

DEBRA C. JETER • PAUL K. CHANEY

ADVANCED ACCOUNTING

Seventh Edition



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ADVANCED ACCOUNTING

DEBRA C. JETER

PAUL K. CHANEY

WILEY

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PREFACE

This book is designed for advanced courses dealing with financial accounting and reporting in the following topical areas: business combinations, consolidated financial statements, international accounting, foreign currency transactions, accounting for derivative instruments, translation of financial statements of foreign affiliates, segment reporting and interim reporting, partnerships, fund accounting and accounting for governmental units, and accounting for nongovernment—nonbusiness organizations. The primary objective of this book is to provide a comprehensive treatment of selected topics in a clear and understandable manner. The changes related to FASB ASC Topics 805 and 810 (SFAS No. 141R and 160) are integrated throughout the edition. As in previous editions, we strive to maintain maximum flexibility to the instructor in the selection and breadth of coverage for topics dealing with consolidated financial statements and other advanced topics.

We track the number and characteristics of mergers and acquisitions through various eras and allow this information to influence our coverage in the textbook. For instance, the frequency of acquisitions with earnouts and with noncontrolling interests is approximately equal (each around 10% of acquisitions). Therefore, we have increased the number of examples and homework where contingent consideration is included. In addition, because of the increase in cross-border acquisitions, we address the issue of consolidating multinational firms and of reporting performance over time when exchange rates change. We have added a section in Chapter 13 on non-GAAP constant currency reporting.

One of the challenges of this revision relates to situations in which FASB spreads the effective implementation of a change in standard over several years, with early

adoption allowed. Thus, financial statements that will be observed over the next few years may reflect the new standards or the prior standards. We have chosen to report the newest standard changes in the textbook (supplemented either by discussions of the prior rules or through the use of an appendix illustrating the former standards).

We expanded the number and variety of exercises and problem materials at the end of each chapter. In addition, we include financial statement analysis exercises that relate to real companies and practical applications in every chapter. Two appendices (Appendix ASC at the back of the book and Appendix A to Chapter 1) are presented to assist the student in solving these exercises. All chapters have been updated to reflect the most recent pronouncements of the Financial Accounting Standards Board and the Governmental Accounting Standards Board as of this writing. We include codification exercises that require the student to research the FASB's Codification to determine the appropriate GAAP for a variety of issues.

In teaching consolidation concepts, a decision must be made about the recording method that should be emphasized in presenting consolidated workpaper procedures. The three major alternatives for recording investments in subsidiaries are the (1) cost method, (2) partial equity (or simple equity) method, and (3) complete equity (or sophisticated equity) method. A brief description of each method follows.

1. *Cost method.* The investment in subsidiary is carried at its cost, with no adjustments made to the investment account for subsidiary income or dividends. Dividends received by the parent company are recorded as an increase in cash and as dividend income.

2. *Partial equity method.* The investment account is adjusted for the parent company's share of the subsidiary's reported earnings or losses, and dividends received from the subsidiary are deducted from the investment account. Generally, no other adjustments are made to the investment in subsidiary account.
3. *Complete equity method.* This method is the same as the partial equity method except that additional adjustments are made to the investment in subsidiary account to reflect the effects of (a) the elimination of unrealized intercompany profits, (b) the amortization (depreciation) of the difference between cost and book value, and (c) the additional stockholders' equity transactions undertaken by the subsidiary that change the parent company's share of the subsidiary's stockholders' equity.

All three are acceptable under both U.S. GAAP and IFRS, so long as the appropriate consolidating entries are made. While the FASB appears to prefer the complete equity method, the IASB, on the other hand, seems to prefer the cost method. We continue to present all three methods, using generic icons to distinguish among the three methods. The instructor has the flexibility to teach all three methods, or to instruct the students to ignore one or two. If the student is interested in learning all three methods, he or she can do so, even if the instructor only focuses on one or two. In addition, we believe this feature makes the book an excellent reference for the student to keep after graduation, so that he or she can easily adapt to any method needed in future practice.

WHAT'S NEW IN THE TEXT?

- We have updated the online videos explaining some of the critical concepts from each chapter and walk students through how to solve selected problems throughout the book.
- The partnership chapters have been updated to comply with FASB's position regarding when goodwill should (and should not) be recorded in business transactions/combinations. However, since many partnerships are not required to comply with GAAP and are thus allowed greater flexibility with respect to goodwill, we continue to present the traditional goodwill method for accounting for changes in partnership composition; we clarify which approaches are (are not) GAAP compliant.
- The coverage of certain topics has been expanded (such as contingent consideration and bargain purchases) to incorporate information gleaned from the FASB's Post-Implementation Review of FASB Statement No. 141R and to include more realistic real-world issues.
- Chapter 11 on International Accounting has been completely rewritten to focus on International Financial Reporting Standards (IFRS). In addition, in Section 11.5, we have written a stand-alone section on accounting for mergers and acquisitions using IFRS that can be used with the material in Chapters 4 or 5 to embrace an international focus on cross-border mergers and acquisitions if desired.
- Chapter 19 was revised to incorporate FASB's new not-for-profit standards on the reporting of net assets and other significant changes to the not-for-profit model.
- Chapter 2 was reorganized for improved flow of topics. It has been updated for the new goodwill impairment standards and other changes in the standards (measurement period adjustments and contingent consideration).
- We continue to provide real-world examples and use these to motivate coverage in the textbook. For instance, in Chapter 13, we have added a discussion of non-GAAP disclosures on constant currency amounts.
- To conserve space, two chapters (Chapters 9 and 10) and some topics within chapters are now located online (see www.wiley.com/go/jeter/AdvancedAccounting7e; see table of contents for more details).
- A continuous consolidation problem is introduced in Chapters 4 and 5. This allows students to build on concepts learned in prior chapters.

OTHER HIGHLIGHTED FEATURES OF THE TEXT

1. For all mergers and acquisition problems involving workpapers, we provide printable excel templates that can be used to reduce student time required in solving the problems.
2. We include a discussion of international accounting standards on each topic where such standards exist and compare and contrast U.S. GAAP and IFRS. An IFRS icon appears in the margins where this discussion occurs.
3. We have written Chapter 11 to highlight IFRS. We have added new analyzing financial statement problems; each highlights a specific difference in accounting between U.S. GAAP and IFRS. Also in this chapter, Section 11.5 on accounting for mergers and acquisitions using IFRS was written so that it can be used

- as a stand-alone section and/or incorporated into the mergers and acquisition Chapters 4 or 5. Thus, if a professor would like to cover global mergers and acquisition, this can easily be accomplished.
4. FASB's conceptual framework is discussed as it relates to Advanced Accounting in Chapter 1. We also include marginal references to **Related Concepts** throughout the book. The GASB's conceptual framework is discussed in Chapters 17 and 18.
 5. Questions or problems related to **Business Ethics** are included in the end-of chapter materials for every chapter.
 6. We include real-company annual reports or excerpts from reports with related questions (**Analyzing Financial Statements**) in the end-of-chapter materials and/or online for most chapters excluding Chapters 15 and 16.
 7. In Chapter 9 of the 6th edition, the homework material includes the effective interest, in addition to the straightline method for amortization of bond premiums and discounts. The 6th edition also includes online appendices on deferred taxes which are related to the topics in Chapter 6 and 7. (Go to www.wiley.com/go/jeter/AdvancedAccounting7e.)
 8. The **in-the-news** boxes that appear throughout the book reflect recent business and economic events relevant to the subject matter.
 9. We have integrated **goodwill impairment** into some illustrations in the body of Chapter 5, as well as in several homework problems. We illustrate the newly modified goodwill impairment test. The simplification of the goodwill impairment tests for smaller companies is also discussed, along with the role of qualitative factors for determining which steps are necessary. There are exercises on this topic in Chapters 2 and 5.
 10. At the beginning of Chapter 4, we discuss three methods of accounting for investments, depending on the level of ownership and the presumption of influence or control. We emphasize the importance of the complete equity method for certain investments that are not consolidated, or in the parent-only statements. In addition, online materials include an expanded discussion of the **accounting for investments**. (See www.wiley.com/go/jeter/AdvancedAccounting7e.)
 11. **Learning objectives** are included in the margins of the chapters, and relevant learning objective numbers are provided with end-of-chapter materials.
 12. We continue the use of **graphical illustrations**, which was introduced in prior editions.
 13. A few short-answer questions (and solutions) are periodically provided throughout each chapter to enable students to test their knowledge of the content before moving on.
 14. The organization of the worksheets applies a format that separates accounts to the income statement, the statement of retained earnings, and the balance sheet in distinct sections. The worksheets are placed near the relevant text.
 15. All illustrations are printed upright on the page and labeled clearly for convenient study and reference.
 16. Entries made on consolidated statements workpapers are presented in general journal form. These entries are shaded in blue to distinguish them from book entries, to facilitate exposition and study. To distinguish among parent company entries and workpaper entries in the body of the text, we present parent entries in gray and workpaper entries in blue.
 17. We include a feature that requires students to research the FASB Codification in order to locate the current standard that applies to various issues. These exercises appear before the problems at the end of each chapter and often, but not always, relate to topics addressed in that chapter. (Similar questions appear on the CPA exam.)
 18. Summaries appear at the end of each chapter, and a glossary of key terms is provided at the end of the book.
 19. An appendix to Chapter 1 has been posted online at www.wiley.com/go/jeter/AdvancedAccounting7e. This appendix illustrates a strategy or technique for analyzing a given company, such as a potential acquisition target. This strategy may be applied in some of the end-of-the-chapter Analyzing Financial Statements (AFS) problems.
 20. Chapters 17 through 19 reflect the latest GASB and FASB pronouncements related to fund accounting.
- Clearly, there are more topics in this text than can be covered adequately in a one semester or one-quarter course. We believe that it is generally better for both students and instructors to cover a selected number of topics in depth rather than to undertake a superficial coverage of a larger number of topics. Modules of material that an instructor may consider for exclusion in any one semester or quarter include the following:
- Chapters 7–9. An expanded analysis of problems in the preparation of consolidated financial statements.
 - Chapter 10. Insolvency—liquidation and reorganization.

- Chapters 11–14. International accounting, foreign currency transactions and translation, and segment and interim reporting.
- Chapters 15 and 16. Partnership accounting.
- Chapters 17 through 19. Fund accounting, accounting for governmental units, and accounting for nongovernment–nonbusiness organizations (NNOs).

SUPPLEMENTS

The following supplements are available on the book companion web site: Study Guide, Excel Templates, Power-Point Slides, Instructors' Manual, Solutions Manual, Test Bank, and videos for each chapter. These materials are accessible from www.wiley.com/go/jeter/AdvancedAccounting7e.

WILEYPLUS

WileyPLUS is an online learning and assessment environment, where students test their understanding of concepts, get feedback on their answers, and access learning materials such as the eText and multimedia resources. Instructors can automate assignments, create practice quizzes, assess students' progress, and intervene with those falling behind.

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INTRODUCTION TO BUSINESS COMBINATIONS AND THE CONCEPTUAL FRAMEWORK

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LEARNING OBJECTIVES

- 1 Describe historical trends in types of business combinations.
- 2 Identify the major reasons firms combine.
- 3 Identify the factors that managers should consider in exercising due diligence in business combinations.
- 4 Identify defensive tactics used to attempt to block business combinations.
- 5 Distinguish between an asset and a stock acquisition.
- 6 Indicate the factors used to determine the price and the method of payment for a business combination.
- 7 Calculate an estimate of the value of goodwill to be included in an offering price by discounting expected future excess earnings over some period of years.
- 8 Describe the two alternative views of consolidated financial statements: the economic entity and the parent company concepts.
- 9 Discuss the *Statements of Financial Accounting Concepts (SFAC)*.

1.1 GROWTH THROUGH MERGERS

Growth through mergers and acquisitions (M&A) has become a standard in business not only in America but throughout the world. The total volume of 2017 deal-making reached \$3.5 trillion, increasing the record streak to four consecutive years in which deals surpassed \$3 trillion in volume. In 2017, the United States remained the most active region conducting 12,400 deals, an all-time U.S. record. U.S. deals totaled \$1.4 trillion, falling 16% from 2016. Dealmakers expect an M&A surge in 2018 as a result of President Trump's corporate tax reform.

The total volume of Asia Pacific deals reached \$912 billion in 2017, up 11% from 2016. Chinese companies committed \$140 billion to outbound deals in 2017, down 35% from 2016 but still China's second biggest year on record. A new capital controls regime in China, coupled with increased scrutiny of tech deals from U.S. and European governments, limited outbound deals.¹ In the new millennium, the most recent in a series of booms in merger activity was sparked by cheaper credit and by global competition, in addition to the usual growth-related incentives predominant during the boom of the 1990s.

Merger activity has historically been highly correlated with the movement of the stock market. Increased stock valuation increases a firm's ability to use its shares to acquire other companies and is often more appealing than issuing debt. During the merger cycle of the 1990s, equity values fueled the merger wave. The slowing of merger activity in the early years of the 21st century provided a dramatic contrast to this preceding period. Beginning with the merger of Morgan Stanley and Dean Witter Discover and ending with the biggest acquisition to that date—WorldCom's bid for MCI—the year 1997 marked the third consecutive year of record M&A activity. The pace accelerated still further in 1998 with unprecedented merger activity in the banking industry, the auto industry, financial services, and telecommunications, among others. This activity left experts wondering why and whether bigger was truly better. It also left consumers asking what the impact would be on service. A wave of stock swaps was undoubtedly sparked by record highs in the stock market, and stockholders reaped benefits from the mergers in many cases, at least in the short run. Regulators voiced concern about the dampening of competition, and consumers were quick to wonder where the real benefits lay. Following the accounting scandals of 2001 (WorldCom, Enron, Tyco, etc.), merger activity lulled for a few years.

Also in 2001, the *Financial Accounting Standards Board (FASB)* voted in two major accounting changes related to business combinations. The first met with vehement protests that economic activity would be further slowed as a result and the second with excitement that it might instead be spurred. Both changes are detailed in Chapter 2.

By the middle of 2002, however, these hopes had been temporarily quelled. Instead of increased earnings, many firms active in mergers during the 1990s were forced to report large charges related to the diminished value of long-lived assets (mainly goodwill). Merger activity slumped, suggesting that the frenzy had run its course. Market reaction to the mergers that did occur during this period typified the market's doubts. When *Northrop Grumman Corp.* announced the acquisition of *TRW Inc.* for \$7.8 billion, the deal was praised but no market reaction was noted. In contrast, when Vivendi Universal admitted merger-gone-wrong woes, investors scurried.

By the middle of the first decade of the 21st century, however, the frenzy was returning with steady growth in merger activity from 2003 to 2006. In 2005, almost 18% of all M&A (mergers & acquisitions) deals were in the services sector. In a one-week period in June of 2006, \$100 billion of acquisitions occurred, including Phelps Dodge's \$35.4 billion acquisition of Inco Ltd. and Falconbridge Ltd. In addition, because of the economic rise in China and India, companies there were looking to increase their global foothold and began acquiring European companies. Thus, cross-border deals within Europe accounted for a third of the global M&A deals.

However, by the end of 2008, a decline in overall merger activity was apparent as the U.S. economy slid into a recession, and some forecasters were predicting the

¹ <http://www.ft.com/content/9f0270aa-eabf-11e7-bd17-521324c81e23>.


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"If we are going to ride the IASB and the IFRS [International Financial

Reporting Standards] horse, we want to make sure that it's as good as it can be. We want to make sure that the IASB is strong, is independent, is well resourced, and is properly funded in a broad-based and secure way."²


 IFRS


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In 2017, 86% of private equity investors anticipate an uptick in

M&A activity. Divestitures may be a major focus in 2017.

next chapter in M&A to center around bankruptcy-related activity. Data from Thomson Reuters revealed that in 2008, bankruptcy-related merger activity increased for the first time in the last six years. For example, the number of Chapter 11 M&A purchases rose from 136 for the entire year of 2007 to 167 for the first 10 months of 2008, with more to come. Overall mergers, on the other hand, decreased from \$87 billion in the United States (\$277 billion globally) during October 2007 to \$78 billion in the United States (\$259 billion globally) during October 2008, based on the Reuters data.

On December 4, 2007, FASB released two new standards, *FASB Statement No. 141 R*, Business Combinations, and *FASB Statement No. 160*, Noncontrolling Interests in Consolidated Financial Statements [ASC 805, "Business Combinations" and ASC 810, "Consolidations," based on FASB's new codification system]. These standards have altered the accounting for business combinations dramatically.

Both statements became effective for years *beginning after December 15, 2008*, and are intended to improve the relevance, comparability, and transparency of financial information related to business combinations, and to facilitate the convergence with international standards. They represent the completion of the first major joint project of the FASB and the IASB (International Accounting Standards Board), according to one FASB member, G. Michael Crooch. The FASB also believes the new standards will reduce the complexity of accounting for business combinations. These standards are integrated throughout this text.

Planning M&A in a Changing Environment and Under Changing Accounting Requirements

1. The timing of deals is critical. The number of days between agreement or announcement and deal consummation can make a huge difference.
2. The effects on reporting may cause surprises. More purchases qualify as business combinations than previously. Income tax provisions can trigger disclosures.
3. Assembling the needed skill and establishing the needed controls takes time. The use of fair values is expanded, and more items will need remeasurement or monitoring after the deal.
4. The impact on earnings in the year of acquisition and subsequent years will differ from that in past mergers, as will the effects on earnings of step purchases or sales.
5. Unforeseen effects on debt covenants or other legal arrangements may be lurking in the background, as a result of the changes in key financial ratios.³

Growth is a major objective of many business organizations. Top management often lists growth or expansion as one of its primary goals. A company may grow slowly, gradually expanding its product lines, facilities, or services, or it may skyrocket almost overnight. Some managers consider growth so important that they say their companies must "grow or die." In the past hundred years, many U.S. businesses have achieved their goal of expansion through business combinations. A **business combination** occurs when *the operations of two or more companies are brought under common control*.

² "Change Agent: Robert Hertz discusses FASB's priorities, the road to convergence and changes ahead for CPAs," *Journal of Accountancy*, February 2008, p. 31.

³ BDO Seidman, LLP, "Client Advisory," No. 2008-1, 1/31/08.

1.2 NATURE OF THE COMBINATION

A business combination may be friendly or unfriendly. In a **friendly combination**, *the boards of directors of the potential combining companies negotiate mutually agreeable terms of a proposed combination*. The proposal is then submitted to the stockholders of the involved companies for approval. Normally, a two-thirds or three-fourths positive vote is required by corporate bylaws to bind all stockholders to the combination.

An **unfriendly (hostile) combination** results when *the board of directors of a company targeted for acquisition resists the combination*. A formal **tender offer** enables the acquiring firm to deal directly with individual shareholders. The tender offer, usually published in a newspaper, typically provides a price higher than the current market price for shares made available by a certain date. If a sufficient number of shares are not made available, the acquiring firm may reserve the right to withdraw the offer. Because they are relatively quick and easily executed (often in about a month), tender offers are the preferred means of acquiring public companies.

Although tender offers are the preferred method for presenting hostile bids, most tender offers are friendly ones, done with the support of the target company's management. Nonetheless, hostile takeovers have become sufficiently common that a number of mechanisms have emerged to resist takeover.

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Men's
Wearhouse
acquired all
the out-
standing
shares of Jos.

A Bank with a per share offer that represented a 56% premium over Jos. A. Bank's closing share price. During a six-month period, Jos. A. Bank made several offers to acquire Men's Wearhouse. At the end of this six-month period, Men's Wearhouse, using a Pac Man strategy, made an offer to acquire Jos. A. Bank. No rebranding of the companies is expected and Men's Wearhouse shareholders hope to benefit from \$100 to \$150 million in synergies.⁴

Defense Tactics

Resistance often involves various moves by the target company, generally with colorful terms. Whether such defenses are ultimately beneficial to shareholders remains a controversial issue. Academic research examining the price reaction to defensive actions has produced mixed results, suggesting that the defenses are good for stockholders in some cases and bad in others. For example, when the defensive moves result in the bidder (or another bidder) offering an amount higher than initially offered, the stockholders benefit. But when an offer of \$40 a share is avoided and the target firm remains independent with a price of \$30, there is less evidence that the shareholders have benefited.

A certain amount of controversy surrounds the effectiveness, as well as the ultimate benefits, of the following defensive moves:

1. **Poison pill:** Issuing stock rights to existing shareholders enabling them to purchase additional shares at a price below market value, but exercisable only in the event of a potential takeover. This tactic has been effective in some instances, but bidders may take managers to court and eliminate the defense. In other instances, the original shareholders benefit from the tactic. Chrysler Corp. announced that it was extending a poison pill plan until February 23, 2008, under which the rights become exercisable if anyone announces a tender offer for 15% or more, or acquires 15%, of Chrysler's outstanding common shares. Poison pills are rarely triggered, but their existence serves as a preventative measure.
2. **Greenmail:** The purchase of any shares held by the would-be acquiring company at a price substantially in excess of their fair value. The purchased shares are then held as treasury stock or retired. This tactic is largely ineffective because it may result in an expensive excise tax; further, from an accounting perspective, the excess of the price paid over the market price is expensed.

LO 4 Defensive tactics are used.

⁴ "Men's Wearhouse Reaches \$1.8 Billion Deal to Acquire Jos. A. Bank," by Maggie McGrath, Forbes.com, 3/11/14.

3. *White knight or white squire*: Encouraging a third firm more acceptable to the target company management to acquire or merge with the target company.
4. *Pac-man defense*: Attempting an unfriendly takeover of the would-be acquiring company.
5. *Selling the crown jewels*: The sale of valuable assets to others to make the firm less attractive to the would-be acquirer. The negative aspect is that the firm, if it survives, is left without some important assets.
6. *Leveraged buyouts*: The purchase of a controlling interest in the target firm by its managers and third-party investors, who usually incur substantial debt in the process and subsequently take the firm private. The bonds issued often take the form of high-interest, high-risk “junk” bonds. Leveraged buyouts will be discussed in more detail in Chapter 2.

1.3 BUSINESS COMBINATIONS: WHY? WHY NOT?

LO 2 Reasons firms combine.

A company may expand in several ways. Some firms concentrate on **internal** expansion. A firm may expand internally by engaging in product research and development. Hewlett-Packard is an example of a company that relied for many years on new product development to maintain and expand its market share. A firm may choose instead to emphasize marketing and promotional activities to obtain a greater share of a given market. Although such efforts usually do not expand the total market, they may redistribute that market by increasing the company’s share of it.

For other firms, **external** expansion is the goal; that is, they try to expand by acquiring one or more other firms. This form of expansion, aimed at producing relatively rapid growth, has exploded in frequency and magnitude in recent years. A company may achieve significant cost savings as a result of external expansion, perhaps by acquiring one of its major suppliers.

In addition to rapid expansion, the business combination method, or external expansion, has several other potential advantages over internal expansion:

1. **Operating synergies** may take a variety of forms. Whether the merger is **vertical** (a merger between a supplier and a customer) or **horizontal** (a merger between competitors), combination with an existing company provides management of the acquiring company with an established operating unit with its own experienced personnel, regular suppliers, productive facilities, and distribution channels. In the case of vertical mergers, synergies may result from the elimination of certain costs related to negotiation, bargaining, and coordination between the parties. In the case of a horizontal merger, potential synergies include the combination of sales forces, facilities, outlets, and so on, and the elimination of unnecessary duplication in costs. When a private company is acquired, a plus may be the potential to eliminate not only duplication in costs but also unnecessary costs.

Management of the acquiring company can draw upon the operating history and the related historical database of the acquired company for planning purposes. A history of profitable operations by the acquired company may, of course, greatly reduce the risk involved in the new undertaking. A careful examination of

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Views on whether synergies are real or simply a plug figure to justify a merger that shouldn’t happen are diverse. Time Warner, for example, has fluctuated back and forth on this issue in recent years. President Jeffrey Bewkes recently was quoted as saying, “No division should subsidize another.” When queried about the message his predecessors sent to shareholders, he said, “It’s bull—”⁵

⁵ WSJ, “After Years of Pushing Synergy, Time Warner Inc. Says Enough,” by Matthew Karnitschnig, 6/2/06, p. A1.

GAINS FROM BULKING UP⁶

<i>Industry</i>	<i>Key Benefit of Consolidation</i>
Antenna towers	Frees up capital and management time for wireless communications operators
Funeral homes	Yields greater discounts on coffins, supplies, and equipment
Health clubs	Spreads regional marketing and advertising costs over more facilities
Landfill sites	Lets operators cope with the new environmental and regulatory demands
Physician group practices	Reduces overhead and costs of medical procedures

the acquired company's expenses may reveal both expected and unexpected costs that can be eliminated. On the more negative (or cautious) side, be aware that the term "synergies" is sometimes used loosely. If there are truly expenses that can be eliminated, services that can be combined, and excess capacity that can be reduced, the merger is more likely to prove successful than if it is based on growth and "so-called synergies," suggests Michael Jensen, a professor of finance at the Harvard Business School.

- Combination may enable a company to compete more effectively in the **international marketplace**. For example, an acquiring firm may diversify its operations rather rapidly by entering new markets; alternatively, it may need to ensure its sources of supply or market outlets. Entry into new markets may also be undertaken to obtain cost savings realized by smoothing cyclical operations. Diminishing savings from cost-cutting *within* individual companies makes combination more appealing. The financial crisis in Asia accelerated the pace for a time as American and European multinationals competed for a shrinking Asian market. However, a combination of growing competition, globalization, deregulation, and financial engineering has led to increasingly complex companies and elusive profits.
- Business combinations are sometimes entered into to take advantage of **income tax laws**. The opportunity to file a consolidated tax return may allow profitable corporations' tax liabilities to be reduced by the losses of unprofitable affiliates. When an acquisition is financed using debt, the interest payments are tax deductible, creating a **financial synergy** or "tax gain." Many combinations in the past were planned to obtain the advantage of significant operating loss carryforwards that could be utilized by the acquiring company. However, the Tax Reform Act of 1986 limited the use of operating loss carryforwards in merged companies. Because tax laws vary from year to year and from country to country, it is difficult to do justice to the importance of tax effects within the scope of this chapter. Nonetheless, it is important to note that tax implications are often a driving force in merger decisions.
- Diversification** resulting from a merger offers a number of advantages, including increased flexibility, an internal capital market, an increase in the firm's debt capacity, more protection from competitors over proprietary information, and, sometimes, a more effective utilization of the organization's resources. In debating



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Having incurred heavy losses over the last several decades, the

U.S. airline industry is often considered a laggard by investors. Consequently, a number of airlines were pushed into bankruptcy post the slowdown, resulting in a number of M&A over the last decade. These mergers resulted in the consolidation of capacity with the top four U.S. airlines in the industry, namely American, United, Delta, and Southwest Airlines. At present, these airlines hold almost 85% of the market share, as opposed to only 65% share (on average) held by the top four U.S. airlines in the past.⁷

⁶ *Business Week*, "Buy 'Em Out, Then Build 'Em Up," by Eric Schine, 5/18/95, p. 84.

⁷ *Forbes*, "How M&A Has Driven the Consolidation of the US Airline Industry over the Last Decade? 5/4/16.

the tradeoffs between diversification and focusing on one (or a few) specialties, there are no obvious answers.

5. Divestitures accounted for 40% of global merger activity in 2014, which has increased from 30% in the period from 2001 to 2010. Shedding divisions that are not part of a company's core business became common during this period. In some cases, the divestitures may be viewed as "undoing" or "redoing" past acquisitions. A popular alternative to selling off a division is to "spin off" a unit. Examples include AT&T's spin-off of its equipment business to form *Lucent Technologies Inc.*, Sears Roebuck's spin-off of *Allstate Corp.* and *Dean Witter Discover & Co.*, and Cincinnati Bell's proposed spin-off of its billing and customer-management businesses to form *Convergys Corp.*

Notwithstanding its apparent advantages, business combination may not always be the best means of expansion. An overriding emphasis on rapid growth may result in the pyramiding of one company on another without sufficient management control over the resulting conglomerate. Too often in such cases, management fails to maintain a sound enough financial equity base to sustain the company during periods of recession. Unsuccessful or incompatible combinations may lead to future divestitures.

In order to avoid large dilutions of equity, some companies have relied on the use of various debt and preferred stock instruments to finance expansion, only to find themselves unable to provide the required debt service during a period of decreasing economic activity. The junk bond market used to finance many of the mergers in the 1980s had essentially collapsed by the end of that decade.

Business combinations may destroy, rather than create, value in some instances. For example, if the merged firm's managers transfer resources to subsidize money-losing segments instead of shutting them down, the result will be a suboptimal allocation of capital. This situation may arise because of reluctance to eliminate jobs or to acknowledge a past mistake.

Some critics of the accounting methods used in the United States prior to 2002 to account for business combinations argued that one of the methods did not hold executives accountable for their actions if the price they paid was too high, thus encouraging firms to "pay too much." Although opinions are divided over the relative merits of the accounting alternatives, most will agree that the resulting financial statements should reflect the economics of the business combination. Furthermore, if and when the accounting standards and the resulting statements fail even partially at this objective, it is crucial that the users of financial data be able to identify the deficiencies. Thus we urge the reader to keep in mind that an important reason for learning and understanding the details of accounting for business combinations is to understand the economics of the business combination, which in turn requires understanding any possible deficiencies in the accounting presentation.

1.4 BUSINESS COMBINATIONS: HISTORICAL PERSPECTIVE

LO 1 Historical trends in types of M&A.

In the United States there have been three fairly distinct periods characterized by many business mergers, consolidations, and other forms of combinations: 1880–1904, 1905–1930, and 1945–present. During the first period, huge holding companies, or trusts, were created by investment bankers seeking to establish monopoly control over certain

industries. This type of combination is generally called **horizontal integration** because it involves the combination of companies within the same industry. Examples of the trusts formed during this period are J. P. Morgan's U.S. Steel Corporation and other giant firms such as Standard Oil, the American Sugar Refining Company, and the American Tobacco Company. By 1904, more than 300 such trusts had been formed, and they controlled more than 40% of the nation's industrial capital.

The second period of business combination activity, fostered by the federal government during World War I, continued through the 1920s. In an effort to bolster the war effort, the government encouraged business combinations to obtain greater standardization of materials and parts and to discourage price competition. After the war, it was difficult to reverse this trend, and business combinations continued. These combinations were efforts to obtain better integration of operations, reduce costs, and improve competitive positions rather than attempts to establish monopoly control over an industry. This type of combination is called **vertical integration** because it involves the combination of a company with its suppliers or customers. For example, Ford Motor Company expanded by acquiring a glass company, rubber plantations, a cement plant, a steel mill, and other businesses that supplied its automobile manufacturing business. From 1925 to 1930, more than 1,200 combinations took place, and about 7,000 companies disappeared in the process.

The third period started after World War II and has exhibited rapid growth in merger activity since the mid-1960s, and even more rapid growth since the 1980s. The total dollar value of M&A grew from under \$20 billion in 1967 to over \$300 billion by 1995 and over \$1 trillion in 1998, and \$3.5 trillion by 2006. Even allowing for changes in the value of the dollar over time, the acceleration is obvious. By 1996, the number of yearly mergers completed was nearly 7,000. Some observers have called this activity **merger mania**, and most agreed that the mania had ended by mid-2002. However, by 2006, merger activity was soaring once more. Illustration 1-1 presents two rough graphs of the level of merger activity for acquisitions over \$10 million from 1985 to 2017 in number of deals, and from 1985 to 2017 in dollar volume. Illustration 1-2 presents summary statistics on the level of activity for the years 2000 through 2018 by industry sector for acquisitions with purchase prices valued in excess of \$10 million.

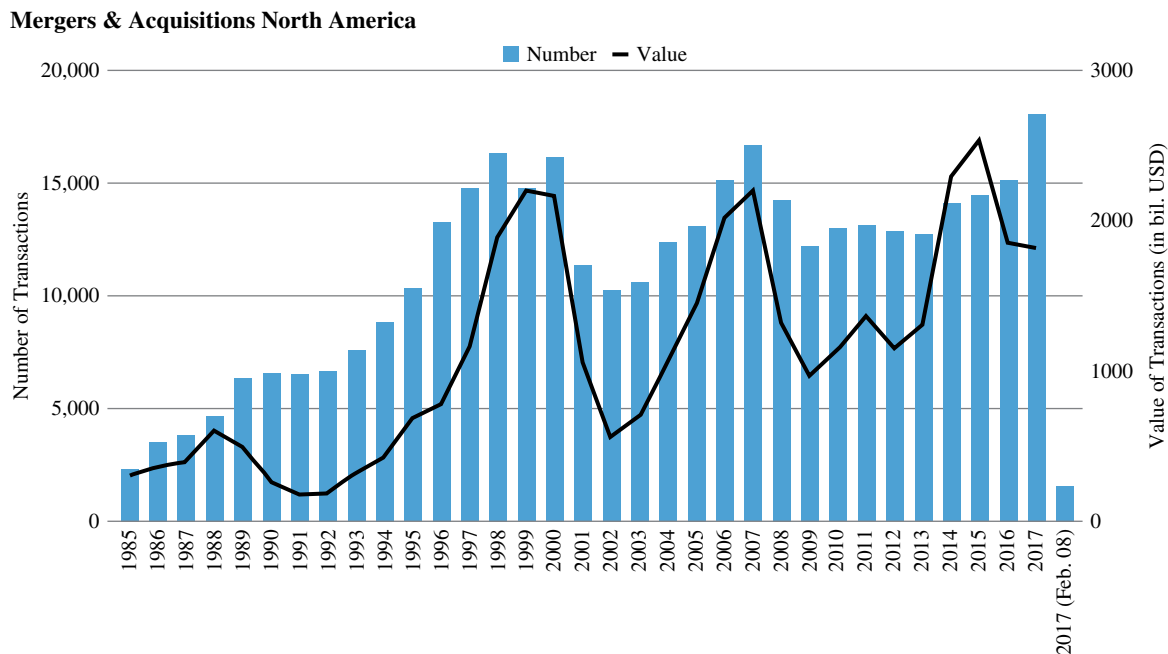
This most recent period can be further subdivided to focus on trends of particular decades or subperiods. For example, many of the mergers that occurred in the United States from the 1950s through the 1970s were **conglomerate** mergers. Here the primary motivation for combination was often to diversify business risk by combining companies in different industries having little, if any, production or market similarities, or possibly to create value by lowering the firm's cost of capital. One conjecture for the popularity of this type of merger during this time period was the strictness of regulators in limiting combinations of firms in the same industry. One conglomerate may acquire another, as Esmark did when it acquired Norton-Simon, and conglomerates may spin off, or divest themselves of, individual businesses. Management of the conglomerate hopes to smooth earnings over time by counterbalancing the effects of economic forces that affect different industries at different times.

