majority of these assets have a life of between 2 – 10 years.

4.2.5 Impairment of loans and receivables

As described in note 3.12.6, management assesses impairment based on objective evidence including the Consolidated entity's past experience of collecting payments, an increase in the number of delayed payments in the portfolio past the average credit period of 30 days, as well as observable changes in national or local economic conditions that correlate with default on loans and receivables.

5. REVENUE

The following is an analysis of the Consolidated entity's revenue for the year, from continuing operations (excluding other revenue – see note 7).

	2013 $'000	2012 $'000
Revenue from the sale of goods	182,000	162,337
Revenue from rendering of services	6,631	6,129
	188,631	168,466

6. SEGMENT INFORMATION

6.1 Products and services from which reportable segments derive their revenues

The Group has identified its operating segments on the basis of internal reports about components of the Consolidated entity that are regularly reviewed by the chief operating decision maker in order to allocate resources to the segment and to assess its performance.

Information reported to the Consolidated entity's Chief Executive Officer for the purpose of resource allocation and assessment of performance is specifically focused on the geographical location the Consolidated entity operates in. The Consolidated entity's reportable segments under AASB 8 are therefore as follows:

- Australia / New Zealand
- Europe

6.2 Segment revenues and results

The following is an analysis of the Consolidated entity's revenue and results from continuing operations by reportable segment.

	YEAR ENDED 30 JUNE 2013			YEAR ENDED 1 JULY 2012		
	AUSTRALIA / NEW ZEALAND $'000	EUROPE $'000	CONSOLIDATED $'000	AUSTRALIA / NEW ZEALAND $'000	EUROPE $'000	CONSOLIDATED $'000
Continuing operations						
Revenue	174,235	120,655	294,890	168,524	96,363	264,887
EBITDA	47,722	6,240	53,962	41,841	6,283	48,124
Depreciation and amortisation	(7,942)	(4,850)	(12,792)	(6,766)	(3,263)	(10,029)
EBIT	39,780	1,390	41,170	35,075	3,020	38,095
Interest			(405)			(451)
Net profit before tax			40,765			37,644

Revenue reported above represents revenue generated from external customers and franchisees.
There were no inter-segment sales during the period (2012: Nil).

The accounting policies of the reportable segments are the same as the Consolidated entity's policies described in note 3. Segment net profit before tax represents the profit earned by each segment using the measure reported to the chief operating decision maker for the purpose of resource allocation and assessment of segment performance.

NOTES TO THE FINANCIAL STATEMENTS CONTINUED

6.3 Segment assets and liabilities

Segment assets

	2013 $'000	2012 $'000
Australia / New Zealand	111,170	121,956
Europe	78,581	53,363
Total segment assets	**189,751**	175,319
Unallocated assets	-	-
Consolidated assets	**189,751**	175,319

Segment liabilities

	2013 $'000	2012 $'000
Australia / New Zealand	(53,525)	(40,447)
Europe	(33,644)	(17,831)
Total segment liabilities	**(87,169)**	(58,278)
Unallocated liabilities	-	-
Consolidated liabilities	**(87,169)**	(58,278)

For the purposes of monitoring segment performance and allocating resources between segments:

- all assets are allocated to reportable segments. Goodwill is allocated to reportable segments as described in note 19.1. Assets used jointly by reportable segments are allocated on the basis of the revenue earned by individual reportable segments; and
- all liabilities are allocated to reportable segments. Liabilities for which reportable segments are jointly liable are allocated in proportion to segment assets.

6.4 Other segment information

	DEPRECIATION AND AMORTISATION		ADDITIONS TO NON-CURRENT ASSETS	
	2013 $'000	2012 $'000	2013 $'000	2012 $'000
Australia / New Zealand	7,942	6,766	35,933	25,089
Europe	4,850	3,263	17,421	11,919
	12,792	10,029	**53,354**	37,008

6.5 Geographical information

The Consolidated entity operates in two principal geographical areas – Australia (country of domicile)/New Zealand and Europe.

The Consolidated entity's revenue from continuing operations from external customers and franchisees can be found in note 6.2. The non-current assets by geographical location are detailed below.

	NON-CURRENT ASSETS	
	2013 $'000	2012 $'000
Australia / New Zealand	81,259	69,231
Europe	48,109	32,090
	129,368	101,321

6.6 Information about major customers

There are no major customers that contribute an amount that is 10% or greater of total revenue.

NOTES TO THE FINANCIAL STATEMENTS CONTINUED

7. OTHER REVENUE

	2013 $'000	2012 $'000
Interest revenue:		
Bank deposits	495	1,065
Other loans and receivables	607	700
	1,102	1,765
Rental revenue:		
Store asset rental revenue	2,172	2,244
Royalties	46,886	45,072
Franchise services	20,803	17,793
Other revenue	35,296	29,527
	106,259	96,421

The following is an analysis of other revenue earned on assets by category of asset:

	2013 $'000	2012 $'000
Loans and receivables (including cash and bank balances)	1,102	1,765
Other income earned on non-financial assets	105,157	94,656
	106,259	96,421

8. OTHER GAINS AND LOSSES

	2013 $'000	2012 $'000
Net gain on disposal of property, plant & equipment, goodwill and other non-current assets	2,979	2,220
Net foreign exchange gains	585	941
	3,564	3,161

No other gains or losses have been recognised in respect of loans and receivables other than as disclosed in note 7 and impairment losses recognised/reversed in respect of trade and other receivables (see note 11 and 13).

9. FINANCE COSTS

	2013 $'000	2012 $'000
Interest on commercial bill and loans	399	434
Interest on obligations under finance leases	6	5
Other interest expense	-	12
	405	451

The weighted average interest rate on funds borrowed generally is 2.6% per annum (2012: 3.0%).

NOTES TO THE FINANCIAL STATEMENTS CONTINUED

11. PROFIT FOR THE YEAR FROM CONTINUING OPERATIONS

Profit for the year from continuing operations is attributable to:

	2013 \$'000	2012 \$'000
Owners of Company	**28,657**	26,936

Profit for the year from continuing operations has arrived at after charging (crediting):

	2013 \$'000	2012 \$'000
11.1 Impairment losses on financial assets		
Impairment of trade receivables	**(314)**	(869)
11.2 Depreciation and amortisation expenses		
Depreciation of property, plant and equipment	(7,868)	(6,938)
Amortisation of intangible and other assets	(4,924)	(3,091)
	(12,792)	(10,029)
11.3 Employee benefits expense		
Employee benefit expense:		
Post employment benefits:		
Defined contribution plans	(3,937)	(3,606)
Share-based payments (see note 33):		
Equity settled share-based payments	(635)	(320)
Other employee benefits	(71,688)	(61,338)
Total employee benefits expense	**(76,260)**	(65,264)

12. EARNINGS PER SHARE

	2013 CENTS PER SHARE	2012 CENTS PER SHARE
Basic earnings per share	40.9	38.9
Diluted earnings per share	40.5	38.4

12.1 Basic earnings per share

The earnings and weighted average number of ordinary shares used in the calculation of basic earnings per share are as follows:

	2013 \$'000	2012 \$'000
Profit for the year attributable to owners of the Company	28,657	26,936
Earnings used in the calculation of basic EPS from continuing operations	28,657	26,936

	2013 \$'000	2012 \$'000
Weighted average number of ordinary shares for the purposes of basic earnings per share (all measures)	70,132	69,285

12.2 Diluted earnings per share

The earnings used in the calculation of diluted earnings per share are as follows:

	2013	2012
Profit for the year attributable to owners of the Company	28,657	26,936
Earnings used in the calculation of diluted EPS from continuing operations	28,657	26,936

The weighted average number of ordinary shares for the purposes of diluted earnings per share reconciles to the weighted average number of ordinary shares used in the calculation of basic earnings per share as follows:

	2013 NO. '000	2012 NO. '000
Weighted average number of ordinary shares used in the calculation of basic EPS	70,132	69,285
Shares deemed to be issued for no consideration in respect of:		
Options on issue	709	828
Weighted average number of ordinary shares used in the calculation of diluted EPS (all measures)	**70,841**	**70,113**

NOTES TO THE FINANCIAL STATEMENTS CONTINUED

13. TRADE AND OTHER RECEIVABLES

	2013 $'000	2012 $'000
Trade receivables	27,010	22,919
Allowance for doubtful debts	(3,413)	(3,275)
	23,597	19,644
Other receivables	2,815	1,374
	26,412	21,018

13.1 Trade receivables

Trade receivables disclosed above are classified as loans and receivables and are therefore measured at amortised cost.

The average credit period on sales of goods and rendering of services is 30 days. No interest is charged on the outstanding balance. An allowance has been made for estimated irrecoverable amounts from the past sale of goods and rendering of services, determined by reference to past default experience. Trade receivables 60 days and over are provided for based on the estimated irrecoverable amounts from the sale of goods and rendering of services, determined by reference to past default experience.

Before accepting any new franchisees and business partners, the Consolidated entity uses a system to assess the potential franchisee's and business partner's credit quality and defines credit limits. Limits attributed to franchisees and business partners are reviewed twice a year.

Included in the Consolidated entity's trade receivables balance are debtors with a carrying amount of $2,882 thousand (2012: $1,716 thousand), which are past due at the reporting date for which the Consolidated entity has not provided as there has not been a significant change in credit quality and the amounts are still considered recoverable. The Consolidated entity does not hold any collateral over these balances.

Ageing of receivables that are past due but not impaired

	2013 $'000	2012 $'000
30 - 60 days	583	557
60 - 90 days	109	181
90 days and over	2,190	978
Total	2,882	1,716

Movement in the allowance for doubtful debts

	2013 $'000	2012 $'000
Balance at the beginning of the year	3,275	4,958
Impairment losses recognised on receivables	425	1,038
Amounts written off as uncollectible	(459)	(1,323)
Amounts recovered during the year	(236)	(1,050)
Impairment losses reversed	-	-
Effect of foreign currency	408	(348)
Balance at the end of the year	3,413	3,275

In determining the recoverability of a trade receivable, the Consolidated entity considers any change in the credit quality of the trade receivable from the date credit was initially granted up to the reporting date. The concentration of credit risk is limited due to the customer base being large and unrelated. Accordingly, the directors believe that there is no further allowance required in excess of the allowance for doubtful debts.

Included in the allowance for doubtful debts are individually impaired trade receivables with a balance of $3,413 thousand (2012: $3,275 thousand) for the Consolidated entity. The impairment recognised represents the difference between the carrying amount of these trade receivables and the present value of the expected recoverable proceeds. The Consolidated entity does not hold any collateral over these balances.

Ageing of impaired trade receivables

	2013 $'000	2012 $'000
0 - 30 days	42	97
30 - 60 days	1	46
60 - 90 days	16	14
90 days and over	3,354	3,118
Total	3,413	3,275

14. OTHER FINANCIAL ASSETS

	2013 $'000	2012 $'000
Investments carried at fair value:		
Non-current		
Other	8	8
	8	8
Loans carried at amortised cost:		
Current		
Loans to franchisees (i)	1,286	2,449
	1,286	2,449
Non-current		
Loans to franchisees (i)	5,014	6,407
Allowance for doubtful loans	(910)	(969)
	4,104	5,438
Financial guarantee contracts:		
Non-current		
Financial guarantee receivable	303	252
	303	252
	5,701	8,147
Current	1,286	2,449
Non-current	4,415	5,698
	5,701	8,147

(i) Before providing any new loans to franchisees, the Consolidated entity reviews the potential franchisee's credit quality, which is determined by reviewing a business plan and the projected future cash flows for that store, to ensure the franchisee is able to meet its interest repayments on the loan. On average the interest charged is based on the Westpac Interest Loan Rate ('WILR') plus 3% (2012 3%) margin in Australia and New Zealand the average interest charged in France is 5.7% (2012 5.7%) and in The Netherlands is 7.6% (2012 7.6%).

Included in the Consolidated entity's balance are loans to franchisees with a carrying amount of $910 thousand (2012: $969 thousand), which are past due at reporting date of which the Consolidated entity has provided for these amounts. The Consolidated entity holds the store assets as collateral over these balances.

	2013 $'000	2012 $'000
Franchisee Loans	6,300	8,856
Allowance for doubtful loans	(910)	(969)
	5,390	7,887

In determining the recoverability of the loans to franchisees, the Consolidated entity considers any amount that has been outstanding at reporting date. Accordingly, management believe that there is no further allowance required in excess of the allowances for doubtful loans.

Included in the allowance for the loans are individually impaired loans to franchisees with a balance of $910 thousand (2012: $969 thousand) for the Consolidated entity. The impairment recognised represents the difference between the carrying amount of these loan balances and the present value of the expected recoverable proceeds. The Consolidated entity holds collateral of the stores assets over these balances.

NOTES TO THE FINANCIAL STATEMENTS CONTINUED

Ageing of loans to franchisees

	2013 $'000	2012 $'000
Amounts not yet due	5,390	7,887
	5,390	7,887

Movement in allowance for doubtful loans

	2013 $'000	2012 $'000
Balance at the beginning of the year	969	59
Impairment losses recognised on loans	30	929
Amounts written off as uncollectible	-	-
Impairment losses reversed	(136)	-
Effect of foreign currency	47	(19)
Balance at the end of the year	910	969

15. INVENTORIES

	2013 $'000	2012 $'000
Raw materials	520	558
Finished goods	6,165	5,148
	6,685	5,706

There are no inventories (2012: $nil) expected to be recovered after more than 12 months.

16. NON-CURRENT ASSETS CLASSIFIED AS HELD FOR SALE

Asset held for sale

	2013 $'000	2012 $'000
Commissary Property – The Netherlands	803	704
	803	704

This land is currently listed for sale with a broker in The Netherlands and is included in the European Operating Segment.

17. SUBSIDIARIES

Details of the Company's subsidiaries at 30 June 2013 are as follows:

NAME OF ENTITY	PLACE OF INCORPORATION AND OPERATION	PORTION OF OWNERSHIP INTEREST AND VOTING POWER HELD 2013 %	2012 %
Ashbourke Pty Ltd (i)	Australia	100%	100%
Domino's Development Fund Pty Ltd (i)	Australia	100%	100%
Hot Cell Pty Ltd (i)	Australia	100%	100%
MFT – DPA JV Nominee Pty Ltd	Australia	100%	100%
Reel (NT) Pty Ltd (i)	Australia	100%	100%
Shear Pizza Pty Ltd (i)	Australia	100%	100%
Silvio's Dial-a-Pizza Pty Ltd (i)	Australia	100%	100%
Twenty/Twenty Pizza Pty Ltd (i)	Australia	100%	100%
Twenty/Twenty Pizza Pty Ltd & Domino's Pizza Australia Pty Ltd Partnership (i)	Australia	100%	100%
Nisco Trading Pty Ltd (i) Refer to note 36	Australia	100%	n/a
Domino's Pizza New Zealand Limited	New Zealand	100%	100%
DPH NZ Holdings Limited	New Zealand	100%	100%
DPEU Holdings S.A.S.	France	100%	100%
Domino's Pizza France S.A.S.	France	100%	100%
DPFC S.A.R.L.	France	100%	100%
HVM Pizza S.A.R.L.	France	100%	100%
Domino's Pizza Europe B.V.	The Netherlands	100%	100%
Domino's Pizza Netherlands B.V.	The Netherlands	100%	100%
DOPI Vastgoed B.V.	The Netherlands	100%	100%
Domino's Pizza Corporate Stores and Distribute B.V.	The Netherlands	100%	100%
Domino's Pizza Belgium S.P.R.L.	Belgium	100%	100%
Catering Service & Supply Pty Ltd	Australia	100%	100%
Eximus S.A.R.L.	France	100%	100%
Bacalan S.A.R.L.	France	100%	100%

(i) This entity is a member of the tax-consolidated group where Domino's Pizza Enterprises Limited is the head entity within the tax-consolidated group.

18. PROPERTY, PLANT AND EQUIPMENT

	2013 $'000	2012 $'000
Cost	72,452	59,905
Accumulated depreciation and impairment	(22,759)	(24,874)
	49,693	35,031

	2013 $'000	2012 $'000
Plant and equipment	49,613	34,927
Equipment under finance lease	80	104
	49,693	35,031

	PLANT & EQUIPMENT AT COST $'000	EQUIPMENT UNDER FINANCE LEASE AT COST $'000	TOTAL $'000
Cost			
Balance at 3 July 2011	58,906	142	59,048
Additions	17,658	-	17,658
Disposals	(18,408)	-	(18,408)
Acquisitions through business combinations (note 36)	3,228	-	3,228
Reclassification	(161)	-	(161)
Net foreign currency exchange differences	(1,460)	-	(1,460)
Balance at 1 July 2012	59,763	142	59,905
Additions	25,037	-	25,037
Disposals	(21,596)	-	(21,596)
Acquisitions through business combinations (note 36)	5,224	-	5,224
Reclassification	(30)	-	(30)
Net foreign currency exchange differences	3,912	-	3,912
Balance at 30 June 2013	72,310	142	72,452
Accumulated depreciation and impairment			
Balance at 3 July 2011	(24,656)	(14)	(24,670)
Disposals	6,198	-	6,198
Depreciation expense	(6,914)	(24)	(6,938)
Reclassification	161	-	161
Net foreign currency exchange differences	375	-	375
Other expensed items	-	-	-
Balance at 1 July 2012	(24,836)	(38)	(24,874)
Disposals	11,034	-	11,034
Depreciation expense	(7,844)	(24)	(7,868)
Reclassification	32	-	32
Net foreign currency exchange differences	(1,083)	-	(1,083)
Other expensed items	-	-	-
Balance at 30 June 2013	(22,697)	(62)	(22,759)

There was no depreciation during the period that was capitalised as part of the cost of other assets.

18.1 Assets pledged as security

In accordance with the security arrangements of liabilities, as disclosed in note 23 to the financial statements, all non-current assets of the Consolidated entity, except goodwill and deferred tax assets, have been pledged as security. The holder of the security does not have the right to sell or re-pledge the assets other than in an event of default.

The Consolidated entity does not hold title to the equipment under finance lease pledged as security.

19. GOODWILL

	2013 $'000	2012 $'000
Cost	57,113	46,927
Accumulated impairment losses	-	-
	57,113	46,927

	2013 $'000	2012 $'000
Cost		
Balance at beginning of financial year	46,927	47,465
Additional amounts recognised from business combinations occurring during the period (note 36)	13,853	8,648
Amounts disposed of during the period	(6,275)	(7,978)
Effects of foreign currency exchange differences	2,183	(1,352)
Reclassification	-	-
Other	425	124
Balance at end of financial year	57,113	46,927
Accumulated impairment loss		
Balance at beginning of financial year	-	-
Impairment losses for the year	-	-
Disposals	-	-
Balance at end of financial year	-	-

19.1 Allocation of goodwill to cash-generating units

Goodwill has been allocated for impairment testing purposes to the following cash generating units:

- Australian Capital Territory (ACT);
- New South Wales (NSW);
- Queensland & Northern Territory (QLD & NT);
- South Australia, Western Australia and Tasmania (SA, WA & TAS);
- Victoria (VIC);
- New Zealand (NZ);
- The Netherlands & Belgium stores located in the region of Antwerp (NL); and
- France & the rest of Belgium (FR).

The carrying amount of goodwill (other than goodwill classified as held for sale) was allocated to the following cash-generating units:

	2013 $'000	2012 $'000
Australia & New Zealand		
QLD & NT	14,068	15,622
NSW	7,662	3,578
SA, WA & TAS	5,192	7,703
VIC	8,323	4,975
ACT	2,715	427
NZ	2,315	1,865
Europe		
FR	8,111	6,698
NL	8,727	6,039
	57,113	46,927

Key assumptions

The key assumptions used in the value in use calculation for the various significant cash-generating units are budgeted store cash flows which are assumed to continue to increase, driven by higher sales and increased market share. These assumptions reflect prior experience and management's plan to focus on store level efficiencies and to leverage market share for higher overall profitability.

Management believes that any reasonable change in the key assumptions on which the recoverable amounts are based would not cause the market's carrying amount to exceed its recoverable amount.

NSW, QLD & NT, SA, WA & TAS, VIC and ACT markets

The operations in the NSW, QLD & NT, SA, WA & TAS, VIC and ACT markets are similar, and their recoverable amounts are based on similar assumptions. The recoverable amounts of the five markets are based primarily on a value in use calculation which uses cash flow projections based on the financial budget approved by the Board for the 2014 financial year as the year one cash flow.

The cash flows for years one to five are based on the expected average sales percentage growth across corporate and franchise markets, which has been estimated at 4.0% per annum nationally (2012: 5.0% per annum nationally). These figures are based on management's estimate of forecast cash flow by store after considering the 2013 financial year with the 2014 budget year. Management believes that these growth percentages are reasonable considering forecast sales growth and economies of scale. A pre-tax discount rate of 14.14% has been applied to years one to five. An indefinite terminal cash flow calculation has been applied for cash flows beyond year five, using the year five cash flow as a base. The growth rate of 3.0% has been used in determining the terminal value.

NZ market

The goodwill amount allocated to this market relates to the acquisition of the Pizza Haven New Zealand operations in 2005. The recoverable amount of the goodwill is based primarily on a value in use calculation which uses cash flow projections based on the financial budget approved by the Board for the 2014 financial year as the year one cash flow for the NZ franchise stores.

The cash flows for years one to five are based on the expected sales revenues to be received from net franchise royalties of the NZ franchise stores, after applying a growth rate which has been estimated at 4.0% per annum (2012: 5.0% per annum). This figure is based on the growth in forecast average franchise weekly sales from the 2013 financial year to the 2014 budget year. Management believes that this growth percentage is reasonable considering the sales growth that has been seen in this market during the 2013 financial year. A pre-tax discount rate of 14.14% has been applied to years one to five. An indefinite terminal cash flow calculation has been applied for cash flows beyond year five, using the year five cash flow as a base. The growth rate of 3.0% has been used in determining the terminal value.

European market

The goodwill amount allocated to the cash-generating units in this market relates to the acquisition of the Domino's Pizza master franchise of France, Belgium, The Netherlands and the Principality of Monaco on 3 July 2006. The recoverable amount of the market is determined based on a fair value model which uses a five-year financial plan that has been prepared, including the growth of the store network. The cash flows for years one to five are based on the expected growth across the market, which has been included at an average growth rate of 46.6% per annum. A pre-tax discount rate of 14.1% has been applied to the years one to five. The growth rate of 3.0% has been used in determining the terminal value.

20. OTHER INTANGIBLE ASSETS

	2013 $'000	2012 $'000
Cost	30,184	20,164
Accumulated amortisation and impairment losses	(12,757)	(7,355)
	17,427	12,809

	CAPITALISED DEVELOPMENT $'000	LICENCES $'000	TOTAL $'000
Gross carrying amount			
Balance at 3 July 2011	7,349	6,096	13,445
Additions	1,502	258	1,760
Acquisitions through business combinations (note 36)	-	-	-
Additions from internal developments	5,590	-	5,590
Disposals	-	(7)	(7)
Reclassification	(19)	-	(19)
Net foreign currency exchange differences	(135)	(470)	(605)
Balance at 1 July 2012	**14,287**	**5,877**	**20,164**
Additions	1,362	988	2,350
Acquisitions through business combinations (note 36)	-	-	-
Additions from internal developments	6,463	-	6,463
Disposals	(68)	(16)	(84)
Reclassification	(70)	-	(70)
Net foreign currency exchange differences	583	778	1,361
Balance at 30 June 2013	**22,557**	**7,627**	**30,184**
Accumulated amortisation and impairment			
Balance at 3 July 2011	(2,987)	(1,514)	(4,501)
Amortisation expense (i)	(1,912)	(1,166)	(3,078)
Disposals	-	2	2
Reclassification	19	-	19
Net foreign currency exchange differences	143	60	203
Other expense	-	-	-
Balance at 1 July 2012	**(4,737)**	**(2,618)**	**(7,355)**
Amortisation expense (i)	(4,368)	(556)	(4,924)
Disposals	9	4	13
Reclassification	24	-	24
Net foreign currency exchange differences	(324)	(191)	(515)
Other expense	-	-	-
Balance at 30 June 2013	**(9,396)**	**(3,361)**	**(12,757)**

(i) Amortisation expense is included in the line item 'depreciation and amortisation expense' in the statement of comprehensive income.

Refer to note 3.19 to the financial statements for descriptions on intangible assets and their useful life.