In contrast, the 1980s were characterized by a relaxation in antitrust enforcement during the Reagan administration and by the emergence of high-yield junk bonds to finance acquisitions. The dominant type of acquisition during this period and into the 1990s was the **strategic acquisition**, claiming to benefit from **operating synergies**. These synergies may arise when the talents or strengths of one of the firms complement the products or needs of the other, or they may arise simply because the firms were former competitors. An argument can be made that the dominant form of acquisition shifted in the 1980s because many of the conglomerate mergers of the

1960s and 1970s proved unsuccessful; in fact, some of the takeovers of the 1980s were of a disciplinary nature, intended to break up conglomerates.

Deregulation undoubtedly played a role in the popularity of combinations in the 1990s. In industries that were once fragmented because concentration was forbidden, the pace of mergers picked up significantly in the presence of deregulation. These industries include banking, telecommunications, and broadcasting. Although recent

ILLUSTRATION 1-1 Number and Value of M&A North America 1985 to 2017



<https://imaa-institute.org/mergers-and-acquisitions-statistics/>

ILLUSTRATION 1-2

Ten Most Active Industries (Domestic Deals) by Number and Value of Transactions from 2000 to 2018

Industry	Number of Deals			Value of Deals		
	Rank	Number of Deals	% of all M&A Deals	Rank	Value (\$ billions)	% of Total M&A Value
High Technology	1	38,350	19.91%	3	2,807	12.10%
Financials	2	22,049	11.45%	4	2,779	11.98%
Consumer Products	3	21,816	11.32%	11	875	3.77%
Industrials	4	20,863	10.83%	6	1,745	7.52%
Healthcare	5	16,592	8.61%	1	3,292	14.19%
Media and Entertainment	6	15,203	7.89%	5	2,362	10.18%
Energy and Power	7	13,978	7.26%	2	3,078	13.27%
Materials	8	13,843	7.19%	8	1,494	6.44%
Real Estate	9	9,010	4.68%	7	1,521	6.56%
Retail	10	7,909	4.11%	12	647	2.79%
Consumer Staples	11	7,649	3.97%	10	1,269	5.47%
Telecommunications	12	5,387	2.80%	9	1,333	5.75%
		192,649	100.00%		23,202	100.00%

Source: Institute of Mergers, Acquisitions and Alliances (IMAA), retrieved from <https://imaa-institute.org/mergers-and-acquisitions-statistics>

years have witnessed few deals blocked due to antitrust enforcement, an example of a major transaction dropped in 1996 because of a planned FTC (Federal Trade Commission) challenge was in the drugstore industry. The FTC challenged the impact of a proposed merger between *Rite Aid Corp.* and *Revco D.S. Inc.* on market power in several sectors of the East and Midwest. Nonetheless, subsequent deals in the industry saw both companies involved: Rite Aid acquired *Thrifty PayLess Holdings Inc.*, and *CVS Inc.* purchased Revco in February 1997.

Later, the Justice Department sued to block Primestar's acquisition of a satellite slot owned by *MCI* and *News Corp.* Other deals were dropped in the face of possible intervention, including a planned merger between CPA firms KPMG Peat Marwick and Ernst & Young in 1998. Nonetheless, over time the group of large CPA firms once referred to as the Big 8 has blended into the Big 4, raising concerns about a possible lack of competition in the audit market for large companies. The Justice Department reached a settlement in 2013 with American Airlines and US Airways requiring them to sell facilities at seven airports before being allowed to consummate the planned merger.⁸

In Broadcom's bid for Qualcomm, the chipmaker agreed to pay an \$8 billion breakup fee should the deal ultimately be blocked by regulators, representing the second largest breakup fee ever recorded. Of the ten deals with the largest breakup fees, three were ultimately terminated resulting in a \$3–\$3.5 billion loss for the acquirer (T-Mobile and AT&T in 2011, Baker Hughes and Halliburton in 2016, and Pfizer and Allergan in 2016).⁹

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Virtually every deal in the 2010 Wall Street lineup of potential mega-mergers faced regulatory challenges both in the United States and in Europe. Examples include Oracle and Sun; Exxon and XTO Energy; Yahoo and Microsoft, Kraft and Cadbury.

1.5 TERMINOLOGY AND TYPES OF COMBINATIONS

LO 5 Stock versus asset acquisitions.

From an accounting perspective, the distinction that is most important at this stage is between an **asset acquisition** and a **stock acquisition**. In Chapter 2, we focus on the acquisition of the assets of the acquired company, where only the acquiring or new company survives. Thus the books of the acquired company are closed out, and its assets and liabilities are transferred to the books of the acquirer. In subsequent chapters, we will discuss the stock acquisition case where the acquired company and its books remain intact and consolidated financial statements are prepared periodically. In such cases, the acquiring company debits an account "Investment in Subsidiary" rather than transferring the underlying assets and liabilities onto its own books.

Note that the distinction between an asset acquisition and a stock acquisition does not imply anything about the medium of exchange or consideration used to consummate the acquisition. Thus a firm may gain control of another firm in a stock acquisition using cash, debt, stock, or some combination of the three as consideration. Alternatively, a firm may acquire the total assets of another firm using cash, debt,

⁸ CNN Money, "US Air and American Airlines Reach Deal with Justice to Allow Merger," by C. Isadore and E. Perez, 11/12/2013.

⁹ <http://www.bloomberg.com/gadfly/articles/2018-02-14/broadcom-s-8-billion-breakup-pledge-to-qualcomm-shows-chutzpah>

stock, or some combination of the three. There are two independent issues related to the consummation of a combination: what is acquired (assets or stock) and what is given up (the consideration for the combination). These are shown in Illustration 1-3.

In an analysis of mergers involving a public acquirer from 2001 to 2017, the authors found that approximately 30% of deals used cash only as the consideration until around 2014, when the percentage of deals consummated using only cash began a sharp decline. By 2017, the percentage of cash-only deals was cut in half, to a new average of 15%. The percentage of deals consummated using stock only was around 25% in 2001 but declined shortly thereafter to approximately 10% and remained at this level until 2014. It too began a decline, though less dramatic and appears to have stabilized at about 7 to 8%. The change in recent years has likely been driven by low interest rates and inexpensive debt financing.

In an asset acquisition, a firm must acquire 100% of the assets of the other firm. In a stock acquisition, a firm may obtain control by purchasing 50% or more of the voting common stock (or possibly even less). This introduces one of the most obvious advantages of the stock acquisition over the asset acquisition: a lower total cost in many cases. Also, in a stock acquisition, direct formal negotiations with the acquired firm’s management may be avoided. Further, there may be advantages to maintaining the acquired firm as a separate legal entity. The possible advantages include liability limited to the assets of the individual corporation and greater flexibility in filing individual or consolidated tax returns. Finally, regulations pertaining to one of the firms do not automatically extend to the entire merged entity in a stock acquisition. A stock acquisition has its own complications, however, and the economics and specifics of a given situation will dictate the type of acquisition preferred.

Other terms related to M&A merit mention. For example, business combinations are sometimes classified by method of combination into three types—statutory mergers, statutory consolidations, and stock acquisitions. However, the distinction between these categories is largely a technicality, and the terms **mergers**, **consolidations**, and **acquisitions** are popularly used interchangeably.

A **statutory merger** results when *one company acquires all the net assets of one or more other companies through an exchange of stock, payment of cash or other property, or issue of debt instruments (or a combination of these methods)*. The acquiring company survives, whereas the acquired company (or companies) ceases to exist as a separate legal entity, although it may be continued as a separate division of the acquiring company. Thus, if A Company acquires B Company in a statutory merger, the combination is often expressed as

$$\text{A Company} + \text{B Company} = \text{A Company}$$

ILLUSTRATION 1-3

<i>What Is Acquired:</i>	<i>What Is Given Up:</i>
Net Assets of S Company (Assets and Liabilities)	{ <ol style="list-style-type: none"> 1. Cash 2. Debt 3. Stock 4. Combination of Above
Common Stock of S Company	


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Synergistic deals may be viable even in the current environment, given

adequate flexibility and preparation. Although the successful financing of large deals depends largely on capital markets, local middle market deals—say, less than \$20 million—more often rely on a combination of commercial loans, seller financing, and equity from private sources or a private equity group.¹⁰

The boards of directors of the companies involved normally negotiate the terms of a plan of merger, which must then be approved by the stockholders of each company involved. State laws or corporation bylaws dictate the percentage of positive votes required for approval of the plan.

A **statutory consolidation** results when *a new corporation is formed to acquire two or more other corporations through an exchange of voting stock; the acquired corporations then cease to exist as separate legal entities*. For example, if C Company is formed to consolidate A Company and B Company, the combination is generally expressed as

Statutory Consolidation

$$\boxed{\text{A Company}} + \boxed{\text{B Company}} = \boxed{\text{C Company}}$$

Stockholders of the acquired companies (A and B) become stockholders in the new entity (C). The combination of *Chrysler Corp.* and *Daimler-Benz* to form *Daimler-Chrysler* is an example of this type of consolidation. The acquired companies in a statutory consolidation may be operated as separate divisions of the new corporation, just as they may under a statutory merger. Statutory consolidations require the same type of stockholder approval as do statutory mergers.

A **stock acquisition** occurs when *one corporation pays cash or issues stock or debt for all or part of the voting stock of another company, and the acquired company remains intact as a separate legal entity*. When the acquiring company acquires a controlling interest in the voting stock of the acquired company (for example, if A Company acquires 50% of the voting stock of B Company), a parent–subsidiary

TEST YOUR KNOWLEDGE  1.1

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

Short Answer

1. Name the following takeover defense tactics:
 - a. Issuing stock rights to existing shareholders, enabling them to purchase additional shares at a price below market value, but exercisable only in the event of a potential takeover. _____
 - b. The purchase of a controlling interest in the target firm by its managers and third-party investors, who usually incur substantial debt in the process and subsequently take the firm private. _____
 - c. Encouraging a third firm, more acceptable to the target company management, to acquire or merge with the target company. _____
- b. In many cases, stock acquisitions entail lower total cost than asset acquisitions.
- c. Regulations pertaining to one of the firms do not automatically extend to the entire merged entity in a stock acquisition.
- d. A stock acquisition occurs when one corporation pays cash, issues stock, or issues debt for all or part of the voting stock of another company; and the acquired company dissolves and ceases to exist as a separate legal entity.
3. Which of the following can be used as consideration in a stock acquisition?
 - a. Cash
 - b. Debt
 - c. Stock
 - d. Any of the above may be used

Multiple Choice

2. Which one of the following statements is **incorrect**?
 - a. In an asset acquisition, the books of the acquired company are closed out, and its assets and liabilities are transferred to the books of the acquirer.

¹⁰ “The Credit Puzzle,” by Lou Banach and Jim Gettel, *Mergers & Acquisitions*, December 2008.

relationship results. Consolidated financial statements (explained in later chapters) are prepared and the business combination is often expressed as

$$\begin{array}{|c|} \hline \text{Financial Statements} \\ \text{of A Company} \\ \hline \end{array} + \begin{array}{|c|} \hline \text{Financial Statements} \\ \text{of B Company} \\ \hline \end{array} = \begin{array}{|c|} \hline \text{Consolidated Financial Statements} \\ \text{of A Company and B Company} \\ \hline \end{array}$$

1.6 TAKEOVER PREMIUMS

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CVS Health Corp.'s outstanding bonds fell Tuesday, as the company

completed an offering of \$40 billion in new debt to be used to finance the company's proposed \$69 billion acquisition of Aetna Corp. "The combination of CVS and Aetna will create a one-of-a-kind vertically integrated health-care company with huge scale and mark an industry shift toward a more seamless approach to managing health-care costs as it brings together the overall management of a patient's medical bills and prescription drugs under one umbrella," Moody's Vice President Mickey Chadha said in a note. "However, the transaction will result in significant weakening of CVS's credit metrics as it will be financed with a large amount of debt and will come with high execution and integration risks."¹¹

A **takeover premium** is the term applied to the excess of the amount offered, or agreed upon, in an acquisition over the prior stock price of the acquired firm. It is not unusual for the takeover premium to be as high as 100% of the target firm's market share price before the acquisition, and the average hovered around 40% to 50% into the late 1990s. In the face of the already high stock prices of this period, speculation was mixed as to the future of takeover premiums. Some experts predicted the premiums would shrink, leading to "takeunders" in some cases where companies are acquired below the listed stock prices. These predictions found some subsequent fulfillment as premiums in 2006 declined to around 20%.

Possible reasons acquirers are willing to pay high premiums vary. One factor is that the acquirers' own stock prices may be at a level that makes it attractive to issue stock (rather than cash) to consummate the acquisition. Another factor is the availability of relatively cheap credit for M&A.

Bidders may have private information about the target firm suggesting that it is worth more than its current market value or has assets not reported on the balance sheet (such as in-process research and development). Alternatively, companies desperate to boost earnings may believe that growth by acquisitions is essential to survive in the global marketplace and that the competition necessitates the premiums. At the other end of the spectrum, a final possibility, which cannot be entirely ruled out, is that managers eager for growth may simply pay too much.

One research study presented evidence that higher premiums were offered for firms with high cash flows, relatively low growth opportunities, and high tax liabilities relative to their equity values.¹² Another study suggested that the bigger the ego of the acquiring firm's CEO, the higher the takeover premium, while still another suggested that any premium over 25% is extremely risky.¹³ Some compensation analysts argue that the massive options payouts to executives combined with golden parachutes provide an unhealthy incentive for executives to negotiate mergers, citing Chrysler's merger with Daimler-Benz as an example.¹⁴

Takeover premiums have attracted so much attention that some strategists (e.g., Paine Webber's Edward Kerschner) have advised clients looking for investments to choose stocks that might get taken over. Cautious financial advisors point out that lofty

¹¹ www.marketwatch.com, by Ciara Linnane, 3/7/18.

¹² The study, entitled "Free Cash Flow and Stockholder Gains in Going Private Transactions," was conducted by Lehn and Poulsen (*Journal of Finance*, July 1989, pp. 771–787). Also see "The Case against Mergers," by Phillip Zweig, *Business Week*, 10/30/95, pp. 122–130.

¹³ "Acquisition Behavior, Strategic Resource Commitments and the Acquisition Game: A New Perspective on Performance and Risk in Acquiring Firms," by Mark Sirower, doctoral dissertation, Columbia University, 1994.

¹⁴ *WSJ*, "Chrysler Executives May Reap Windfall," by Gregory White, 5/13/98, p. A3.


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Some statistics suggest that of “6000 acquisitions, only 900

return the cost of capital. It is easy to do deals. It is very difficult to make them succeed.”¹⁶

stock prices are a double-edged sword for financial buyers because they mean high prices for both companies’ stocks and costlier acquisitions. Also, when stock prices fluctuate, the agreed-upon purchase price may suddenly appear more or less attractive than it did at the time of agreement. For example, a proposed acquisition of *Comsat Corp.* by Lockheed Martin Corp. was announced in September 1998, with the acquisition valued at \$2.6 billion, of which 49% was to be paid in cash and the rest in Lockheed stock. When Lockheed Martin’s stock price subsequently faltered enough to suggest a 16% drop in the total value of the transaction, Comsat shareholders questioned whether the consideration for the transaction was fairly priced.¹⁵

1.7 AVOIDING THE PITFALLS BEFORE THE DEAL


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In a survey of 101 corporations that completed a merger or acquisition transaction of at least \$100 million, KPMG found that 93% of companies queried believed that their deal enhanced shareholder value and over a third said they would not do anything different in subsequent deals. However, KPMG’s objective examination of the deals showed that only 31% of these deals improved value. KPMG concluded that many companies may not be prepared to make an honest assessment of the success of their deals in order to avoid making mistakes in future deals.¹⁷

LO 3 Factors to be considered in due diligence.

To consider the potential impact on a firm’s earnings realistically, the acquiring firm’s managers and advisors must exercise **due diligence** in considering the information presented to them. The factors to beware of include the following:

1. Be cautious in interpreting any **percentages** presented by the selling company. For example, the seller may be operating below capacity (say, at 60% of capacity), but the available capacity may be for a product that is unprofitable or that is concentrated at a specific location, while the desirable product line (which the acquirer wishes to expand) is already at capacity.
2. Don’t neglect to include **assumed liabilities** in the assessment of the cost of the merger. The purchase price for a firm’s assets is the sum of the cash or securities issued to consummate the merger **plus** any liabilities assumed. This is equivalent to viewing the purchase price for a firm’s **net** assets (assets **minus** liabilities assumed) as the sum of the cash or securities issued to consummate the merger.


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An important part of a buyer’s preparation involves the development of a due diligence report (sometimes by a public accounting firm) for the purpose of uncovering “skeletons in the closet” (like vendor reliance or customer concentrations). These reports offer a fairly objective perspective of the business, so sharing them with potential lenders is one way of building trust and confidence in the collateral and cash flow. Most lenders prefer a 1-to-1 loan-to-collateral ratio in any deal and regular monitoring through a monthly borrowing base. A lot of the scrutiny by senior lenders gets directed to the buyer’s credentials and familiarity with the industry.¹⁸

¹⁵ *WSJ*, “Lockheed Bid for Comsat Hits Obstacles,” by Anne Marie Squeo, 6/11/99, p. A3.

¹⁶ *M&A*, “How Acquirers Can Be Blindsided by the Numbers,” May/June 1997, p. 29.

¹⁷ *KPMG Transaction Services*, “The Morning After—Driving for Post Deal Success,” 1/31/06.

¹⁸ “The Credit Puzzle,” by Lou Banach and Jim Gettel, *Mergers & Acquisitions*, December 2008.

In addition to liabilities that are on the books of the acquired firm, be aware of the possibility of less obvious liabilities. FASB ASC Section 805–20–25 [Recognition] requires an acquiring firm to recognize at fair value all assets acquired and liabilities assumed, whether or not shown in the financial statements of the acquired company.¹⁹

Furthermore, FASB ASC paragraph 805–30–25–5 states that any *contingent* assets or liabilities that are acquired or assumed as part of a business combination must be measured and recognized at their fair values (provided they satisfy the definition of assets or liabilities), **even if they do not meet the usual recognition criteria for recording contingent items** (FASB ASC paragraph 450–20–25–2).²⁰

FASB ASC topic 805 [Business Combinations] also states that any costs associated with restructuring or exit activities should not be treated as liabilities at the acquisition date unless they meet the criteria for recognition laid out in FASB ASC paragraph 420-10-15-2.²¹ Instead, costs not meeting these criteria should be expensed in the period in which they are incurred. For example, future costs expected with regard to exiting an activity of the target, terminating the employment of the acquiree’s employees, or relocating those employees are not accounted for as part of the business combination.²²

3. Watch out for the impact on earnings of the **allocation of expenses** and the effects of production increases, standard cost variances, LIFO liquidations, and by-product sales. For example, a firm that is planning to be acquired may grow inventory levels in order to allocate its fixed costs over more units, thus decreasing the cost of goods sold and increasing the bottom line. However, the inventory level that is acquired may be excessive and ultimately costly.
4. Note any **nonrecurring items** that may have artificially or temporarily boosted earnings. In addition to nonrecurring gains or revenues, look for recent **changes in estimates, accrual levels, and methods**. While material changes in method are a required disclosure under GAAP, the rules on materiality are fuzzy, and changes in estimates and accruals are frequently not disclosed (see Illustration 1-4).
5. Be careful of **CEO egos**. Striving to be number one may make business sense, but not everyone can hold that spot. One CEO drew both praise and criticism with his deal-of-the-month style. He stated, “There are the big dogs, there are the ankle-biters, and then there are those caught in the middle.” The midsize firms have to combine, he claimed.²⁴

¹⁹ See the section later in the chapter on the FASB Codification.

²⁰ FASB ASC paragraph 450–20–25–2 (*FASB Statement No. 5*) states that, in general, contingent liabilities (and related losses) should be accrued if they are both probable and reasonably estimable while contingent assets (and gains) should usually not be reflected to avoid misleading implications about their realizability. These conditions still apply for noncontractual contingent liabilities unless it is *more likely than not* that an asset or liability exists. The number of deals with contingent payments nearly doubled between 1997 and 2006, while the dollar value of those deals more than doubled (with the earn-out value portion rising from 3.3 billion dollars in 1997 to a high of 6.1 billion dollars in 2001 and leveling back to 5.3 billion dollars in 2006). See Chapter 2 for further details.

²¹ FASB ASC paragraph 420–10–25–2 (*FASB Statement No. 146*) reiterates the definition of a liability and states that only present obligations to others are liabilities. It clarifies by specifying that an obligation becomes a present obligation when a past transaction or event leaves little or no discretion to avoid settlement and that an exit or disposal plan, by itself, does not create a present obligation.

²² FASB’s new Codification system, referenced here, is discussed near the end of Chapter 1.

²³ *M&A*, “How Acquirers Can Be Blindsided by the Numbers,” May/June 1997, p. 29.

²⁴ *WSJ*, “In the New Mergers Conglomerates Are Out, Being No. 1 Is In,” by Bernard Wysocki Jr., 12/31/97, p. A1.

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“While everything in the offering memorandum may very well be

true, although not necessarily, the facts are designed to make the company look better than it would if an analyst were to dig into those facts.”²³

ILLUSTRATION 1-4

Mode of Payment in M&A Deals

Year	Cash Only		% of All Deals Stock Only		Earnouts	
	#	%	#	%	#	%
2010	416	35.6%	136	11.6%	97	8.3%
2011	386	32.6%	114	9.6%	113	9.5%
2012	460	36.6%	98	7.8%	101	8.0%
2013	445	37.5%	113	9.5%	92	7.7%
2014	498	35.1%	137	9.7%	111	7.8%
2015	283	22.9%	83	6.7%	96	7.7%
2016	172	17.8%	59	6.1%	70	7.2%
2017	117	13.6%	52	6.1%	61	7.1%

Source: Thomson SDC Platinum

1.8 DETERMINING PRICE AND METHOD OF PAYMENT IN BUSINESS COMBINATIONS

LO 6 Factors affecting price and method of payment.

Whether an acquisition is structured as an asset acquisition or a stock acquisition, the acquiring firm must choose to finance the combination with cash, stock, or debt (or some combination). The cash-only financed portion of acquisition prices dropped approximately 10% from the early 2000s to an average of 63% between 2010 and 2014 and has continued to drop to less than 30%. The number of deals financed with stock-only increased by 6% to an average of 20% between 2010 and 2014, but has since dropped to less than 10%. Earnouts were used in approximately 7% to 9% of acquisitions.

The mode of payment also affects the number of days it takes to complete the merger (from the announcement date to the effective date). The following schedule provides the average days to complete a merger for various modes of payment in an acquisition.

Mode of Payment*	Days to Complete Acquisition	
	Public Targets	Private Targets
Common stock	158 days	90 days
Cash only	84 days	67 days
Earnout	75 days	48 days

* SDC Platinum (2010 to 2013).

As can be seen, if earnouts are used as part of the consideration, the time to complete the merger is significantly shorter (especially for private acquisitions, with an average of 48 days). Acquisitions using stock generally take much longer to complete. Information on the mode of payment in M&A is provided in Illustration 1-4.

The trends are often explained by fluctuating stock valuations. The higher the acquiring firm's stock valuation, the fewer shares are needed to pay for the acquisition. This means less dilution to existing shareholders, a frequent concern in the planning stages of a proposed acquisition. When stock prices slumped in the middle of 2001, merger activity slowed as well. But by the middle of the decade, both were booming once more. Then, merger activity rose steadily from 2002 to 2006, remained

approximately the same in 2007 as in 2006, and then fell off by the end of 2008 as stock prices plunged and the economy slid into a recession. By 2010, many of the mega-mergers in the making were once again looking to use all (or mostly) stock, as the market moved up.

When a business combination is effected through an open-market acquisition of stock, no particular problems arise in connection with determining price or method of payment. Price is determined by the normal functioning of the stock market, and payment is generally in cash, although some or all of the cash may have to be raised by the acquiring company through debt or equity issues. Effecting a combination may present some difficulty if there are not enough willing sellers at the open-market price to permit the acquiring company to buy a majority of the outstanding shares of the company being acquired. In that event, the acquiring company must either negotiate a price directly with individuals holding large blocks of shares or revert to an open tender offer.

When a business combination is effected by a stock swap, or exchange of securities, both price and method of payment problems arise. In this case, the price is expressed in terms of a **stock exchange ratio**, which is generally defined as *the number of shares of the acquiring company to be exchanged for each share of the acquired company*, and constitutes a **negotiated price**. It is important to understand that each constituent of the combination makes two kinds of contributions to the new entity—net assets and future earnings. The accountant often becomes deeply involved in the determination of the values of these contributions. Some of the issues and the problems that arise are discussed in the following section.

In addition, it is not unusual, in an acquisition, for the acquiree to retain all cash as well as the responsibility for paying any interest bearing debt. A potential issue that can arise prior to the transaction close is that the acquiree has incentives to delay payments and collect large receivable balances. Thus acquisitions often include net working capital adjustments (true-up). The acquirer will receive additional consideration if net working capital is below agreed-upon target levels, while the acquiree will receive additional consideration if the target amounts exceed the agreed-upon target amounts.

Net Asset and Future Earnings Contributions

Determination of an equitable price for each constituent company, and of the resulting exchange ratio, requires the valuation of each company's net assets as well as their expected contribution to the future earnings of the new entity. The accountant is often called upon to aid in determining net asset value by assessing, for example, the expected collectibility of accounts receivable, current replacement costs for inventories and some fixed assets, and the current value of long-term liabilities based on current interest rates. To estimate current replacement costs of real estate and other items of plant and equipment, the services of appraisal firms may be needed.

Estimation of the value of goodwill to be included in an offering price is subjective. A number of alternative methods are available, usually involving the discounting of expected future cash flows (or free cash flows), earnings, or excess earnings over some period of years. Generally, the use of free cash flows or earnings yields an estimate of the entire firm value (including goodwill), whereas the use of excess earnings yields an estimate of the goodwill component of total firm value. We next describe the steps in the excess earnings approach and then follow with an illustration.

EXCESS EARNINGS APPROACH TO ESTIMATING GOODWILL

1. Identify a normal rate of return on assets for firms similar to the company being targeted. Statistical services are available to provide averages, or a normal rate may be estimated by examining annual reports of comparable firms. The rate may be estimated as a return on either total assets or on *net* identifiable assets (assets other than goodwill minus liabilities).
2. Apply the rate of return identified in step 1 to the level of identifiable assets (or net assets) of the target to approximate what the “normal” firm in this industry might generate with the same level of resources. We will refer to the product as “normal earnings.”
3. Estimate the expected future earnings of the target. Past earnings are generally useful here and provide a more objective measure than management’s projections, although both should be considered. Exclude any nonrecurring gains or losses (extraordinary items, gains and losses from discontinued operations, etc.) from past earnings if they are used to estimate future earnings.
4. Subtract the normal earnings calculated in step 2 from the expected target earnings from step 3. The difference is “excess earnings.” If the normal earnings are greater than the target’s expected earnings, then no goodwill is implied under this approach.
5. To compute estimated goodwill from “excess earnings,” we must assume an appropriate time period and a discount rate. The shorter the time period and the higher the discount rate, the more conservative the estimate. If the excess earnings are expected to last indefinitely, the present value of a perpetuity may be calculated simply by dividing the excess earnings by the discount rate. For finite time periods, use present-value tables or calculations to compute the present value of an annuity. Because of the assumptions needed in step 5, a range of goodwill estimates may be obtained simply by varying the assumed discount rate and/or the assumed discount period.
6. Add the estimated goodwill from step 5 to the fair value of the firm’s net identifiable assets to arrive at a possible offering price.

LO 7 Estimating goodwill.

Estimating Goodwill and Potential Offering Price Wanna Buy Company is considering acquiring *Hot Stuff Inc.* and is wondering how much it should offer. Wanna Buy makes the following computations and assumptions to help in the decision.

- a. Hot Stuff’s identifiable assets have a total fair value of \$7,000,000. Hot Stuff has liabilities totaling \$3,200,000. The assets include patents and copyrights with a fair value approximating book value, buildings with a fair value 50% higher than book value, and equipment with a fair value 25% lower than book value. The remaining lives of the assets are deemed to be approximately equal to those used by Hot Stuff.
- b. Hot Stuff’s pretax income for the year 2006 was \$1,059,000, which is believed by Wanna Buy to be more indicative of future expectations than any of the preceding years. The net income of \$1,059,000 included the following items, among others:

Amortization of patents and copyrights	\$50,000
Depreciation on buildings	360,000
Depreciation on equipment	80,000
Extraordinary gain	250,000
Loss from discontinued operations	175,000
Pension expense	59,000

- c. The normal rate of return on net assets for the industry is 14%.
- d. Wanna Buy believes that any excess earnings will continue for seven years and that a rate of return of 15% is required on the investment.

Based on the assumptions above and ignoring tax effects, we will first calculate an estimation of the implied goodwill and then use that estimate to arrive at a reasonable offering price for Hot Stuff.

Normal earnings for similar firms: $(\$7,000,000 - \$3,200,000) \times 14\% = \$532,000$

Expected earnings of target:

Pretax income of Hot Stuff		\$1,059,000
Add: Losses on discontinued operations	175,000	
Reduced depreciation on equipment	<u>20,000</u>	<u>195,000</u>
Subtotal		1,254,000
Subtract: Additional depreciation on building	180,000	
Extraordinary gain	<u>250,000</u>	<u>430,000</u>
Target's expected future earnings		824,000

Excess earnings of target: $\$824,000 - \$532,000 = \$292,000$ per year

Present value of excess earnings (ordinary annuity) for seven years at 15% (see Table A2 in Appendix PV at back of textbook):

Estimated goodwill: $\$292,000 \times 4.16042 = \$1,214,843$

Implied offering price = Fair value of assets – Fair value of liabilities + Estimated goodwill
 = $\$7,000,000 - \$3,200,000 + \$1,214,843 = \$5,014,843$.

In the illustration above, in arriving at the target's expected future earnings, we ignored the items that are expected to continue after the acquisition, such as the amortization of the patents and copyrights and the pension expense. We backed out non-recurring gains and losses on extraordinary items or discontinued operations. We adjusted the prior reported earnings for the expected increase in depreciation on the building (50% higher than in the past), leading to a decrease in projected earnings. In contrast, we increased projected earnings for the decrease in equipment depreciation (25% lower than in the past). In practice, more specific information should be available as to which components of earnings are expected to continue at the same level, which might be reduced because of economies or cost-cutting plans, and which might increase because of transition costs. The better the information used in the computation, the better the estimate of goodwill and offering price.

Where the constituent companies have used different accounting methods, the accountant will often need to reconstruct their financial statements on the basis of agreed-upon accounting methods in order to obtain reasonably comparable data. Once comparable data have been obtained for a number of prior periods, they are analyzed further to project future contributions to earnings. The expected contributions to future earnings may vary widely among constituents, and the exchange ratio should reflect this fact. The whole process of valuation, of course, requires the careful exercise of professional judgment. Ultimately, however, the exchange ratio is determined by the bargaining ability of the individual parties to the combination.

Once the overall values of relative net asset and earnings contributions have been agreed on, the types of securities to be issued by the new entity in exchange for those of the combining companies must be determined. In some cases, a single class of stock will be issued; in other cases, equity may require the use of more than one class of security.



Upon the agreement to purchase Creo Inc. for \$900 million in cash,

Eastman Kodak Company's CEO Daniel Carp stated that the "acquisition will result in some modest earnings dilution for the remainder of 2005." However, Carp expects that the Creo transaction will be accretive in 2006, adding "at least 5 cents to per-share operational earnings, driven by cost savings and revenue growth available to the combined entity."²⁵

²⁵ *Business Wire*, "Kodak Announces Agreement to Acquire Creo Inc.," 1/31/05.

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KPMG conducts research into mergers approximately every two years. The results show that what was true in past years remains accurate today. That is, only about one-third of mergers, acquisitions, and takeovers add value in North America while almost 70% actually reduce shareholder worth or, at best, are neutral.²⁷

The concepts of earnings **dilution** and **accretion** are critical to the valuation of a merger. Does the merger increase or decrease expected earnings performance of the acquiring institution? From a financial and shareholder perspective, the price paid for a firm is hard to justify if earnings per share declines. When this happens, the acquisition is considered **dilutive**. Conversely, if the earnings per share increases as a result of the acquisition, it is referred to as an **accrative** acquisition.

Many deals lower earnings per share initially but add significantly to value in later years. While initial dilution may not be a deal killer, however, many managers feel that they cannot afford to wait too long for a deal to begin to show a positive return. Opinions are divided, however, on what drives the market in relation to M&A, nor do research studies offer conclusive evidence on the subject. Bart Madden, a partner in a valuation advisory firm in Chicago, remarked, “I totally disagree that the market is EPS driven. From the perspective of the owner or manager of capital, what matters is cash in, cash out, not reported earnings.”²⁶ He acknowledges, however, that CFOs, who “live in a world of accounting rules,” are concerned about reported earnings.