NOTES TO THE FINANCIAL STATEMENTS CONTINUED

21. OTHER ASSETS

	2013 $'000	2012 $'000
Current		
Prepayments	4,136	2,266
Work in progress – store builds	545	167
Other	1,634	1,348
	6,315	3,781
Non-current		
Other	680	27
	680	27

22. TRADE AND OTHER PAYABLES

	2013 $'000	2012 $'000
Trade payables [i]	17,999	18,053
Goods and services tax (GST)/Value added tax (VAT) payable	1,763	1,184
Other creditors and accruals	18,293	14,935
	38,055	34,172

(i) The average credit period on purchases of goods is 30 days. The Consolidated entity has financial risk management policies in place to ensure that all payables are paid within the credit timeframe.

23. BORROWINGS

	2013 $'000	2012 $'000
Secured		
Finance lease liabilities [i] (note 27)	83	108
Euro loan [ii][iii]	18,041	13,717
Other Bank Loans [iv]	21,547	-
Other loans	-	218
	39,671	14,043
Current	7,082	11,534
Non-current	32,589	2,509
	39,671	14,043

23.1 Summary of borrowing arrangements:

(i) Secured by the assets leased, the current market value of each exceeds the value of the finance lease liability.
(ii) Secured over the assets and undertaking of Domino's Pizza Enterprises Limited.
(iii) Variable rate loan with Westpac Banking Corporation with maturity periods exceeding 1 year (2012: within 1 year).
(iv) Secured over the assets and undertaking of Domino's Pizza Enterprises Limited. Variable rate loan with Bankwest with maturity periods exceeding 1 year and fixed rate loan with ABN-AMRO with maturity periods not exceeding 1 year.

The unused facilities available on the consolidated entity's bank overdraft are $2,000 thousand (2012: $2,000 thousand).

24. OTHER FINANCIAL LIABILITIES

	2013 $'000	2012 $'000
Non-current		
Financial guarantee contracts	303	252
	303	252
Current		
Rent Incentive Liability	200	-
Other	308	-
	508	-
Current	508	-
Non-current	303	252
	811	252

25. PROVISIONS

	2013 $'000	2012 $'000
Employee benefits (i)	3,383	2,732
Other	167	202
	3,550	2,934
Current	3,109	2,360
Non-current	441	574
	3,550	2,934

Other Provisions

	MAKE GOOD [ii] $'000	STRAIGHT LINE LEASING [iii] $'000	TOTAL $'000
Balance at 1 July 2012	25	177	202
Additional provisions recognised	-	-	-
Payments made	-	-	-
Reductions resulting from remeasurement	-	(35)	(35)
Balance at 30 June 2013	25	142	167

(i) The current provision for employee benefits includes $2,715 thousand of annual leave and vested long service leave entitlements accrued but not expected to be taken within 12 months (2012: $2,122 thousand for the Consolidated entity) and a funded defined benefit plan for qualifying employees in Europe of $91 thousand which is based on the most recent actuarial valuation.
(ii) The provision for the make good is in respect of restoring sites to their original condition when the premises are vacated. Management has estimated the provision based on historical data in relation to the store closure numbers and costs, as well as future trends that could differ from historical amounts.
(iii) The provision for straight line leasing arises as fixed percentage increases in operating leases are recognised as an expense on a straight line basis, over the period of the lease.

26. OTHER LIABILITIES

	2013 $'000	2012 $'000
Domino's Pizza International Inc.	136	232
Other	1	3
	137	235
Current	-	-
Non-current	137	235
	137	235

27. OBLIGATIONS UNDER FINANCE LEASES

27.1 Leasing arrangements

Finance leases relate to plant & equipment with lease terms between three and ten years, and motor vehicles with lease terms between three and four years. The Consolidated entity has options to purchase the leased assets for a nominal amount at the completion of the lease arrangements.

27.2 Finance lease liabilities

	MINIMUM FUTURE LEASE PAYMENTS		PRESENT VALUE OF MINIMUM FUTURE LEASE PAYMENTS	
	2013 $'000	2012 $'000	2013 $'000	2012 $'000
No later than 1 year	39	31	25	25
Later than 1 year and not later than 5 years	49	89	58	83
Later than 5 years	-	-	-	-
Minimum lease payments[i]	88	120	83	108
Less future finance charges	(5)	(12)	-	-
Present value of minimum lease payments	83	108	83	108
Included in the financial statements as: (note 23)				
Current borrowings			25	25
Non-current borrowings			58	83
			83	108

(i) Minimum future lease payments include the aggregate of all lease payments and any guaranteed residual value.

27.3 Fair value

The fair value of the finance lease liabilities is approximately equal to their carrying amount.

28. ISSUED CAPITAL

	2013 $'000	2012 $'000
70,192,674 fully paid ordinary shares (2012: 69,899,674)	40,855	69,872

Changes to the Corporations Law abolished the authorised capital and par value concept in relation to share capital from 1 July 1998. Therefore, the Company does not have a limited amount of authorised capital and issued shares do not have a par value.

28.1 Fully paid ordinary shares

	NOTE	2013 NUMBER OF SHARES $'000	2013 SHARE CAPITAL $'000	2012 NUMBER OF SHARES $'000	2012 SHARE CAPITAL $'000
Balance at beginning of financial year		69,900	69,872	68,408	64,523
Shares issued:					
Issue of shares under executive share option plan	(a)	293	1,025	1,492	5,349
Issue of shares under dividend reinvestment plan	(b)	-	-	-	-
Capital Return	(c)	-	(30,042)	-	-
Balance at end of financial year		70,193	40,855	69,900	69,872

Fully paid ordinary shares carry one vote per share and carry the right to dividends.

Share options on issue

CATEGORY OF SECURITY	NOTE	TOTAL NUMBER	NUMBER QUOTED	EXERCISE PRICE	EXPIRY DATE
Options	(a)				
Unexercised options at 1 July 2012		126,000	-	$3.45	31 August 2013
Unexercised options at 1 July 2012		30,000	-	$3.45	31 August 2013
Unexercised options at 1 July 2012		270,000	-	$3.07	31 August 2014
Unexercised options at 1 July 2012		400,000	-	$6.07	2 November 2017
Unexercised options at 1 July 2012		386,667	-	$6.07	10 August 2015[i]
Unexercised options at 1 July 2012		500,000	-	$9.21	2 November 2017
Unexercised options at 1 July 2012		416,667	-	$9.21	10 August 2016[i]

(i) Expiry date 12 months after vesting date.

(a) Options

The Company approved the establishment of the ESOP to assist in the recruitment, reward and retention of its directors and executives. The Company will not apply for quotation of the options on the ASX.

Subject to any adjustment in the event of a bonus issue, rights issue or reconstruction of capital, each option is convertible into one ordinary share.

Terms and conditions of the ESOP

The Company must not issue any shares or grant any option under this plan if, immediately after the issue or grant, the sum of the total number of unissued shares over which options, rights or other options (which remain outstanding) have been granted under this plan and any other Group employee incentive scheme would exceed 7.5% of the total number of shares on issue on a Fully Diluted Basis at the time of the proposed issue or grant.

Fully Diluted Basis means the number of shares which would be on issue if all those securities of the Company which are capable of being converted into shares, were converted into shares. If the number of shares into which the securities are capable of being converted cannot be calculated at the relevant time, those shares will be disregarded.

During the year, 293,000 options were exercised (2012: 1,492,000). A total of $1,025,500 was received as consideration for 293,000 fully paid ordinary shares of Domino's Pizza Enterprises Limited on exercise of the options in the current financial year (2012: $5,348,540).

(b) Dividend reinvestment plan

On listing, the Board adopted but did not commence operation of a Dividend Reinvestment Plan ("DRP"). The DRP provides shareholders the choice of reinvesting some or all of their dividends in shares rather than receiving those dividends in cash.

The Board of Directors resolved to activate the DRP on 17 August 2006 with a commencement date of 21 August 2006. Shareholders with registered addresses in Australia or New Zealand are eligible to participate in the DRP. Shareholders outside Australia and New Zealand are not able to participate due to legal requirements applicable in their place of residence.

Shares allocated under the DRP rank equally with existing shares. Shares will be issued under the DRP at a price equal to the average of the daily volume weighted average market price of the Company's shares (rounded to the nearest cent) traded on the ASX during a period of ten trading days commencing on the second business day following the relevant record date, discounted by an amount determined by the Board.

Domino's Pizza Enterprises Limited entered into an Underwriting Agreement with Goldman Sachs JBWere for its first four dividend payments commencing with the final dividend for the year ended 2 July 2006. The Board decided to continue the DRP Underwriting and entered into a renewed agreement with Goldman Sachs JBWere for the next four dividends commencing with the final dividend for the year ended 29 June 2008.

On 18 August 2009, the Board resolved to suspend the DRP until further notice. Therefore, the final dividend for the year ended 30 June 2013 will be paid in cash only.

(c) Capital Return

Following approval by shareholders on 7th November 2012, the Consolidated Entity made two returns of capital to its shareholders of $0.214 per share each time. This amounted to $15 million on 21 December 2012 and $15 million on 21 June 2013.

NOTES TO THE FINANCIAL STATEMENTS CONTINUED

29. RESERVES

	2013 $'000	2012 $'000
Foreign currency translation	(6,852)	(12,842)
Equity-settled share-based benefits	2,533	1,898
Hedging	2,334	2,296
	(1,985)	(8,648)

29.1 Foreign currency translation reserve

	2013 $'000	2012 $'000
Balance at beginning of financial year	(12,842)	(9,064)
Translation of foreign operations	5,990	(3,778)
Balance at end of financial year	**(6,852)**	(12,842)

Exchange differences relating to the translation of the net assets of the Consolidated entity's foreign operations from their functional currencies to the Consolidated entity's presentation currency (i.e. Australian dollars) are recognised directly in other comprehensive income and accumulated in the foreign currency translation reserve.

29.2 Equity-settled share-based benefits reserve

	2013 $'000	2012 $'000
Balance at beginning of financial year	1,898	1,578
Share-based payment	635	320
Balance at end of financial year	**2,533**	1,898

The equity settled share-based benefits reserve arises on the grant of share options to executives under the Executive Share and Option Plan ("ESOP"). Further information about ESOP is made in note 33 to the financial statements.

29.3 Hedging reserve

	2013 $'000	2012 $'000
Balance at beginning of financial year	2,296	2,044
Gain recognised:		
Net investment hedge	38	156
Interest rate swap	-	96
Balance at end of financial year	**2,334**	2,296

The hedging reserve represents hedging gains and losses recognised on the effective portion of net investment hedges.

30. RETAINED EARNINGS

	2013 $'000	2012 $'000
Balance at beginning of year	55,817	45,835
Net profit attributable to members of the Company	28,657	26,936
Payment of dividends (note 31)	(20,762)	(16,954)
Balance at end of year	**63,712**	55,817

31. DIVIDENDS

	2013		2012	
	CENTS PER SHARE	TOTAL $'000	CENTS PER SHARE	TOTAL $'000
Recognised amounts				
Fully paid ordinary shares				
Interim dividend:	15.5	10,880	13.0	9,087
Final dividend:	14.1	9,882	11.5	7,867
	29.6	**20,762**	24.5	16,954
Unrecognised Amounts				
Fully paid ordinary shares				
Final dividend:	15.4	10,810	14.1	9,862

On 12 August 2013, the directors declared a fully franked final dividend of 15.4 cents per share to the holders of fully paid ordinary shares in respect of the financial year ended 30 June 2013, to be paid to shareholders on 13 September 2013. The dividend will be paid to all shareholders on the Register of Members on 27 August 2013. The total estimated dividend to be paid is $10 810 thousand.