Evaluating Firm Performance Supplemental Appendix 1A is available from your instructor, provides a structured approach using ratios to evaluate the performance of a firm. This approach could be used to evaluate the financial performance of a potential target or in evaluating the strength of an acquirer. The ratio approach begins by analyzing the change in return on equity (ROE). This ratio is then decomposed into a return on asset (ROA) and a leverage ratio (total assets divided by equity). These ratios are further decomposed into other relevant combinations of variables. This structured approach allows the user to zero in on areas that have changed or that need to be examined in more detail.

1.9 ALTERNATIVE CONCEPTS OF CONSOLIDATED FINANCIAL STATEMENTS

LO 8 Economic entity and parent company concepts.

As mentioned previously, business combinations may take the form of asset acquisitions or stock acquisitions. When the combination is consummated as an asset acquisition, the books of the acquired company are closed out and the accounting takes place on the books of the acquirer, as illustrated in Chapter 2. When the combination is consummated as a stock acquisition, both companies continue to prepare journal and ledger entries separately through future periods. Periodically the two sets of books are combined into one through a procedure sometimes referred to as the **consolidating process** to produce a set of consolidated financial statements. Chapters 3 through 9 deal with many of the technical procedures needed to carry out this process. Here we present a brief introduction to the more theoretical concepts involved in accounting for the consolidated entity. The question that arises relates to the primary purpose of the consolidated financial statements and to the relationships between the affiliated companies and their shareholders, keeping in mind that a certain group of shareholders may own a portion of the acquired company (often referred to as the **subsidiary**) but none of the acquiring company (or **parent**).

Historically, practice in the United States has reflected a compromise between two general concepts of consolidation given various designations in the accounting

²⁶ CFO, “Say Goodbye to Pooling,” by Ian Springsteel, February 1997, p. 79.

²⁷ “Why Most Acquisitions Fail,” KPMG webcast, 1/31/17.

literature. However, in FASB ASC topics 805 [Business Combinations] and 810 [Consolidation] (formerly *FASB Statements No. 141-R* and *No. 160*), the FASB indicates that the economic entity concept is now to be embraced more fully. Next, let us review the basic differences between the alternative concepts. For our purposes, we will refer to them as the **parent company concept** and the **economic entity concept** (sometimes called the **economic unit concept**). A third concept, **proportionate consolidation**, was rejected by the FASB.

Although only one of these—the economic entity concept—is embraced by current GAAP and thus integrated throughout this text, the two more popular concepts are described below (as defined by the Financial Accounting Standards Board).²⁸

Parent Company Concept

The parent company concept emphasizes the interests of the parent's shareholders. As a result, the consolidated financial statements reflect those stockholder interests in the parent itself, plus their undivided interests in the net assets of the parent's subsidiaries. The consolidated balance sheet is essentially a modification of the parent's balance sheet with the assets and liabilities of all subsidiaries substituted for the parent's investment in subsidiaries. Similarly, the consolidated income statement is essentially a modification of the parent's income statement with the revenues, expenses, gains, and losses of subsidiaries substituted for the parent's income from investment in subsidiaries. These multiline substitutions for single lines in the parent's balance sheet and income statement are intended to make the parent's financial statements more informative about the parent's total ownership holdings.

Economic Entity Concept

The economic entity concept emphasizes control of the whole by a single management. As a result, under this concept, consolidated financial statements are intended to provide information about a group of legal entities—a parent company and its subsidiaries—operating as a single unit. The assets, liabilities, revenues, expenses, gains, and losses of the various component entities are the assets, liabilities, revenues, expenses, gains, and losses of the consolidated entity. Unless all subsidiaries are wholly owned, the business enterprise's proprietary interest (assets less liabilities) is divided into the controlling interest (stockholders or other owners of the parent company) and one or more noncontrolling interests in subsidiaries. Both the controlling and the noncontrolling interests are part of the proprietary group of the consolidated entity. Under this concept, the entirety of subsidiaries assets, liabilities, revenues, and expenses are reflected in the consolidated financial statements. Noncontrolling interest in equity and in income serves to capture the portion not controlled by the parent.

The parent company concept represents the view that the primary purpose of consolidated financial statements is to provide information relevant to the controlling stockholders. The parent company effectively controls the assets and operations of the subsidiary. Noncontrolling stockholders do not exercise any ownership control over the subsidiary company or the parent company. Thus, the parent company concept places emphasis on the needs of the controlling stockholders, and the noncontrolling

²⁸ *FASB Discussion Memorandum*, "Consolidation Policy and Procedures," FASB (Norwalk, CT: September 10, 1991), paras 63 and 64.

interest is essentially relegated to the position of a claim against the consolidated entity. Thus, the noncontrolling, or minority, interest should be presented as a liability in the consolidated statement of financial position under the parent company concept or, as described in the next section, as a separate component before stockholders' equity.

The economic entity concept represents the view that the affiliated companies are a separate, identifiable economic entity. Meaningful evaluation by any interested party of the financial position and results of operations of the economic entity is possible only if the individual assets, liabilities, revenues, and expenses of the affiliated companies making up the economic entity are combined. The economic entity concept treats both controlling and noncontrolling stockholders as contributors to the economic unit's capital. Thus, the noncontrolling, or minority, interest should be presented as a component of equity in the consolidated financial statement under the economic entity concept.

The FASB stated that it had considered and rejected the concept of proportionate consolidation for subsidiaries. This concept, although not used in current or past practice, has been advocated by some as an alternative to full consolidation. Under proportionate consolidation, the consolidated statements would include only a portion, based on the parent's ownership interest, of the subsidiary's assets, liabilities, revenues, expenses, gains, and losses. The FASB stated that because the consolidated entity has the power to direct the use of all the assets of a controlled entity, omitting a portion of those assets from the statements would not be representationally faithful. Similarly, omitting part of the revenues and expenses from the consolidated income statement would not be representationally faithful.

Differences between the concepts are relevant only to less than wholly owned subsidiaries; they center on conflicting views concerning answers to three basic questions:

1. What is the nature of a noncontrolling interest?
2. What income figure constitutes consolidated net income?
3. What values should be reported in the consolidated balance sheet?

A related issue concerns the percentage (total or partial) of unrealized intercompany profit to be eliminated in the determination of consolidated balances.

Noncontrolling Interest

Under the **economic entity concept**, a *noncontrolling interest is a part of the ownership equity in the entire economic unit*. Thus, a noncontrolling interest is of the same general nature and is accounted for in essentially the same way as the controlling interest (i.e., as a component of owners' equity). Under the **parent company concept**, the nature and classification of a noncontrolling interest are unclear. The parent company concept views the consolidated financial statements as those of the parent company. From that perspective, the noncontrolling interest is similar to a liability; but because the parent does not have a present obligation to pay cash or release other assets, it is not a liability based on the FASB's technical definition of a "liability." Nor is it a true component of owners' equity since the noncontrolling investors in a subsidiary do not have an ownership interest in the subsidiary's parent. Consequently, the parent company concept theoretically supports reporting the noncontrolling interest below liabilities but above stockholders' equity in the consolidated balance sheet.

Between 2001 and 2017, approximately 4% of acquisitions resulted in a noncontrolling interest. However, when public firms are acquired, this percentage increases to

6.6%. The percentage of private targets with noncontrolling interests is lower around 3.8%. One interesting fact is that in the two years preceding the issuance of *FASB Statement No. 141R* the number of acquisitions with NCI averaged over 11%.

Consolidated Net Income

Under the **parent company concept**, *consolidated net income consists of the realized combined income of the parent company and its subsidiaries after deducting noncontrolling interest in income*; that is, the noncontrolling interest in income is deducted as an expense item in determining consolidated net income. This view emphasizes that the parent company stockholders are directly interested in their share of the results of operations as a measure of earnings in relation to their investment and dividend expectations.

Under the **economic entity concept**, consolidated net income consists of the total realized combined income of the parent company and its subsidiaries. The total combined income is then allocated proportionately to the noncontrolling interest and the controlling interest. Noncontrolling interest in income is considered an allocated portion of consolidated net income, rather than an element in the determination of consolidated net income. The concept emphasizes the view that the consolidated financial statements represent those of a single economic unit with several classes of stockholder interest. Thus, noncontrolling interest in net assets is considered a separate element of stockholders' equity, and the noncontrolling interest in net income reflects the share of consolidated net income allocated to the noncontrolling stockholders.

Consolidated Balance Sheet Values

In the case of less than wholly owned subsidiaries, the question arises as to whether to value the subsidiary assets and liabilities at the **total** fair value implied by the price paid for the controlling interest, or at their book value adjusted only for the excess of cost over book value paid by the parent company. For example, assume that P Company acquires a 60% interest in S Company for \$960,000 when the book value of the net assets and of the stockholders' equity of S Company is \$1,000,000. The implied fair value of the net assets of S Company is \$1,600,000 ($\$960,000/.6$), and the difference between the implied fair value and the book value is \$600,000 ($\$1,600,000 - \$1,000,000$). For presentation in the consolidated financial statements, should the net assets of S Company be written up by \$600,000 or by 60% of \$600,000?

Application of the **parent company concept** in this situation restricts the write-up of the net assets of S Company to \$360,000 ($.6 \times \$600,000$) on the theory that the write-up should be restricted to the amount actually paid by P Company in excess of the book value of the interest it acquires [$\$960,000 - (.6 \times \$1,000,000) = \$360,000$]. In other words, the value assigned to the net assets should not exceed cost to the parent company. Thus, the net assets of the subsidiary are included in the consolidated financial statements at their book value (\$1,000,000) plus the **parent company's share** of the difference between fair value and book value ($.6 \times \$600,000 = \$360,000$), or at a total of \$1,360,000 on the date of acquisition. Noncontrolling interest is reported at its percentage interest in the **reported book value** of the net assets of S Company, or \$400,000 ($.4 \times \$1,000,000$).

Application of the **economic entity concept** results in a write-up of the net assets of S Company in the consolidated statements workpaper by \$600,000 to \$1,600,000 on the theory that the consolidated financial statements should reflect 100% of the net asset values of the affiliated companies. On the date of acquisition, the net assets of

the subsidiary are included in the consolidated financial statements at their book value (\$1,000,000) plus the **entire difference** between their fair value and their book value (\$600,000), or a total of \$1,600,000. Noncontrolling interest is reported at its percentage interest in the **fair value** of the net assets of S Company, or \$640,000 ($.4 \times \$1,600,000$).

Regardless of the concept followed, the controlling interest in the net assets of the subsidiary reported in the consolidated financial statements is the same and is equal to P Company's cost, as demonstrated here:

	<i>Parent Company Concept</i>	<i>Economic Unit Concept</i>
Net assets of S Company included in consolidation	\$1,360,000	\$1,600,000
Less: Noncontrolling interest	<u>400,000</u>	<u>640,000</u>
Controlling interest (cost)	<u>\$ 960,000</u>	<u>\$ 960,000</u>

While U.S. standards have, in the past, been more consistent with the parent company concept with respect to write-up of net assets, the implementation of *FASB Statements No. 141R* and *160* [FASB ASC topics 805 and 810] results in a shift to the economic entity concept in this regard, among others.

Intercompany Profit

There are two alternative points of view as to the amount of intercompany profit that should be considered unrealized in the determination of consolidated income. The elimination methods associated with these two points of view are generally referred to as **total** (100%) **elimination** and **partial elimination**.

Proponents of total elimination regard all the intercompany profit associated with assets remaining in the affiliated group to be unrealized. Proponents of partial elimination regard only the parent company's share of the profit recognized by the selling affiliate to be unrealized. Under total elimination, the entire amount of unconfirmed intercompany profit is eliminated from combined income and the related asset balance. Under partial elimination, only the parent company's share of the unconfirmed intercompany profit recognized by the selling affiliate is eliminated.

Past and Future Practice

Past practice has viewed noncontrolling interest in income neither as an expense nor as an allocation of consolidated net income, but as a special equity interest in the consolidated entity's combined income that must be recognized when all the earnings of a less than wholly owned subsidiary are combined with the earnings of the parent company. Noncontrolling interest in net assets has been viewed neither as a liability nor as true stockholders' equity, but rather as a special interest in the combined net assets that must be recognized when all the assets and liabilities of a less than wholly owned subsidiary are combined with those of the parent company.

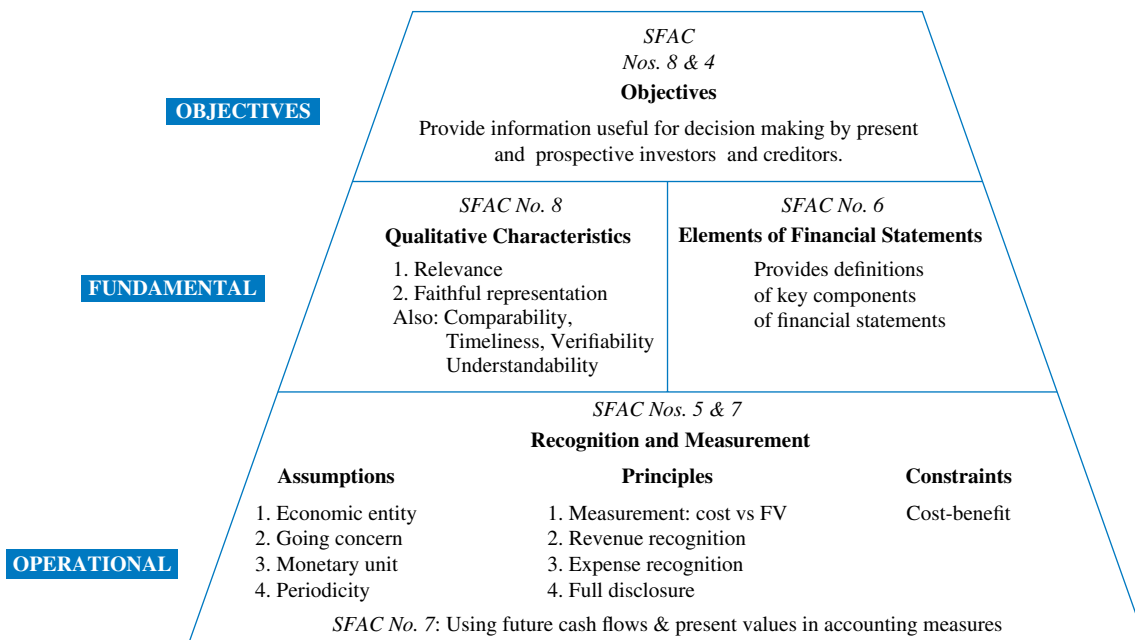
In contrast, under the current standards, the noncontrolling interest in income is viewed as an allocation of consolidated net income on the income statement, and the noncontrolling interest in net assets as a component of equity in the balance sheet.

Past and future accounting standards are, however, consistent in requiring the total elimination of unrealized intercompany profit in assets acquired from affiliated companies, regardless of the percentage of ownership.

1.10 FASB'S CONCEPTUAL FRAMEWORK

The Financial Accounting Standards Board (FASB) began the process of developing a conceptual framework for financial reporting in 1976, a process that continues to the present. The much-needed objective of providing a basis for standard setting and controversy resolution has, as expected, proved to be challenging. The statements of concepts issued to date are summarized in Illustration 1-5. The reader should be aware that the FASB and the IASB are working on a joint project to converge their conceptual frameworks. The first phase has been completed with the issuance of Statement of Financial Accounting Concepts (SFAC) No. 8: Conceptual Framework for Financial Reporting—Chapter 1, *The Objective of General Purpose Financial Reporting*, and Chapter 3, *Qualitative Characteristics of Useful Financial Information* (a replacement of FASB Concepts Statements Nos. 1 and 2). New chapters and concepts are expected to be added. Concepts Statements are not part of the *FASB Accounting Standards Codification*, which is the source of authoritative GAAP recognized by the FASB to be applied by nongovernmental entities. The Board recognizes that in certain respects current generally accepted accounting principles may be inconsistent with those that may derive from the objectives and fundamental concepts set forth in Concepts Statements. However, a Concepts Statement does not (a) require a change in existing U.S. GAAP; (b) amend, modify, or interpret the Accounting Standards Codification; or (c) justify either changing existing generally accepted accounting and reporting practices or interpreting the Accounting Standards Codification based on personal interpretations of the objectives and concepts in the Concepts Statements.

ILLUSTRATION 1-5 Conceptual Framework for Financial Accounting and Reporting



Adapted from "Accounting for Financial Analysis," by W.C. Norby, *Financial Analysts Journal*, March–April 1982, p. 22.

Economic Entity vs. Parent Concept and the Conceptual Framework

The parent concept, discussed in the preceding section, was the essential approach used in the United States until 2008 for accounting for business combinations (although there were some exceptions to a wholly applied parent concept, as previously addressed). The parent company concept is tied to the *historical cost* principle, which suggests that the best measure of valuation of a given asset is the price paid. Historical cost thus suggests that the purchase price of an acquired firm should be relied on in assessing the value of the acquired assets, including goodwill. One problem that arises from a theoretical perspective is how to value the noncontrolling interest, or the portion of the acquired firm's assets that did not change hands in an arm's length transaction. The historical cost perspective would suggest that those assets (or portions thereof) remain at their previous book values. This approach might be argued to produce more *reliable* or "representationally faithful" values, addressed in the FASB's conceptual framework as a desirable attribute of accounting information (*SFAC No. 8*).

In contrast, the economic entity concept is itself an integral part of the FASB's conceptual framework and is named specifically in *SFAC No. 5* as one of the basic assumptions in accounting. The economic entity assumption views economic activity as being related to a particular unit of accountability, and the standard indicates that a parent and its subsidiaries represent *one economic entity* even though they may include *several legal entities*. Thus, the recent shift to the economic entity concept seems to be entirely consistent with the assumptions laid out by the FASB for GAAP.

The economic entity concept might also be argued to produce more *relevant*, if not necessarily more reliable, information for users. The two primary characteristics of relevance and reliability (or representational faithfulness) often find themselves in conflict in any given accounting debate. For example, the view of many users is that *market value accounting* would provide far more *relevant* information for users than continued reliance on historical cost in general. Proponents of historical cost, however, argue that market valuations suffer from too much subjectivity and vulnerability to bias and are much *less* representationally faithful.

IFRS

In the joint project of the FASB and the IASB on the conceptual framework, the conclusion was reached that the entity perspective is more consistent with the fact that the vast majority of today's business entities have substance distinct from that of their capital providers. As such, the proprietary perspective does not reflect a realistic view of financial reporting. The Boards have not yet considered the effect that adoption of the entity perspective will have on phases of their project that have not yet been deliberated, and decisions related to those phases are being deferred.

IN THE NEWS

Embedded in many of FASB's recent pronouncements have been a number of indicators of a shift away from historical cost accounting in the direction of fair value accounting. This shift drew a great deal of attention, much of it negative, when the financial crisis of 2008 became apparent. Critics claimed that values were dropping to artificially low values, forcing banks to take large write-downs, launching a desperate cycle from which they might not recover. Dennis Beresford, an accounting professor at the University of Georgia and chairman of the FASB from 1987 to 1997, explained, "It's intended to be more or less for orderly markets. But we don't have orderly markets these days. It's not so much that mark to market has people complaining, but marking to a particular market. Today it's more of fire-sale prices."²⁹

²⁹ "Wall St. Points to Disclosure As Issue," by Carrie Johnson, Washingtonpost.com, 9/23/08.

LO 9 Statements of Financial Accounting Concepts.

Overview of FASB's Conceptual Framework

The *Statements of Financial Accounting Concepts* issued by the FASB include the following:

SFAC No. 4: Objectives of Financial Reporting by Nonbusiness Organizations

SFAC No. 5: Recognition and Measurement in Financial Statements of Business Enterprises

SFAC No. 6: (replaces SFAC No. 3): Elements of Financial Statements

SFAC No. 7: Using Cash Flow Information and Present Value in Accounting Measurements

SFAC No. 8: (replaces SFAC Nos. 1 and 2): The Objective of General Purpose Financial Reporting and Qualitative Characteristics of Useful Financial Information

Please refer to Illustration 1-5 for a brief summation of these statements. Our focus is on *SFAC No. 8, No. 6, and No. 5*. The remaining statements of concept include one that was subsequently replaced by *SFAC No. 6 (SFAC No. 3)*, one that relates primarily to the last three chapters of our textbook (*SFAC No. 4*), and *FASB Statement of Concept, No. 7*, which provides some information on the use of discounted cash flows and present values as a measurement approach. *SFAC No. 7* might be viewed as an expansion of *SFAC No. 5*, and is thus included in the same level in Illustration 1-5.

Linking the Conceptual Framework to Advanced Accounting Issues

We begin with a brief discussion of the two *Statements of Concepts*, which receive the least attention in the following paragraphs (*SFAC No. 4 and SFAC No. 7*). With respect to *SFAC No. 4*, the Board believes that the objectives of reporting for government-sponsored entities should be, in general, similar to those of business enterprises engaged in similar activities. Please see Chapters 17 through 19 for further discussion. Moving to *SFAC No. 7*, the use of present values is clearly relevant in the accounting for business combinations as it impacts the estimated valuation of goodwill (previously illustrated in Chapter 1), as well as other intangible assets acquired in a business combination. Just as clearly, the use of present values is hampered by issues of uncertainty, both about estimated cash flows and about appropriate discount rates. As stated in *SFAC No. 7*, the objective of using present values in an accounting measurement is to capture, to the extent possible, the economic difference between sets of estimated future cash flows. The standard provides some guidance in this regard.

Referring to Illustration 1-5, note that the primary qualities laid out in *SFAC No. 8* are relevance and faithful representation (formerly referred to as reliability). Additional desirable characteristics include comparability, timeliness, and understandability.

The quality of *comparability* was very much at stake in FASB's decision in 2001 to eliminate the *pooling of interests* method for business combinations. This method was also argued to violate the *historical cost* principle as it essentially ignored the value of the consideration (stock) issued for the acquisition of another company. Of even greater concern was the potential for two nearly identical acquisitions to yield very different balance sheets, merely because one was accounted for under the pooling of interests method while the other used purchase accounting.

The issue of comparability plays a role in the more recent shift from the parent concept to the economic entity concept, as the former method valued a portion (the

noncontrolling interest) of a given asset at prior book values and another portion (the controlling interest) of that same asset at exchange-date market value. The result was a piecemeal valuation of assets on the consolidated balance sheet.

Distinguishing between Earnings and Comprehensive Income

Opponents of the change to the economic entity view of consolidated financial statements may argue that the economic entity concept is less *conservative*, as it often revalues assets—in the case of a less than 100% acquisition—to a higher amount than has been reflected in an arm's length transaction by relying on the valuation *implied* by the purchase price. However, the constraint of conservatism is no longer included in FASB's constraints (*SFAC No. 8*).

Turning now to the elements of financial statements, see Illustration 1-6 for a summary of definitions. We might note that earnings is not defined as one of the

ILLUSTRATION 1-6

Definitions of Financial Statement Elements

Assets. Probable future economic benefits obtained or controlled by a particular entity as a result of past transactions or events.

Liabilities. Probable future sacrifices of economic benefits arising from present obligations of a particular entity to transfer assets or provide services to other entities in the future as a result of past transactions or events.

Equity. Residual interest in the assets of an entity that remains after deducting its liabilities, or the claims of the owners of the entity's assets.

Investments by Owners. Increase in net assets of a particular enterprise resulting from transfers to it from other entities of something of value to obtain or increase ownership interests (equity) in it.

Distributions to Owners. Decrease in net assets of a particular enterprise resulting from transferring assets, rendering services, or incurring liabilities by the enterprise to its owners (dividends or Draws).

Comprehensive Income. Change in equity (net assets) of an entity during a period from transactions and other events and circumstances from nonowner sources, i.e., all changes in equity during a period except from investments by owners and distributions to owners.

Revenues. Inflows or other enhancements of assets of an entity or settlement of its liabilities (or a combinations of both) during a period from delivering or producing goods, rendering services, or other activities that constitute the entity's ongoing major or central operations.

Expenses. Outflows or other using up of assets or incurrences of liabilities (or a combination of both) during a period of delivering or producing goods, rendering services, or carrying out other activities that constitute the entity's ongoing major or central operations.

Gains. Increases in equity (net assets) from peripheral or incidental transactions of an entity and from all other transactions and other events and circumstances affecting the entity during a period except from revenues or investments by owners.

Losses. Decreases in equity (net assets) from peripheral or incidental transactions of an entity and from all other transactions and other events and circumstances affecting the entity during a period except from expenses or distributions to owners.

Source: "Elements of Financial Statements," *Statement of Financial Accounting Concepts No. 6* (Stamford, CT: FASB, December 1985), pp. ix and x.

elements included in *SFAC No. 6*. In fact, the FASB explicitly stated that it reserved the term earnings for possible use to designate a significant intermediate measure or component of comprehensive income. In *SFAC No. 5*, FASB states that “it is important to avoid focusing attention almost exclusively on the bottom line, earnings per share, or other highly simplified condensations.” *SFAC No. 5* goes on to state that “statements of earnings and of comprehensive income together reflect the extent to which, and the ways in which, the equity of an entity increased or decreased from all sources other than transactions with owners during a period.” The statement further expresses an expectation that the concept of earnings will evolve or develop over time. *SFAC No. 5* does, however, provide a working definition of earnings as follows:

Earnings is a measure of entity performance during a period. It measures the extent to which asset *inflows* (revenues and gains) associated with cash-to-cash cycles substantially completed during the period exceed asset *outflows* (expenses and losses) associated, directly or indirectly, with the same cycles.

In other words, earnings is essentially revenues and gains minus expenses and losses, with the exception of any losses or gains explicitly stated by FASB to bypass earnings and, instead, to be reported as a component of *other comprehensive income*.

What are examples of these “odd” gains and losses that bypass earnings under current GAAP? *SFAC No. 5* describes them as “principally certain holding gains or losses that are recognized in the period but are excluded from earnings such as some changes in market values of investments . . . and foreign currency translation adjustments.”

Not all changes in market values of investments are excluded from earnings, however. For example, the gains or losses recognized upon marking Trading Securities to market values *are* reported in earnings, while those on Available-for-Sale securities generally are not. Similarly, the gains or losses on foreign currency translation may or may not be reported in earnings, depending on whether the firm is using the temporal method (restatement) or the current method (translation) for its subsidiaries. In one case, the gain or loss appears in earnings. In the other, it appears as a component of *other comprehensive income*. This distinction is elaborated upon in Chapter 13, Translation of Financial Statements of Foreign Affiliates.

In short, these distinctions seem rather arbitrary and are thus, not surprisingly, confusing to students as well as to users of financial statements. The FASB's choices in this regard appear to be affected by: (a) the volatility that a particular gain or loss might introduce into earnings, and whether that volatility is reflective of true economic performance (in which case it should be reported in earnings) or is reflective of something else (in which case it is more likely to fall into other comprehensive income) and (b) the attitude of various constituents, or the effect of lobbying, which, is in turn, largely related to (a).

In this text, we use the term *net income* to refer to *earnings*, and we do not focus on comprehensive income in most chapters. In the absence of gains or losses designated to bypass earnings, earnings and comprehensive income are the same. However, if the firm has foreign subsidiaries or has available-for-sale securities or other investments that are being marked to market at the balance sheet date, the reader should be aware that current GAAP distinguishes between net current income and comprehensive income. Other items that may arise include certain gains or losses related to a firm's net pension liability; these too may bypass retained earnings and be reported instead as a component of *other comprehensive income*.

Be aware that any item that bypasses earnings will not appear in retained earnings (by definition, the accumulated earnings since incorporation minus dividends declared). Thus, other comprehensive income appears on the balance sheet as a separate component of stockholders' equity, labeled "Accumulated Other Comprehensive Income."

During June 2011, FASB voted to update FASB ASC topic 220 [Statement of Comprehensive Income], so that entities should present comprehensive income and its components either in a single *statement of comprehensive income* or as a consecutive statement immediately following the income statement. The single (combined) statement approach would still display net income as a subtotal and continue on to display total comprehensive income on the same statement. Like most other current projects, this project reflects the joint efforts of the FASB and the IASB.

IFRS

Asset Impairment and the Conceptual Framework

SFAC No. 5 provides the following guidance with respect to expenses and losses:

Consumption of benefit. Earnings are generally recognized when an entity's economic benefits are consumed in revenue earnings activities (or matched to the period incurred or allocated systematically); or

Loss or lack of benefit. Expenses or losses are recognized if it becomes evident that previously recognized future economic benefits of assets have been reduced or eliminated, or that liabilities have increased, without associated benefits.

In 2001, the FASB abandoned its long-held position that all intangible assets must be amortized over their useful lives, not to exceed 40 years. In the place of this position was born a new standard. If the asset has a finite life, amortize it, as before, over its useful life. However, if the life is deemed indefinite, then do not amortize the asset. Instead, review it periodically (at least once a year) for impairment or decreased value. The former approach (that of amortization) illustrates a *consumption or benefit* approach to measuring expenses while the impairment standard illustrates a *loss or lack of benefit* approach.

Another of the principles laid out by the FASB in *SFAC No. 5* is that of *matching* expenses to revenues. The *consumption of benefit* approach emphasizes a more direct matching of expenses to revenues, while the *loss or lack of benefit* represents an example of those types of expenses that are most difficult, if not impossible, to match adequately to the generation of revenue. Thus, such losses as the impairment of goodwill reflect an attempt to recognize the loss of benefit in the period in which that loss is first identified.

Chapters 2 and 5 illustrate the impact of the impairment of goodwill (deemed to have an indefinite life) on the financial statements of the acquiring company and the consolidated entity, respectively.

Supplemental Section 1.11 "FASB Codification (Source of GAAP)," is available from your instructor.


SUMMARY

- 1 *Describe historical trends in types of business combinations.* Horizontal integration was popular from 1880 to 1904, while vertical integration became more prevalent from 1905 through 1930. The period beginning after World War II was called merger mania. From the 1950s through the 1970s, conglomerate mergers between companies in different industries occurred in the face of antitrust regulation restricting combinations within a particular industry. A relaxation of antitrust regulation in the 1980s and the emergence of high-yield junk bonds led to strategic acquisitions for firms seeking operating synergies. High stock prices in the 1990s created a wealth of mergers with stock as the medium of exchange.
- 2 *Identify the major reasons firms combine.* Firms combine to achieve growth goals to obtain operating synergies, to compete more effectively in the international marketplace, to take advantage of tax laws in some cases, and to diversify or to eliminate competition.
- 3 *Identify the factors that managers should consider in exercising due diligence in business combinations.* Be aware of unrecorded liabilities; take care in interpreting percentages quoted by the selling company; examine the impact on earnings from allocated expenses, changes in LIFO reserves and inventory levels, and product sales; note any nonrecurring items, changes in estimates, accruals, or methods; and be careful of CEO egos.
- 4 *Identify defensive tactics used to attempt to block business combinations.* These tactics include poison pills, greenmail, white knights or white squires, pac-man defense, selling the crown jewels, and leveraged buyouts.
- 5 *Distinguish between an asset and a stock acquisition.* An asset acquisition involves the purchase of all of the acquired company's net assets, whereas a stock acquisition involves the attainment of control via purchase of a controlling interest in the stock of the acquired company.
- 6 *Indicate the factors used to determine the price and the method of payment for a business combination.* Factors include the effect of the acquisition on future earnings performance, (dilution or accretion), and the estimated value of the firm's identifiable net assets and implied goodwill. The method of payment is affected by the liquidity position of the purchaser firm, the willingness of the sellers to accept alternative forms of financing, and tax issues.
- 7 *Calculate an estimate of the value of goodwill to be included in an offering price by discounting expected future excess earnings over some period of years.* Identify a normal rate of return for firms similar to the company being targeted. Apply the rate of return to the level of identifiable assets of the target to approximate what the "normal" firm in this industry might generate. Estimate the expected future earnings of the target, and subtract the "normal" earnings to get "excess earnings." Assume an appropriate time period and a discount rate to calculate the discounted value of the excess earnings.
- 8 *Describe the two alternative views of consolidated financial statements: the economic entity and the parent company concepts.* Under the parent company concept, the consolidated financial statements reflect the stockholders' interests in the parent, plus their interests in the net assets of the subsidiaries. Thus the focus is on the interests of the parent's shareholders. The economic entity concept emphasizes control of the whole by a single management. As a result, consolidated financial statements provide information about a group of legal entities—a parent company and its subsidiaries—operating as a single unit.
- 9 *Discuss the Statements of Financial Accounting Concepts (SFAC).* These statements provide a framework for use by FASB in addressing topics that arise and by users in interpreting and implementing FASB standards updates. They address definitions of key terms in financial reporting, its objectives, the role of cash flows and present values, qualitative characteristics of useful information, and underlying principles.

Supplemental [Appendix 1A](#), "Evaluating Firm Performance," is available from your instructor.

TEST YOUR KNOWLEDGE SOLUTIONS

- 
- 1.1**
1. a. poison pill b. leveraged buyout (LBO) c. white knight 2. d 3. d

QUESTIONS

- LO 2** 1. Distinguish between internal and external expansion of a firm.
- LO 2** 2. List four advantages of a business combination as compared to internal expansion.
- LO 1** 3. What is the primary legal constraint on business combinations? Why does such a constraint exist?
- LO 2** 4. Business combinations may be classified into three types based upon the relationships among the combining entities (e.g., combinations with suppliers, customers, competitors). Identify and define these types.
- LO 5** 5. Distinguish among a statutory merger, a statutory consolidation, and a stock acquisition.
- LO 4** 6. Define a tender offer and describe its use.
- LO 6** 7. When stock is exchanged for stock in a business combination, how is the stock exchange ratio generally expressed?
- LO 4** 8. Define some defensive measures used by target firms to avoid a takeover. Are these measures beneficial for shareholders?
- LO 5** 9. Explain the potential advantages of a stock acquisition over an asset acquisition.
- LO 6** 10. Explain the difference between an accretive and a dilutive acquisition.
- LO 8** 11. Describe the difference between the economic entity concept and the parent company concept approaches to the reporting of subsidiary assets and liabilities in the consolidated financial statements on the date of the acquisition.
- LO 8** 12. Contrast the consolidated effects of the parent company concept and the economic entity concept in terms of:
- The treatment of noncontrolling interests.
 - The elimination of intercompany profits.
 - The valuation of subsidiary net assets in the consolidated financial statements.
 - The definition of consolidated net income.
- LO 8** 13. Under the economic entity concept, the net assets of the subsidiary are included in the consolidated financial statements at the total fair value that is implied by the price paid by the parent company for its controlling interest. What practical or conceptual problems do you see in this approach to valuation?
- LO 9** 14. Is the economic entity or the parent concept more consistent with the principles addressed in the FASB's conceptual framework? Explain your answer.
- LO 9** 15. How does the FASB's conceptual framework influence the development of new standards?
- LO 9** 16. What is the difference between net income, or earnings, and comprehensive income?

Business Ethics

From 1999 to 2001, Tyco's revenue grew approximately 24% and it acquired over 700 companies. It was widely rumored that Tyco executives aggressively managed the performance of the companies that they acquired by suggesting that before the acquisition, they should accelerate the payment of liabilities, delay recording the collections of revenue, and increase the estimated amounts in reserve accounts.

- What effect does each of the three items have on the reported net income of the acquired company before the acquisition and on the reported net income of the combined company in the first year of the acquisition and future years?
- What effect does each of the three items have on the cash from operations of the acquired company before the acquisition and on the cash from operations of the combined company in the first year of the acquisition and future years?
- If you are the manager of the acquired company, how do you respond to these suggestions?
- Assume that all three items can be managed within the rules provided by GAAP but would be regarded by many as pushing the limits of GAAP. Is there an ethical issue? Describe your position as: (A) an accountant for the target company and (B) as an accountant for Tyco.

ANALYZING FINANCIAL STATEMENTS

AFS1-1 Tesla announced on August 1, 2016, its intent to buy SolarCity in a deal expected to exceed \$2.5 billion dollars. Tesla touted the acquisition because of \$150 million in expected cost synergies in the first year. In addition, the new company would be the world's largest vertically integrated energy company (the company would be able to sell electric cars, make and sell energy storage for buildings and the grid, and make and install solar panels). SolarCity's expertise in installing solar panels could bolster installations of Tesla's Powerwalls (Tesla rechargeable Lithium-ion batteries used for domestic consumption). The acquisition is expected to be dilutive to EPS. Further, the combined debt of the two companies would be \$6 billion, despite adding \$1 billion in revenue to the combined company.

Financial statements for both companies at the end of 2016 are presented below. The acquisition did occur on November 21, 2016. The results for Tesla reported below do include the results of operations for SolarCity from the date of acquisition to the end of the current year (November 21 to December 31, 2016).

<i>For Year Ended December 31: (\$ thousands)</i>	<i>Tesla</i>			<i>SolarCity</i>		
	<i>Y 2016</i>	<i>Y 2015</i>	<i>Y 2014</i>	<i>Y 2016</i>	<i>Y 2015</i>	<i>Y 2014</i>
Revenues						
Total revenues	\$7,000,132	\$4,046,025	\$3,198,356	\$730,342	\$399,619	\$255,031
Cost of Revenues						
<u>Total cost of revenues</u>	5,400,875	3,122,522	2,316,685	478,922	280,791	176,432
Gross profit	1,599,257	923,503	881,671	251,420	118,828	78,599
Operating Expenses*						
Total operating expenses	2,266,597	1,640,132	1,068,360	901,761	766,618	414,196
Loss from operations	(667,340)	(716,629)	(186,689)	(650,341)	(647,790)	(335,597)
Total Interest and other expenses	(79,008)	(158,995)	(97,947)	170,314	117,706	66,369
Loss before income taxes	(746,348)	(875,624)	(284,636)	(820,655)	(765,496)	(401,966)
<u>Provision for income taxes</u>	26,698	13,039	9,404	308	(3,326)	26,736
Net loss	(\$773,046)	(\$888,663)	(\$294,040)	(820,347)	(768,822)	(375,230)
Other Information						
Research and development expenses*	\$834,408	\$717,900	\$464,700	54,963	64,925	19,162

*included in operating expenses

- (1) What does it mean for an acquisition to be dilutive? Why would shareholders vote to approve the acquisition if the acquisition is expected to be dilutive? Why would management prefer the acquisition if it is dilutive?
- (2) Provide comments concerning the performance of both companies. Why is it difficult to predict the success of the acquisition?

AFS1-2

Kraft and Cadbury PLC **LO 2** **LO 3**

On February, 2, 2010, Cadbury's Board of Directors recommended that Cadbury's shareholders accept the terms of Kraft's final offer to acquire Cadbury. This ended one of the larger hostile takeovers that combined one company (Kraft) that reported using U.S. GAAP with an international company (Cadbury) that reported using IFRS as promulgated by the IASB and prepared financial statements in a foreign currency (the pound). The acquisition allowed Kraft to increase its presence in the food processing industry in the developing world and to acquire a company specializing in confectionary products.

On February 2, 2010, Kraft acquired 71.73% of Cadbury's shares for \$13.1 billion. Incremental interest costs for Kraft to finance the deal are estimated to be approximately \$500 million (based on borrowing of \$9.5 billion). This interest cost is expected to decrease over time. Cadbury earned approximately \$428 million in income (exchange rate adjusted) for 2009. One issue that merging companies always face when another company is acquired is whether the merger will be accretive or dilutive in the early years after the acquisition.

- (1) Discuss some of the factors that should be considered in analyzing the impact of this merger on the income statement for the next few years.
- (2) Discuss the pros and cons that Kraft might have weighed in choosing the medium of exchange to consummate the acquisition. Do you think they made the right decision? If possible, use figures to support your answer.
- (3) In addition to the factors mentioned above, there are sometimes factors that cannot be quantified that enter into acquisition decisions. What do you suppose these might be in the case of Kraft's merger with Cadbury?
- (4) This acquisition is complicated by the lack of consistency between the two companies' methods of accounting and currency. Discuss the impact that these issues are likely to have on the merged company in the years following the acquisition.

AFS1-3

AFS1-2 Kraft Acquires Cadbury PLC LO 3

The following information from the financial statements of Kraft Foods and Cadbury PLC is available for the three years prior to their merger. Evaluate the performance of each company leading up to the year of the acquisition (2010). Note that Cadbury's financial statements are in millions of pounds, while Kraft's statements are in millions of dollars.

Required:

- A. Evaluate the health of the target company and point out any trends that might have been worrisome to Kraft. Also indicate any strengths in the firm's performance. Hint: A supplemental appendix "Evaluating Firm Performance" is available from your instructor and may prove useful in addressing this question.

<i>Kraft Foods (\$ millions)</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>
Balance Sheet			
Assets	67,993	63,173	66,714
Total liabilities	40,698	40,817	40,742
Stockholders' equity	27,295	22,356	25,972
Selected Balance Sheet items			
Market value of equity	50,480	48,110	40,111
Current assets	10,737	9,917	12,454
Current liabilities	17,086	11,044	11,491
Accounts receivable	5,197	4,704	5,197
Inventory	4,096	3,881	3,775
Long-term debt	13,624	19,354	18,537
Retained earnings	12,209	13,440	14,636
Income Statement			
Total revenues	37,241	40,492	38,754
Cost of goods sold	24,651	27,164	24,819
Gross margin	12,590	13,328	13,935
Income continuing operations	2,590	1,678	2,810
Net income	2,590	2,884	3,021
Selected Income Statement items			
Interest expense	604	1,240	1,237
Tax expense	1,137	658	1,136
Statement of Cash Flows			
Cash from operations (CFO)	3,571	4,141	5,084
Cash interest paid	628	968	1,308
Cash taxes paid	1,366	964	1,025
Cadbury (£ millions)			
Balance Sheet			
Assets	11,338	8,895	8,129
Total liabilities	7,165	5,361	4,607
Stockholders' equity	4,173	3,534	3,522
Selected Balance Sheet items			
Market value of equity	9,581	8,241	12,266
Current assets	2,600	2,635	2,125
Current liabilities	4,614	3,388	2,434
Accounts receivable	1,197	1,067	978
Inventory	821	767	748
Long-term debt	1,120	1,194	1,349
Retained earnings	2,677	2,498	3,502
Income Statement			
Total revenues	4,699	5,384	5,975
Cost of goods sold	5,504	2,870	3,210

<i>Kraft Foods (\$ millions)</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>
Gross margin	2,195	2,514	2,765
Income continuing operations	149	370	275
Net income	405	364	509
Selected Income Statement items			
Interest expense	88	50	172
Tax expense	105	30	103
Statement of Cash Flows			
Cash from operations (CFO)	812	469	523
Cash interest paid	193	165	122
Cash taxes paid	235	153	163

- B.** Evaluate the health of Kraft Foods, and point out any positive or negative trends. Refer to the supplemental appendix “Evaluating Firm Performance.”

EXERCISES

EXERCISE 1-1 Estimating Goodwill and Potential Offering Price LO 7

Plantation Homes Company is considering the acquisition of Condominiums, Inc. early in 2020. To assess the amount it might be willing to pay, Plantation Homes makes the following computations and assumptions.

- A.** Condominiums, Inc. has identifiable assets with a total fair value of \$15,000,000 and liabilities of \$8,800,000. The assets include office equipment with a fair value approximating book value, buildings with a fair value 30% higher than book value, and land with a fair value 75% higher than book value. The remaining lives of the assets are deemed to be approximately equal to those used by Condominiums, Inc.
- B.** Condominiums, Inc.’s pretax incomes for the years 2017 through 2019 were \$1,200,000, \$1,500,000, and \$950,000, respectively. Plantation Homes believes that an average of these earnings represents a fair estimate of annual earnings for the indefinite future. However, it may need to consider adjustments to the following items included in pretax earnings:

Depreciation on buildings (each year)	960,000
Depreciation on equipment (each year)	50,000
Extraordinary loss (year 2019)	300,000
Sales commissions (each year)	250,000

- C.** The normal rate of return on net assets for the industry is 15%.

Required:

- A.** Assume further that Plantation Homes feels that it must earn a 25% return on its investment and that goodwill is determined by capitalizing excess earnings. Based on these assumptions, calculate a reasonable offering price for Condominiums, Inc. Indicate how much of the price consists of goodwill. Ignore tax effects.
- B.** Assume that Plantation Homes feels that it must earn a 15% return on its investment, but that average excess earnings are to be capitalized for three years only. Based on these assumptions, calculate a reasonable offering price for Condominiums, Inc. Indicate how much of the price consists of goodwill. Ignore tax effects.

EXERCISE 1-2 Estimating Goodwill and Valuation LO 7

Alpha Company is considering the purchase of Beta Company. Alpha has collected the following data about Beta:

	<i>Beta Company Book Values</i>	<i>Estimated Market Values</i>
Total identifiable assets	\$585,000	\$750,000
Total liabilities	<u>320,000</u>	<u>320,000</u>
Owners' equity	<u>\$265,000</u>	

Cumulative total net cash earnings for the past five years of \$850,000 includes extraordinary cash gains of \$67,000 and nonrecurring cash losses of \$48,000.

Alpha Company expects a return on its investment of 15%. Assume that Alpha prefers to use cash earnings rather than accrual-based earnings to estimate its offering price and that it estimates the total valuation of Beta to be equal to the present value of cash-based earnings (rather than excess earnings) discounted over five years. (Goodwill is then computed as the amount implied by the excess of the total valuation over the identifiable net assets valuation.)

Required:

- A. Compute (a) an offering price based on the information above that Alpha might be willing to pay and (b) the amount of goodwill included in that price.
- B. Compute the amount of goodwill actually recorded, assuming the negotiations result in a final purchase price of \$625,000 cash.

EXERCISE 1-3 Estimated and Actual Goodwill LO 7

Passion Company is trying to decide whether or not to acquire Desiree Inc. The following balance sheet for Desiree Inc. provides information about book values. Estimated market values are also listed, based upon Passion Company's appraisals.

	<i>Desiree Inc. Book Values</i>	<i>Desiree Inc. Market Values</i>
Current assets	\$260,000	\$ 260,000
Property, plant & equipment (net)	650,000	<u>740,000</u>
Total assets	<u>\$910,000</u>	<u>\$1,000,000</u>
Total liabilities	\$400,000	\$ 400,000
Common stock, \$10 par value	160,000	
Retained earnings	<u>350,000</u>	
Total liabilities and equities	<u>\$910,000</u>	

Passion Company expects that Desiree will earn approximately \$150,000 per year in net income over the next five years. This income is higher than the 12% annual return on tangible assets considered to be the industry "norm."

Required:

- A. Compute an estimation of goodwill based on the information above that Passion might be willing to pay (include in its purchase price), under each of the following additional assumptions:
 - (1) Passion is willing to pay for *excess* earnings for an expected life of five years (undiscounted).

- (2) Passion is willing to pay for *excess* earnings for an expected life of five years, which should be capitalized at the industry normal rate of return.
- (3) Excess earnings are expected to last indefinitely, but Passion demands a higher rate of return of 20% because of the risk involved.
- B.** Comment on the relative merits of the three alternatives in part (A) above.
- C.** Determine the amount of goodwill to be recorded on the books if Passion pays \$800,000 cash and assumes Desiree's liabilities.

ASC Exercises: For all ASC Exercises indicate as part of your answer: the Codification topic, subtopic, section, and/or paragraph upon which your answer is based (unless otherwise specified). All ASC questions require access to the FASB Codification.

-
- ASC1-1** **Cross-Reference** The conditions determining what determines the acquisition date was prescribed in *SFAS No. 141R*, paragraph 10. Where is this located in this Codification?
- ASC1-2** **Cross-Reference** The rules defining the conditions to classify an item as extraordinary on the income statement were originally listed in *APB Opinion No 30*, paragraph 20. Where is this information located in the Codification?
- ASC1-3** **Disclosure** Suppose a firm entered into a capital lease (or a right-of-use asset), debiting an asset account and crediting a lease liability account for \$150,000. Does this transaction need to be disclosed as part of the statement of cash flows? If so, where?
- ASC1-4** **General Principles** Accounting textbooks under the former GAAP hierarchy were considered level 4 authoritative. Where do accounting textbooks stand in the Codification?
- ASC1-5** **Presentation** How many years of comparative financial statements are required under current GAAP?
- ASC1-6** **Overview** Can the provisions of the Codification be ignored if the item is immaterial?

ACCOUNTING FOR BUSINESS COMBINATIONS

CHAPTER CONTENTS

- 2.1 ACCOUNTING STANDARDS ON BUSINESS COMBINATIONS: BACKGROUND
- 2.2 ILLUSTRATION OF ACQUISITION ACCOUNTING
- 2.3 BARGAIN PURCHASE ACCOUNTING ILLUSTRATION (PURCHASE PRICE BELOW FAIR VALUE OF IDENTIFIABLE NET ASSETS)
- 2.4 MEASUREMENT PERIOD AND MEASUREMENT PERIOD ADJUSTMENTS
- 2.5 GOODWILL IMPAIRMENT TEST
- 2.6 CONTINGENT CONSIDERATION (EARNOUTS)
- 2.7 PRO FORMA STATEMENTS AND DISCLOSURE REQUIREMENT
- 2.8 LEVERAGED BUYOUTS

LEARNING OBJECTIVES

- 1 Describe the major changes in the accounting for business combinations since 2001, and the reasons for those changes.
- 2 Discuss the goodwill impairment test, including its frequency, the steps laid out in the new standard, and some of the implementation problems.
- 3 Explain how acquisition-related expenses are reported.
- 4 Describe the valuation of assets, including goodwill, and liabilities acquired in a business combination accounted for by the acquisition method.
- 5 Explain how contingent consideration affects the valuation of assets acquired in a business combination accounted for by the acquisition method.
- 6 Describe a leveraged buyout.
- 7 Describe the disclosure requirements according to current GAAP related to each business combination that takes place during a given year.

2.1 ACCOUNTING STANDARDS ON BUSINESS COMBINATIONS: BACKGROUND

- LO 1** FASB's two major changes for business combinations.

FASB shook up the accounting community in the area of business combinations in December of 2007 by releasing two standards. The first, *SFAS No. 141R*, "Business Combinations," completely replaced *FASB Statement No. 141*. This pronouncement supports the use of a single method in accounting for business combinations, and uses the term "acquisition method" in place of the previous term, "purchase method," to describe the preferred approach. These standards are now codified in FASB ASC topic 805 [Business Combinations].



Earlier in 2002 the two principal standard setting boards, the FASB and the IASB (International Accounting Standards Board), agreed to reconsider accounting for

business combination with the objective of convergence, or finding a common and comprehensive standard that could be used both domestically and in cross-border situations. Nonetheless, the subsequent acquisition standards are not identical and we describe some of the differences at the end of this chapter.

The objective of the standard issued by the FASB was to recommend a single method resulting in more comparable and transparent financial statements. The essence of the standard is that the acquired business should be recognized at its fair value on the acquisition date rather than its cost, regardless of whether the acquirer purchases all or only a controlling percentage (even if the combination is achieved in stages). In the past, when a business combination was achieved in stages (for example, a company purchases 20% of another company at one date, purchases an additional 20% a number of years later, and then achieves control by purchasing 12% at a still later date), the cost amounts from prior purchases (which might have occurred decades earlier) were combined with current values to create an accumulated total that reflected a mix of fair values and old book values being carried forward. This combination of amounts has long been criticized as lacking consistency, understandability, and usefulness. **Under the current rules, the fair values of all assets and liabilities on the acquisition date, defined as the date the acquirer obtains control of the acquiree, are reflected in the financial statements.** This change can affect the timing and the structure of deals.



IN
THE
NEWS

The amendment to business combinations, put forward jointly by the International Accounting Standards Board (IASB) and U.S. Financial Accounting Standards Board (FASB), has its share of opponents. Various parties, including companies, analysts, accountants and regulatory bodies, tried to block the change, which they claimed was an effort by the standard setters to implement new rules rather than fine-tune the existing ones. The new standard places emphasis on fair values in a business combination, even in cases where less than 100% of the equity interests in the acquiree are purchased. Opponents state that the outcome of placing more goodwill on a company's financial statement is to produce artificial figures that fail to reflect the true value of a takeover transaction.¹

The standards for business combinations apply to business combinations involving mutual entities, those achieved by contract alone, and the initial consolidation of variable interest entities (VIEs). Variable interest entities are discussed in Chapter 3.

A second standard, also issued on December 4, 2007, "Noncontrolling Interests in Consolidated Financial Statements," amended *Accounting Research Bulletin (ARB) No. 51* (now included in FASB ASC topic 810 [Consolidations]). This pronouncement established standards for the reporting of the noncontrolling interest when the acquirer obtains control without purchasing 100% of the acquiree. A noncontrolling (or minority) interest does not exist in net asset acquisitions, which are the focus of this chapter. Thus most of the discussion of this issue is deferred to Chapter 3.

¹ *Finance Week*, "Analysis: New Merger Rules to Increase Scrutiny in Deal-Making," 11/16/05, p. 14.

CHANGES IN GAAP/ASC TOPIC 805 WITH SIGNIFICANT IMPLICATIONS FOR DEALS

Issue	Prior GAAP	Current GAAP
Measurement date for securities issued	Use a reasonable period of time before and after the terms are agreed to and announced.	Use the fair value on the acquisition date.
Acquisitions costs	Capitalize the costs.	Expense as incurred.
Acquisition of control but less than 100%	Minority interest is recorded at historical cost.	Non-controlling interest is recorded at fair value along with 100% of the goodwill.
In-process R&D	Included as part of purchase price, but then immediately expenses.	Included as part of purchase price, treated as an asset.
Negative goodwill (bargain purchases)	Reduction of certain noncurrent assets with the remained as extraordinary gain.	No reduction of assets is recorded, record as a gain on the income statement.
Contingent consideration	Record when determinable and reflect subsequent changes in the purchase price.	Record at fair value on the acquisition date with subsequent changes recorded on the income statement.
Business definition	A business is defined as a self-sustaining integrated set of activities and assets conducted and managed for the purpose of providing a return to investors. The definition would exclude early-stage development entities.	The business or group of assets consisting of inputs and processes with the ability to produce outputs and as being conducted for the purpose of providing a return to its owners, members, or participants.
Decreases in ownership interest	Include gains and losses on decreases in ownership interest in income.	Decreases in ownership (if control is still maintained) are capital transactions. Decreases in ownership accompanied by a loss of control result in a gain or loss. The gain or loss is realized on the portion of interest sold an unrealized on the equity interests retained.

RELATED CONCEPTS

Requiring one method for all acquisitions makes financial statements more comparable across firms than allowing two methods for similar events.

LO 2 FASB's two major changes of 2001.

Earlier Standards Historically, two distinct methods of accounting for business combinations were permitted in the United States: purchase and pooling of interests. Although the majority of mergers were accounted for by the purchase method, in cases where the stock of one company was being exchanged for all the assets or most of the stock (90% or more) of the other, firms sometimes went to great lengths to satisfy an elaborate set of pooling criteria laid out by the U.S. standard setters.

In June of 2001, **the Board prohibited the use of the pooling of interests method and decided that goodwill would no longer be amortized and would instead be tested periodically for impairment in a manner different from other assets.** Specifically, use of the pooling method has been prohibited for business combinations initiated since June 30, 2001. Furthermore, goodwill acquired in a business combination completed since June 30, 2001, should not be amortized.²

Initially after this standard was issued, some companies' management and even analysts responded with rosy predictions that the earnings numbers would look

² WSJ, "FASB Backs Down on Goodwill-Accounting Rules," 12/7/00, page A2.

a lot *better* for companies with large amounts of goodwill, less than a year later many of these same firms were writing off large chunks of goodwill under the impairment rules. Today all mergers in the United States are accounted for by the acquisition method.



IN
THE
NEWS

The Board included the following statements in justifying the changes: Analysts and other users of financial statements indicated that it was difficult to compare the financial results of entities because different methods of accounting for business combinations were used. Users of financial statements also indicated a need for better information about intangible assets because those assets are an increasingly important economic resource for many entities and are an increasing proportion of the assets acquired in many business combinations. Company managements indicated that the differences between the pooling and purchase methods of accounting for business combinations affected competition in markets for mergers and acquisitions.



IN
THE
NEWS

Goodwill
Impairment
Tests –
Former
Standards

As might be predicted, responses to the changes ranged from complaints that the FASB had “given away the store”³ to praise that the combined changes would yield enhanced flexibility for businesses.

Others, such as Morgan Stanley Dean Witter’s Trevor Harris, argued from the onset that there should be no long-term effect on stock prices and that any initial price effect from the changed accounting standards was merely a momentum play.⁴

While fans of the standards regarding goodwill accounting applauded their flexibility, critics questioned whether the goodwill impairment test opens the door for manipulation of earnings via the timing of write-offs, and some suggested an increase in hostile merger activity.

RELATED CONCEPTS

Verifiability is specified in *SFAC No. 8* as an enhancing attribute of accounting information.



IN
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NEWS

A portion of auditors’ testimony in the case against former Enron Corp. Chairman Kenneth Lay focused on the “alleged downward manipulation of charges for goodwill expenses.” Prosecutors argued that Mr. Lay misled the company’s auditors in October 2001 regarding Enron’s plans for a water-distribution unit in order to avoid big charges to earnings. The accounting rules introduced in 2001 require a company to write-down an asset if it doesn’t meet certain standards, which in the water-distribution’s case included whether the company had a costly growth plan. Without such a plan, Enron would have been forced to recognize impairment in an amount in the hundreds of millions of dollars. At the time of the audit, Lay claimed the company planned to spend over \$1 billion on the unit; this statement contradicted earlier claims that the company was going to sell the water operation, a non-core business.⁵



IN
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NEWS

FASB recognized the possible impact of the standard on earnings volatility in the following statements: Because goodwill and some intangible assets are no longer amortized, the reported amounts of goodwill and intangible assets (as well as total assets) do not decrease at the same time and in the same manner as under previous standards. There may be more volatility in reported income than under previous standards because impairment losses are likely to occur irregularly and in varying amounts.

³ *WSJ*, “Goodwill Hunting: Accounting Change May Lift Profits, but Stock Prices May Not Follow Suit,” by Jonathan Weil, 1/25/01, p. C1.

⁴ *Duff and Phelps, 2017 Goodwill Impairment Study*.

⁵ *WSJ*, “Enron Former Auditors Testify on Charges, Reserve Accounts,” by Gary McWilliams and John R. Emshwiller, 3/21/06, p. C3.

2.2 ILLUSTRATION OF ACQUISITION ACCOUNTING

As the term implies, the acquisition method treats the combination as the acquisition of one or more companies by another. Four steps are required in accounting for a business combination:

1. Identify the acquirer.
2. Determine the acquisition date.
3. Measure the fair value of the acquiree.
4. Measure and recognize the assets acquired and liabilities assumed.

Assets acquired by issuing shares of stock of the acquiring corporation are recorded at the fair values of the stock given or the assets received, whichever is more clearly evident. If the stock is actively traded, its quoted market price, after making allowance for market fluctuations, additional quantities issued, issue costs, and so on, is normally better evidence of fair value than are appraisal values of the net assets of an acquired company. Thus, an adjusted market price of the shares issued is commonly used. Where the issued stock is of a new or closely held company, however, the fair value of the assets received must generally be used. Any security issuance costs, whether bonds or stocks, incurred to consummate the merger are deducted from the value assigned to the debt or equity.

Identifiable assets acquired (including intangibles other than goodwill) and liabilities assumed should be recorded at their fair values at the date of acquisition. Any excess of total cost over the sum of amounts assigned to identifiable assets and liabilities is recorded as goodwill. FASB believes that goodwill can't be measured directly and is a residual amount. Goodwill should not be amortized but should be adjusted downward only when it is "impaired" as described in the following section.

In the past, managers seeking to reduce the amount of goodwill recorded as a result of the acquisition sometimes found creative ways to avoid or reduce goodwill prior to the issuance by increasing the amounts allocated to other accounts. One tactic involved identifying *in-process research and development (R&D)* in the acquired company. FASB standards require that R&D costs be expensed as incurred, not capitalized. In an interpretation of the standard on R&D, FASB stated that some forms of R&D, including a specific research project in progress, which transferred in an acquisition, should also be expensed. Furthermore, the amount to be expensed was to be determined not by the original cost of the actual R&D but by the amount paid by the acquiring company. **However, under current GAAP, in-process R&D is measured and recorded at fair value as an asset on the acquisition date.** This requirement does not extend to R&D in contexts other than business combinations. In any event, the importance of maintaining supporting documentation for any amounts assigned to R&D is clear.

When the net amount of the fair values of identifiable assets less liabilities *exceeds the total cost* of the acquired company, the acquisition is sometimes referred to as a **bargain**. When a bargain acquisition occurs, gain must be recognized to balance the accounts. Because of its reluctance to recognize income in a purchase or acquisition (where the usual facets of revenue recognition are absent), the FASB had, *in the past*, required that most long-lived assets be written down on a pro rata basis in such

LO 6 Valuation of acquired assets and liabilities assumed.

IN THE NEWS

St. Jude Medical, Inc. announced that it will acquire Irvine Biomedical, Inc. (IBI), an Irvine, California-based company that develops electrophysiology (EP) catheter products used by physician specialists to diagnose and treat cardiac rhythm disorders. St. Jude foresees recording an in-process R&D charge of \$8 to \$10 million at closing in connection with this acquisition. Apart from this in-process R&D charge, the transaction will not impact St. Jude's existing EPS guidance for 2004.⁶

⁶ *Business Wire*, "St. Jude Medical Announces Agreement to Acquire Irvine Biomedical, Inc.," 8/10/04.

a situation before recognizing any gain. If the initial measurement of an acquisition results in a bargain purchase, FASB ASC paragraph 805-30-25-4 requires the acquirer **to reassess** whether it has correctly identified all of the assets acquired and all of the liabilities assumed **before** recognizing a gain on a bargain purchase. As part of the required reassessment, the acquirer needs to review the procedures used to measure the amounts recognized at the acquisition date. It does not, however, require that any asset be marked down *below* its fair value. Once that determination is established, then **the excess of acquisition-date fair value of net assets over the consideration paid is recognized in income (the bargain purchase gain).**

Acquisition Example Assume that on January 1, 2020, P Company, in a merger, **acquired the assets** and assumed the liabilities of S Company. P Company gave one of its \$15 par value common shares to the former stockholders of S Company for every two shares of the \$5 par value common stock they held. Throughout this text, the company names P and S are frequently used to distinguish a parent company from a subsidiary. In an asset acquisition, these terms are inappropriate because the books of the acquired firm are dissolved at the time of acquisition. Nonetheless, the distinction is useful to avoid confusion between the acquirer and the acquired.

P Company common stock, which was selling at a range of \$50 to \$52 per share during an extended period prior to the combination, is considered to have a fair value per share of \$48 after an appropriate reduction is made in its market value for additional shares issued and for issue costs. The total value of the stock issued is \$1,440,000 ($\$48 \times 30,000$ shares). Balance sheets for P and S companies (along with relevant fair value data) on January 1, 2020, are presented in Illustration 2-1. Because the book value of the bonds is \$400,000, bond discount in the amount of \$50,000 ($\$400,000 - \$350,000$) must be recorded to reduce the bonds payable to their present value.

ILLUSTRATION 2-1

Balance Sheets of P and S Companies January 1, 2020

	<i>P Company</i>		<i>S Company</i>	
	<i>Book Value</i>	<i>Book Value</i>	<i>Book Value</i>	<i>Fair Value</i>
Cash and receivables	\$ 250,000	\$ 180,000		\$ 170,000
Inventories	260,000	100,000		140,000
Land	600,000	120,000		400,000
Buildings & equipment	800,000	900,000		1,000,000
Accumulated depreciation—buildings & equipment	(300,000)	(300,000)		
Total assets	<u>\$ 1,610,000</u>	<u>\$1,000,000</u>		<u>\$1,710,000</u>
Current liabilities	\$ 110,000	\$ 110,000		\$ 150,000
Bonds payable, 9%, due 1/1/2021, interest payable semiannually on 6/30 and 12/31*	—0—	<u>400,000</u>		<u>350,000</u>
Total liabilities	<u>\$ 110,000</u>	<u>\$ 510,000</u>		<u>\$ 500,000</u>
Stockholders' Equity				
Common stock, \$15 par value, 50,000 shares	750,000			
Common stock, \$5 par value, 60,000 shares		300,000		
Other contributed capital	400,000	50,000		
Retained earnings	350,000	140,000		
Total Stockholders' equity	<u>1,500,000</u>	<u>490,000</u>		
Total liabilities and stockholders' equity	<u>\$ 1,610,000</u>	<u>\$1,000,000</u>		
Net assets at book value (Assets minus liabilities)	<u>\$ 1,500,000</u>	<u>\$ 490,000</u>		
Net assets at fair value				<u>\$1,210,000</u>

*Bonds payable are valued at their present value by discounting the future payments at the current market rate.

To record the exchange of stock for the net assets of S Company, P Company will make the following entry:

Cash and Receivables	170,000	
Inventories	140,000	
Land	400,000	
Buildings & Equipment (net)	1,000,000	
Discount on Bonds Payable	50,000	
Goodwill (1,440,000 – 1,210,000**)	230,000	
Current Liabilities		150,000
Bonds Payable		400,000
Common Stock* (30,000 × \$15)		450,000
Other Contributed Capital* (30,000 × [\$48 – \$15])		990,000

*The sum of common stock and other contributed capital is \$1,440,000.

**Fair value of net assets = \$1,710,000 – \$500,000 = \$1,210,000

After the merger, S Company ceases to exist as a separate legal entity. Note that under the acquisition method the cost of the net assets is measured by the fair value (30,000 shares × \$48 = \$1,440,000) of the shares given in exchange. Common stock is credited for the par value of the shares issued, with the remainder credited to other contributed capital. Individual assets acquired and liabilities assumed are recorded at their fair values. Plant assets are recorded at their fair values in their current depreciated state (without an initial balance in accumulated depreciation), the customary procedure for recording the purchase of new or used assets. Bonds payable are recorded at their fair value by recognizing a premium or a discount on the bonds. After all assets and liabilities have been recorded at their fair values, an excess of cost over fair value of \$230,000 remains and is recorded as goodwill. The amount of goodwill is always the residual in these computations.

A balance sheet prepared after the acquisition of S Company is presented in Illustration 2-2.

ILLUSTRATION 2-2

P Company Balance Sheet after Acquisition, January 1, 2020

Cash and receivables		\$ 420,000
Inventories		400,000
Land		1,000,000
Buildings & equipment	1,800,000	
Accumulated depreciation—buildings & equipment	(300,000)	1,500,000
Goodwill		230,000
Total assets		<u>\$3,550,000</u>
Current liabilities		\$ 260,000
Bonds payable	\$400,000	
Less: Bond discount	50,000	350,000
Total liabilities		<u>610,000</u>
Common stock, \$15 par value, 80,000 shares outstanding	1,200,000	
Other contributed capital	1,390,000	
Retained earnings	350,000	
Stockholders' equity		<u>2,940,000</u>
Total liabilities and equity		<u>\$3,550,000</u>

If an acquisition takes place within a fiscal period, GAAP requires the inclusion of the acquired company's revenues and expenses in the purchaser's income statement only from the date of acquisition forward. Income earned by the acquired company prior to the date of acquisition is considered to be included in the net assets acquired.