	2013 $'000	2012 $'000
Adjusted franking account balance	5,426	5,178

36. ACQUISITION OF BUSINESSES

NAME OF BUSINESSES ACQUIRED	PRINCIPAL ACTIVITY	DATE OF ACQUISITION	PROPORTION OF SHARE ACQUIRED (%)	COST OF ACQUISITION IN 2013 $'000	COST OF ACQUISITION IN 2012 $'000
Acquisition of stores					
During the year: Significant contract acquisitions for Australia and New Zealand					
2013					
4 Australian stores	Pizza stores	November 2012	100%	833	
15 Australian Stores	Pizza stores	April 2013	100%	10,000	
2012					
5 stores	Pizza stores	September 2011	100%		2,132
2 stores	Pizza stores	Oct & Nov 2011	100%		590
3 stores	Pizza stores	June 2012	100%		350
During the year: Significant contract acquisitions for Europe					
2013					
8 European stores	Pizza stores	July 2012	100%	2,209	
2012					
3 stores	Pizza stores	August 2011	100%		566
2 stores	Pizza stores	October 2011	100%		1,168
5 stores	Pizza stores	May 2012	100%		1,433
During the year: Other store acquisitions					
2013					
10 stores in aggregate (AU)	Pizza stores	July - June 2013	100%	2,678	
1 New Zealand store	Pizza store	June 2013	100%	504	
11 stores in aggregate (EU)	Pizza stores	July - June 2013	100%	2,883	
2012					
13 stores in aggregate (AU)	Pizza stores	July 2011 to June 2012	100%		3,924
1 New Zealand store	Pizza store	December 2011	100%		240
5 stores in aggregate (EU)	Pizza stores	July 2011 to June 2012	100%		1,573
Total store acquisitions during full year ended				**19,107**	**11,976**

The cost of acquisitions comprise cash for all of the acquisitions. In each acquisition, the consolidated entity has paid a premium for the acquiree as it believes the acquisitions will introduce additional synergies to its existing operations.

Goodwill arising on acquisitions in Europe is expected to be deductible for tax purposes.

Acquisition of stores

	FAIR VALUE ON ACQUISITION	
NET ASSETS ACQUIRED	**2013 $'000**	**2012 $'000**
Current assets:		
Cash and cash equivalents	4	12
Inventories	26	88
	30	100
Non-current assets		
Plant & equipment	5,224	3,228
	5,224	3,228
Net assets	**5,254**	**3,328**
Goodwill on acquisition	13,853	8,648
	19,107	**11,976**

Goodwill arose in the business combination as the consideration paid included a premium. In addition, the consideration paid for the stores effectively included amounts in relation to benefits from expected synergies, revenue growth and future market development. These benefits are not recognised separately from goodwill as the future economic benefits arising from them cannot be reliably measured.

37. CASH AND CASH EQUIVALENTS

For the purpose of the statement of cash flows, cash and cash equivalents includes cash on hand and in banks net of outstanding bank overdrafts. Cash and cash equivalents at the end of the reporting period as shown in the statement of cash flows can be reconciled to the related items in the statement of financial position as follows:

	2013 $'000	2012 $'000
Cash and cash equivalents	18,691	40,340
	18,691	**40,340**

37.1 Reconciliation of profit for the period to net cash flows from operating activities

	2013 $'000	2012 $'000
Profit for the year	28,657	26,936
(Gain) on sale or disposal of non-current assets	(2,979)	(2,223)
Equity settled share-based payments	635	320
Depreciation and amortisation	12,792	10,029
Other	(690)	562
	38,415	35,624
Movement in working capital:		
(Increase)/decrease in assets:		
Trade and other receivables	(3,751)	(3,345)
Inventories	(585)	(1,772)
Other current assets	(2,131)	409
Increase/(decrease) in liabilities:		
Trade and other payables	1,704	4,521
Provisions	606	355
Tax liability	(1,175)	477
Deferred tax balances	97	1,409
Net cash generated from operating activities	**33,180**	**37,678**

NOTES TO THE FINANCIAL STATEMENTS CONTINUED

37.2 Businesses acquired

Acquisition of stores

During the financial year, 49 businesses were acquired in Australia, New Zealand and Europe (2012: 39 businesses). The net cash outflow on acquisition in the financial statements was $19,107 thousand (2012: $11,976 thousand).

Included in the above 49 stores, is 15 that the company purchased through the acquisition of Nisco Trading Pty Ltd, as per the ASX announcement on 13 February 2013. The Purchase Price for the acquisition of the Knight Stores was subject to a minimum Purchase Price of $10,000,000 and maximum Purchase Price of $13,878,000. Of the maximum purchase price, $3,878,000 related to a contingent consideration being an earn out component, subject to the achievement of certain financial performance targets. The Earn Out component was provided in the form of a Performance Share issued at completion, which would convert into DMP ordinary shares in 2015 depending on the extent to which the Earn Out targets were achieved. These targets were not met as at 30 June 2013 resulting in the final purchase price of $10,000,000, with the performance share expected to be converted in 2015 at a nominal value to extinguish the performance share.

The Company advises, in accordance with the terms of the ASX approval of the Performance Share that comprised the Earn Out component of the purchase price of 15 stores purchased through the acquisition of Nisco Trading Pty Ltd as announced to ASX on 13 February 2013 and approved by the Company's shareholders on 25 March 2013, that:

- There is, and will only be, one such Performance Share on issue;
- The Performance Share will convert to only a Marketable Parcel (as defined in the ASX Listing Rules) of fully paid ordinary shares in or about September 2015; and
- The Performance Share will not convert to ordinary shares before September 2015, and will not in any circumstances convert to any more than a Marketable Parcel of ordinary shares. There are no applicable milestones to be met in respect of the Performance Share that might increase that number.

37.3 Non-cash financing and investing activities

During the current financial year, the Consolidated entity did not acquire any equipment under finance lease (2012: Nil).

38. OPERATING LEASE ARRANGEMENTS

38.1 Leasing arrangements

Operating leases relate to both property leases with lease terms of between five and ten years, the majority of which have an option to renew for a further five-year period, and motor vehicles with lease terms of three years. All store related operating lease contracts contain market review clauses in the event that the Consolidated entity exercises its options to renew. The Consolidated entity does not have an option to purchase the leased asset at the expiry of the lease period.

38.1.1 Non-cancellable operating lease commitments

	2013 $'000	2012 $'000
Not longer than 1 year	19,239	16,356
Longer than 1 year and not longer than 5 years	46,260	35,815
Longer than 5 years	8,925	6,414
	74,424	58,585

In respect of non-cancellable operating leases the following liabilities have been recognised:

	2013 $'000	2012 $'000
Current		
Make good (note 25)	25	25
Non-current		
Straight line leasing (note 25)	141	177
	166	202

39. COMMITMENTS FOR EXPENDITURE

39.1 Capital expenditure commitments

	2013 $'000	2012 $'000
Plant & Equipment	226	1,707

39.2 Lease commitments

Finance lease liabilities and non-cancellable operating lease commitments are disclosed in note 27 and 38 to the financial statements.

40. CONTINGENT LIABILITIES AND CONTINGENT ASSETS

40.1 Contingent liabilities

	2013 $'000	2012 $'000
Guarantees - franchisee loans and leases	10,010	10,740

Included above are guarantees provided to third party financial institutions in relation to franchisee loans. This is a contingent liability representing the amounts guaranteed in respect of franchisees that would not, without the guarantee, have been granted the loans. The directors believe that if the guarantees are ever called on, the Company will be able to recover the amounts paid upon disposal of the stores.

	2013 $'000	2012 $'000
Guarantees – parent entity guarantee over subsidiary borrowings	7,047	-

Included above are guarantees provided by the Company to third party financial institutions in relation to borrowings of the European subsidiary.

Other

Set out below are details of claims against the Group. The Company believes that no provision is required as it is not probable that a sacrifice of future economic benefit will be required or the amount is not capable of reliable measurement.

There are various separate French legal proceedings by a competitor, Speed Rabbit Pizza ("SRP") and its franchisees against subsidiary, Domino's Pizza France ("DPF") and its franchisees. The allegations are that DPF and its franchisees breached French laws governing payment time limitations and lending, thereby giving DPF franchisees an unfair competitive advantage. SRP claims significant damages for impediment of the development of its franchise network, lost royalty income from SRP franchisees and harm to SRP's image. DPF has denied liability and will vigorously defend the claims.

41. REMUNERATION OF AUDITORS

	2013 $	2012 $
41.1 Auditor of the parent entity		
Audit or review of the consolidated financial statements	217,540	217,540
Other non audit services - due diligence	169,005	-
- investigating accountants	57,500	-
	444,045	217,540
41.2 Network firm of parent entity auditor		
Audit of the financial statements:		
Europe	132,344	136,871
Europe Taxation services	17,612	12,909
Other non audit services - Japan - due diligence services	413,898	-
	563,854	149,780

The auditor of Domino's Pizza Enterprises Limited is Deloitte Touche Tohmatsu.

42. EVENTS AFTER THE REPORTING PERIOD

On 12 August 2013, the directors declared a final dividend for the financial year ended 30 June 2013 as set out in note 31.

Other than the matters discussed above, there has not arisen in the interval between the end of the financial year and the date of this report any item, transaction or event of a material and unusual nature likely, in the opinion of the directors of the Company, to affect significantly the operations of the Consolidated entity, the results of those operations, or the state of affairs of the Consolidated entity, in future financial years.

Acquisition

On 13 August 2013, the Group announced that Aurora Australia Co., Ltd, a newly-formed and wholly-owned subsidiary of Domino's Pizza Enterprises Limited, had entered into a share purchase agreement with Bain Capital Domino Hong Kong Limited (Bain) to purchase 100% of the ordinary shares in K.K. DPJ Holdings 1 (Holdings). Holdings is the parent company of Domino's Pizza Japan, Inc. (DPJ) which holds the master franchisee rights for Domino's Pizza in Japan. Immediately following completion of the acquisition Bain will reinvest approximately ¥4 billion (A$45 million) to subscribe for 25% of the issued shares in Aurora Australia Co., Ltd. The net effect is that the Group will acquire a 75% equity interest in DPJ for ¥12.0 billion (A$135 million).

The acquisition will be funded by a combination of debt and equity. The debt funding will be provided under a new bilateral facility agreement with the Commonwealth Bank of Australia and an amendment to the Group's existing facility agreement with Westpac Banking Corporation. The new debt facilities will enable DPE to on-lend approximately ¥9.0 billion (A$101 million) of debt to DPJ. The facilities will be denominated in Japanese yen and Australian dollars, have a five-year term and have foreign currency and interest rate exposures that will be managed pursuant to hedging arrangements. On 13 August 2013, the Group also announced a proposed 5 for 23 fully underwritten accelerated pro-rata renounceable rights issue to raise up to A$156 million to fund the acquisition. The parties have entered into a Shareholders' Agreement which regulates the operation and funding of Aurora Australia Co., Ltd.

Completion is conditional on: (a) the debt providers not defaulting on their obligations to provide loans under the facility agreements, and; (b) on the underwriting agreement not being: (i) unlawfully terminated by the underwriter on or before 28 August 2013, or; (ii) otherwise terminated due to customary market fall, hostility and market failure underwriting termination events. Completion is also subject to other customary conditions precedent including compliance with the terms of the acquisition agreement, no intervening illegality, no breach of representations and warranties and no material adverse change relating to DPJ.

The acquisition is expected to complete in September 2013.

43. PARENT ENTITY INFORMATION

43.1 Financial position

	2013 $'000	2012 $'000
Assets		
Current assets	27,514	49,686
Non-current assets	116,662	99,924
Total assets	**144,176**	149,610
Liabilities		
Current liabilities	38,450	34,466
Non-current liabilities	21,643	6,389
Total liabilities	**60,093**	40,855
Equity		
Issued capital	40,855	69,872
Retained earnings	41,112	37,399
Reserves		
Equity-settled share-based benefits	2,532	1,898
Hedging	(415)	(415)
Total equity	**84,084**	108,754

43.2 Financial performance

	2013 $'000	2012 $'000
Profit for the year	24,458	23,331
Other comprehensive income	-	496
Total comprehensive income	**24,458**	23,827

43.3 Contingent liabilities of the parent entity

Guarantees are provided to third party financial institutions in relation to franchisee loans. The amount disclosed as a contingent liability represents the amounts guaranteed in respect of franchisees that would not, without the guarantee, have been granted the loans. The directors believe that if the guarantees are ever called on, the Company will be able to recover the amounts paid upon disposal of the stores.

44. APPROVAL OF FINANCIAL STATEMENTS

The financial statements were approved by the Board of directors and authorised for issue on 13 August 2013.

appendix B

TIME VALUE OF MONEY

LEARNING OBJECTIVES

After studying this appendix, you should be able to:

1 Distinguish between simple and compound interest.
2 Solve for future value of a single amount.
3 Solve for future value of an annuity.
4 Identify the variables fundamental to solving present value problems.
5 Solve for present value of a single amount.
6 Solve for present value of an annuity.
7 Calculate the present values in capital budgeting situations.

Would you rather receive \$1000 today or a year from now? You should prefer to receive the \$1000 today because you can invest the \$1000 and earn interest on it. As a result, you will have more than \$1000 a year from now. What this example illustrates is the concept of the *time value of money*. Everyone prefers to receive money today rather than in the future because of the interest factor.

NATURE OF INTEREST

LEARNING OBJECTIVE 1
Distinguish between simple and compound interest.

Interest is payment for the use of another person's money. It is the difference between the amount borrowed or invested (called the **principal**) and the amount repaid or collected. The amount of interest to be paid or collected is usually stated as a rate over a specific period of time. The rate of interest is generally stated as an annual rate.

The amount of interest involved in any financing transaction is based on three elements:

1. *Principal (p):* the original amount borrowed or invested.
2. *Interest rate (i):* an annual percentage of the principal.
3. *Time (n):* the number of years that the principal is borrowed or invested.

SIMPLE INTEREST

Simple interest is calculated on the principal amount only. It is the return on the principal for one period. Simple interest is usually expressed as shown in figure B.1.

$$\text{Interest} = \underset{p}{\text{Principal}} \times \underset{i}{\text{Rate}} \times \underset{n}{\text{Time}}$$

For example, if you borrowed \$5000 for 2 years at a simple interest rate of 12% annually, you would pay \$1200 in total interest calculated as follows:

$$\begin{aligned} \text{Interest} &= p \times i \times n \\ &= \$5000 \times 0.12 \times 2 \\ &= \$1200 \end{aligned}$$

Figure B.1 Interest calculation

COMPOUND INTEREST

Compound interest is calculated on principal *and* on any interest earned that has not been paid or withdrawn. It is the return on (or growth of) the principal for two or more time periods. Compounding calculates interest not only on the principal but also on the interest earned to date on that principal, assuming the interest is left on deposit.

To illustrate the difference between simple and compound interest, assume that you deposit $1000 in Bank One, where it will earn simple interest of 9% per year, and you deposit another $1000 in CityCorp, where it will earn compound interest of 9% per year compounded annually. Also assume that in both cases you will not withdraw any interest until 3 years from the date of deposit. The calculation of interest to be received and the accumulated year-end balances are indicated in figure B.2.

Bank One

Simple interest calculation	Simple interest	Accumulated year-end balance
Year 1 $1000.00 × 9%	$ 90.00	$1090.00
Year 2 $1000.00 × 9%	90.00	$1180.00
Year 3 $1000.00 × 9%	90.00	$1270.00
	$270.00	

$25.03 Difference

City Corp

Compound interest calculation	Compound interest	Accumulated year-end balance
Year 1 $1000.00 × 9%	$ 90.00	$1090.00
Year 2 $1090.00 × 9%	98.10	$1188.10
Year 3 $1188.10 × 9%	106.93	$1295.03
	$295.03	

Figure B.2 Simple vs. compound interest

Note in figure B.2 that simple interest uses the initial principal of $1000 to calculate the interest in all 3 years. Compound interest uses the accumulated balance (principal plus interest to date) at each year-end to calculate interest in the succeeding year — which explains why your compound interest account is larger.

Obviously, if you had a choice between investing your money at simple interest or at compound interest, you would choose compound interest, all other things — especially risk — being equal. In the example, compounding provides $25.03 of additional interest revenue. For practical purposes, compounding assumes that unpaid interest earned becomes a part of the principal, and the accumulated balance at the end of each year becomes the new principal on which interest is earned during the next year.

As can be seen in figure B.2, you should invest your money at City Corp, which compounds interest annually. Compound interest is used in most business situations. Simple interest is generally applicable only to short-term situations of 1 year or less.

LEARNING OBJECTIVE 2

Solve for future value of a single amount.

FUTURE VALUE CONCEPTS

FUTURE VALUE OF A SINGLE AMOUNT

The **future value of a single amount** is the value at a future date of a given amount invested assuming compound interest. For example, in figure B.2, $1295.03 is the future value of the $1000 at the end of 3 years. The $1295.03 could be determined more easily by using the following formula:

Helpful hint

You can use this formula and a financial calculator as an alternative to the tables presented in this appendix.

$$FV = p \times (1 + i)^n$$

where:

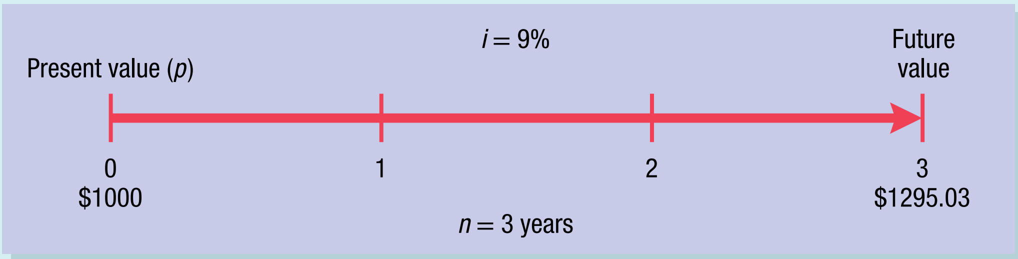
FV = future value of a single amount
p = principal (or present value)
i = interest rate for one period
n = number of periods

The $1295.03 is calculated as follows:

$$
\begin{aligned}
\mathrm{FV} &= p \times (1 + i)^n \\
&= \$1000 \times (1 + i)^3 \\
&= \$1000 \times 1.29503 \\
&= \$1295.03
\end{aligned}
$$

The 1.29503 is calculated by multiplying $(1.09 \times 1.09 \times 1.09)$. The amounts in this example can be depicted in the time diagram in figure B.3.

Figure B.3 Time diagram



Another method that may be used to calculate the future value of a single amount involves the use of a compound interest table, which shows the future value of 1 for n periods. Table 1, shown below, is such a table.

TABLE 1 Future value of 1

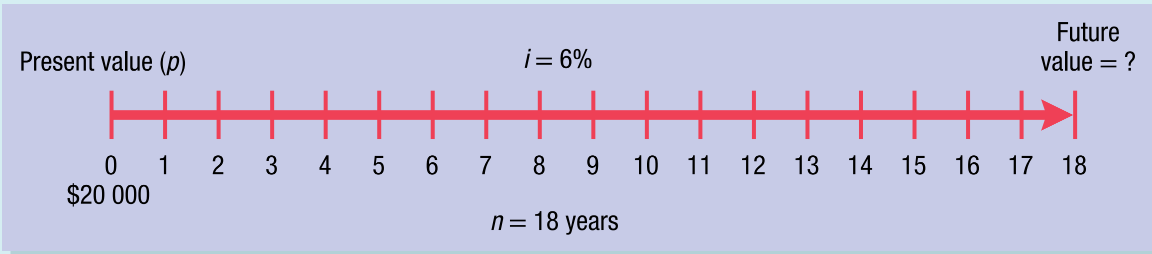
(n) Periods	4%	5%	6%	8%	9%	10%	11%	12%	15%
1	1.04000	1.05000	1.06000	1.08000	1.09000	1.10000	1.11000	1.12000	1.15000
2	1.08160	1.10250	1.12360	1.16640	1.18810	1.21000	1.23210	1.25440	1.32250
3	1.12486	1.15763	1.19102	1.25971	1.29503	1.33100	1.36763	1.40493	1.52088
4	1.16986	1.21551	1.26248	1.36049	1.41158	1.46410	1.51807	1.57352	1.74901
5	1.21665	1.27628	1.33823	1.46933	1.53862	1.61051	1.68506	1.76234	2.01136
6	1.26532	1.34010	1.41852	1.58687	1.67710	1.77156	1.87041	1.97382	2.31306
7	1.31593	1.40710	1.50363	1.71382	1.82804	1.94872	2.07616	2.21068	2.66002
8	1.36857	1.47746	1.59385	1.85093	1.99256	2.14359	2.30454	2.47596	3.05902
9	1.42331	1.55133	1.68948	1.99900	2.17189	2.35795	2.55803	2.77308	3.51788
10	1.48024	1.62889	1.79085	2.15892	2.36736	2.59374	2.83942	3.10585	4.04556
11	1.53945	1.71034	1.89830	2.33164	2.58043	2.85312	3.15176	3.47855	4.65239
12	1.60103	1.79586	2.01220	2.51817	2.81267	3.13843	3.49845	3.89598	5.35025
13	1.66507	1.88565	2.13293	2.71962	3.06581	3.45227	3.88328	4.36349	6.15279
14	1.73168	1.97993	2.26090	2.93719	3.34173	3.79750	4.31044	4.88711	7.07571
15	1.80094	2.07893	2.39656	3.17217	3.64248	4.17725	4.78459	5.47357	8.13706
16	1.87298	2.18287	2.54035	3.42594	3.97031	4.59497	5.31089	6.13039	9.35762
17	1.94790	2.29202	2.69277	3.70002	4.32763	5.05447	5.89509	6.86604	10.76126
18	2.02582	2.40662	2.85434	3.99602	4.71712	5.55992	6.54355	7.68997	12.37545
19	2.10685	2.52695	3.02560	4.31570	5.14166	6.11591	7.26334	8.61276	14.23177
20	2.19112	2.65330	3.20714	4.66096	5.60441	6.72750	8.06231	9.64629	16.36654

In table 1, n is the number of compounding periods, the percentages are the periodic interest rates, and the 6-digit decimal numbers in the respective columns are the future value of 1 factors. In using table 1, the principal amount is multiplied by the future value factor for the specified number of periods and interest rate. For example, the future value factor for 2 periods at 9% is 1.18810. Multiplying this factor by $1000 equals $1188.10, which is the accumulated balance at the end of year 2 in the City Corp example in figure B.2. The $1295.03 accumulated balance at the end of the third year can be calculated from table 1 by multiplying the future value factor for 3 periods (1.29503) by the $1000.

The demonstration problem in figure B.4 illustrates how to use table 1.

Figure B.4 ***Demonstration problem*** **— using table 1 for FV of 1**

John and Mary Rich invested $20 000 in a savings account paying 6% interest at the time their son, Matt, was born. On his 18th birthday. Matt withdraws the money from his savings account. How much did Matt withdraw from his account?



Answer: The future value factor from table 1 is 2.85434 (18 periods at 6%). The future value of $20 000 earning 6% per year for 18 years is $57 086.80 ($20 000 × 2.85434).

LEARNING OBJECTIVE 3

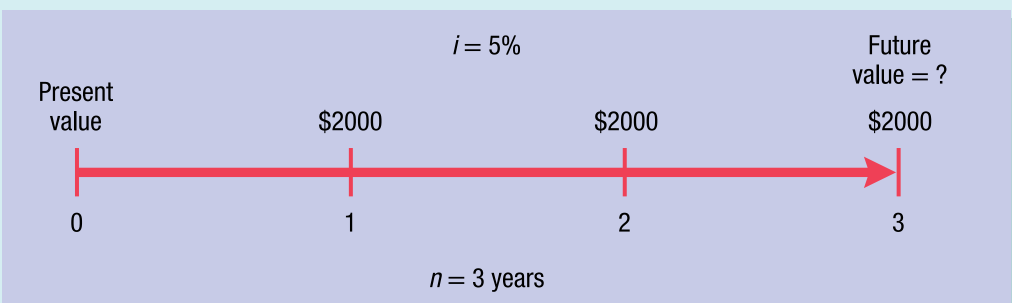
Solve for future value of an annuity.

FUTURE VALUE OF AN ANNUITY

The preceding discussion involved the accumulation of only a single principal sum. Individuals and entities often encounter situations in which a series of equal dollar amounts are to be paid or received periodically, such as loans or lease (rental) contracts. Such payments or receipts of equal dollar amounts are referred to as **annuities**. The **future value of an annuity** is the sum of all the payments (receipts) plus the accumulated compound interest on them. In calculating the future value of an annuity, it is necessary to know (1) the interest rate, (2) the number of compounding periods, and (3) the amount of the periodic payments or receipts.

To illustrate the calculation of the future value of an annuity, assume that you invest $2000 at the end of each year for 3 years at 5% interest compounded annually. This situation is depicted in the time diagram in figure B.5.