Treatment of Acquisition-Related Expenses

Under FASB ASC paragraph 805-10-25-23, acquisition-related costs are excluded from the measurement of the consideration paid, because such costs are not part of the fair value of the acquiree and are not assets. This is a change from past GAAP where the purchase method required only indirect costs to be expensed, while direct costs were capitalized as part of the purchase price. **Direct expenses incurred in the combination include finder's fees, as well as advisory, legal, accounting, valuation, and other professional or consulting fees. Indirect, ongoing costs include the cost to maintain a mergers and acquisitions department, as well as other general administrative costs such as managerial or secretarial time and overhead that are allocated to the merger but would have existed in its absence.** Both direct and indirect costs are expensed, and the cost of issuing securities is also excluded from the consideration and accounted for separately from the business combination accounting. Expected restructuring costs (with no obligation at the acquisition date) are also accounted for separately from the business combination. In the absence of more explicit guidance, we assume that **security issuance costs are assigned to the valuation of the security**, thus reducing the additional contributed capital for stock issues or adjusting the premium or discount on bond issues.

LO 4 Reporting acquisition expenses.

Acquisition Costs—An Illustration Suppose that SMC Company acquires 100% of the net assets of Bee Company (net book value of \$100,000) by issuing shares of common stock with a fair value of \$120,000. With respect to the merger, SMC incurred \$1,500 of accounting and consulting costs and \$3,000 of stock issue costs. SMC maintains a mergers department that incurred a monthly cost of \$2,000. The following illustrates how these direct and indirect merger costs and the security issue costs are recorded.

Professional Fees Expense (Direct)	1,500	
Merger Department Expense (Indirect)	2,000	
Other Contributed Capital (Security Issue Costs)*	3,000	
Cash		6,500

*FASB ASC paragraph 805-10-25-23 states that the costs to issue debt or equity securities shall be recognized in accordance with other applicable GAAP.

Income Tax Consequences in Business Combinations

The fair values of specific assets acquired and liabilities assumed in a business combination may differ from the income tax bases of those items. A deferred tax asset or liability should be recognized for differences between the assigned values and tax bases of the assets and liabilities recognized in a business combination. The treatment of income tax consequences is addressed in Appendix 2A, which is available at www.wiley.com/go/jeter/AdvancedAccounting7e.

2.3 BARGAIN PURCHASE ACCOUNTING ILLUSTRATION (PURCHASE PRICE BELOW FAIR VALUE OF IDENTIFIABLE NET ASSETS)

IN
THE
NEWS

Chicago-based Abbott Laboratories completed its \$4.1 billion cash acquisition

of Guidant Corp.'s vascular-device business. Abbott originally agreed to the purchase during the bidding war between Johnson & Johnson and Boston Scientific over cardiac-device maker Guidant. Abbott's vascular operations generated just \$253 million in revenues in 2005 while Guidant's had more than \$1 billion in 2005. Abbott said it expects the combined vascular group to have revenue of \$3 billion in 2006. Experts consider Abbott to have obtained a solid bargain in its purchase.⁷

When the price paid to acquire another firm is lower than the fair value of identifiable net assets (assets minus liabilities), the acquisition is referred to as a **bargain**. Although less common than acquisitions involving goodwill, bargain acquisitions do occur and require the application of specific rules to conform to generally accepted accounting principles. However, FASB simplified this issue.

- Any previously recorded goodwill on the seller's books is eliminated (and no new goodwill recorded).
- A **gain** is reflected in current earnings of the acquiree to the extent that the fair value of net assets exceeds the consideration paid.⁸
- Acquirers are required to reassess whether it has correctly identified all of the assets acquired and liabilities assumed (including intangibles) before recognizing a gain.

Example of a Bargain Purchase Assume that Payless Company pays \$17,000 cash for all the net assets of Shoddy Company when Shoddy Company's balance sheet shows the following book values and fair values:

	<i>Book Value</i>	<i>Fair Value</i>
Current Assets	\$ 5,000	\$ 5,000
Buildings (net)	10,000	15,000
Land	3,000	5,000
Total Assets	<u>\$18,000</u>	<u>\$25,000</u>
Liabilities	\$ 2,000	\$ 2,000
Common Stock	9,000	
Retained Earnings	7,000	
Total Liabilities and Equity	<u>\$18,000</u>	
Net Assets at Book Value	\$16,000	
Net Assets at Fair Value		\$23,000

A bargain gain of \$6,000 must be recorded upon acquisition because the cost of the acquisition (\$17,000) is less than the fair value of net assets acquired (\$23,000).

The entry by Payless Company to record the acquisition is (recall that the assets and liabilities must be recorded at fair value):

Current Assets	5,000	
Buildings	15,000	
Land	5,000	
Liabilities		2,000
Cash		17,000
Gain on acquisition of Shoddy (ordinary)		6,000

RELATED CONCEPTS

Because a gain incurred on purchase of assets, or a related firm, does not meet the conceptual view of appropriate *revenue recognition* (no earnings process has occurred), FASB continues to strive to find the best approach for bargain acquisitions.

⁷ *Chicago Tribune*, "Abbott Completes Vascular Purchase," James P. Miller, 4/22/06.

⁸ Under previous GAAP, the excess of fair value over cost was allocated to reduce long-lived assets (with certain specified exceptions) in proportion to their fair values in determining their assigned values. If the long-lived assets were reduced to zero, and still an excess remained, an extraordinary gain was recognized under *SFAS No. 141*. Prior to *SFAS No. 141*, negative goodwill was recorded as a deferred credit and amortized. Current GAAP does not permit the recording of negative goodwill in this manner nor is the recognized gain to be treated as extraordinary.

2.4 MEASUREMENT PERIOD AND MEASUREMENT PERIOD ADJUSTMENTS

Because the FASB requires that the identifiable net assets be recorded at fair value in an acquisition, the amounts reported as fair value in the financial statements may be preliminary (and the estimates may not yet be final). If the fair value estimates are not complete, they are referred to as ‘provisional’ amounts. Acquirers are given one year to finalize these estimates. This one-year period is referred to as the measurement period. During the measurement period the acquirer may adjust the provisional amounts recognized for a business combination. The measurement period provides the acquirer with a reasonable time to obtain the information necessary to identify and measure any of the following as of the acquisition date:

- a. The identifiable assets acquired, liabilities assumed, and any noncontrolling interest in the acquiree
- b. Any consideration transferred to the acquiree
- c. In a business combination achieved in stages, any previous equity interest held by the acquirer
- d. The amount recognized as goodwill or the gain from a bargain purchase

Prior rules for measurement period adjustment required retrospectively adjusting all provisional amounts. Current GAAP requires that the financial statements be adjusted in the period the measurement period adjustment is resolved. Firms can no longer wait to adjust the books (nor are they allowed to restate items), they must be adjusted immediately.

During the measurement period, the acquirer recognizes additional assets or liabilities as new information is obtained about facts and circumstances that existed at the acquisition date which, if known, would have resulted in the recognition of those assets and liabilities. The *measurement period ends* as soon as the acquirer receives the information it was seeking about facts and circumstances that existed at the acquisition date, or learns that more information is not obtainable. However, *the measurement period shall not exceed one year* from the acquisition date. Thus measurement period adjustments are not the result of “new” information learned “after” the date of acquisition. Measurement period adjustments reflect information at the date of acquisition.

The acquirer recognizes an increase (decrease) in the provisional amount recognized for an identifiable asset (liability) by means of a decrease (increase) in goodwill. During the measurement period, the acquirer should recognize adjustments to the provisional amounts as if the accounting for the business combination had been completed at the acquisition date. Further, the acquirer should revise comparative information for prior periods presented in financial statements if needed, including changes in depreciation, amortization, or other income effects recognized in completing the initial accounting.

After the measurement period ends, the acquirer only revises the accounting for a business combination to correct an error.



IN
THE
NEWS

The top 6 Goodwill Impairments reported in 2016*

1. Baker Hughes, \$1.9 Billion
2. Community Health Services, \$1.6 billion
3. Energy Transfer Equity, LP, \$1.3 billion
4. National Oilwell Varco, Inc. \$972 million
5. The Priceline Group, Inc. \$941 million
6. Xerox Corporation, \$935.
 - Duff & Phelps, 2017 U.S. Goodwill Impairment Study

2.5 GOODWILL IMPAIRMENT TEST

LO 3 Goodwill impairment assessment.

For **public companies**, goodwill is no longer amortized on the income statement. Instead, goodwill of each reporting unit is tested for impairment on an annual basis. The annual goodwill impairment test may be performed any time during the fiscal year, provided the test is performed at the same time every year. Different reporting units may be tested for impairment at different times.

In January 2014, FASB amended the standard for **private companies**, allowing them to elect an alternative model. Under this alternative, goodwill is amortized over a period not to exceed 10 years, and a simplified impairment model is used.

In 2017, FASB simplified the test for goodwill impairment for public companies. FASB eliminated the two-step approach. The new approach should reduce costs needed to measure goodwill impairment. The new test is also a two-part test. These parts are labeled *qualitative* and *quantitative* assessments also, early adoption is permitted.

Because **public companies** assign goodwill to a reporting unit, they first assess *qualitative* factors to determine whether it is more likely than not that the fair value of the reporting unit is less than its carrying amount. Qualitative factors include items such as general economic conditions, increased competitive environment, declining cash flows, etc. If the assessment of the qualitative factors indicate that it is more likely than not (a likelihood greater than 50%) that the fair value of the reporting unit is less than its carrying amount (with goodwill), the entity performs the *quantitative* test to determine the amount of impairment.

In *this step*, if the carrying amount of a reporting unit is greater than its fair value, goodwill of the reporting unit is considered impaired. The amount of goodwill impairment is the lower of a) the carrying value of goodwill or b) the excess of the carrying amount of the reportable unit (including goodwill) over its fair value. See Illustration 2-3 for a visual illustration of this process.

IN THE NEWS

What is a reporting unit? A reporting unit is the level at which management reviews and assesses the operating segment's performance—in other words, discrete business lines or units that can be grouped by geography and can produce stand-alone financial statements (for example, four operating divisions reporting to the corporate parent). A company can use a reporting unit one level below the operating segment for impairment testing if components of an operating segment engage in business activities for which discrete financial information is available, have economic characteristics different from the other components of the operating segments, and are at the level at which goodwill benefits are realized. Duff & Phelps report that of all public companies in their sample, 16% reported one reportable unit, 47% reported between 2 to 5 reportable units, 25% reported between 6 to 10 reportable units, and 11% reported more than 10 reportable units. In addition, they report that 37% of public companies report goodwill and that 9% of these companies reported goodwill impairment in 2016.

IN THE NEWS

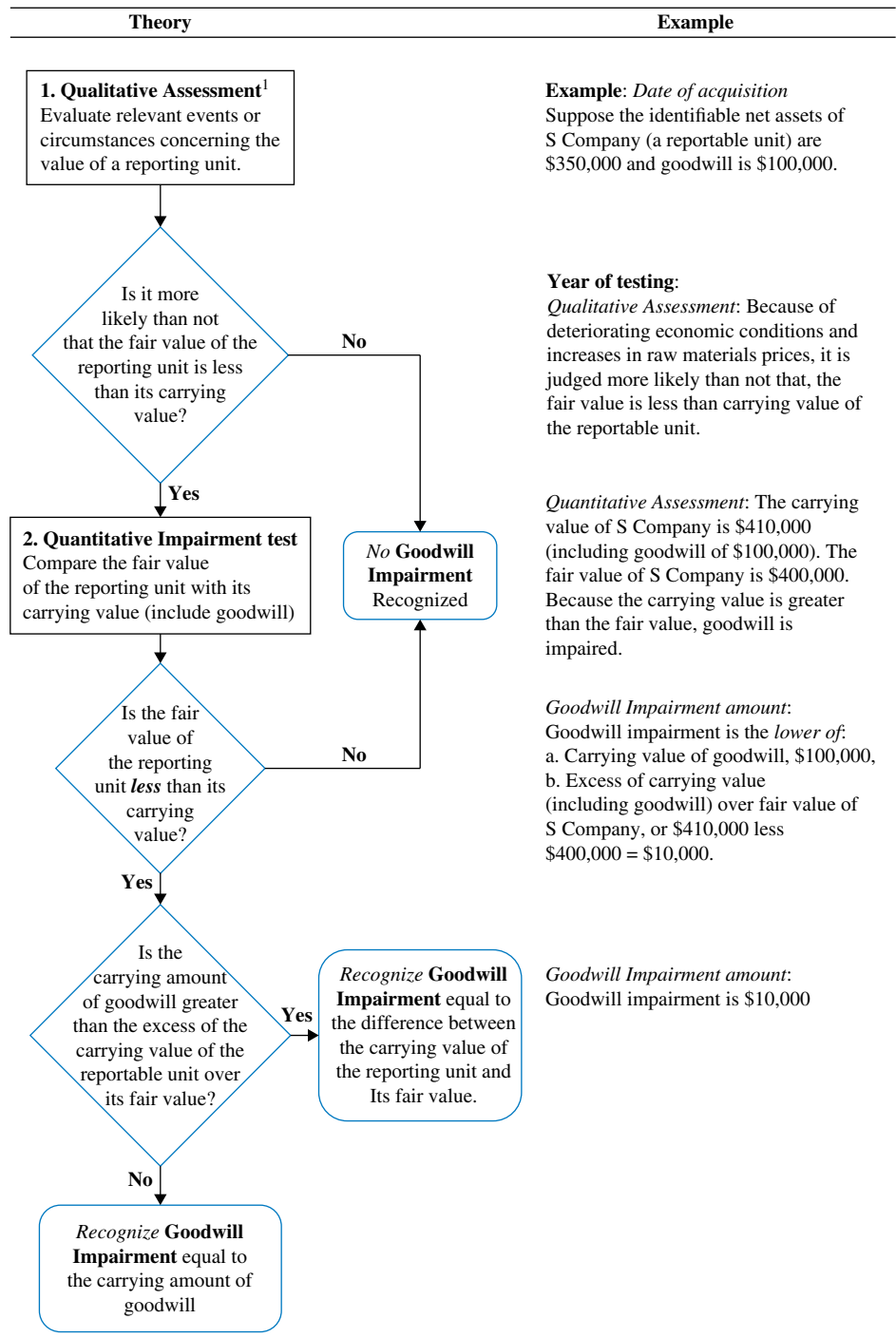
The number of goodwill impairments dropped from 350 events in 2015 to 288 events in 2016. The total dollar amount of the goodwill impairment, also dropped, from \$59.9 billion to \$28.5 billion.

Illustration of Determining Goodwill Impairment

In the qualitative assessment, the entity assesses qualitative factors to determine if it is *more likely than not* that the fair value of the reporting unit is below its book value. If it is, then in the company performs the quantitative test in determining whether the value of impaired goodwill. Firms have an unconditional option to skip the qualitative test and move directly to the quantitative test. Assume:

On the date of acquisition:	
Fair value of the reporting unit	\$450,000
Fair value of identifiable net assets	350,000
Goodwill	<u>\$100,000</u>

ILLUSTRATION 2-3 Annual Goodwill Impairment Tests (effective 12-16-2019)



¹An entity has an unconditional option to skip the qualitative test and move directly to the quantitative test and compare the fair value of the reportable unit with its carrying value (including goodwill).

RELATED CONCEPTS

Verifiability is specified in SFAC No. 8 as an enhancing attribute of accounting information.

On the first periodic review date:

The qualitative test determines if there is a potential impairment. If it is judged more likely than not that impairment exists, the company moves to the quantitative test. The quantitative test determines the amount of goodwill impairment, if any. If the carrying value of the reporting unit (including goodwill) is larger than the fair value of the reporting unit, goodwill impairment exists. If the carrying value is less than the fair value no impairment is considered.

Quantitative Test

Fair value of the reporting unit	\$400,000
Carrying value of reporting unit (includes goodwill)	<u>410,000</u>
Excess of carrying value over fair value (if negative, impairment exists)	<u>(\$10,000)</u>

Since the carrying value of the reporting unit is larger than \$400,000 by \$10,000, the amount of goodwill impairment is the lower of: 1) the excess of the carrying value over fair value (\$10,000), or 2) the carrying value of existing goodwill (\$100,000). Since the excess is less than the carrying value of goodwill, the amount of goodwill impairment is \$10,000.

After a goodwill impairment loss is recognized, the adjusted carrying amount of the goodwill becomes its new accounting basis. Subsequent reversal of a previously recognized impairment loss is prohibited once the measurement of that loss has been completed.

If an impairment test for goodwill occurs at the same time as an impairment test for any other asset, the FASB instructs that the other asset should be tested for impairment first. FASB also specifies that intangible assets other than goodwill should be amortized over their useful lives (if finite lives exist) and reviewed for impairment in accordance with FASB ASC 350–30–35–17, 18.

IN THE NEWS

CBS Corp. announced that it wrote down the goodwill value of its television and radio assets by \$9.5 billion to \$13.5 billion, resulting in a sizable fourth quarter loss. It is the second consecutive year CBS has taken a goodwill write-down under the accounting rule that requires an annual test for impairment of intangible assets. The most recent write-down is reflective of continued challenges and slow growth in the radio and broadcast television industries.

In a period in which an impairment loss occurs, FASB ASC paragraph 350–20–45–2 mandates the following disclosures in the notes:

1. A description of the facts and circumstances leading to the impairment
2. The amount of the impairment loss and the method of determining the fair value of the reporting unit
3. The nature and amounts of any adjustments made to impairment estimates from earlier periods, if significant.

RELATED CONCEPTS

Full disclosure suggests that all important aspects of acquisitions should be revealed to readers of the financial statements. This includes the reasons for subsequent impairment losses.

Disclosures Mandated by FASB

FASB ASC paragraph 805–30–50–1 requires the following disclosures for goodwill:

1. The total amount of acquired goodwill and the amount expected to be deductible for tax purposes
2. The amount of goodwill by reporting segment (if the acquiring firm is required to disclose segment information), unless not practicable.

FASB ASC paragraph 350–20–45–1 specifies the presentation of goodwill in the balance sheet and income statement (if impairment occurs) as follows:

- a. The aggregate amount of goodwill should be a separate line item in the balance sheet.
- b. The aggregate amount of losses from goodwill impairment should be shown as a separate line item in the operating section of the income statement unless some of the impairment is associated with a discontinued operation (in which case it is shown net-of-tax in the discontinued operations section).

Other Required Disclosures

FASB ASC paragraph 805–10–50–2 states that to meet its objectives, the acquirer should disclose pertinent information for each material business combination that takes place during the reporting period, to include the following:

LO 9 New disclosure requirements for business combinations.

- The name and a description of the acquiree.
- The acquisition date.
- The percentage of voting equity instruments acquired.
- The primary reasons for the business combination, including a description of the factors that contributed to the recognition of goodwill.
- The fair value of the acquiree and the basis for measuring that value on the acquisition date.
- The fair value of the consideration transferred, including the fair value of each major class of consideration.
- The amounts recognized at the acquisition date for each major class of assets acquired and liabilities assumed in the form of a condensed balance sheet.
- The maximum potential amount of future payments the acquirer could be required to make under the terms of the acquisition agreement.

TEST YOUR KNOWLEDGE 2.1

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

Multiple Choice

1. Which of the following statements is *true* with respect to the accounting for business combinations under U.S. GAAP?
 - a. Incomparability of financial statements under the previous rules permitting two distinct methods of accounting for business combinations (purchase and pooling) was corrected by making amortization of goodwill optional.
 - b. Under the current standards, impairment of goodwill is not accounted for because it does not affect the actual profit of the company.
 - c. The acquired business should be recognized at its fair value on the acquisition date, regardless of whether the acquirer purchases all or only a controlling percentage.
 - d. Any goodwill acquired in previous acquisitions should continue to be amortized after the year 2001 for the continuity of the accounting practice.
2. Goodwill impairment exists only if the fair value of the business unit:
 - a. Equals the carrying value of the reporting unit (including goodwill).
 - b. Is greater than the carrying value of the reporting unit (including goodwill).
 - c. Is less than the carrying value of the reporting unit (including goodwill).
 - d. None of the above.

3. Which of the following is *incorrect*?
 - a. Under acquisition accounting, direct acquisition costs are recorded by decreasing goodwill as a contra account.
 - b. Under acquisition method accounting, indirect acquisition costs (such as expenses incurred by a firm's permanent M&A department) are expensed.
 - c. Security issue costs, such as brokerage fees, reduce the Excess Paid In Capital account (i.e., are recorded as a debit to that account).
 - d. Accounting and consulting fees incurred in a business combination are expenses under the current standards for acquisitions.

2.6 CONTINGENT CONSIDERATION (EARNOUTS)

LO 7 Contingent consideration and valuation of assets.

In some acquisitions, the buyer and the seller have trouble agreeing on the purchase price. For instance, the seller might hold more optimistic views on the future performance of the target than the purchaser does. In these cases, the purchase agreement sometimes provide that the purchasing company will pay more to the seller if certain specified future events or transactions occur (such as if revenues and/or earnings exceed some future threshold). The contingency may require the payment of cash (or other assets) or the issuance of additional securities. Between 2001 and 2017, approximately 7.8% of public acquirers used contingent consideration as a means of consideration in an acquisition. GAAP requires that all contractual contingencies, as well as non-contractual liabilities for which it is **more likely than not** that an asset or liability exists, be measured and recognized at fair value on the acquisition date.⁹ This includes contingencies based on earnings, (often referred to as earnouts) guarantees of future security prices, and contingent payouts based on the outcome of a lawsuit. For example, if the acquirer agrees to transfer additional equity interests, cash or other assets to the former owners of the acquiree at some future date if *specified targets are met*, the acquirer should measure and recognize the fair value of the *contingent consideration* as of the acquisition date. That consideration is classified as either debt or equity on the basis of other generally accepted accounted principles.

SFAS No. 141R (FASB ASC Topic 805 Business Combinations) changed the accounting for earnouts both on the measurement date and on subsequent dates (potential remeasurement of related liabilities or assets). In an earnout, for instance, the acquiring firm might agree to pay additional cash if the revenue of the acquired firm exceeds some specified future amount. Alternatively, future payments might be based upon gross margin, or earnings targets, or contingent upon the achievement of certain milestones such as regulatory approval of a drug. If there is *significant uncertainty* surrounding the future performance of a target, the acquiring firm often includes earnouts as part of the consideration paid to help mitigate the risk of overpayment. Since 2010, public acquirers in the United States have used earnouts in approximately 9% of all acquisitions.

SFAS No. 141R requires the acquirer to recognize contingent consideration and to measure the fair value of the consideration at the acquisition date. Typically, these are level 3 fair value liabilities.¹⁰ Under the prior FASB standard, contingent consideration obligations usually were not recognized at the acquisition date, and were typically only recognized when the contingency was resolved and consideration was issued or became issuable.

⁹ "Otherwise, non-contractual liabilities are recorded under other applicable GAAP (see FASB ASC Topic 450 Contingencies)."

¹⁰ Level 3 obligations are obligations that cannot be determined using observable inputs, such as market prices. Fair values of these obligations require estimates.

The classification of contingent consideration as a liability or equity is based on FASB ASC Topic 480, Distinguishing Liabilities from Equity. An arrangement will generally be classified as a liability if it is settled with a variable number of a buyer's equity shares and creates

1. a fixed obligation known at inception,
2. an obligation, the amount of which varies inversely with changes in the fair value of the buyer's equity shares, or
3. an obligation, the amount of which varies based on something other than the fair value of the buyer's equity shares.

Equity classification generally requires that a fixed number of shares be paid and that the performance target be based on the operations of the acquirer or acquiree (and not on an external index).

Examples of equity shares used in contingent consideration that would be treated as a liability include: (1) the acquirer is required to issue additional shares if the acquirer's share price drops below a certain price after a year; (2) the acquirer's obligation is based on something other than the acquirer's operations, such as the S&P 500 index or oil price futures; and (3) the number of contingent shares changes based on different levels of the acquirer's or target's revenue. The FASB decided that obligations for contingent consideration classified as equity should not be remeasured after the acquisition date. More than 95% of contingent consideration contracts are classified as liabilities (rather than as equity).

The fair value of the contingent consideration (if classified as a liability) is remeasured each fiscal quarter with the resulting **change in fair value reported as a gain or a loss in operating income**. If the earnout is to be paid in stock (and the stock qualifies for equity classification), the changes in fair value are **never recognized** in income; once the earnout is resolved, any adjustment is made to equity.

The adjustment to fair value for contingent consideration classified as a liability is counterintuitive in the following sense. If the likelihood of an earnout payment increases because the likelihood of meeting the performance targets increases, a loss is recorded (this creates a larger liability because larger future cash payments are expected). The counterintuitive aspect is that this situation implies favorable performance by the target. On the other hand, if the likelihood of an earnout payment decreases, a gain is recorded. Thus if the target's performance is poor, a gain is likely to be recorded. To complicate the interpretation further, we note that the change in the liability may be offset against a change in value of the assets, with a concomitant offsetting in the income statement. For instance, if a fair value gain on contingent consideration is recorded because of poor performance, this might be offset by a loss on impairment of goodwill or other assets.

Since the issuance of *SFAS No. 141R*, if contingent consideration is used in a deal, it is approximately 34% of total deal value. Cadman, Carrizosa, and Faurel (2011)¹¹ report that 46% of the *maximum* potential earnout value, on average, is recorded on the books of the acquirer on the date of acquisition as the fair value of the contingent consideration. Thus a significant amount of debt is added to the books when the acquisition includes contingent consideration because most contingent consideration is classified as a liability rather than as equity.

¹¹ Cadman, B., R. Carrizosa, and L. Faurel, The Information Content and Contracting Consequences of SFAS 141(R): the Case of Earnout Provisions, 2012.

Potential methods for estimating the fair value of contingent consideration are quite varied. The income approach, for instance, involves estimating expected cash flows under various scenarios and discounting these using some appropriate discount rate and levels of probability for each.

Contingent consideration classified as a liability: Assume that P Company acquired all the net assets of S Company (current assets of \$20,000, buildings for \$400,000, and liabilities of \$50,000 for cash of \$510,000). P Company also agreed to pay:

1. an additional \$150,000 to the former stockholders of S Company if the post combination revenues over the next two years equaled or exceeded \$800,000 and
2. an additional \$200,000 if the revenues exceeded \$1,000,000. The fair value of the contingent consideration was estimated to be \$60,000 (based on the expected present value of future cash flows). P Company will make the following entry on the date of acquisition:

Current assets	20,000	
Buildings	400,000	
Goodwill	200,000	
Liabilities		50,000
Contingent consideration		60,000
Cash		510,000

Since the contingent consideration is to be settled with cash, it is classified as a liability, P Company must remeasure the contingent consideration each quarter and recognize the change in fair value in income.

If by the end of the first year, the likelihood has increased that the revenue target will be met, P Company should assess an increase in the fair value of the contingent consideration. If the fair value at the end of year one increased to \$100,000, P Company would make the following entry:

Increase in Liability:		
Loss from contingent consideration	40,000	
Contingent Consideration		40,000

If on the other hand, it has become unlikely that either target will be met, P Company should remove the liability altogether, and would make the following entry:

Decrease in Liability:		
Contingent Consideration	60,000	
Gain from contingent consideration		60,000

Any cash paid to settle a contingent consideration claim is classified on the statement of cash flows as follows: Any cash paid up to the original amount of the fair value of contingent consideration recorded on the date of acquisition, is classified as a cash from investing financing cash flow. Any excess cash paid is classified as an operating cash flows. In the example, the first \$60,000 of cash paid would be classified as an investing cash flow and any cash paid over the \$60,000 would be classified as operating. Any cash paid soon after the date of acquisition (within 3 months) would be classified as cash from investing.

Contingent consideration classified as equity: In the previous example, even if the contingent consideration were to be paid in common shares, the contingent consideration would be classified as a liability because the number of shares needed to satisfy the obligation is variable.¹²

Suppose that in the previous example, P Company agreed to issue an additional 10,000 shares of \$1 par value common stock to the former stockholders of S Company if the post-combination revenues over the next two years equaled or exceeded \$800,000. The fair value of the contingent consideration was estimated to be \$40,000. P Company should make the following entry on the date of acquisition:

Current assets	20,000	
Buildings	400,000	
Goodwill	180,000	
Liabilities		50,000
Paid in capital contingent consideration		40,000
Cash		510,000

P Company would not remeasure the paid in capital balance based on changes in the fair value of the common stock. Suppose that the contingent consideration was paid. P Company would make the following entry:

Consideration is paid:		
Paid in capital contingent consideration	40,000	
Common stock (10,000 shares at \$1 par)		10,000
Paid in capital—common stock		30,000

If on the other hand, it became unlikely that the target would be met, P Company would make the following entry:

Consideration is not paid:		
Paid in capital contingent consideration	40,000	
Paid in capital—from unsatisfied targets		40,000

Approximately 90% of earnout contracts are based on the performance of the acquired firm, while 9% are based on the performance of the combined firm. One percent of earnouts are not directly related to either and might be based on other indices such as oil futures. When the earnout is based on the performance of the acquired firm, approximately 60% of these are based on revenue and 26% are based on achieving milestones (patent approval). Very few are actually based on earnings.

Although earnouts may be helpful in getting past negotiating obstacles and possibly in reducing up-front payouts for buyers, they suffer from drawbacks in implementation. In particular, they are very difficult to administer and may trigger post-deal conflicts between buyers and sellers. Their primary niche is in the acquisition of private companies where management retention is a key issue. Between 2001 and 2017, earnouts were used in 10% of acquisitions when a public company acquired a private company, but earnouts were used in only 4% of acquisitions when a public company acquired another public company. Other places where they are used include cross-border deals and deals where corporate sellers wish to maintain a share in future performance.

¹² If shares are issued to satisfy contingent consideration, a variable number of shares can be issued and still meet the equity classification if the settlement amount *varies directly with the acquirer's equity share price* (considered an input used to determine the fair value of a fixed option arrangement).

Earnouts are more significant in service-related industries and high-growth and high-tech industries. The average earnout period is around 3.6 years with approximately 18% of earnouts extending over five years. Illustration 2-4 summarizes recent trends related to the use of contingent payments.

ILLUSTRATION 2-4**Deals Reporting the Amount of Contingent Consideration (Earnouts) Public Acquirers 2001 To 2017 (\$ Millions)****Panel A: Percentage of Deals With Earnouts and Earnouts as a Percentage of Deal Value**

	<i>Percentage of Deals with Earnouts</i>	<i>Earnout as a Percent of Deal Value</i>
2001	5.7%	34.8%
2002	6.9%	35.2%
2003	7.5%	32.0%
2004	7.6%	32.7%
2005	6.6%	31.0%
2006	7.8%	30.3%
2007	8.3%	31.4%
2008	10.2%	34.8%
2009	8.7%	36.1%
2010	8.3%	36.6%
2011	9.5%	36.2%
2012	8.0%	31.3%
2013	7.7%	35.3%
2014	7.8%	33.2%
2015	7.7%	32.9%
2016	7.2%	31.3%
2017	7.1%	30.4%
Average	7.8%	33.3%

Panel B:

	<i>Deal Value</i>			
	<i>No Earnout</i>		<i>With Earnout</i>	
	<i>Number</i>	<i>Value</i>	<i>Number</i>	<i>Value</i>
2001	1,005	477.7	61	124.7
2002	1,426	169.4	105	58.7
2003	1,365	228.1	111	152.9
2004	1,612	268.1	132	88.2
2005	1,747	366.1	124	105.6
2006	1,690	367.5	143	121.2
2007	1,617	329.0	147	102.6
2008	1,111	289.6	126	153.2
2009	845	564.8	80	188.6
2010	1,073	321.4	97	162.3
2011	1,071	409.5	113	128.7
2012	1,155	332.9	101	260.1
2013	1,096	367.2	92	198.3
2014	1,308	602.2	111	210.3
2015	1,142	796.3	96	205.4
2016	898	632.8	70	504.8
2017	799	394.6	61	293.1

Source: Thomson SDC Platinum.

2.7 PRO FORMA STATEMENTS AND DISCLOSURE REQUIREMENT

Pro forma statements, sometimes called **as-if** statements, are prepared to show the effect of planned or contemplated transactions by showing how they might have affected the historical financial statements if they had been consummated during the period covered by those statements. Pro forma statements serve two functions in relation to business combinations: (1) to provide information in the **planning** stages of the combination and (2) to **disclose** relevant information subsequent to the combination.

LO 5 Use of pro forma statements.

First, pro forma statements are often prepared before the fact for combinations under consideration. When management is contemplating the purchase price offer, for example, a number of pro forma statements may be produced, using different assumed purchase prices and projecting one or more years into the future, or alternatively restating a past period as though the firms had been combined. After the boards of directors of the constituents have reached tentative agreement on a combination proposal, pro forma statements showing the effects of the proposal may be prepared for distribution to the stockholders of the constituents for their consideration prior to voting on the proposal. If the proposed combination involves the issue of new securities under *Securities and Exchange Commission (SEC)* rules, pro forma statements may be required as part of the registration statement.

When a pro forma statement is prepared, the tentative or hypothetical nature of the statement should be clearly indicated, generally by describing it as “pro forma” in the heading and including a description of the character of the transactions given effect to. Further description of any other adjustments should be clearly stated on the statement or in related notes. A pro forma balance sheet (based on data presented in Illustration 2-1) that might be prepared for use by the companies’ stockholders is presented in Illustration 2-5. The normal procedure is to show the audited balance sheet

ILLUSTRATION 2-5

P Company Pro Forma Balance Sheet Giving Effect to Proposed Issue of Common Stock for All the Net Assets of S Company January 1, 2020

<i>Assets</i>	<i>Audited Balance Sheet</i>	<i>Adjustment</i>	<i>Pro Forma Balance Sheet</i>
Cash and receivables	\$ 250,000	\$ 170,000	\$ 420,000
Inventories	260,000	140,000	400,000
Land	600,000	400,000	1,000,000
Buildings & equipment	800,000	1,000,000	1,800,000
Accumulated depreciation	(300,000)		(300,000)
Goodwill	—0—	230,000	230,000
Total assets	\$1,610,000		\$3,550,000
<i>Liabilities and Equity</i>			
Current liabilities	\$ 110,000	150,000	260,000
Bonds payable	—0—	350,000	350,000
Common stock	750,000	450,000	1,200,000
Other contributed capital	400,000	990,000	1,390,000
Retained earnings	350,000		350,000
Total equities	\$1,610,000		\$3,550,000

as of a given date, individual adjustments for the proposed transaction, and resulting account balances.