Figure B.5 **Time diagram for a 3-year annuity**



As can be seen in figure B.5, the $2000 invested at the end of year 1 will earn interest for 2 years (years 2 and 3) and the $2000 invested at the end of year 2 will earn interest for 1 year (year 3). However, the last $2000 investment (made at the end of year 3) will not earn any interest. The future value of these periodic payments could be calculated using the future value factors from table 1 as shown in figure B.6.

Year invested	Amount invested	×	Future value of 1 factor at 5%	=	Future value
1	$2000	×	1.10250		$ 2205
2	$2000	×	1.05000		2100
3	$2000	×	1.00000		2000
			3.15250		**$6305**

Figure B.6 Future value of periodic payments

The first $2000 investment is multiplied by the future value factor for 2 periods (1.1025) because 2 years interest will accumulate on it (in years 2 and 3). The second $2000 investment will earn only 1 year's interest (in year 3) and therefore is multiplied by the future value factor for 1 year (1.0500). The final $2000 investment is made at the end of the third year and will not earn any interest. Consequently, the future value of the last $2000 invested is only $2000 since it does not accumulate any interest.

This method of calculation is required when the periodic payments or receipts are not equal in each period. However, when the periodic payments (receipts) are the same in each period, the future value can be calculated by using a future value of an annuity of 1 table. Table 2, shown below, is such a table.

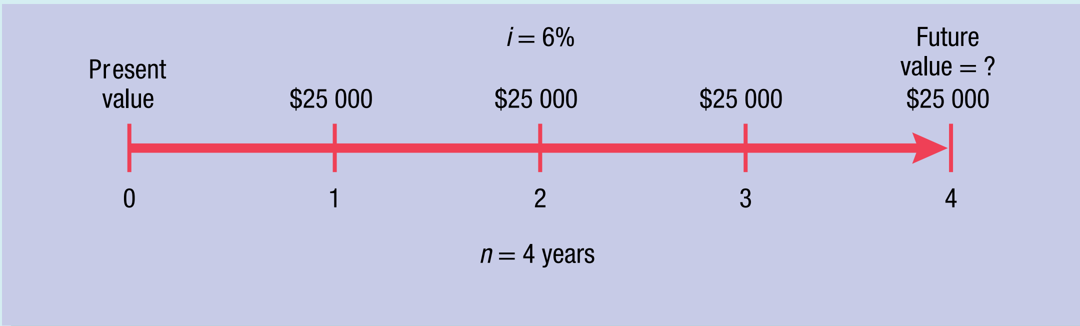
TABLE 2 Future value of an annuity of 1

(*n*) Periods	4%	5%	6%	8%	9%	10%	11%	12%	15%
1	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
2	2.04000	2.05000	2.06000	2.08000	2.09000	2.10000	2.11000	2.12000	2.15000
3	3.12160	3.15250	3.18360	3.24640	3.27810	3.31000	3.34210	3.37440	3.47250
4	4.24646	4.31013	4.37462	4.50611	4.57313	4.64100	4.70973	4.77933	4.99338
5	5.41632	5.52563	5.63709	5.86660	5.98471	6.10510	6.22780	6.35285	6.74238
6	6.63298	6.80191	6.97532	7.33592	7.52334	7.71561	7.91286	8.11519	8.75374
7	7.89829	8.14201	8.39384	8.92280	9.20044	9.48717	9.78327	10.08901	11.06680
8	9.21423	9.54911	9.89747	10.63663	11.02847	11.43589	11.85943	12.29969	13.72682
9	10.58280	11.02656	11.49132	12.48756	13.02104	13.57984	14.16397	14.77566	16.78584
10	12.00611	12.57789	13.18079	14.48656	15.19293	15.93743	16.72201	17.54874	20.30372
11	13.48635	14.20679	14.97164	16.64549	17.56029	18.53117	19.56143	20.65458	24.34928
12	15.02581	15.91713	16.86994	18.97713	20.14072	21.38428	22.71319	24.13313	29.00167
13	16.62684	17.71298	18.88214	21.49530	22.95339	24.52271	26.21164	28.02911	34.35192
14	18.29191	19.59863	21.01507	24.21492	26.01919	27.97498	30.09492	32.39260	40.50471
15	20.02359	21.57856	23.27597	27.15211	29.36092	31.77248	34.40536	37.27972	47.58041
16	21.82453	23.65749	25.67253	30.32428	33.00340	35.94973	39.18995	42.75328	55.71747
17	23.69751	25.84037	28.21288	33.75023	36.97351	40.54470	44.50084	48.88367	65.07509
18	25.64541	28.13238	30.90565	37.45024	41.30134	45.59917	50.39593	55.74972	75.83636
19	27.67123	30.53900	33.75999	41.44626	46.01846	51.15909	56.93949	63.43968	88.21181
20	29.77808	33.06595	36.78559	45.76196	51.16012	57.27500	64.20283	72.05244	102.44358

Table 2 shows the future value of 1 to be received periodically for a given number of periods. From table 2 it can be seen that the future value of an annuity of 1 factor for 3 periods at 5% is 3.15250. The future value factor is the total of the three individual future value factors as shown in figure B.6. Multiplying this amount by the annual investment of $2000 produces a future value of $6305.

The demonstration problem in figure B.7 illustrates how to use table 2.

Henning Printing knows that in 4 years it must replace one of its existing printing presses with a new one. To ensure that some funds are available to replace the machine in 4 years, the business is depositing $25 000 in a savings account at the end of each of the next 4 years (four deposits in total). The savings account will earn 6% interest compounded annually. How much will be in the savings account at the end of 4 years when the new printing press is to be purchased?



Answer: The future value factor from table 2 is 4.37462 (four periods at 6%). The future value of $25 000 invested at the end of each year for 4 years at 6% interest is $109 365.50 ($25 000 × 4.37462).

Figure B.7 *Demonstration problem* — using table 2 for FV of an annuity of 1

LEARNING OBJECTIVE 4
Identify the variables fundamental to solving present value problems.

LEARNING OBJECTIVE 5
Solve for present value of a single amount.

PRESENT VALUE CONCEPTS

PRESENT VALUE VARIABLES

The **present value**, like the future value, is based on three variables: (1) the dollar amount to be received (future amount), (2) the length of time until the amount is received (number of periods), and (3) the interest rate (the discount rate). The process of determining the present value is referred to as **discounting the future amount**.

In this book, present value calculations are used in measuring several items. For example, capital budgeting and other investment proposals are evaluated using present value calculations. All rate of return and internal rate of return calculations involve present value techniques.

PRESENT VALUE OF A SINGLE AMOUNT

To illustrate present value concepts, assume that you are willing to invest a sum of money that will yield $1000 at the end of 1 year. In other words, what amount would you need to invest today to have $1000 in a year from now? If you want a 10% rate of return, the investment or present value is $909.09 ($1000 ÷ 1.10). The calculation of this amount is shown in figure B.8.

$$\text{Present value} = \text{Future value} \div (1 + i)^n$$
$$\text{PV} = \text{FV} \div (1 + 10\%)^1$$
$$\text{PV} = \$1000 \div 1.10$$
$$\textbf{PV} = \mathbf{\$909.09}$$

Figure B.8 Present value calculation — $1000 discounted at 10% for 1 year

The future amount ($1000), the discount rate (10%), and the number of periods (1) are known. The variables in this situation can be depicted in the time diagram in figure B.9.

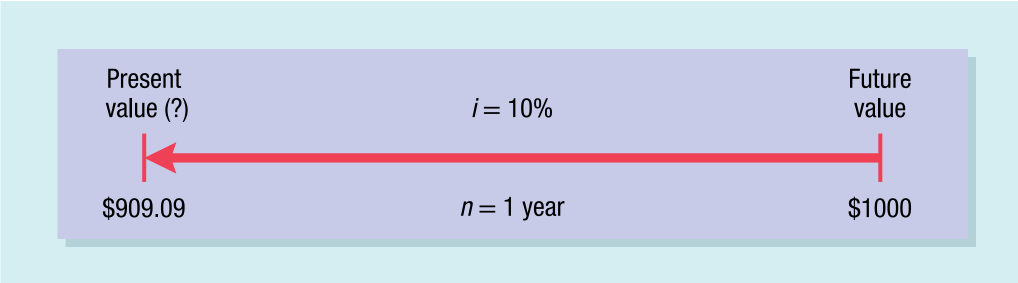


Figure B.9 Finding present value if discounted for one period

If the single amount of $1000 is to be received *in 2 years* and discounted at 10% [PV = $1000 ÷ (1 + 10%)^2], its present value is $826.45 [$1000 ÷ (1.10 × 1.10)], as depicted in figure B.10.

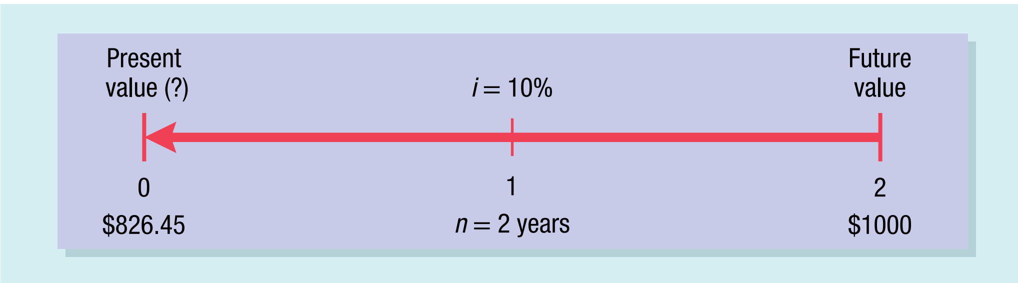


Figure B.10 Finding present value if discounted for two periods

The present value of 1 may also be determined through tables that show the present value of 1 for *n* periods. In table 3, *n* is the number of discounting periods involved. The percentages are the periodic interest rates or discount rates, and the 6-digit decimal numbers in the respective columns are the present value of 1 factors.

TABLE 3 Present value of 1 PV of $1 in *n* periods = $1/(1 + i)^n$

(*n*) Periods	4%	5%	6%	8%	9%	10%	11%	12%	15%
1	0.96154	0.95238	0.94340	0.92593	0.91743	0.90909	0.90090	0.89286	0.86957
2	0.92456	0.90703	0.89000	0.85734	0.84168	0.82645	0.81162	0.79719	0.75614
3	0.88900	0.86384	0.83962	0.79383	0.77218	0.75132	0.73119	0.71178	0.65752
4	0.85480	0.82270	0.79209	0.73503	0.70843	0.68301	0.65873	0.63552	0.57175
5	0.82193	0.78353	0.74726	0.68058	0.64993	0.62092	0.59345	0.56743	0.49718
6	0.79031	0.74622	0.70496	0.63017	0.59627	0.56447	0.53464	0.50663	0.43233
7	0.75992	0.71068	0.66506	0.58349	0.54703	0.51316	0.48166	0.45235	0.37594
8	0.73069	0.67684	0.62741	0.54027	0.50187	0.46651	0.43393	0.40388	0.32690
9	0.70259	0.64461	0.59190	0.50025	0.46043	0.42410	0.39092	0.36061	0.28426
10	0.67556	0.61391	0.55839	0.46319	0.42241	0.38554	0.35218	0.32197	0.24719
11	0.64958	0.58468	0.52679	0.42888	0.38753	0.35049	0.31728	0.28748	0.21494
12	0.62460	0.55684	0.49697	0.39711	0.35554	0.31863	0.28584	0.25668	0.18691
13	0.60057	0.53032	0.46884	0.36770	0.32618	0.28966	0.25751	0.22917	0.16253
14	0.57748	0.50507	0.44230	0.34046	0.29925	0.26333	0.23199	0.20462	0.14133
15	0.55526	0.48102	0.41727	0.31524	0.27454	0.23939	0.20900	0.18270	0.12289
16	0.53391	0.45811	0.39365	0.29189	0.25187	0.21763	0.18829	0.16312	0.10687
17	0.51337	0.43630	0.37136	0.27027	0.23107	0.19785	0.16963	0.14564	0.09293
18	0.49363	0.41552	0.35034	0.25025	0.21199	0.17986	0.15282	0.13004	0.08081
19	0.47464	0.39573	0.33051	0.23171	0.19449	0.16351	0.13768	0.11611	0.07027
20	0.45639	0.37689	0.31180	0.21455	0.17843	0.14864	0.12403	0.10367	0.06110

When table 3 is used, the future value is multiplied by the present value factor specified at the intersection of the number of periods and the discount rate. For example, the present value factor for 1 period at a discount rate of 10% is 0.90909, which equals the \$909.09 (\$1000 × 0.90909) calculated in figure B.8. For 2 periods at a discount rate of 10%, the present value factor is 0.82645, which equals the \$826.45 (\$1000 × 0.82645) calculated previously.