Second, pro forma presentation is a valuable method of disclosing relevant information to stockholders and other users subsequent to the combination. Some types of pro forma presentation are required by FASB ASC subparagraph 805-10-50-2(h) if the combined enterprise is a public business enterprise.

If a material business combination (or series of combinations material in the aggregate) occurred during the year, *notes* to financial statements should include on a pro forma basis:

1. Results of operations for the current year as though the companies had combined at the beginning of the year, unless the acquisition was at or near the beginning of the year
2. Results of operations for the immediately preceding period as though the companies had combined at the beginning of that period if comparative financial statements are presented.

TEST YOUR KNOWLEDGE 2.2

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

Multiple Choice

1. In the year of a material business combination, pro forma disclosures must include all of the following except:
 - a. Revenue
 - b. Net income
 - c. Tax expenses
 - d. Nonrecurring items
2. Which of the following statements best describes the current authoritative position with regard to the accounting for contingent consideration?
 - a. If contingent consideration depends on both future earnings and future security prices, an additional cost of the acquired company should be recorded only for the portion of consideration dependent on future earnings.
 - b. The measurement period for adjusting provisional amounts always ends at the year-end of the period in which the acquisition occurred.
 - c. A contingency based on security prices has no effect on the determination of cost to the acquiring company.
 - d. The purpose of the measurement period is to provide a reasonable time to obtain the information necessary to identify and measure the fair value of the acquiree's assets and liabilities, as well as the fair value of the consideration transferred.
3. Which of the following statements concerning bargain purchases (purchase price below fair value of identifiable assets) is *correct*?
 - a. Any previously recorded goodwill on the seller's books is eliminated and no new goodwill is recorded.
 - b. Long-lived assets, including in-process R&D and excluding marketable securities, are recorded at fair market value minus an adjustment for the bargain, under current GAAP.
 - c. An extraordinary gain is recorded in the event that all long-lived assets other than marketable securities are reduced to the original purchase price, under current GAAP.
 - d. Current assets, long-term investments in marketable securities (other than those accounted for by the equity method), assets to be disposed by sale, deferred tax assets, prepaid assets relating to pension or other post-retirement benefit plans, and assumed liabilities are the only accounts that are always recorded at fair market value, under current GAAP.

2.8 LEVERAGED BUYOUTS

LO 8 Leveraged buyouts.

IN
THE
NEWS

Kohlberg
Kravis
Roberts & Co.
(KKR) agreed
to purchase
Flextronics

Software Systems for \$900 million, making the deal India's biggest leveraged buyout ever. Under the agreement, Singapore-based Flextronics International Ltd., the world's largest producer of electronics for other companies, will sell 85% of the unit to KKR. The investment in Flextronics Software surpasses General Electric Co.'s 2004 sale of its Indian call-center group to buyout firms General Atlantic Partners LLC and Oak Hill Capital Partners LP for \$500 million.¹³

A *leveraged buyout (LBO)* occurs when a group of employees (generally a management group) and third-party investors create a new company to acquire all the outstanding common shares of their employer company. The management group contributes whatever stock they hold to the new corporation and borrows sufficient funds to acquire the remainder of the common stock. The old corporation is then merged into the new corporation. The LBO market rose dramatically from 2002 to 2007, as evidenced in Illustration 2-6, before dropping off in 2008 and 2009. In 2010, the number of leveraged buyouts increased by 53% over the number in 2009 and has continued to increase in numbers through 2012.

The basic accounting question relates to the net asset values (fair or book) to be used by the new corporation. Accounting procedures generally followed the rules advocated by the Emerging Issues Task Force in *Consensus Position No. 88-16*, which did not view LBOs as business combinations. *FASB Statement No. 141R* did not comprehensively address this issue but did indicate that this position was no longer applicable. The essence of the change suggests that the economic entity concept should be applied here as well; thus leveraged buyout (LBO) transactions are now to be viewed as business combinations.

ILLUSTRATION 2-6

The Leveraged Buyout Market (LBO) 2002–2012

Year	No. of Deals	% of all Deals
2002	187	3.1%
2003	197	3.0%
2004	366	4.7%
2005	520	6.1%
2006	754	7.8%
2007	815	7.8%
2008	576	6.8%
2009	287	4.9%
2010	438	6.4%
2011	593	7.6%
2012	666	6.4%

Data Source: *Mergers and Acquisitions*, February 2009, 2010, 2011.

SUMMARY

- 1 Describe the changes in the accounting for business combinations approved by the FASB in 2007, and the reasons for those changes. Under FASB ASC 805, the fair values of all assets and liabilities on the acquisition date are reflected in the financial statements, even if control is

obtained with less than 100% ownership and even if control is achieved in stages rather than all at once. The scope includes business combinations involving only mutual entities, those achieved by contract alone, and the initial consolidation of variable interest entities (VIEs).

¹³ *Bloomberg.com*, "KKR Acquires Flextronics Software in India's Biggest Buyout," by Vivek Shankar, 4/17/06.

SFAS No. 160 [ASC 810–10–45–15 and 16] establishes standards for the reporting of the noncontrolling interest when the acquirer obtains control without purchasing 100% of the acquiree.

- 2 Describe the two major changes in the accounting for business combinations approved by the FASB in 2001, as well as the reasons for those changes. Of the two methods of accounting historically used in the United States—**purchase** (now called acquisition) and **pooling of interests**—pooling is now prohibited. The goodwill often recorded under the acquisition method is no longer amortized but instead is reviewed periodically for impairment. The standard setters believe that virtually all business combinations are acquisitions and should be based on the fair values exchanged.
- 3 Discuss the goodwill impairment test, including its frequency, the steps laid out in the standard, and some of the implementation problems. At least once a year, qualitative factors are considered initially to assess the likelihood of goodwill impairment. If indicated, goodwill impairment for each reporting unit is tested quantitative test. In this test, the fair value of a reporting unit is compared to its carrying amount (goodwill included) at the date of the periodic review. If the fair value at the review date is less than the carrying amount, the difference is the amount of goodwill impairment (limited to the carrying value of goodwill). See Illustration 2-1 for an illustration of the goodwill impairment rules.
- 4 Explain how acquisition expenses are reported. Acquisition related costs are excluded from the measurement of the consideration paid. Current GAAP requires that both direct and indirect costs be expensed and that the cost of issuing securities be excluded from the consideration and accounted for separately.
- 5 Describe the use of pro forma statements in business combinations. Pro forma statements are prepared to show the effect of planned or contemplated transactions on the financial statements. Pro forma statements serve: (1) to provide information in the **planning** stages of the combination and (2) to **disclose** relevant information subsequent to the combination.
- 6 Describe the valuation of assets, including goodwill, and liabilities acquired in a business combination accounted for by the acquisition method. Assets and liabilities acquired are recorded at their fair values. Any excess of cost over the fair value of net assets acquired is recorded as goodwill.
- 7 Explain how contingent consideration affects the valuation of assets acquired in a business combination accounted for by the acquisition method. On the date of the acquisition, the purchaser records the contingent consideration at its fair value as an adjustment to the original purchase transaction. Adjustments to provisional amounts may be made throughout the measurement period only if they reveal additional information about conditions that existed at the acquisition date. After the measurement date, subsequent adjustments for any contingent consideration recorded as a liability are recognized in the income statement; contingent consideration recorded as equity is not remeasured.
- 8 Describe a leveraged buyout. A leveraged buyout (LBO) occurs when a group of employees (generally a management group) and third-party investors create a new company to acquire all the outstanding common shares of their employer company. The LBO term results because most of the capital of the new corporation comes from borrowed funds.
- 9 Describe the disclosure requirements according to current GAAP related to each business combination that takes place during a given year. Required disclosures include: the name and a description of the acquiree; the acquisition date; the percentage of voting equity instruments acquired; the primary reasons for the business combination; the fair value of the acquiree and the basis for measuring that value on the acquisition date; the fair value of the consideration transferred; the amounts recognized at the acquisition date for each major class of assets acquired and liabilities assumed; and the maximum potential amount of future payments.

Supplemental Appendix 2A, “Deferred Taxes in Business Combinations,” is available from your instructor.

TEST YOUR KNOWLEDGE SOLUTIONS

2.1 1. c 2. c 3. a 2.2 1. c 2. d 3. a

QUESTIONS

(The letter A after a question, exercise, or problem means that the question, exercise, or problem relates to Chapter Appendix 2A.)

- LO 7** 1. When contingent consideration in an acquisition is based on the acquirer issuing its shares to the seller, how should this contingency be reflected on the acquisition date?
- LO 5** 2. What are pro forma financial statements? What is their purpose?
- LO 3** 3. How would a company determine whether goodwill has been impaired?
- LO 3** 4. AOL announced that because of an accounting change (*FASB Statements Nos. 141R* [ASC 805] and *142* [ASC 350]), earnings would be increasing over the next 25 years by \$5.9 billion a year. What change(s) required by FASB (in *SFAS Nos. 141R* and *142*) resulted in an increase in AOL's income? Would you expect this increase in earnings to have a positive impact on AOL's stock price? Why or why not?

Business Ethics

There have been several cases of a CEO or CFO resigning or being ousted for misrepresenting academic credentials. For instance, during February 2006, the CEO of RadioShack resigned by "mutual agreement" for inflating his educational background. During 2002, Veritas Software Corporation's CFO resigned after claiming to have an MBA from Stanford University. On the other hand, Bausch & Lomb Inc.'s board refused the CEO's offer to resign following a questionable claim to have an MBA.

Suppose you have been retained by the board of a company where the CEO has 'overstated' credentials. This company has a code of ethics and conduct which states that the employee should always do "the right thing."

- (a) What is the board of directors' responsibility in such matters?
- (b) What arguments would you make to ask the CEO to resign? What damage might be caused if the decision is made to retain the current CEO?

ANALYZING FINANCIAL STATEMENTS

AFS2-1 Tesla Acquires SolarCity (2016).

On November 21, 2016, Tesla acquired SolarCity by issuing stock valued at \$2.146 billion dollars. Tesla issued 11,124,497 shares of 0.001 par value common stock.

On the date of acquisition, the allocation of the purchase consideration was as follows (condensed) (dollars in thousands):

Assets acquired	
Cash	\$ 213,523
Accounts Receivable	74,619
Inventory	91,878
Solar energy systems	5,781,496
Property, plant and equipment	1,056,312
Intangible assets	356,510
Prepaid expenses	199,864
Other	638,908
	<u>8,513,110</u>
Liabilities Assumed	
Accounts payable	230,078
Accrued liabilities	238,590
Debt	3,525,130
Deferred revenues	271,128
Other	950,423
	<u>5,215,349</u>
Noncontrolling interests (not acquired)	<u>1,063,057</u>
Net Assets Acquired	2,234,704
Bargain gain	88,727
Total Purchase Price	<u>\$2,145,977</u>

Questions:

A. Assuming this were treated as an asset acquisition (business combination), prepare the journal entry on Tesla's books to record the acquisition.

B. Tesla disclosed the following concerning the bargain gain:

Gain on acquisition

The accounting guidance requires that a gain resulting from the fair value of acquired net assets being greater than the consideration paid to acquire the net assets be recorded as a gain included in the results of operations on the acquisition date. We recognized a gain on acquisition of \$88.7 million in the fourth quarter of 2016, which is recorded in other income (expense), net on our Consolidated Statements of Operations.

We reassessed the recognition and measurement of identifiable assets and liabilities acquired and concluded that all acquired assets and liabilities were recognized and that the valuation procedures and resulting estimates of fair values were appropriate. The primary factor contributing to the gain relates to the change in the overall price of our common stock from the time that the Merger Agreement was executed on July 31, 2016 to the acquisition date. During this time, our stock price decreased from \$230.01 to \$185.04, which in turn reduced the fair value of the consideration.

b. What was the reason Tesla was able to acquire SolarCity for a bargain?

C. Tesla's year-end is December 31. The number reported above for the purchase allocation were preliminary as of the end of 2016. During 2017, Tesla made a measurement period adjustment that reduced the net assets acquired by \$57.746 million. The measurement period adjustment reduced other assets by \$11.571 million and increased accrued liabilities by \$46,175 million. The finalized bargain gain is \$30.981 million.

a. What is the journal entry to record the measurement period adjustment?

b. How is the bargain gain reported in 2016 and 2017?

D. Statement of cash flows:

a. Where is the stock issued for the SolarCity acquisition reported on the statement of cash flows?

b. How much cash was acquired in the acquisition? Where is this cash reported in the statement of cash flows?

AFS2-2**EBay Acquires Skype LO 7**

On October 14, 2005, eBay acquired all of the outstanding securities of Skype Technologies S.A. ("Skype"), for a total initial consideration of approximately \$2.593 billion, plus potential performance-based payments of up to approximately \$1.3 billion (based on the euro-dollar exchange rate at the time of the acquisition). Thus the potential purchase price could attain a value of \$3.9 billion. The net tangible and intangible assets acquired were \$262 million.

The initial consideration of approximately \$2.6 billion was comprised of approximately \$1.3 billion in cash and 32.8 million shares of eBay's common stock. For accounting purposes, the stock portion of the initial consideration was valued at approximately \$1.3 billion based on the average closing price of eBay's common stock surrounding the acquisition announcement date of September 12, 2005. The acquisition was treated as a non-taxable purchase transaction, and the purchase price was allocated to the tangible and intangible assets acquired and liabilities assumed based on their respective fair values at the acquisition date.

Conditions of the earnout: The maximum amount potentially payable under the performance-based earnout is approximately 1.1 billion euro, or approximately \$1.5 billion (based on a U.S. dollar-to-euro exchange rate of \$1.32), and would be payable in cash or common stock. The earn-out payments are contingent upon Skype achieving certain net revenue, gross profit margin-based, and active user targets. Base earnout payments of up to an aggregate of approximately 877 million euro, or approximately \$1.2 billion, weighted equally among the three

targets, would be payable if the targets are achieved over any four-quarter period commencing on January 1, 2006 through June 30, 2009. Additional bonus earnout payments of up to an aggregate of approximately 292 million euro, or approximately \$386 million, weighted equally among the three targets, would be payable if Skype exceeds the targets during calendar year 2008. Any contingent earnout payments made would be accounted for as additional purchase price and would increase goodwill. As of December 31, 2006, the targets had not been met and accordingly, no payments had been made.

From eBay's 2007 annual report: In conjunction with the acquisition of Skype in 2005, eBay agreed to certain performance-based earnout payments. During the year ended December 31, 2007, eBay entered into an earnout settlement agreement with each of the former shareholders of Skype who had elected the earnout alternative at the time of the acquisition, under which eBay was relieved of all obligations under the original earnout agreement in exchange for an aggregate cash payment of 375.1 million euro, or approximately \$530.3 million. Goodwill was recorded because the earnout settlement amount was considered additional purchase price. In addition, eBay recorded a charge for impairment of goodwill for \$1.39 billion from the Skype acquisition.

Required:

- A. Compute the amount of goodwill acquired when eBay acquired Skype.
- B. Whenever contingent payments are used in an acquisition, it is important to identify the amounts that are part of the business combination or whether the transaction is separate from the business combination. FASB ASC paragraphs 805-10-55-18 through 25 identify factors that help to determine whether a transaction is part of the exchange for the acquiree or not. What are some of these conditions?
- C. Skype's earnings performance in the years following the acquisition never qualified for additional consideration. In 2007, eBay entered into a cash settlement with all former shareholders of Skype with earnout provisions. eBay paid \$530.3 million to be relieved of all obligations under the earnout provisions. Why would they want to do this?

AFS2-3

eBay Sells Skype LO 5

On November 19, 2009, eBay sold all the capital shares of Skype to Springboard Group. eBay received cash proceeds of approximately \$1.9 billion, a subordinated note issued by a subsidiary of the Buyer in the principal amount of \$125.0 million and an equity stake of approximately 30 percent in the outstanding capital stock of the Buyer (valued at \$620.0 million).

The sale resulted in the removal of all Skype-related assets and liabilities, which offset the proceeds noted above, resulting in a net gain of \$1.4 billion recorded in interest and other income. In conjunction with the sale of Skype, eBay reached a legal settlement of a lawsuit between Skype, Joltid, and entities controlled by Joltid's founders, resulting in a \$343.2 million charge to general and administrative expense.

In addition, eBay recorded a charge for impairment of goodwill for \$1.39 billion from the Skype acquisition.

From eBay's 2009 annual report:

Required:

Examine eBay's income statement from 2007 to 2009. Reconstruct eBay's income statement excluding the effects of Skype. Use the following categories in your analysis: Net revenue, Total operating expenses, Operating income, Interest and other income, and Income before taxes.

eBay Inc.
Consolidated Statement of Income

	<i>Year Ended December 31,</i>		
	<u>2007</u>	<u>2008</u>	<u>2009</u>
	(In thousands, except per-share amounts)		
Net revenues	\$7,672,329	\$8,541,261	\$8,727,362
Cost of net revenues	<u>1,762,972</u>	<u>2,228,069</u>	<u>2,479,762</u>
Gross profit	<u>5,909,357</u>	<u>6,313,192</u>	<u>6,247,600</u>
Operating expenses:			
Sales and marketing	1,882,810	1,881,551	1,885,677
Product development	619,727	725,600	803,070
General and administrative	904,681	998,871	1,418,389
Provision for transaction and loan losses	293,917	347,453	382,825
Amortization of acquired intangible assets	204,104	234,916	262,686
Restructuring	—	49,119	38,187
Impairment of goodwill	<u>1,390,938</u>	<u>—</u>	<u>—</u>
Total operating expenses	<u>5,296,177</u>	<u>4,237,510</u>	<u>4,790,834</u>
Income from operations	613,180	2,075,682	1,456,766
Interest and other income, net	137,671	107,882	1,422,385
Income before income taxes	750,851	2,183,564	2,879,151
Provision for income taxes	<u>(402,600)</u>	<u>(404,090)</u>	<u>(490,054)</u>
Net income	<u>\$ 348,251</u>	<u>\$1,779,474</u>	<u>\$2,389,097</u>

Skype's operating performance (2007 through 2009), dollars in thousands:

	<u>2007</u>	<u>2008</u>	<u>2009</u>
Revenues	364,564	550,841	620,403
Direct expenses	<u>337,338</u>	<u>434,588</u>	<u>462,701</u>
Income	44,484	116,253	157,702

AFS2-4**Measurement Period Adjustments and Contingent Consideration LO 6**

Consider the following footnote from a company's 2012 10K concerning an acquisition occurring during February of 2011 (The Company's year end is January 31). The measurement period adjustment did not occur until January 2012.

Based on our initial internal estimate of contingent shares to be issued as part of this agreement, we had estimated that the total fair value of the common stock shares issued and contingently issuable for this transaction on the acquisition date was \$367,500 (1,750,000 shares).

The Company originally recognized a liability based on the acquisition date fair value of the acquisition-related contingent consideration based on the probability of the achievement of the targets stipulated in the Purchase Agreement. Based on the Company's estimation, an initial liability of \$367,500 was recorded. Subsequently, we have reassessed our estimates and have determined that the initial terms of the agreement have not been met, and as the result, we have determined that there will be no additional shares contingently issuable under the terms of the Purchase Agreement and we have recorded an adjustment to revise our initial estimate of the purchase price in contemplation that no contingent consideration as was previously reported in our interim financial statements.

The following table summarizes the preliminary and final determination of the purchase price and fair value of AHI's assets acquired at the date of acquisition:

	<i>Preliminary</i>	<i>Final</i>
Purchase price calculation:		
Common stock issued (1,000,000 shares)	210,000	210,000
Contingent consideration (1,750,000 shares of common stock)	367,500	—
Fair value of total consideration	<u>577,500</u>	<u>210,000</u>
Allocation of purchase price:		
Intellectual property and technical know-how	577,500	—
Goodwill	—	210,000
Fair value of total consideration	<u>577,500</u>	<u>210,000</u>

As of January, 31, 2012, based upon the completion of the Company's annual goodwill impairment test, it was determined that the goodwill associated with the AHI acquisition has been impaired, and as the result, the Company has recorded an impairment loss of \$210,000. The cause of the impairment was the result of contracts that were anticipated to result from this acquisition that have not materialized and management has decided to focus its energies on new initiatives.

Required:

- A. When did the company record the measurement period adjustment? In your opinion, is this an appropriate use of a measurement period adjustment? Why or why not?
- B. Assuming the company had not made a measurement period adjustment, prepare the journal entries that would have been needed to adjust the contingent consideration to zero and record the impairment of the intangibles. How does this differ from what the company actually reported?
- C. What incentives might management have for presenting their financial statements as they did rather than using the method that you recorded in part B above? Support your answer with numbers and words.

AFS2-5

Bargain Purchase LO 7

Consider the following information from Alliance Data Systems Corporation 2009 10K.

On October 30, 2009, the Company assumed the operations of the Charming Shoppes' credit card program, including the service center operations associated with Charming Shoppes' branded card programs, portfolio and securitization master trust. The transaction consisted of purchasing existing accounts and the rights to new accounts along with certain other assets that are required to support the securitization program including retained certificates and interests, cash collateral accounts, and an interest-only strip, totaling a combined \$158.9 million. The Company obtained control of the assets and assumed the liabilities on October 30, 2009, the acquisition date. The results of operations for this acquisition have been included since the date of acquisition and are reflected in the Private Label Services and Private Label Credit segments.

The Company engaged a third-party specialist to assist it in the measurement of the fair value of the assets required. The fair value of the assets acquired exceeded the cost of the acquisition. Consequently, the Company reassessed the recognition and measurement of the identifiable assets acquired and liabilities assumed and concluded that the valuation procedures and resulting measures were appropriate. The excess value of the net assets acquired over the purchase price has been recorded as a bargain purchase gain, which is included in gain on acquisition of a business in the Company's consolidated statements of income. The following table summarizes the fair values of the assets acquired and liabilities assumed in the Charming Shoppes' acquisition as of the date of purchase.

<i>As of October 30, 2009 (in thousands)</i>	
Current assets	\$ 24,910
Property, plant and equipment	491
Due from securitization	108,554
Identifiable intangible assets	67,200
Total assets acquired	<u>201,155</u>
Current Liabilities	8,500
Deferred tax liability	12,527
Total liabilities assumed	<u>21,027</u>
Net assets acquired	\$ 180,128
Total consideration paid	<u>158,901</u>
Gain on business combination	<u>\$ 21,227</u>

Required:

1. FASB ASC paragraph 805-30-50-1(f) requires a description of the reasons why the transaction resulted in a gain. In addition, the acquirer is required to reassess the valuations if a bargain purchase is indicated. Did Alliance Data Systems do either (or both) of these? Be specific.
2. Speculate as to some of the reasons that a bargain purchase might occur. Why has FASB struggled to find the appropriate accounting for bargains (changing the rules repeatedly)?
3. Assuming the acquisition is an asset acquisition treated as a business combination, prepare the journal entry on the acquirer's books to record the acquisition.

EXERCISES**EXERCISE 2-1 Asset Purchase LO 6**

Preston Company acquired the assets (except for cash) and assumed the liabilities of Saville Company. Immediately prior to the acquisition, Saville Company's balance sheet was as follows:

	<i>Book Value</i>	<i>Fair Value</i>
Cash	\$ 120,000	\$ 120,000
Receivables (net)	192,000	228,000
Inventory	360,000	396,000
Plant and equipment (net)	480,000	540,000
Land	420,000	660,000
Total assets	<u>\$1,572,000</u>	<u>\$1,944,000</u>
Liabilities	\$ 540,000	\$ 594,000
Common stock (\$5 par value)	480,000	
Other contributed capital	132,000	
Retained earnings	420,000	
Total equities	<u>\$1,572,000</u>	

Required:

- A. Prepare the journal entries on the books of Preston Company to record the purchase of the assets and assumption of the liabilities of Saville Company if the amount paid was \$1,560,000 in cash.
- B. Repeat the requirement in (A) assuming that the amount paid was \$990,000.

EXERCISE 2-2 Acquisition Method LO 6

The balance sheets of Petrello Company and Sanchez Company as of January 1, 2019, are presented below. On that date, after an extended period of negotiation, the two companies agreed to merge. To effect the merger, Petrello Company is to exchange its unissued common stock for all the outstanding shares of Sanchez Company in the ratio of $\frac{1}{2}$ share of Petrello for each share of Sanchez. Market values of the shares were agreed on as Petrello, \$48; Sanchez, \$24. The fair values of Sanchez Company's assets and liabilities are equal to their book values with the exception of plant and equipment, which has an estimated fair value of \$720,000.

	<i>Petrello</i>	<i>Sanchez</i>
Cash	\$ 480,000	\$ 200,000
Receivables	480,000	240,000
Inventories	2,000,000	240,000
Plant and equipment (net)	<u>3,840,000</u>	<u>800,000</u>
Total assets	<u>\$6,800,000</u>	<u>\$1,480,000</u>
Liabilities	\$1,200,000	\$ 320,000
Common stock, \$16 par value	3,440,000	800,000
Other contributed capital	400,000	—0—
Retained earnings	<u>1,760,000</u>	<u>360,000</u>
Total equities	<u>\$6,800,000</u>	<u>\$1,480,000</u>

Required:

Prepare a balance sheet for Petrello Company immediately after the merger.

EXERCISE 2-3 Asset Purchase, Cash and Stock LO 6

Pretzel Company acquired the assets (except for cash) and assumed the liabilities of Salt Company on January 2, 2020. As compensation, Pretzel Company gave 30,000 shares of its common stock, 15,000 shares of its 10% preferred stock, and cash of \$50,000 to the stockholders of Salt Company. On the acquisition date, Pretzel Company stock had the following characteristics:

PRETZEL COMPANY		
<i>Stock</i>	<i>Par Value</i>	<i>Fair Value</i>
Common	\$ 10	\$ 25
Preferred	100	100

Immediately prior to the acquisition, Salt Company's balance sheet reported the following book values and fair values:

SALT COMPANY		
Balance Sheet		
January 2, 2020		
	<i>Book value</i>	<i>Fair value</i>
Cash	\$ 165,000	\$ 165,000
Accounts receivable (net of \$11,000 allowance)	220,000	198,000
Inventory—LIFO cost	275,000	330,000
Land	396,000	550,000
Buildings and equipment (net)	<u>1,144,000</u>	<u>1,144,000</u>
Total assets	<u>\$2,200,000</u>	<u>\$2,387,000</u>
Current liabilities	\$ 275,000	\$ 275,000
Bonds Payable, 10%	450,000	495,000
Common stock, \$5 par value	770,000	
Other contributed capital	396,000	
Retained earnings	<u>309,000</u>	
Total liabilities and stockholders' equity	<u>\$2,200,000</u>	

Required:

Prepare the journal entry on the books of Pretzel Company to record the acquisition of the assets and assumption of the liabilities of Salt Company.

Exercise 2-4**Asset Purchase, Cash LO 6**

P Company acquired the assets and assumed the liabilities of S Company on January 1, 2018, for \$510,000 when S Company's balance sheet was as follows:

S COMPANY	
Balance Sheet	
January 1, 2018	
Cash	\$ 96,000
Receivables	55,200
Inventory	110,400
Land	169,200
Plant and equipment (net)	466,800
Total	\$897,600
Accounts payable	\$ 44,400
Bonds payable, 10%, due 12/31/2023, Par	480,000
Common stock, \$2 par value	120,000
Retained earnings	253,200
Total	\$897,600

Fair values of S Company's assets and liabilities were equal to their book values except for the following:

1. Inventory has a fair value of \$126,000.
2. Land has a fair value of \$198,000.
3. The bonds pay interest semiannually on June 30 and December 31. The current yield rate on bonds of similar risk is 8%.

Required:

Prepare the journal entry on P Company's books to record the acquisition of the assets and assumption of the liabilities of S Company.

Exercise 2-5**Asset Purchase, Contingent Consideration as a Liability LO 7**

Pritano Company acquired all the net assets of Succo Company on December 31, 2018, for \$2,160,000 cash. The balance sheet of Succo Company immediately prior to the acquisition showed:

	<i>Book value</i>	<i>Fair value</i>
Current assets	\$ 960,000	\$ 960,000
Plant and equipment	1,080,000	1,440,000
Total	\$2,040,000	\$2,400,000
Liabilities	\$ 180,000	\$ 216,000
Common stock	480,000	
Other contributed capital	600,000	
Retained earnings	780,000	
Total	\$2,040,000	

As part of the negotiations, Pritano agreed to pay the stockholders of Succo \$360,000 cash if the post-combination earnings of Pritano averaged \$2,160,000 or more per year over the next two years. The estimated fair value of the contingent consideration was \$144,000 on the date of the acquisition.

Required:

- A. Prepare the journal entries on the books of Pritano to record the acquisition on December 31, 2018.
- B. At the end of 2019, the estimated fair value of the contingent consideration increased to \$200,000. Prepare the journal entry to record the change in the fair value of the contingent consideration, if needed.
- C. In 2020, the earnings did not meet the earnout target and the estimated fair value of the contingent consideration was zero. Prepare the journal entry to record the change in the fair value of the contingent consideration.

Exercise 2-6

Asset Purchase, Contingent Consideration as Equity LO 7

Assume the same information as in Exercise 2-5 except that instead of paying a cash earnout, Pritano Company agreed to issue 10,000 additional shares of its \$10 par value common stock to the stockholders of Succo if the average postcombination earnings over the next three years equaled or exceeded \$2,500,000. The fair value of the contingent consideration on the date of acquisition was estimated to be \$200,000. The contingent consideration (earnout) was classified as equity rather than as a liability.

Required:

- A. Prepare the journal entries on the books of Pritano to record the acquisition on December 31, 2018.
- B. On January 1, 2022, the additional 10,000 shares of Pritano's stock were issued because the earnout targets were met. On this date, Pritano's stock price was \$50 per share. Prepare the journal entry to record the issuance of the shares of stock.

Exercise 2-7

Multiple Choice LO 6

Price Company issued 8,000 shares of its \$20 par value common stock for the net assets of Sims Company in a business combination under which Sims Company will be merged into Price Company. On the date of the combination, Price Company common stock had a fair value of \$30 per share. Balance sheets for Price Company and Sims Company immediately prior to the combination were:

	<i>Price</i>	<i>Sims</i>
Current assets	\$ 438,000	\$ 64,000
Plant and equipment (net)	<u>575,000</u>	<u>136,000</u>
Total	<u>\$1,013,000</u>	<u>\$200,000</u>
Liabilities	\$ 300,000	\$ 50,000
Common stock, \$20 par value	550,000	80,000
Other contributed capital	72,500	20,000
Retained earnings	<u>90,500</u>	<u>50,000</u>
Total	<u>\$1,013,000</u>	<u>\$200,000</u>

Required:

Select the letter of the best answer.

- If the business combination is treated as a purchase and Sims Company's net assets have a fair value of \$228,800, Price Company's balance sheet immediately after the combination will include goodwill of
 - \$10,200.
 - \$12,800.
 - \$11,200.
 - \$18,800.
- If the business combination is treated as a purchase and the fair value of Sims Company's current assets is \$90,000, its plant and equipment is \$242,000, and its liabilities are \$56,000, Price Company's balance sheet immediately after the combination will include
 - Negative goodwill of \$36,000.
 - Plant and equipment of \$817,000.
 - Gain of \$36,000.
 - Goodwill of \$36,000.

Exercise 2-8**Purchase LO 6**

Effective December 31, 2018, Zintel Corporation proposes to issue additional shares of its common stock in exchange for all the assets and liabilities of Smith Corporation and Platz Corporation, after which Smith and Platz will distribute the Zintel stock to their stockholders in complete liquidation and dissolution. Balance sheets of each of the corporations immediately prior to merger on December 31, 2018, follow. The common stock exchange ratio was negotiated to be 1:1 for both Smith and Platz.

	<i>Zintel</i>	<i>Smith</i>	<i>Platz</i>
Current assets	\$1,600,000	\$ 350,000	\$ 12,000
Long-term assets (net)	5,700,000	1,890,000	98,000
Total	<u>\$7,300,000</u>	<u>\$2,240,000</u>	<u>\$110,000</u>
Current liabilities	\$ 700,000	\$ 110,000	\$ 9,000
Long-term debt	1,100,000	430,000	61,000
Common stock, \$5 par value	2,500,000	700,000	20,000
Retained earnings	3,000,000	1,000,000	20,000
Total	<u>\$7,300,000</u>	<u>\$2,240,000</u>	<u>\$110,000</u>

Required:

Prepare journal entries on Zintel's books to record the combination. Assume the following:

The identifiable assets and liabilities of Smith and Platz are all reflected in the balance sheets (above), and their recorded amounts are equal to their current fair values except for long-term assets. The fair value of Smith's long-term assets exceed their book value by \$20,000, and the fair value of Platz's long-term assets exceed their book values by \$5,000. Zintel's common stock is traded actively and has a current market price of \$15 per share. Prepare journal entries on Zintel's books to record the combination. (*AICPA adapted*)

Exercise 2-9**Allocation of Purchase Price to Various Assets and Liabilities LO 6**

Company S has no long-term marketable securities. Assume the following scenarios:

Case A

Assume that P Company paid \$130,000 cash for 100% of the net assets of S Company.

S COMPANY

	<i>Assets</i>			<i>Net Assets</i>
	<i>Current Assets</i>	<i>Long-lived Assets</i>	<i>Liabilities</i>	
Book Value	\$15,000	\$85,000	\$20,000	\$80,000
Fair Value	20,000	130,000	30,000	120,000

Case B

Assume that P Company paid \$110,000 cash for 100% of the net assets of S Company.

S COMPANY

	<i>Assets</i>			<i>Net Assets</i>
	<i>Current Assets</i>	<i>Long-lived Assets</i>	<i>Liabilities</i>	
Book Value	\$15,000	\$85,000	\$20,000	\$80,000
Fair Value	30,000	80,000	20,000	90,000

Case C

Assume that P Company paid \$15,000 cash for 100% of the net assets of S Company.