Note that a higher discount rate produces a smaller present value. For example, using a 15% discount rate, the present value of \$1000 due 1 year from now is \$869.57 versus \$909.09 at 10%. It should also be recognised that the further removed from the present the future value is, the smaller the present value. For example, using the same discount rate of 10%, the present value of \$1000 due in 5 years is \$620.92 versus \$1000 due in 1 year is \$909.09.

The following demonstration problem (figure B.11) illustrates how to use table 3.

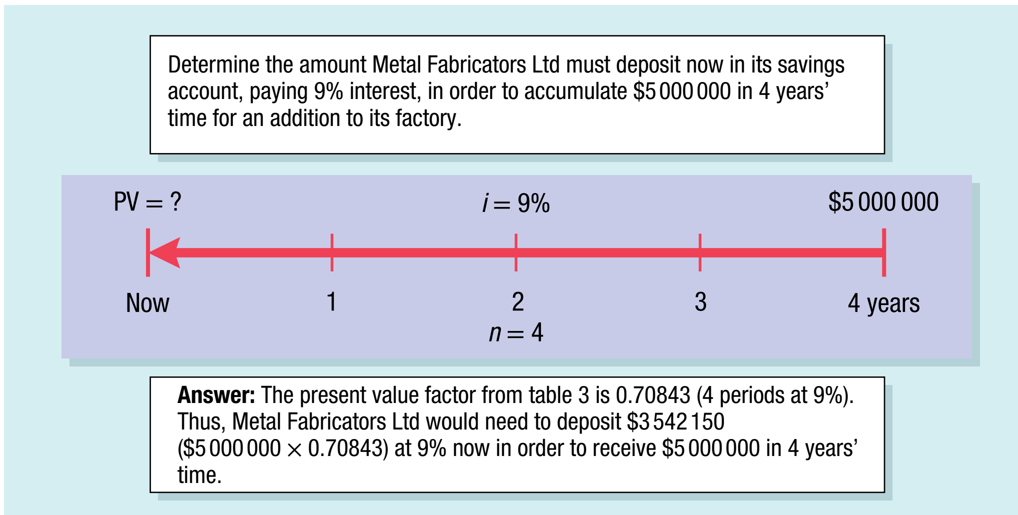


Figure B.11 Demonstration problem — using table 3 for PV of 1

LEARNING OBJECTIVE 6

Solve for present value of an annuity.

PRESENT VALUE OF AN ANNUITY

The preceding discussion involved the discounting of only a single future amount. Entities and individuals often engage in transactions in which a series of equal dollar amounts are to be received or paid periodically. Examples of a series of periodic receipts or payments are loan agreements, instalment sales, notes, lease (rental) contracts, and pension obligations. These series of periodic receipts or payments are called *annuities*. In calculating the **present value of an annuity**, it is necessary to know (1) the discount rate, (2) the number of discount periods, and (3) the amount of the periodic receipts or payments. To illustrate the calculation of the present value of an annuity, assume that you will receive \$1000 cash annually for 3 years at a time when the discount rate is 10%. This situation is depicted in the time diagram in figure B.12.

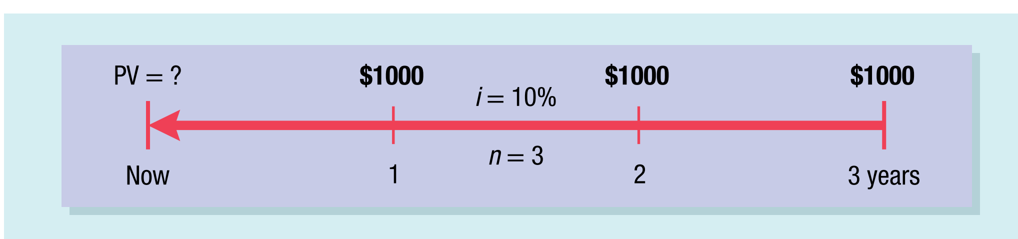


Figure B.12 Time diagram for a 3-year annuity

The present value in this situation may be calculated as follows:

Future amount	×	Present value of 1 factor at 10%	=	Present value
$1000 (one year away)		0.90909		$ 909.09
1000 (two years away)		0.82645		826.45
1000 (three years away)		0.75132		751.32
		2.48686		**$2486.86**

Figure B.13 Present value of a series of future amounts calculation

This method of calculation is required when the periodic cash flows are not uniform in each period. However, when the future receipts are the same in each period, there are two other ways to calculate present value. First, the annual cash flow can be multiplied by the sum of the three present value factors. In the previous example, $1000 × 2.48686 equals $2486.86. Second, annuity tables may be used. As illustrated in table 4 below, these tables show the present value of 1 to be received periodically for a given number of periods.

TABLE 4 Present value of an annuity of 1 PV of an annuity of $1 for n periods $= \dfrac{1 - 1/(1+i)^n}{i}$

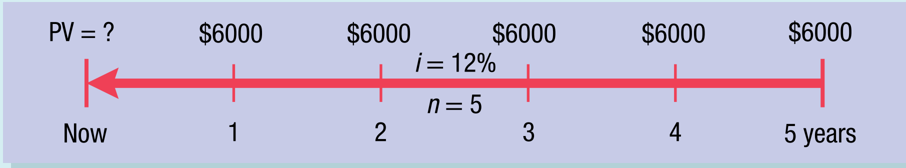
(*n*) Periods	4%	5%	6%	8%	9%	10%	11%	12%	15%
1	0.96154	0.95238	0.94340	0.92593	0.91743	0.90909	0.90090	0.89286	0.86957
2	1.88609	1.85941	1.83339	1.78326	1.75911	1.73554	1.71252	1.69005	1.62571
3	2.77509	2.72325	2.67301	2.57710	2.53130	2.48685	2.44371	2.40183	2.28323
4	3.62990	3.54595	3.46511	3.31213	3.23972	3.16986	3.10245	3.03735	2.85498
5	4.45182	4.32948	4.21236	3.99271	3.88965	3.79079	3.69590	3.60478	3.35216
6	5.24214	5.07569	4.91732	4.62288	4.48592	4.35526	4.23054	4.11141	3.78448
7	6.00205	5.78637	5.58238	5.20637	5.03295	4.86842	4.71220	4.56376	4.16042
8	6.73274	6.46321	6.20979	5.74664	5.53482	5.33493	5.14612	4.96764	4.48732
9	7.43533	7.10782	6.80169	6.24689	5.99525	5.75902	5.53705	5.32825	4.77158
10	8.11090	7.72173	7.36009	6.71008	6.41766	6.14457	5.88923	5.65022	5.01877
11	8.76048	8.30641	7.88687	7.13896	6.80519	6.49506	6.20652	5.93770	5.23371
12	9.38507	8.86325	8.38384	7.53608	7.16073	6.81369	6.49236	6.19437	5.42062
13	9.98565	9.39357	8.85268	7.90378	7.48690	7.10336	6.74987	6.42355	5.58315
14	10.56312	9.89864	9.29498	8.24424	7.78615	7.36669	6.98187	6.62817	5.72448
15	11.11839	10.37966	9.71225	8.55948	8.06069	7.60608	7.19087	6.81086	5.84737
16	11.65230	10.83777	10.10590	8.85137	8.31256	7.82371	7.37916	6.97399	5.95424
17	12.16567	11.27407	10.47726	9.12164	8.54363	8.02155	7.54879	7.11963	6.04716
18	12.65930	11.68959	10.82760	9.37189	8.75563	8.20141	7.70162	7.24967	6.12797
19	13.13394	12.08532	11.15812	9.60360	8.95012	8.36492	7.83929	7.36578	6.19823
20	13.59033	12.46221	11.46992	9.81815	9.12855	8.51356	7.96333	7.46944	6.25933

From table 4 it can be seen that the present value of an annuity of 1 factor for three periods at 10% is 2.48685.* This present value factor is the total of the three individual present value factors as shown in figure B.13. Applying this amount to the annual cash flow of $1000 produces a present value of $2486.85.

The demonstration problem in figure B.14 (overleaf) illustrates how to use table 4.

*The difference of 0.00001 between 2.48686 and 2.48685 is due to rounding.

Steel Products Ltd has just signed an agreement to purchase equipment for instalment payments of $6000 each, to be paid at the end of each of the next 5 years. In setting the amount of the payments, the seller used a discount rate of 12%. What is the present value of the instalment payments — i.e. how much is Steel Products Ltd paying for the equipment and how much is it paying in total interest over the term of the instalment contract?



Answer: The present value factor from table 4 is 3.60478 (5 periods at 12%). The present value of 5 payments of $6000 each discounted at 12% is **$21 628.68** ($6000 × 3.60478). Therefore, the cost of the equipment to Steel Products Ltd is $21 628.68 and the interest is $8371.32 [($6000 × 5) − $21 628.68].

Figure B.14 Demonstration problem — using table 4 for PV of an annuity of 1

TIME PERIODS AND DISCOUNTING

In the preceding calculations, the discounting has been done on an annual basis using an annual interest rate. Discounting may also be done over shorter periods of time such as monthly, quarterly or half-yearly. When the time frame is less than 1 year, it is necessary to convert the annual interest rate to the applicable time frame. Assume, for example, that the investor in figure B.13 received $500 every 6 months for 3 years instead of $1000 annually. In this case, the number of periods becomes 6 (3 × 2), the discount rate is 5% (10% ÷ 2), the present value factor from table 4 is 5.07569, and the present value of the future cash flows is $2537.85 (5.07569 × $500). This amount is slightly higher than the $2486.86 calculated in figure B.13 because interest is calculated twice during the same year; therefore interest is earned on the first 6 months' interest.

LEARNING OBJECTIVE 7
Calculate the present values in capital budgeting situations.

CALCULATING THE PRESENT VALUES IN A CAPITAL BUDGETING DECISION

The decision to make long-term capital investments is best evaluated using discounting techniques that recognise the time value of money, i.e. the present value of the cash flows involved in a capital investment. The evaluation must reduce all cash inflows and outflows to a common comparable amount. That can be accomplished by either future valuing to some future date all the cash flows, or present valuing (discounting) to the present date all cash flows. Although both are useful for evaluating the investment, the present value (discounting) technique is more appealing and universally used.

Nagel Ltd is considering adding another truck to its fleet because of a purchasing opportunity. Navistar Ltd, Nagel Ltd's main supplier of trucks, is overstocked and offers to sell its biggest truck for $154 000 cash payable on delivery. Nagel Ltd knows that the truck will produce a net cash flow per year of $40 000 for 5 years (received at the end of each year), at which time it will be sold for an estimated residual value of $35 000. Nagel Ltd's discount rate in evaluating capital expenditures is 10%. Should Nagel Ltd commit to the purchase of this truck?

The cash flows that must be discounted to present value by Nagel Ltd are as follows:

Cash payable on delivery (now): $154 000.
Net cash flow from operating the rig: $40 000 for 5 years (at the end of each year).
Cash received from sale of truck at the end of 5 years: $35 000.

The time diagrams for the latter two cash flows are shown in figure B.15.