S COMPANY

	<i>Assets</i>			<i>Net Assets</i>
	<i>Current Assets</i>	<i>Long-lived Assets</i>	<i>Liabilities</i>	
Book Value	\$15,000	\$85,000	\$20,000	\$80,000
Fair Value	20,000	40,000	40,000	20,000

Required:

Complete the following schedule by listing the amount that would be recorded on P's books.

	<i>Assets</i>				<i>Retained Earnings</i>
	<i>Goodwill</i>	<i>Current Assets</i>	<i>Long-lived Assets</i>	<i>Liabilities</i>	<i>(Gain in Income Statement)</i>
Case A					
Case B					
Case C					

Exercise 2-10**Goodwill Impairment Test LO 3**

On January 1, 2018, Porsche Company acquired the net assets of Saab Company for \$450,000 cash. The fair value of Saab's identifiable net assets was \$375,000 on this date. Porsche Company decided to measure goodwill impairment using the present value of future cash flows to estimate the fair value of the reporting unit (Saab). The information for these subsequent years is as follows:

<i>Year</i>	<i>Present Value of Future Cash Flows</i>	<i>Carrying Value of Saab's Identifiable Net Assets*</i>	<i>Fair Value Saab's Identifiable Net Assets</i>
2019	\$400,000	\$330,000	\$340,000
2020	\$400,000	\$320,000	345,000
2021	\$350,000	\$300,000	325,000

*Identifiable net assets do not include goodwill.

Required:

Part A: For each year determine the amount of goodwill impairment, if any using FASB's simplified approach (assume that either the qualitative test is satisfied or bypassed).

Part B: Prepare the journal entries needed each year to record the goodwill impairment (if any) on Porsche's books from 2019 to 2021.

Part C: How should goodwill (and its impairment) be presented on the balance sheet and the income statement in each year?

Part D: If goodwill is impaired, what additional information needs to be disclosed?

Part E: Optional. If the firm has not yet adopted the new simplified rules on goodwill impairment and uses the two-step approach. Determine the amount of goodwill impairment (Illustration 2-1 is available from your instructor.)

Exercise 2-11**Relation between Purchase Price, Goodwill, and Negative Goodwill LO 6**

The following balance sheets were reported on January 1, 2019, for Peach Company and Stream Company:

	<i>Peach</i>	<i>Stream</i>
Cash	\$ 100,000	\$ 20,000
Inventory	300,000	100,000
Equipment (net)	880,000	380,000
Total	<u>\$1,280,000</u>	<u>\$500,000</u>
Total Liabilities	\$ 300,000	\$100,000
Common stock, \$20 par value	400,000	200,000
Other contributed capital	250,000	70,000
Retained earnings	330,000	130,000
Total	<u>\$1,280,000</u>	<u>\$500,000</u>

Required:

Appraisals reveal that the inventory has a fair value of \$120,000, and the equipment has a current value of \$410,000. The book value and fair value of liabilities are the same. Assuming that Peach Company wishes to acquire Stream for cash in an asset acquisition, determine the following cutoff amounts:

- A. The purchase price above which Peach would record goodwill.
- B. The purchase price below which the equipment would be recorded at less than its fair market value.
- C. The purchase price below which Peach would record a gain.
- D. The purchase price below which Peach would obtain a "bargain."
- E. The purchase price at which Peach would record \$50,000 of goodwill.

PROBLEMS

PROBLEM 2-1

Consolidation LO 6

Condensed balance sheets for Phillips Company and Solina Company on January 1, 2018, are as follows:

	<i>Phillips</i>	<i>Solina</i>
Current assets	\$180,000	\$ 85,000
Plant and equipment (net)	450,000	140,000
Total assets	<u>\$630,000</u>	<u>\$225,000</u>
Total liabilities	\$ 95,000	\$ 35,000
Common stock, \$10 par value	350,000	160,000
Other contributed capital	125,000	53,000
Retained earnings (deficit)	60,000	(23,000)
Total liabilities and equities	<u>\$630,000</u>	<u>\$225,000</u>

On January 1, 2018, the stockholders of Phillips and Solina agreed to a consolidation. Because FASB requires that one party be recognized as the acquirer and the other as the acquiree, it was agreed that Phillips was acquiring Solina. Phillips agreed to issue 20,000 shares of its \$10 par stock to acquire all the net assets of Solina at a time when the fair value of Phillips' common stock was \$15 per share.

On the date of consolidation, the fair values of Solina's current assets and liabilities were equal to their book values. The fair value of plant and equipment was, however, \$150,000. Phillips will incur \$20,000 of direct acquisition costs and \$6,000 in stock issue costs.

Required:

Prepare the journal entries on the books of Phillips to record the acquisition of Solina Company's net assets.

PROBLEM 2-2

Merger and Consolidation, Goodwill Impairment LO 3 LO 6

Stockholders of Acme Company, Baltic Company, and Colt Company are considering alternative arrangements for a business combination. Balance sheets and the fair values of each company's assets on October 1, 2019, were as follows:

	<i>Acme</i>	<i>Baltic</i>	<i>Colt</i>
Assets	\$3,900,000	\$7,500,000	\$ 950,000
Liabilities	\$2,030,000	\$2,200,000	\$ 260,000
Common stock, \$20 par value	2,000,000	1,800,000	540,000
Other contributed capital	—0—	600,000	190,000
Retained earnings (deficit)	(130,000)	2,900,000	(40,000)
Total equities	<u>\$3,900,000</u>	<u>\$7,500,000</u>	<u>\$ 950,000</u>
Fair values of assets	<u>\$4,200,000</u>	<u>\$9,000,000</u>	<u>\$1,300,000</u>

Acme Company shares have a fair value of \$50. A fair (market) price is not available for shares of the other companies because they are closely held. Fair values of liabilities equal book values.

Required:

- A. Prepare a balance sheet for the business combination. Assume the following: Acme Company acquires all the assets and assumes all the liabilities of Baltic and Colt Companies

by issuing in exchange 140,000 shares of its common stock to Baltic Company and 40,000 shares of its common stock to Colt Company.

- B.** Assume, further, that the acquisition was consummated on October 1, 2019, as described above. However, by the end of 2020, Acme was concerned that the fair values of one or both of the acquired units had deteriorated. To test for impairment, Acme decided to measure goodwill impairment using the present value of future cash flows to estimate the fair value of the reporting units (Baltic and Colt). Acme accumulated the following data:

<i>Year</i>	<i>Present Value of Future Cash Flows</i>	<i>Carrying Value of Identifiable Net Assets*</i>	<i>Fair Value Identifiable Net Assets</i>
2015			
Baltic	\$6,500,000	\$6,340,000	\$6,350,000
Colt	\$1,900,000	1,200,000	1,000,000

*Identifiable Net Assets do not include goodwill.

Prepare the journal entry, if needed, to record goodwill impairment at December 31, 2020. Use FASB's simplified approach to test for goodwill impairment (assume that the qualitative test is satisfied or bypassed).

PROBLEM 2-3

Purchase of Net Assets Using Bonds LO 6

On January 1, 2019, Perez Company acquired all the assets and assumed all the liabilities of Stalton Company and merged Stalton into Perez. In exchange for the net assets of Stalton, Perez gave its bonds payable with a maturity value of \$600,000, a stated interest rate of 10%, interest payable semiannually on June 30 and December 31, a maturity date of January 1, 2029, and a yield rate of 12%. Balance sheets for Perez and Stalton (as well as fair value data) on January 1, 2019, were as follows:

	<i>Perez</i>		<i>Stalton</i>	
	<i>Book Value</i>	<i>Book Value</i>	<i>Book Value</i>	<i>Fair Value</i>
Cash	\$ 250,000	\$114,000		\$114,000
Receivables	352,700	150,000		135,000
Inventories	848,300	232,000		310,000
Land	700,000	100,000		315,000
Buildings	950,000	410,000		54,900
Accumulated depreciation—buildings	(325,000)	(170,500)		
Equipment	262,750	136,450		39,450
Accumulated depreciation—equipment	(70,050)	(90,450)		
Total assets	\$2,968,700	\$881,500		\$968,350
Current liabilities	\$ 292,700	\$ 95,300		\$ 95,300
Bonds payable, 8% due 1/1/2024, Interest payable 6/30 and 12/31		300,000		260,000
Common stock, \$15 par value	1,200,000			
Common stock, \$5 par value		236,500		
Other contributed capital	950,000	170,000		
Retained earnings	526,000	79,700		
Total equities	\$2,968,700	\$881,500		

Required:

Prepare the journal entry on the books of Perez Company to record the acquisition of Stalton Company's assets and liabilities in exchange for the bonds.

PROBLEM 2-4**Cash Acquisition, Contingent Consideration LO 6 LO 7**

Pham Company acquired the assets (except for cash) and assumed the liabilities of Senn Company on January 1, 2019, paying \$720,000 cash. Senn Company's December 31, 2018, balance sheet, reflecting both book values and fair values, showed:

	<i>Book Value</i>	<i>Fair Value</i>
Accounts receivable (net)	\$ 72,000	\$ 65,000
Inventory	86,000	99,000
Land	110,000	162,000
Buildings (net)	369,000	450,000
Equipment (net)	237,000	288,000
Total	\$874,000	\$1,064,000
Accounts payable	\$ 83,000	\$ 83,000
Note payable	180,000	180,000
Common stock, \$2 par value	153,000	
Other contributed capital	229,000	
Retained earnings	229,000	
Total	\$874,000	

As part of the negotiations, Pham Company agreed to pay the former stockholders of Senn Company \$200,000 cash if the postcombination earnings of the combined company (Pham) reached certain levels during 2019 and 2020. The fair value of contingent consideration was estimated to be \$100,000 on the date of acquisition.

Required:

- A. Record the journal entry on the books of Pham Company to record the acquisition on January 1, 2019.
- B. During 2019, the likelihood of meeting the post combination earnings goal increased. As a result, at the end of 2019, the estimated fair value of the contingent consideration increased to \$120,000. Prepare any journal entry needed to account for the change in the fair value of contingent consideration.
- C. During 2020, the likelihood of meeting the post combination earnings goal significantly decreased and the contingent consideration target was not met. Prepare any journal entry needed to account for the change in the fair value of contingent consideration.

PROBLEM 2-5**Asset Acquisition, Pro forma LO 5**

Balance sheets for Salt Company and Pepper Company on December 31, 2018, follow:

	<i>Salt</i>	<i>Pepper</i>
ASSETS		
Cash	\$ 95,000	\$ 180,000
Receivables	117,000	230,000
Inventories	134,000	231,400
Plant assets	690,000	1,236,500
Total assets	\$1,036,000	\$1,877,900
EQUITIES		
Accounts payable	\$ 180,000	\$ 255,900
Mortgage payable	152,500	180,000
Common stock, \$20 par value	340,000	900,000
Other contributed capital	179,500	270,000
Retained earnings	184,000	272,000
Total equities	\$1,036,000	\$1,877,900

Pepper Company tentatively plans to issue 30,000 shares of its \$20 par value stock, which has a current market value of \$37 per share net of commissions and other issue costs. Pepper Company then plans to acquire the assets and assume the liabilities of Salt Company for a cash payment of \$800,000 and \$300,000 in long-term 8% notes payable. Pepper Company's receivables include \$60,000 owed by Salt Company. Pepper Company is willing to pay more than the book value of Salt Company assets because plant assets are undervalued by \$215,000 and Salt Company has historically earned above-normal profits.

Required:

Prepare a pro forma balance sheet showing the effects of these planned transactions.

PROBLEM 2-6

Purchase, Decision to Accept LO 5

Spalding Company has offered to sell to Ping Company its assets at their book values plus \$1,800,000 representing payment for goodwill. Operating data for 2018 for the two companies are as follows:

	<i>Ping Company</i>	<i>Spalding Company</i>
Sales	\$3,510,100	\$2,365,800
Cost of goods sold	1,752,360	1,423,800
Gross profit	1,757,740	942,000
Selling expenses	\$ 632,500	\$ 292,100
Other expenses	172,600	150,000
Total expenses	805,100	442,100
Net income	\$ 952,640	\$ 499,900

Ping Company's management estimates the following operating changes if Spalding Company is merged with Ping Company through a purchase:

- A. After the merger, the sales volume of Ping Company will be 20% in excess of the present combined sales volume, and the sale price per unit will be decreased by 10%.
- B. Fixed manufacturing expenses have been 35% of cost of goods sold for each company. After the merger the fixed manufacturing expenses of Ping Company will be increased by 70% of the current fixed manufacturing expenses of Spalding Company. The current variable manufacturing expenses of Ping Company, which is 70% of cost of goods sold, is expected to increase in proportion to the increase in sales volume.
- C. Selling expenses of Ping Company are expected to be 85% of the present combined selling expenses of the two companies.
- D. Other expenses of Ping Company are expected to increase by 85% as a result of the merger.

Any excess of the estimated net income of the merged company over the combined present net income of the two companies is to be capitalized at 20%. If this amount exceeds the price set by Spalding Company for goodwill, Ping Company will accept the offer.

Required:

Prepare a pro forma (or projected) income statement for Ping Company for 2019 assuming the merger takes place, and indicate whether Ping Company should accept the offer.

CONSOLIDATED FINANCIAL STATEMENTS—DATE OF ACQUISITION

CHAPTER CONTENTS

- 3.1 DEFINITIONS OF SUBSIDIARY AND CONTROL
- 3.2 REQUIREMENTS FOR THE INCLUSION OF SUBSIDIARIES IN THE CONSOLIDATED FINANCIAL STATEMENTS
- 3.3 REASONS FOR SUBSIDIARY COMPANIES
- 3.4 CONSOLIDATED FINANCIAL STATEMENTS
- 3.5 INVESTMENTS AT THE DATE OF ACQUISITION
- 3.6 CONSOLIDATED BALANCE SHEETS: THE USE OF WORKPAPERS
- 3.7 A COMPREHENSIVE ILLUSTRATION—MORE THAN ONE SUBSIDIARY COMPANY
- 3.8 LIMITATIONS OF CONSOLIDATED STATEMENTS

LEARNING OBJECTIVES

- 1 Understand the concept of control as used in reference to consolidations.
- 2 Explain the role of a noncontrolling interest in business combinations.
- 3 Describe the reasons why a company acquires a subsidiary rather than its net assets.
- 4 Describe the valuation and classification of accounts in consolidated financial statements.
- 5 List the requirements for inclusion of a subsidiary in consolidated financial statements.
- 6 Discuss the limitations of consolidated financial statements.
- 7 Record the investment in the subsidiary on the parent's books at the date of acquisition.
- 8 Prepare the consolidated workpapers and eliminating entries at the date of acquisition.
- 9 Compute and allocate the difference between implied value and book value of the acquired firm's equity.

IN THE NEWS

The use of FVM [fair value measurements] in financial reporting has been increasing in all industries. Because of the many types of valuations performed and the diverse background of people doing valuation work, the quality of this work may vary.¹

According to a Deloitte 2017 survey, the top objectives of potential dealmakers are acquiring technology assets (20%), expanding customer base in existing market (19%), and diversifying products or services (16%). Acquiring technology assets increased

¹ *Journal of Accountancy*, "How to audit fair value measurements," by Maria L. Murphy, CPA, and Mark O. Smith, CPA, JD, December 2017.

from 6% in the same 2016 survey. In 2017, Walt Disney Co., General Electric, Ford Motor Co., and Office Depot Inc. all addressed changing needs of customers by acquiring tech through M&A.² In acquiring another company, the acquirer must allocate its purchase price to the fair value of the underlying assets and liabilities acquired. Because determination of fair values often involves some degree of subjectivity, acquiring firms sometimes use their discretion to allocate the values in such a way as to pave the way for future growth in earnings and reported profitability.

For example, higher values for property, plant, and equipment will lead to regular increases in depreciation charges for the remaining life of the assets, while higher values for inventories will flow through to the income statement as soon as the inventory is sold. These topics are developed and illustrated fully in Chapter 5. Among the assets that have drawn the attention of regulators in recent years are technology-related intangibles and in-process research and development costs. For a time, it seemed that any target with products in the pipeline provided an opportunity for R&D allocations. Sphinx Pharmaceuticals, for instance, ascribed the entire purchase cost of Genesis Pharmaceuticals to R&D.

How could this happen? To answer this question keep in mind that the acquirer evaluates estimated liabilities as well as assets of the target. When Disney acquired ABC, it determined that significant programming commitments led to probable and estimable liabilities that, though previously unrecorded by ABC, needed to be recorded in the acquisition. The result of this, and several other adjustments, was the recording of goodwill in an amount slightly larger than the purchase price.

IN
THE
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“There are a number of variables and potential assumptions involved in fair value measurements, each with a range of reasonableness, which increases the difficulty of auditing them as compared to other accounting estimates.”³

Recall that business combinations may be negotiated either as **asset acquisitions** or as **stock acquisitions**. In Chapter 2 the procedural focus was on business combinations arising from *asset acquisitions*. In those situations the acquiring company survived, and the acquired company or companies ceased to exist as separate legal entities. The focus in this chapter is on accounting practices followed in *stock acquisitions*, that is, when one company **controls** the activities of another company through the direct or indirect ownership of some or all of its voting stock.

When this occurs, the acquiring company is generally referred to as the **parent** and the acquired company as a **subsidiary**. Those holding any remaining stock in a subsidiary are referred to as the **noncontrolling (minority) interest**. Any joint relationship is termed an **affiliation**, and the related companies are called **affiliated companies**. Each of the affiliated companies continues its separate legal existence, and the investing company carries its interest as an investment. The affiliated companies continue to account individually for their own assets and liabilities, with the parent company reflecting the investment on its books in a single account, Investment in Subsidiary. This account will ultimately be eliminated in the consolidation process to produce a set of consolidated financial statements. However, the investment account

LO 2 Noncontrolling interest (NCI).

² Bloomberg.com/gadfly/articles, “Dealmaking trend for corporate America is cross pollination,” January 2, 2018.

³ *Journal of Accountancy*, “How to audit fair value measurements,” by Maria L Murphy, CPA, and Mark O. Smith, CPA, JD, December 2017.

will be maintained in the “parent” records. Thus, an important distinction is noted between the *consolidated* statements and the *parent only* records or statements in the case of stock acquisitions.

A corporate affiliation may, of course, consist of more than two companies. A parent may obtain a controlling interest in the voting stock of several subsidiaries. If one or more of the subsidiaries owns a controlling interest in one or more other companies, a chain of ownership is forged by which the parent company controls, either directly or indirectly, the activities of the other companies. Many large American conglomerates have been formed by a variety of indirect ownerships.

IN
THE
NEWS

In what some argue as a defensive play to deny competitors of LinkedIn’s data, Microsoft acquired LinkedIn for 26B to integrate into Office. EU antitrust regulators approved the deal after numerous concessions lasting 5 years were agreed to. The most prominent concession is that Office add-in programs are available to third-party social networks, so LinkedIn competitors can integrate services into Microsoft productivity apps.⁴

3.1 DEFINITIONS OF SUBSIDIARY AND CONTROL

LO 1 Meaning of control.

Although the term **subsidiary** takes on varied meanings in practice, in this text it refers to *the situation wherein a parent company (and/or the parent’s other subsidiaries) owns a controlling financial interest in another company, whether that company is incorporated or not (such as a trust or partnership).*⁵ Both the IASB and the FASB have indicated their opinion that the definition of control should not be limited to the common presumption in practice of a 50% cutoff but should instead include an indirect ability to control another entity’s assets. **Controlling interest is defined as the portion of the equity of the consolidated group attributable to the parent and the parent’s owners.**

IFRS

Consolidated financial statements are usually necessary for a fair presentation if one of the entities in the consolidated group directly or indirectly has a controlling financial interest in the other entities. FASB ASC paragraph 810-10-15-8 states that the usual condition for a controlling financial interest is ownership of a *majority voting interest*. However, application of the majority voting interest requirement may not identify the party with a controlling financial interest because the controlling financial interest may be achieved through arrangements that do not involve voting interests. The first step in determining whether the financial statements should be consolidated is to determine if the reporting entity has a variable interest in another entity, referred to as a potential variable interest entity (VIE).⁶

⁴ Business Source Complete database, “Microsoft’s LinkedIn deal clears the EU, will close in the coming days.” by Blair Hanley Frank, CIO, December 7, 2016.

⁵ The SEC distinguishes majority-owned, totally held, and wholly owned subsidiaries. The term **majority-owned** means a subsidiary more than 50% of whose outstanding voting shares are owned by its parent and/or the parent’s other majority-owned subsidiaries. The term **totally held** means a subsidiary (1) substantially all of whose outstanding equity securities are owned by its parent and/or the parent’s other totally held subsidiaries, and (2) which is not indebted to any person other than its parent and/or the parent’s other totally held subsidiaries, in an amount that is material in relation to the particular subsidiary. The term **wholly owned** means a subsidiary all of whose outstanding voting shares are owned by its parent and/or the parent’s other wholly owned subsidiaries.

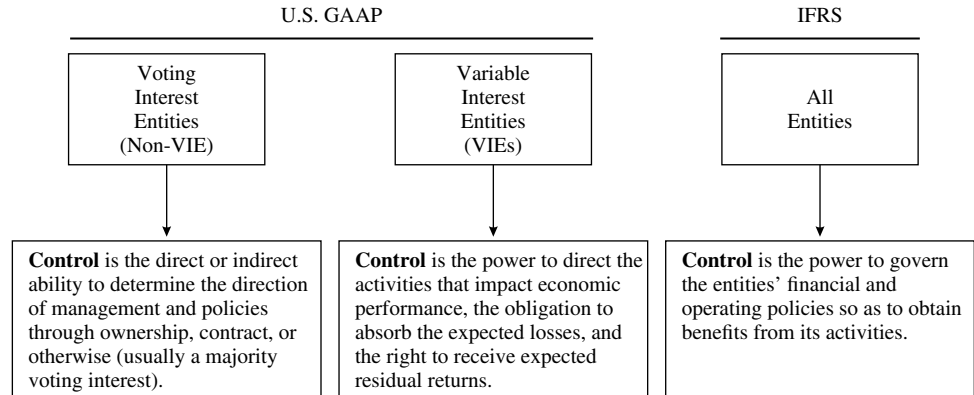
⁶ Prior to the first step, the entity must determine if it qualifies for the deferral conditions in FASB ASC paragraph 810-10-65-2(aa). If so, the entity would follow previous GAAP for VIEs.

The Variable Interest Entities subsection of the Codification provides guidance for identifying such entities. The language is technical, but bear in mind that these rules originated largely to close loopholes that had previously allowed such companies as Enron to keep partnerships or other entities under the company's control off its consolidated financial statements. Transactions involving VIEs have become increasingly common. Some reporting entities have entered into arrangements using VIEs that appear to be designed to avoid reporting assets and liabilities for which they are responsible, to delay reporting losses that have already been incurred, or to report gains that are illusory. At the same time, many reporting entities have used VIEs for valid business purposes and have properly accounted for those VIEs based on guidance and accepted practice (FASB ASC paragraph 810-10-05-9).

The crux of the issue is that sometimes the party that owns the majority of the equity of a variable interest entity does not actually control the entity because it is thinly capitalized; in other words, the majority of the financing is through debt rather than equity. When a company like Enron creates a partnership but does not own any stock in that partnership, it may nonetheless effectively control the activities of the partnership, while the outside shareholders do not. FASB developed a risk and reward model to determine who should consolidate such a partnership or other variable interest entity. The investments or other interests that absorb portions of a variable interest entity's expected losses or receive portions of the entity's expected residual returns are called variable interests. The identification of variable interests requires an economic analysis of the rights and obligations of a legal entity's assets, liabilities, equity, and other contracts. Variable interests are contractual, ownership, or other pecuniary interests in a legal entity that change with changes in the fair value of the legal entity's net assets exclusive of variable interests (FASB ASC paragraph 810-10-55-17). Operations of an entity and its assets tend to create variability (and are generally not variable interests) while liabilities and equity tend to absorb that variability. FASB ASC paragraphs 810-10-55-16 through 41 describe examples of variable interest in VIEs. For instance, equity investments or investments in subordinated debt in a VIE are variable interests to the extent that they are at risk. Guarantees of the value of the assets or liabilities of a VIE are variable interests.

Once the variable interests are identified, it must be determined whether the entity is a VIE (FASB ASC paragraph 810-10-15-14). If so, then the final step is to determine the VIE's primary beneficiary, or the party that would be required to consolidate the VIE into its own books. An entity is subject to consolidation if *any* of the following conditions exist:

- a. The total equity at risk is not sufficient to permit the legal entity to finance its activities without additional subordinated financial support provided by any parties, including equity holders. See FASB ASC 810-10-25-45 through 47 for a determination of equity at risk.
- b. The holders of the equity investment at risk *lack* any one of the following three items:
 1. The power to direct the activities of the legal entity that impact the entity's economic performance
 2. The obligation to absorb the expected losses of the legal entity
 3. The right to receive the expected residual returns of the legal entity
- c. The equity investors as a group lack the power to direct the activities if both
 1. The voting rights are not proportional to their obligations to absorb the expected losses or their rights to receive the expected residual returns, and
 2. Substantially all of the legal entity's activities, such as borrowing, either involve or are conducted on behalf of an investor who has disproportionately few voting rights.

ILLUSTRATION 3-1**Definitions of Control**

These conditions determine whether a controlling financial interest is achieved through arrangements that do not involve voting interests. If the entity is a VIE in which any of the above conditions exist, then an evaluation is necessary of factors indicating which party holds the power to direct the activities of the VIE and the obligation to absorb losses or right to reap benefits from the VIE. This party is the primary beneficiary, and must consolidate the VIE. See supplemental Appendix 3B, available from your instructor.

On the other hand, if the entity is not considered a VIE, the determination of consolidation is based on whether one of the entities in the consolidated group directly or indirectly has a controlling financial interest in the other entities (usually ownership of a majority voting interest). Control, according to U.S. GAAP, is defined as the direct or indirect ability to determine the direction of management and policies through ownership, contract, or otherwise. IFRS defines control to be the power to govern the entities' financial and operating policies so as to obtain benefits from its activities. See Illustration 3-1 for a summary.



**IN
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NEWS**

Profits rose 20% in Walt Disney Co.'s fiscal third quarter of 2004 as revenue at its parks and resorts and studio-entertainment businesses doubled. Revenue at parks and resorts climbed 32% to \$2.29 billion as the financial statements of Euro Disney and Hong Kong Disneyland were consolidated, contributing \$332 million to the revenue increase. Disney adopted an accounting rule pertaining to the consolidation of variable interest entities or VIEs. In implementing this rule, Disney consolidated the balance sheets of Euro Disney and Hong Kong Disneyland as of March 31, and the income and cash flow statements beginning April 1 of that year.⁷

1. Prior to the adoption of the accounting rule, where in Disney's financial statements would the financial results from the VIEs appear?
2. Why might Disney choose separate dates to consolidate the balance sheets and income and cash flow statements?

In this chapter we focus on situations where the control is evidenced by a majority ownership. The same procedures would apply, however, in the case where a smaller percentage ownership exists concurrently with evidence of effective control (for

⁷ Dow Jones Business News, "Disney's 3Q Net Rose 20% on Parks, Studio Revenue Growth," by Rose K. Manzo, 8/10/04.

example, the parent owns 40% of the voting stock, and no other party has a significant interest, or the parent controls the board).

The Securities and Exchange Commission defines a subsidiary as an affiliate controlled by another entity, directly or indirectly, through one or more intermediaries. Control means the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of another entity, whether through the ownership of voting shares, by contract, or otherwise. The debate arises because such a definition is less clear cut than majority ownership. It is, however, consistent with the stated objective of the IASB and the FASB to move away from rules-based accounting in favor of principles-based accounting.

On July 30, 2002, President Bush signed into law an Accounting Industry Reform Act, requiring chief executive officers to certify the validity of their firms' financial statements beginning August 14, 2002. Other aspects of the act included the following: the establishment of an oversight board for the accounting industry and the auditing sector in particular (the PCAOB or The Public Company Accounting Oversight Board); restrictions on the types of consulting services allowed to be performed by auditors, such as bookkeeping, financial systems design, and personnel and legal services; bans on personal loans from companies to their top officials and directors; and the creation of new penalties for corporate fraud.

3.2 REQUIREMENTS FOR THE INCLUSION OF SUBSIDIARIES IN THE CONSOLIDATED FINANCIAL STATEMENTS

LO 5 Requirements regarding consolidation of subsidiaries.

The purpose of consolidated statements is to present the operating results and the financial position of a parent and all its subsidiaries as if they are one economic entity. Given this purpose and problems related to off-balance-sheet financing, the FASB has taken the position that essentially all controlled corporations should be consolidated. In general, the objective of consolidation is to provide the most meaningful financial presentation possible in the circumstances. The FASB has reemphasized the basic position that parent-company-only financial statements are unacceptable for general purpose distribution; that is, the consolidated financial statements are the primary statements of the economic entity. It notes that parent-company-only statements may be needed in addition to consolidated financial statements for the interests of such parties as bondholders, other creditors, and preferred shareholders of the parent. Consolidating statements, with columns for different subsidiaries or groups of subsidiaries and one column for the parent, are one effective way to present such information.

Under some circumstances, majority-owned subsidiaries should be excluded from the consolidated statements. Those circumstances include those where:⁸

1. Control does not rest with the majority owner. For example, a subsidiary in legal reorganization or bankruptcy should not be consolidated.
2. The subsidiary operates under governmentally imposed uncertainty so severe as to raise significant doubt about the parent's control. For example, a foreign subsidiary is domiciled in a country with foreign exchange restrictions, controls, or other governmentally imposed uncertainties so severe that they cast significant doubt on the parent's ability to control the subsidiary.

⁸ FASB ASC paragraph 810-10-15-10(a).

A difference in fiscal year-ends between the parent and a subsidiary does not justify the exclusion of the subsidiary from the consolidation financial statements. It is generally viewed as feasible for the subsidiary to prepare financial statements to coincide, or nearly coincide, with the parent's fiscal period. When the difference between year-ends is greater than three months, it is usually acceptable to use the subsidiary's statements for its fiscal period, giving recognition by disclosure notes or other means of intervening events that materially affect the results of operations or financial position.

3.3 REASONS FOR SUBSIDIARY COMPANIES

LO 3 Acquiring assets or stock.

There are several advantages to acquiring a controlling interest in the voting stock of another company rather than its assets or all its voting stock. For example:

1. Stock acquisition is relatively simple. Stock can be acquired by open market purchases or by cash tender offers to the subsidiary's stockholders. Such acquisitions avoid the often lengthy and difficult negotiations that are required in an exchange of stock for stock during a complete takeover.
2. Control of the subsidiary's operations can be accomplished with a much smaller investment, since not all of the stock need be acquired.
3. The separate legal existence of the individual affiliates provides an element of protection of the parent's assets from attachment by creditors of the subsidiary. A parent may sometimes establish a subsidiary by forming a new corporation rather than simply adding a division to the existing company. The limited liability characteristic of the corporate form of business organization is often the primary reason for doing so.

3.4 CONSOLIDATED FINANCIAL STATEMENTS

RELATED CONCEPTS

The *economic entity* assumption suggests that a parent and its subsidiaries be viewed as one economic entity, even if several separate legal entities exist.

The statements prepared for a parent company and its subsidiaries are called **consolidated financial statements**. They include the full complement of statements normally prepared for a separate entity and represent essentially the sum of the assets, liabilities, revenues, and expenses of the affiliates after eliminating the effect of any transactions among the affiliated companies. Accountants recognize that the unconsolidated financial statements of the parent company, the **legal entity**, are *insufficient to present the financial position and results of operations of the economic entity controlled by the parent company*.

Consider for a moment the unconsolidated financial statements of the parent company. When the parent acquires a controlling interest in the subsidiary, the parent makes an entry debiting **Investment in Subsidiary** and crediting either cash, debt, or stock (or some combination), depending on the medium of exchange. Assume that the acquisition relies on a cash purchase price of \$5 million. The entry on the parent's books would be:⁹

Investment in Subsidiary	\$5,000,000	
Cash		\$5,000,000

⁹ All parent company journal entries will be shaded gray and enclosed in a solid border.

The parent's investment account represents the parent's investment in the different asset and liability accounts of the subsidiary and often includes a significant amount of goodwill. However, it is recorded in a single account entitled Investment. The subsidiary, in contrast, continues to keep its detailed books based on historical book values. These values are not as current as the market values assessed by the parent at the date of acquisition, but they are detailed as to classification. One way of looking at the process of consolidating is to consider the following table.

LO 4 Valuation and classification of subsidiary assets and liabilities.

	<i>Investment Account on the Parent's Books</i>	<i>Asset and Liability Accounts on the Subsidiary's Books</i>
Valuation	Market Value	Historical Value
Classification	One Account	Multiple Accounts

From the table above, we see that neither the parent's Investment account nor the subsidiary's detailed asset and liability accounts serves to provide **both** the valuation and classification desired in the consolidated financial statements. The process of preparing consolidated financial statements aims to achieve the desirable characteristics in the diagonal by showing the detailed asset and liability accounts on the consolidated balance sheet, but using the valuation established by the acquisition price. Further, this valuation provides the basis needed to measure earnings, reflecting all necessary charges.¹⁰

The purpose of consolidated statements is to present, primarily for the benefit of the owners and creditors of the parent, the results of operations and the financial position of a parent company and all its subsidiaries as if the consolidated group were a single economic entity.¹¹ Consolidated statements ignore the legal aspects of the separate entities but focus instead on the economic entity under the "control" of management. The presumption is that most users of financial statements prefer to evaluate the economic entity rather than the legal entity. Thus, the preparation of consolidated statements is an example of focusing on substance rather than form.