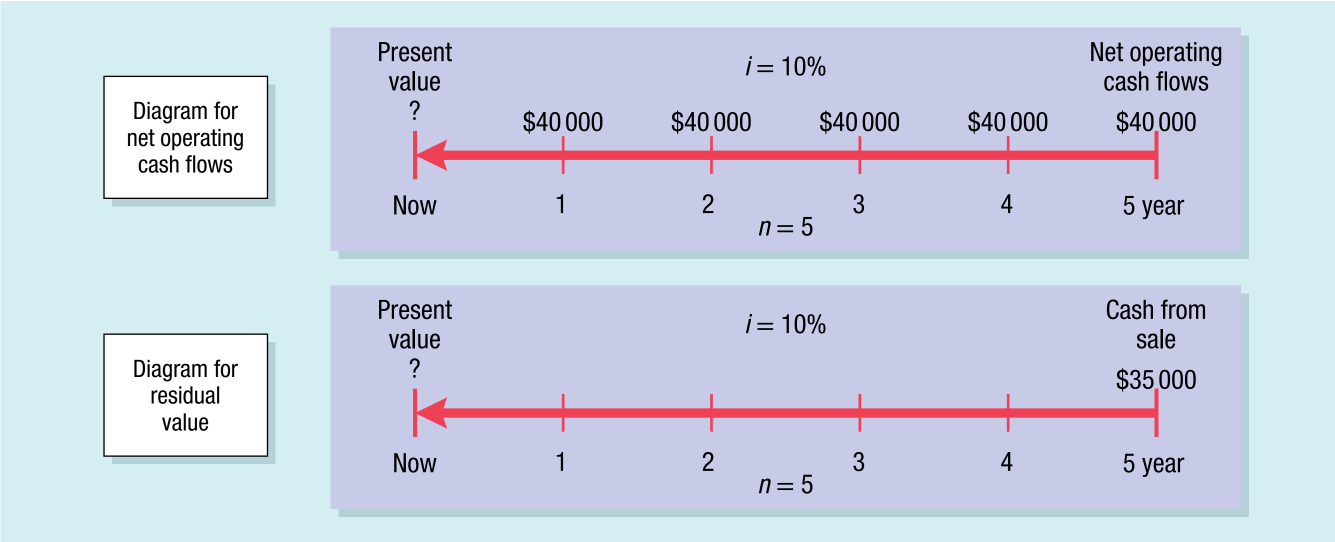


Figure B.15 Time diagrams for Nagel Ltd

Note from the diagrams that calculating the present value of the net operating cash flows ($40 000 at the end of each year) is *discounting an annuity* (table 4) whereas calculating the present value of the $35 000 residual value is *discounting a single sum* (table 3).

The calculation of these present values is shown in figure B.16.

Present values using a 10% discount rate

Present value of net operating cash flows received annually over 5 years:	
$40 000 × PV of 1 received annually for 5 years at 10%	
$40 000 × 3.79079	$151 631.60
Present value of residual value (cash) to be received in 5 years:	
$35 000 × PV of 1 received in 5 years at 10%	
$35 000 × 0.62092	21 732.20
Present value of cash *inflows*	173 363.80
Present value of cash *outflows* (purchase price due now at 10%):	
$154 000 × PV of 1 due now	
$154 000 × 1.00000	154 000.00
Net present value	$ 19 363.80

Figure B.16 Present value calculations at 10%

Because the present value of the cash receipts (inflows) of $173 363.80 ($151 631.60 + $21 732.20) exceeds the present value of the cash payments (outflows) of $154 000.00, the net present value of $19 363.80 is positive and the decision to invest should be accepted.

Now assume that Nagel Ltd uses a discount rate of 15% not 10% because it wants a greater return on its investments in capital assets. The cash receipts and cash payments by Nagel Ltd are the same. The present values of these receipts and cash payments discounted at 15% are shown in figure B.17.

Present values using a 10% discount rate

Present value of net operating cash flows received annually over 5 years at 15%:	
$40 000 × 3.35216	$134 086.40
Present value of residual value (cash) to be received in 5 years at 15%:	
$35 000 × 0.49718	17 401.30
Present value of cash *inflows*	151 487.70
Present value of cash *outflows* (purchase price due now at 15%):	
$154 000 × 1.00000	154 000.00
Net present value	$ (2 512.30)

Figure B.17 Present value calculations at 15%

Because the present value of the cash payments (outflows) of $154 000 exceeds the present value of the cash receipts (inflows) of $151 487.70 ($134 086.40 + $17 401.30), the net present value of $2512.30 is negative and the investment should be rejected.

The above discussion relied on present value tables in solving present value problems. Electronic handheld calculators may also be used to calculate present values without the use of these tables. Some calculators have present value (PV) functions that allow you to calculate present values by merely identifying the proper amount, discount rate and periods, then pressing the PV key.

SUMMARY OF LEARNING OBJECTIVES

1 Distinguish between simple and compound interest.
Simple interest is calculated on the principal only whereas compound interest is calculated on the principal and any interest earned that has not been withdrawn.

2 Solve for future value of a single amount.
Prepare a time diagram of the problem. Identify the principal amount, the number of compounding periods, and the interest rate. Using the future value of 1 table, multiply the principal amount by the future value factor specified at the intersection of the number of periods and the interest rate.

3 Solve for future value of an annuity.
Prepare a time diagram of the problem. Identify the amount of the periodic payments, the number of compounding periods, and the interest rate. Using the future value of an annuity of 1 table, multiply the amount of the payments by the future value factor specified at the intersection of the number of periods and the interest rate.

4 Identify the variables fundamental to solving present value problems.
The following three variables are fundamental to solving present value problems: (1) the future amount, (2) the number of periods, and (3) the interest rate (the discount rate).

5 Solve for present value of a single amount.
Prepare a time diagram of the problem. Identify the future amount, the number of discounting periods, and the discount (interest) rate. Using the present value of 1 table, multiply the future amount by the present value factor specified at the intersection of the number of periods and the discount rate.

6 Solve for present value of an annuity.
Prepare a time diagram of the problem. Identify the future amounts (annuities), the number of discounting periods, and the discount (interest) rate. Using the present value of an annuity of 1 table, multiply the amount of the annuity by the present value factor specified at the intersection of the number of periods and the interest rate.

7 Calculate the present values in capital budgeting situations.
Calculate the present values of all cash inflows and all cash outflows related to the capital budgeting proposal (an investment-type decision). If the *net* present value is positive, accept the proposal (make the investment). If the *net* present value is negative, reject the proposal (do not make the investment).

GLOSSARY

Annuity A series of equal dollar amounts to be paid or received periodically (p. 920).

Compound interest The interest calculated on the principal and any interest earned that has not been paid or received (p. 918).

Discounting the future amount The process of determining present value (p. 922).

Future value of a single amount The value at a future date of a given amount invested assuming compound interest (p. 918).

Future value of an annuity The sum of all the payments or receipts plus the accumulated compound interest on them (p. 920).

Interest Payment for the use of another's money (p. 917).

Present value The value now of a given amount to be invested or received in the future assuming compound interest (p. 922).

Present value of an annuity A series of future receipts or payments discounted to their value now assuming compound interest (p. 924).

Principal The amount borrowed or invested (p. 917).

Simple interest The interest calculated on the principal only (p. 917).

BRIEF EXERCISES (USE TABLES TO SOLVE EXERCISES)

BEB.1 Don Smith invested $5000 at 6% annual interest, and left the money invested without withdrawing any of the interest for 10 years. At the end of the 10 years, Don withdrew the accumulated amount of money. (a) What amount did Don withdraw assuming the investment earns simple interest? (b) What amount did Don withdraw assuming the investment earns interest compounded annually?

Calculate the future value of a single amount.
(LO2)

BEB.2 For each of the following cases, indicate (a) to what interest rate columns and (b) to what number of periods you would refer in looking up the future value factor.

Using future value tables.
(LO2,3)

1. In table 1 (future value of 1):

	Annual rate	Number of years invested	Compounded
(a)	6%	5	Annually
(b)	5%	3	Half-yearly

2. In table 2 (future value of an annuity of 1):

	Annual rate	Number of years invested	Compounded
(a)	5%	10	Annually
(b)	4%	6	Half-yearly

BEB.3 Porter Ltd signed a lease for an office building for a period of 10 years. Under the lease agreement, a security deposit of $10 000 is made. The deposit will be returned at the expiration of the lease with interest compounded at 5% per year. What amount will Porter receive at the time the lease expires?

Calculate the future value of a single amount.
(LO2)

BEB.4 David and Kathy Hatcher invested $5000 in a savings account paying 6% annual interest when their daughter, Sue, was born. They also deposited $1000 on each of her birthdays until she was 18 (including her 18th birthday). How much will be in the savings account on her 18th birthday (after the last deposit)?

Calculate the future value of a single amount and of an annuity.
(LO2,3)

BEB.5 Ron Watson borrowed $20 000 on 1 July 2012. This amount plus accrued interest at 6% compounded annually is to be repaid on 1 July 2017. How much will Ron have to repay on 1 July 2017?

Calculate the future value of a single amount.
(LO2)

BEB.6 For each of the following cases, indicate (a) to what interest rate columns and (b) to what number of periods you would refer in looking up the discount rate.

Using present value tables.
(LO5,6)

1. In table 3 (present value of 1):

	Annual rate	Number of years involved	Discounts per year
(a)	12%	6	Annually
(b)	10%	15	Annually
(c)	8%	8	Half-yearly

2. In table 4 (present value of an annuity of 1):

	Annual rate	Number of years involved	Number of payments involved	Frequency of payments
(a)	12%	20	20	Annually
(b)	10%	5	5	Annually
(c)	8%	4	8	Half-yearly

BEB.7 (a) What is the present value of $10 000 due 8 periods from now, discounted at 8%? (b) What is the present value of $10 000 to be received at the end of each of 6 periods, discounted at 9%?

Determining present values.
(LO5,6)

Calculate the present value of a single amount investment. (LO5)

BEB.8 Smolinski Ltd is considering an investment which will return a lump sum of $500 000 in 5 years from now. What amount should Smolinski Ltd pay for this investment to earn a 15% return?

Calculate the present value of a single amount investment. (LO5)

BEB.9 Pizzeria Ltd earns 11% on an investment that will return $875 000 in 8 years from now. What is the amount Pizzeria should invest now to earn this rate of return?

Calculate the present value of an annuity investment. (LO6)

BEB.10 Kilarny Bros is considering investing in an annuity contract that will return $20 000 annually at the end of each year for 15 years. What amount should Kilarny Bros pay for this investment if it earns a 6% return?

Calculate the present value of an annuity investment. (LO6)

BEB.11 Jenna & Co. earns 11% on an investment that pays back $110 000 at the end of each of the next 4 years. What is the amount Zarita & Co. invested to earn the 11% rate of return?

Calculate the present value of a note. (LO5,6)

BEB.12 Caledonia Pty Ltd receives a $50 000, 6-year note bearing interest of 11% (paid annually) from a customer at a time when the discount rate is 12%. What is the present value of the note received by Caledonia?

Calculate the present value of a machine for purposes of making a purchase decision. (LO7)

BEB.13 Brian Sands owns a garage and is contemplating purchasing a tyre-retreading machine for $16 280. After estimating costs and revenues, Brian projects a net cash flow from the retreading machine of $2790 annually for 8 years. He hopes to earn a return of 11% on such investments. What is the present value of the retreading operation? Should Brian purchase the retreading machine?

Calculate the present value of a note. (LO5,6)

BEB.14 Hung-Chao Yu Ltd issues a 10%, 6-year mortgage note on 1 January 2012 to obtain financing for new equipment. The terms provide for half-yearly instalment payments of $112 825. What were the cash proceeds received from the issue of the note?

Calculate the maximum price to pay for a machine. (LO7)

BEB.15 Ramy Pty Ltd is considering purchasing equipment. The equipment will produce the following cash flows: Year 1, $30 000; Year 2, $40 000; Year 3, $50 000. Ramy Pty Ltd requires a minimum rate of return of 15%. What is the maximum price Ramy should pay for this equipment?

Calculate the interest rate on a single amount. (LO5)

BEB.16 Kerry Rogers invests $1827 now and will receive $10 000 at the end of 15 years. What annual rate of interest will Kerry earn on her investment? (*Hint:* Use table 3.)

Calculate the number of periods of a single amount. (LO5)

BEB.17 Michael Cork has been offered the opportunity of investing $24 719 now. The investment will earn 15% per year and at the end of that time will return Michael $100 000. How many years must Michael wait to receive $100 000? (*Hint:* Use table 3.)

Calculate the interest rate on an annuity. (LO6)

BEB.18 Annie Dublin purchased an investment for $11 469.92. From this investment, she will receive $1000 annually for the next 20 years starting 1 year from now. What rate of interest will Annie's investment be earning for her? (*Hint:* Use table 4.)

Calculate the number of periods of an annuity. (LO6)

BEB.19 Dylan Grey invests $8851.37 now for a series of $1000 annual returns beginning one year from now. Dylan will earn a return of 8% on the initial investment. How many annual payments of $1000 will Dylan receive? (*Hint:* Use table 4.)

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