Although consolidated statements for the economic entity are considered to be more appropriate for use by the stockholders and creditors of the parent company (and are the only general-purpose financial statement acceptable under GAAP for companies with one or more subsidiaries), they are not substitutes for the statements prepared by the separate subsidiaries. Creditors of the subsidiaries must look to the statements of the individual legal entities in assessing the degree of protection related to their claims. Likewise, noncontrolling stockholders need the statements of the individual companies to determine the degree of investment risk involved and the amounts available for dividends. Also, regulatory agencies are often concerned with the net resources and results of operations of the individual subsidiaries.

3.5 INVESTMENTS AT THE DATE OF ACQUISITION

LO 7 Recording of investment at acquisition.

The general principles used to record business combinations effected as asset acquisitions were discussed in Chapter 2. ***In this chapter and throughout Chapters 4 through 9, we will concentrate on accounting for the acquisition of another company's voting stock.*** See supplemental Appendix 3A, available from your instructor for issues related to deferred taxes.

¹⁰ FASB ASC topic 810 [Consolidation].

¹¹ FASB ASC paragraph 810-10-10-1.

Recording Investments at Cost (Parent's Books)

The basic guidelines for valuation discussed in Chapter 2 pertaining to business combinations apply equally to the acquisition of voting stock in another company. Under the purchase or acquisition method, the stock investment is recorded at its cost as measured by the fair value of the consideration given or the consideration received, whichever is more clearly evident. Recall that the consideration given may consist of cash, other assets, debt securities, stock of the acquiring company, or a combination of these items. Both the direct costs of acquiring the stock and the indirect costs relating to acquisitions (such as the costs of maintaining an acquisitions department) should be expensed as incurred.

If cash is used for the acquisition, the investment is recorded at its cash cost, excluding broker's fees and other direct costs of the investment. For example, assume that P Company acquires all 10,000 shares of the common stock of S Company for \$25 per share and pays acquisition fees of \$10,000. The entry to record the investment on P Company's books is:

Investment in S Company	250,000	
Cash (10,000)(\$25)		250,000
Acquisition Expense	10,000	
Cash		10,000

The acquisition fee would be recorded in a separate entry as an expense. If P Company acquired only 50% of the 10,000 shares at \$25 per share and paid an acquisition fee of \$8,000, the acquisition entry would be:

Investment in S Company	125,000	
Cash (5,000)(\$25)		125,000

If P Company issues stock in the acquisition, the investment is recorded at the fair value of the stock issued, giving effect to any costs of registering the stock issue. Assume, for example, that P Company issues 20,000 of its \$10 par value common shares with a fair value of \$13 per share for the 10,000 shares of S Company, and that registration costs amount to \$5,000, paid in cash. The entries to record the investment on P Company's books are:

Investment in S Company (20,000)(\$13)	260,000	
Common Stock (20,000)(\$10)		200,000
Other Contributed Capital (20,000)(\$3)		60,000
Other Contributed Capital	5,000	
Cash (registration costs)		5,000

If P Company paid an additional \$10,000 as a finder's fee, the entry would be:

Professional Fees Expense	10,000	
Cash		10,000

TEST YOUR KNOWLEDGE 3.1

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

Multiple Choice

1. Stock given as consideration is valued at:
 - (A) Fair market value
 - (B) Par value
 - (C) Historical cost
 - (D) None of the above
2. Which of the following advantages and/or disadvantages of stock acquisitions relative to asset acquisitions (and subsequent consolidated financial statements) is *misstated*?
 - (A) Consolidated statements need not be produced as long as a parent company owns less than 50% of the voting shares of the subsidiary.
 - (B) Stock can be acquired by open-market purchases or by cash tender offers to the subsidiary's stockholders.
 - (C) Control of the subsidiary's operation can be accomplished with a much smaller investment, since not all of the stock need be acquired.
 - (D) The separate legal existence of the individual affiliates provides an element of protection of the parent's assets from attachment by creditors of the subsidiary.
3. Which of the following is not (generally) an advantage of stock acquisitions over asset acquisitions?
 - (A) Speed
 - (B) Majority of ownership not required
 - (C) Liability protection
 - (D) Anonymity
4. In its conceptual framework, the FASB set out a number of principles to be adhered to in standard setting and in interpreting financial statements. The decision to require a consolidated statement, rather than separate financial statements, for a parent firm and its subsidiary best illustrates which of the following principles or concepts?
 - (A) Periodicity
 - (B) Going concern
 - (C) Materiality
 - (D) Economic entity

3.6 CONSOLIDATED BALANCE SHEETS: THE USE OF WORKPAPERS

LO 8 Preparing consolidated statements using a workpaper.

Affiliated companies should prepare a full set of financial statements (balance sheet, or statement of position; statement of income and comprehensive income; statement of cash flows; statement of stockholders' equity (or retained earnings); and notes to the financial statements). As of the **date of acquisition** of one company by another, however, the most relevant statement is the consolidated balance sheet. Preparation of the other consolidated financial statements becomes important with the passage of time and is discussed in later chapters.

The consolidated balance sheet reports *the sum* of the assets and liabilities of a parent and its subsidiaries as if they constituted a single company. Assets and liabilities are summed in their entirety, regardless of whether the parent owns 100% or a smaller controlling interest. In the latter case, the noncontrolling interests are reflected as a component of owners' equity. This interest may be referred to as either the noncontrolling interest in net assets or as the noncontrolling interest in equity (these terms are identical), and is sometimes abbreviated as NCI.

Since the parent and its subsidiaries are being treated as a single entity, eliminations must be made to cancel the effects of transactions among them. Intercompany receivables and payables, for example, must be eliminated to avoid double counting and to avoid giving the impression that the consolidated entity owes money to itself. Likewise, any intercompany profits in assets arising from subsequent transactions must be eliminated, since an entity cannot profit on transactions with itself. A **workpaper** is frequently used to summarize the effects of the various additions, eliminations, and so forth. Among the types of transactions that necessitate eliminating entries are the following:¹²

¹² The account used by the parent to record dividends received from the subsidiary will differ if the parent uses the equity method, described in Chapter 4, to account for its investment.

RELATED CONCEPTS

The *revenue recognition* principle indicates that revenue should be recognized only when transactions with entities *outside* the consolidated economic unit are completed.

Intercompany Accounts to Be Eliminated

<i>Parent's Accounts</i>		<i>Subsidiary's Accounts</i>
Investment in subsidiary	Against	Equity accounts
Intercompany receivable (payable)	Against	Intercompany payable (receivable)
Advances to subsidiary (from subsidiary)	Against	Advances from parent (to parent)
Interest revenue (interest expense)	Against	Interest expense (interest revenue)
Dividend revenue (dividends declared)	Against	Dividends declared (dividend revenue)
Management fee received from subsidiary	Against	Management fee paid to parent
Sales to subsidiary (purchases of inventory from subsidiary)	Against	Purchases of inventory from parent (sales to parent)

The process of eliminating these and other types of items (such as the profit or loss on intercompany sales of assets not realized in transactions with outsiders) will be discussed in detail in this and later chapters. This chapter will focus on balance sheet accounts, while later chapters will focus on both balance sheet and income statement accounts.

Investment Elimination

An important basic elimination in the preparation of consolidated statements is the elimination of the investment account and the related subsidiary's stockholders' equity. The investment account represents the investment by the parent company in the net assets of the subsidiary and is, therefore, reciprocal to the subsidiary company's stockholders' equity. Since the subsidiary company's assets and liabilities are combined with those of the parent company in the consolidated balance sheet, it is necessary to eliminate the investment account of the parent company against the related stockholders' equity of the subsidiary to avoid double counting of these net assets. In effect, when the parent company's share of the subsidiary company's equity is eliminated against the investment account, the subsidiary company's net assets are substituted for the investment account in the consolidated balance sheet.

The process of combining the individual assets and liabilities of a parent company and its subsidiary at the date of acquisition is discussed next. If the acquisition is for less than 100% of the subsidiary, the fair value of both the controlling interest and the noncontrolling interest must be determined. The fair value of the controlling interest is generally assumed to equal the amount paid by the acquirer. However, determination of the fair value of the noncontrolling interest is less straightforward. For instance, as noted in FASB ASC paragraphs 805-20-30-7 and 8, the per share amount paid by the acquirer could include a 'control premium.' If the acquirer is able to measure the fair value of the noncontrolling interest on the basis of active market prices for the shares not obtained by the acquirer at the acquisition date, this will provide the basis for valuing the noncontrolling interest. If not, other valuation techniques must be applied.

The frequency with which acquisitions include a noncontrolling interest has been around 4% since 2001, with a slight increase around 2008 followed by a slow decline. The percentage remained at 4% in 2017. Note, however, that if a company acquired a firm at any point in its past in less than a 100% acquisition, then the noncontrolling interest will remain on its balance sheet until such time as the subsidiary is sold or the remaining shares are purchased by the parent (see Chapter 8 for details). Therefore, the frequency with which a noncontrolling interest is observed in annual reports is significantly higher than 4%.

LO 8 Investment is eliminated for consolidated statements.

To illustrate, suppose Company P acquires 80% of Company S for \$70 per share and the remaining shares actively trade at \$65 per share immediately following the acquisition. This would imply a control premium of \$5 per share, and it would be appropriate to value the noncontrolling shares at \$65 rather than \$70 per share.

However, throughout this textbook, we assume the value of the controlling and noncontrolling shares to be equal unless explicitly stated otherwise. Thus, the fair value of the noncontrolling interest can be inferred from the value implied by the acquisition price. This approach is illustrated next.

To start the consolidating process, a useful first step is to prepare a “*Computation and Allocation of Difference between Implied Value and Book Value*” schedule (CAD). Preparation of this schedule requires us to address three basic issues.

1. Determine the percentage of stock acquired in the subsidiary. (Is it a 100% acquisition, or a smaller percentage?)
2. Use the purchase price (cost) to compute the *implied value* of the subsidiary. Simply divide the purchase price by the percentage acquired to calculate this value. If the percentage is 100%, the implied value will equal the purchase price.
3. Compare the implied value from step (2) to the book value of the subsidiary’s equity. If a difference exists, we must then allocate that difference to adjust the underlying assets and/or liabilities of the acquired company.

LO 9 Computing and allocating the difference between implied and book value (CAD).

The book value of the equity is the sum of all equity accounts (common stock, additional contributed capital, retained earnings, etc.), which equals the book value of the acquired firm’s assets minus liabilities at the date of acquisition.

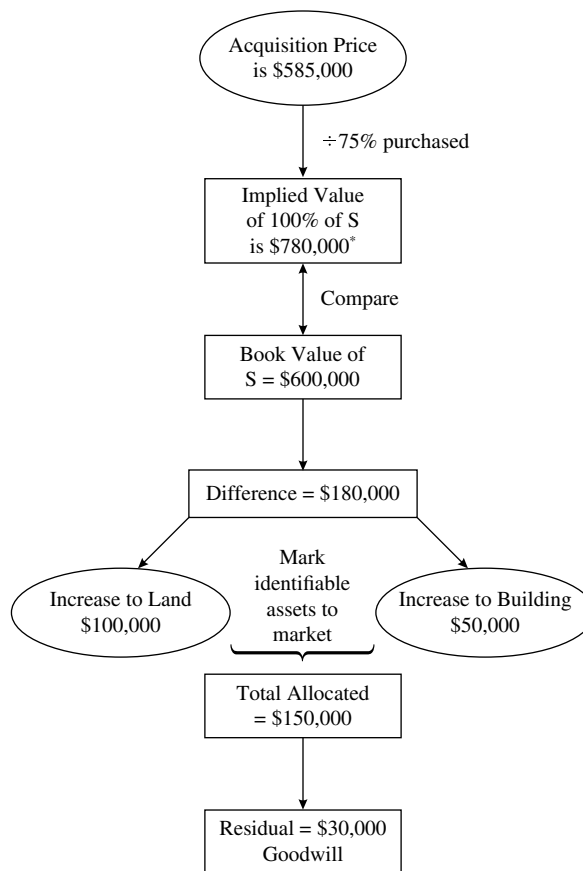
$$\text{Implied Value of Subsidiary Equity} = (\text{Acquisition Price}) / (\text{Percentage Acquired})$$

Note that the comparison is between implied value and **book** value. This comparison is appropriate because the subsidiary company’s accounts are recorded at book value amounts, and the trial balance of the subsidiary company (along with the trial balance of the parent company) provides the starting point for the consolidation process. Thus, although market values are crucial in determining the numbers that are eventually reported in the consolidated financial statements, we use book values to establish a starting point. When the implied value exceeds the book value, the difference will be distributed to adjust net assets upward. See Illustration 3-2 for a graphic illustration of this principle. When the implied value is less than the book value, the difference may be distributed to adjust net assets downward, or a gain may be recognized for a “bargain,” as dictated by the facts of the acquisition.

The steps above lead to the following possible cases:

- Case 1.** The implied value (IV) of the subsidiary (purchase price divided by percentage acquired) is **equal** to the book value of the subsidiary company’s equity ($IV = BV$), and
- a. The parent company acquires 100% of the subsidiary company’s stock; or
 - b. The parent company acquires less than 100% of the subsidiary company’s stock.
- Case 2.** The implied value of the subsidiary **exceeds** the book value of the subsidiary company’s equity ($IV > BV$), and
- a. The parent company acquires 100% of the subsidiary company’s stock; or
 - b. The parent company acquires less than 100% of the subsidiary company’s stock.
- Case 3.** The implied value of the subsidiary is **less** than the book value of the subsidiary company’s equity ($IV < BV$), and
- a. The parent company acquires 100% of the subsidiary company’s stock; or
 - b. The parent company acquires less than 100% of the subsidiary company’s stock.

ILLUSTRATION 3-2



*This assumes no control premium is attached to the acquisition price.

We next illustrate the alternatives above in the order listed, with the exception that we omit illustrations of Cases 2(a) and 3(a), which should be readily apparent after reading the others. Examples are based on the balance sheets as of January 1, 2020, for P Company and S Company as shown in Illustration 3-3.

It is important to distinguish between **actual entries** that are *recorded in the books of one of the two companies* and **workpaper-only entries**. The entries presented in the preceding section to record the Investment in S Company were *actual entries*, which would be recorded in the accounts of P Company. These types of entries would already be reflected in the trial balance, which constitutes the first column of the workpapers presented throughout this chapter (see, for example, Illustration 3-4 or Illustration 3-5).

The entries that we develop next, and which appear in the middle “elimination” columns of the workpapers, are **workpaper-only entries**. As such, they are never posted to the books or accounts of either company’s general ledger. Consequently, the entries will need to be repeated each year in the consolidating process. In some cases a number of entries from prior years may be combined to simplify the process; but, in essence, the entries are being repeated each year. Throughout this book, workpaper-only entries will be presented **shaded in blue (e-book) or enclosed in a dotted border (print version)**. Parent company and subsidiary entries are shaded in **gray and enclosed in a solid border**.

ILLUSTRATION 3-3**Balance Sheets for P Company and S Company—January 1, 2020**

	<i>P Company</i>	<i>S Company</i>
Cash	\$100,000	\$ 20,000
Other current assets	140,000	50,000
Plant and equipment (net)	120,000	40,000
Land	40,000	20,000
Total assets	<u>\$400,000</u>	<u>\$130,000</u>
Liabilities	\$ 60,000	\$ 50,000
Common stock, \$10 par value	200,000	50,000
Other contributed capital	40,000	10,000
Retained earnings	100,000	20,000
Total Liabilities and Equity	<u>\$400,000</u>	<u>\$130,000</u>

Case 1 (a): Implied Value of Subsidiary Is Equal to Book Value of Subsidiary Company's Equity (IV = BV)—Total Ownership (100% of Subsidiary Stock Acquired)

If the purchase price happens to be exactly equal to the book value of the equity acquired, the investment account (from the parent's trial balance) will eliminate cleanly against the equity accounts of the subsidiary. If we assume further that the market values of the assets acquired approximate their book values, then there is no need to adjust assets or liabilities from their recorded values. The end result of the eliminating process is that the investment account is completely eliminated, as are the equity accounts of the subsidiary (since it is a 100% acquisition). In essence the investment account is replaced with the underlying assets and liabilities of the subsidiary.

To illustrate, assume that on January 1, 2020, P Company acquired all the outstanding stock (5,000 shares) of S Company for a cash payment of \$80,000. P Company would record an actual journal entry as follows:

Investment in S Company	\$80,000	
Cash		\$80,000

Immediately after the acquisition, P Company has \$20,000 in cash (\$100,000 shown in Illustration 3-3, immediately prior to acquisition, minus \$80,000 spent to acquire Company S) and \$80,000 in an Investment in S Company account. These amounts appear in the first column of the workpaper presented in Illustration 3-4. In the case of a 100% acquisition, the implied value of the subsidiary equals the purchase price. The majority of acquisitions since 2010 have been for 100% of the outstanding stock (or total net assets) of the target; thus, noncontrolling interest in equity was recognized in a relatively small percentage. When the target was a private, rather than publicly traded, company, the percentage was even smaller, with only 3.5% of acquisitions by a public acquirer targeting a private company resulting in a noncontrolling interest. When a public acquirer targeted a publicly traded firm, 7.1% of acquisitions resulted in a noncontrolling interest in equity being reported.

The Computation and Allocation of Difference between Implied and Book Values Schedule reveals no difference, as shown below.

**Computation and Allocation of Difference
(between Implied and Book Values) Schedule**

	<i>Parent Share</i>	<i>NonControlling Share</i>	<i>Total Value</i>
Purchase price and implied value	\$80,000	—0—	\$80,000
Less: Book value of equity acquired	80,000	—0—	80,000
Difference between implied and book values	\$—0—	\$—0—	\$—0—

Note that the \$80,000 paid equals the recorded value of S Company's stockholders' equity. Data for the preparation of formal consolidated statements are normally accumulated on a workpaper, on which any required adjusting and eliminating entries are made prior to combining remaining balances. **Adjusting entries** are those needed to correct any accounts of the affiliates that may be incorrect or to recognize the unrecorded effect of transactions that have been recorded by one party, but not by the other. Adjusting entries must be made ultimately on the books of one or more of the affiliates. **Eliminating entries** are made to cancel the effects of intercompany transactions and are made on the workpaper only. In all illustrations throughout this book, **letter notation** is used to identify related parts of adjusting entries, and **number notation** to identify related parts of eliminating entries. Note, however, that some of the eliminating entries will involve "adjustments" to accounts, particularly when there is a difference between implied and book values. Thus, it is technically more accurate to think of eliminating entries as eliminating/adjusting entries or as workpaper entries. These entries will be our focus throughout the next several chapters, and adjusting entries are used only rarely.

The workpaper entry to eliminate S Company's stockholders' equity against the investment account, in general journal form, is:

(1)	Common Stock—S Company	50,000	
	Other Contributed Capital—S Company	10,000	
	Retained Earnings—S Company	20,000	
	Investment in S Company		80,000

Remember, although it is expressed in general journal form, this is a **workpaper-only entry**. No entry is made on the books of either company. As mentioned previously, **all workpaper entries are shaded in blue (e-book) or enclosed in a dotted border (both e-book and print)** to distinguish them clearly from book entries (shaded in gray and enclosed in a solid border).

A workpaper for the preparation of a consolidated balance sheet for P and S Companies on January 1, 2020 the date of acquisition, is presented in Illustration 3-4.

Note the following on the workpaper:

1. The investment account and related subsidiary's stockholders' equity have been eliminated, and the subsidiary company's net assets substituted for the investment account.
2. Consolidated assets and liabilities consist of the sum of the parent and subsidiary assets and liabilities in each classification.

ILLUSTRATION 3-4**Acquisition Accounting**

Implied Value Equals Book Value	Consolidated Balance Sheet Workpaper				
Wholly Owned Subsidiary	P Company and Subsidiary				
Date of Acquisition	January 1, 2020				
	<i>P Company</i>	<i>S Company</i>	<i>Eliminations</i>		<i>Consolidated Balances</i>
			<i>Dr.</i>	<i>Cr.</i>	
Cash	20,000	20,000			40,000
Other Current Assets	140,000	50,000			190,000
Plant and Equipment	120,000	40,000			160,000
Land	40,000	20,000			60,000
Investment in S Company	80,000			(1) 80,000	
Total Assets	<u>\$400,000</u>	<u>\$130,000</u>			<u>\$450,000</u>
Liabilities	60,000	50,000			110,000
Common Stock					
P Company	200,000				200,000
S Company		50,000	(1) 50,000		
Other Contributed Capital					
P Company	40,000				40,000
S Company		10,000	(1) 10,000		
Retained Earnings					
P Company	100,000				100,000
S Company		20,000	(1) 20,000		
Total Liabilities and Equity	<u>\$400,000</u>	<u>\$130,000</u>	<u>\$80,000</u>	<u>\$80,000</u>	<u>\$450,000</u>

(1) To eliminate investment in S Company.

- Consolidated stockholders' equity is the same as the parent company's equity. This is as it should be, since the subsidiary company's stockholders' equity has been eliminated against the parent company's investment account. The consolidated balance sheet is that of the *economic* entity, and the only ownership interest is that represented by P Company's stockholders; that is, P Company owns all of S Company's stock.

Case 1 (b): Implied Value of Subsidiary Is Equal to Book Value of Subsidiary Company's Stock (IV = BV)—Partial Ownership (Less Than 100% of Subsidiary Stock Acquired)

Next we introduce a noncontrolling interest. In this situation, the consolidated balance sheet will nonetheless reflect the combined assets and liabilities of parent and subsidiary *in their entirety*. To balance, the equity interests will then be separated into the noncontrolling interest's equity in net assets and the usual controlling interest equity accounts.

Assume that on January 1, 2020, P Company acquired 90% (4,500 shares) of the stock of S Company for \$72,000. Since P Company owns less than 100% of S Company's stock, consideration must be given to the existence of a noncontrolling interest (minority interest) in the net assets of S Company. The purchase price of \$72,000

for 90% of S Company implies a total valuation for S Company of \$72,000/90%, or \$80,000. The noncontrolling interest is, thus, implied to be valued at 10% × \$80,000 or \$8,000. In this illustration the implied and book values are equal, both for the controlling and noncontrolling interests. A Computation and Allocation of Difference (CAD) Schedule would appear as follows:

Computation and Allocation of Difference (between Implied and Book Values) Schedule			
	<i>Parent Share</i>	<i>Noncontrolling Share</i>	<i>Total Value</i>
Purchase price and implied value	\$72,000	\$8,000	\$80,000
Less: Book value of subsidiary equity:			
Common stock	45,000	5,000	50,000
Other contributed capital	9,000	1,000	10,000
Retained earnings	18,000	2,000	20,000
Total book value	<u>72,000</u>	<u>8,000</u>	<u>80,000</u>
Difference between implied and book value	<u>—0—</u>	<u>—0—</u>	<u>—0—</u>

Note that the amounts in bold in the CAD Schedule provide the entries in the following workpaper investment elimination entry:

(1)	Common Stock—S Company	50,000	
	Other Contributed Capital—S Company	10,000	
	Retained Earnings—S Company	20,000	
	Investment in S Company		72,000
	Noncontrolling Interest in Equity		8,000

The entire 100% of S Company's equity is eliminated, 90% against the investment account with the remaining 10% of S Company's equity constituting the noncontrolling interest. The purpose of the consolidated balance sheet is to report the net resources under the control of a single management, and the management of P Company effectively controls all S Company's resources. Thus, all S Company's assets and liabilities are combined with those of P Company on the consolidated balance sheet, and the noncontrolling interest representing the noncontrolling shareholders' interest in the net assets is a separate component of stockholders' equity.

A workpaper for the preparation of a consolidated balance sheet at the date of acquisition in this situation is presented in Illustration 3-5. A separate column is added to the workpaper in this illustration between the eliminations columns and the consolidated balances to compute the noncontrolling interest in equity. The total in this column represents the percentage of equity of S Company *not* acquired by P Company and recorded at the fair value implied by P Company's acquisition price. The total noncontrolling interest is transferred to the consolidated balance sheet column. Although it is listed last on the workpaper, the noncontrolling interest on the actual consolidated balance sheet should appear as the *first component of stockholders' equity* (because it is the nearest, from the perspective of the controlling interest, to a liability).

In comparing Illustration 3-4 and Illustration 3-5, it might be noted that: (1) consolidated assets are \$8,000 greater in Illustration 3-5 since it took \$8,000 less

cash to acquire a 90% investment, and (2) an \$8,000 noncontrolling interest exists (the remaining 10%). Noncontrolling interest is accumulated on the consolidated workpaper in a separate column.

The proper classification of the noncontrolling interest has been a subject of debate. From the perspective of the controlling interest, it is similar to a liability. It is not, however, a liability because it does not require a future payment by the parent company or the consolidated entity. The shareholders who represent the noncontrolling interest are indeed stockholders, but only of the subsidiary company and not the parent. Some companies, in the past, presented this interest after liabilities and before stockholders' equity on the balance sheet to convey the "hybrid" nature of the noncontrolling interest. According to *FASB ASC* paragraph 810-10-45-16, the noncontrolling interest should be presented as a part of stockholders' equity of the consolidated entity, but clearly labeled to distinguish it from the other equity accounts.¹³

ILLUSTRATION 3-5

Acquisition Accounting

Implied Value Equals Book Value	Consolidated Balance Sheet Workpaper					
90% Owned Subsidiary	P Company and Subsidiary					
Date of Acquisition	January 1, 2020					
	<i>P Company</i>	<i>S Company</i>	<i>Eliminations</i>		<i>Noncontrolling Interest</i>	<i>Consolidated Balances</i>
			<i>Dr.</i>	<i>Cr.</i>		
Cash	\$ 28,000	\$ 20,000				\$ 48,000
Other Current Assets	140,000	50,000				190,000
Plant and Equipment	120,000	40,000				160,000
Land	40,000	20,000				60,000
Investment in S Company	72,000			(1) 72,000		
Total Assets	<u>\$400,000</u>	<u>\$130,000</u>				<u>\$458,000</u>
Liabilities	60,000	50,000				110,000
Common stock						
P Company	200,000					200,000
S Company		50,000	(1) 50,000			
Other Contributed Capital						
P Company	40,000					40,000
S Company		10,000	(1) 10,000			
Retained Earnings						
P Company	100,000					100,000
S Company		20,000	(1) 20,000			
Noncontrolling Interest					(1) 8,000	8,000
Total Liabilities and Equity	<u>\$400,000</u>	<u>\$130,000</u>	<u>\$80,000</u>	<u>\$80,000</u>		<u>\$458,000</u>

(1) To eliminate investment in S Company and create noncontrolling interest account.

¹³ The term **minority interest** may not reflect clearly the actual nature of some items. For example, a parent company may own 25% of its subsidiary's outstanding preferred stock. In this case, the use of the term "minority interest" to represent the 75% interest held by noncontrolling shareholders is not representative of the circumstances. Also, a parent may have control of a subsidiary with less than 50% of its common stock. The term "noncontrolling interest" is recommended by FASB and is used throughout this text.

Case 2 (b): Implied Value Exceeds Book Value of Subsidiary Company's Equity (IV > BV)—Partial Ownership (Less Than 100% of Subsidiary Stock Acquired)

Next, we continue to allow for a noncontrolling interest, and we introduce a difference between the cost and the book value acquired, and thus between the implied value and the book value of the subsidiary. In Case 2, we illustrate the common situation where the purchase price is higher than the book value of equity acquired.

Assume that on January 1, 2020, P Company acquired 4,000 shares (80%) of the outstanding common stock of S Company for \$74,000 cash, after which P Company has \$26,000 in cash and \$74,000 in an Investment in S Company. The purchase price of \$74,000 for 80% of S Company implies a total value of $\$74,000/80\%$ or \$92,500. The implied value of the noncontrolling interest is $\$92,500 \times 20\%$ or \$18,500. The total implied value of \$92,500 exceeds the book value of equity of \$80,000 by \$12,500. A Computation and Allocation of Difference (CAD) Schedule for this situation *begins* as follows:

Computation and Allocation of Difference (between Implied and Book Values) Schedule

	<i>Parent Share</i>	<i>Noncontrolling Share</i>	<i>Total Value</i>
Purchase price and implied value	<u>\$74,000</u>	<u>\$18,500</u>	<u>\$92,500</u>
Less: Book value of equity acquired:			
Common stock	40,000	10,000	50,000
Other contributed capital	8,000	2,000	10,000
Retained earnings	<u>16,000</u>	<u>4,000</u>	<u>20,000</u>
Total book value	<u>64,000</u>	<u>16,000</u>	<u>80,000</u>
Difference between implied and book value	<u>10,000</u>	<u>2,500</u>	<u>12,500</u>

In this case, because there is a difference between implied and book values, we must not only *compute* the difference but also *allocate* that difference to the appropriate accounts. If we assume that the entire difference is attributable to land with a current market value higher than its historical recorded cost, we would complete the CAD schedule as follows:

Computation and Allocation of Difference (between Implied and Book Values) Schedule

	<i>Parent Share</i>	<i>Noncontrolling Share</i>	<i>Total Value</i>
Purchase price and implied value	<u>\$74,000</u>	<u>\$18,500</u>	<u>\$92,500</u>
Less: Book value of equity acquired:			
Common stock	40,000	10,000	50,000
Other contributed capital	8,000	2,000	10,000
Retained earnings	<u>16,000</u>	<u>4,000</u>	<u>20,000</u>
Total book value	<u>64,000</u>	<u>16,000</u>	<u>80,000</u>
Difference between implied and book value	10,000	2,500	12,500
Adjust land upward (mark to market)	<u>(10,000)</u>	<u>(2,500)</u>	<u>(12,500)</u>
Balance	<u>—0—</u>	<u>—0—</u>	<u>—0—</u>

The difference must be allocated to specific accounts. In this example, the adjustment to increase land to its market value is a debit, and is shown in parentheses. The popular phrase “mark to market” may be used here. In no case would the asset be marked higher than its market value. The amounts are then summed (treating debit adjustments as negative amounts) to yield a balance. The correct distribution of the difference between implied and book values depends on the market values of the underlying assets and liabilities. If the difference is *larger than the amount* needed to adjust all net assets, then, *the excess is goodwill*.

In the past, firms looking for creative ways to avoid recording goodwill sometimes wrote off a portion of the purchase price as an immediate expense under the guise of in-process R&D. This issue has been a controversial one, and current GAAP requires that in-process R&D be capitalized *if it is acquired in a business combination*.

By adjusting all net assets to their market value, a negative balance could result. This situation, referred to as a *bargain acquisition*, occurs when the *acquisition price is less than the market value of identifiable net assets acquired*. After eliminating any previously recorded goodwill on the books of the acquiree, *this negative balance is recognized in its entirety as an ordinary gain in the income statement in the period of the acquisition*. We will illustrate bargain acquisitions, which were initially introduced in Chapter 2, again in Chapter 5. The treatment of bargain purchase reflects a significant change from prior GAAP, which required that negative goodwill be allocated as a reduction of acquired assets below their fair value. Such a reduction is no longer allowed.

Textbook problems (including those at the end of this chapter) will often make simplifying assumptions, such as “Assume that any difference between implied and book values is attributable solely to land,” or “Assume that any difference between implied and book values is attributable to goodwill.” This latter assumption is equivalent to stating that book values approximate fair market values. It is important, however, to be aware that more complex adjustments are often needed, and may include a variety of asset and liability accounts (as illustrated in detail in Chapter 5).

Returning to the example above, in which a difference of \$12,500 is attributed to land, a workpaper for a consolidated balance sheet at the date of acquisition in this situation is presented in Illustration 3-6.

The first workpaper investment elimination entry is:

(1)	Common Stock—S Company	50,000	
	Other Contributed Capital—S Company	10,000	
	Retained Earnings—S Company	20,000	
	Difference between Implied and Book Values	12,500	
	Investment in S Company		74,000
	Noncontrolling Interest in Equity		18,500

Elimination entry (1) serves to eliminate the investment account against the equity accounts of the subsidiary and to recognize the difference between implied and book values. A new account entitled “Difference between Implied and Book Values” is created in this entry. This account is a temporary account, which will be immediately eliminated in the very next entry.

Elimination entry (2) (below) serves to allocate the Difference between Implied and Book Values to the appropriate accounts, in this case land:

(2)	Land	12,500	
	Difference between Implied and Book Values		12,500

Clearly entries (1) and (2) could be collapsed into one entry, and the account Difference between Implied and Book Values avoided. It becomes useful, however, to separate the two entries in situations involving a number of accounts with more complex adjustments. As this account will be used in future chapters, it is helpful to become acquainted with it at this point.

Reasons an Acquiring Company May Pay More Than Book Value The parent company often pays an amount in excess of the book value of the subsidiary company's stock acquired. Although we have assumed here that it relates to the undervaluation of the subsidiary company's land, any one, or a combination, of the following conditions might exist:

1. The fair, or current, value of one or more specific tangible or intangible assets of the subsidiary company may exceed its recorded value because of appreciation. Sometimes the application of conservative accounting procedures under generally accepted accounting principles results in book values that are lower than fair values for assets. Examples are:
 - a. The current expensing of some costs that may contain future benefits (for example, research and development expenditures),

ILLUSTRATION 3-6**Acquisition Accounting**

Implied Value exceeds Book Value

Consolidated Balance Sheet Workpaper

80% Owned Subsidiary

P Company and Subsidiary

Date of Acquisition

January 1, 2020

	P Company	S Company	Eliminations		Noncontrolling Interest	Consolidated Balances
			Dr.	Cr.		
Cash	26,000	20,000				46,000
Other Current Assets	140,000	50,000				190,000
Plant and Equipment	120,000	40,000				160,000
Land	40,000	20,000	(2) 12,500			72,500
Investment in S Company	74,000			(1) 74,000		
Difference between implied and book value			(1) 12,500	(2) 12,500		
Total Assets	\$400,000	\$130,000				\$468,500
Liabilities	60,000	50,000				110,000
Common Stock						
P Company	200,000					200,000
S Company		50,000	(1) 50,000			
Other Contributed Capital						
P Company	40,000					40,000
S Company		10,000	(1) 10,000			
Retained Earnings						
P Company	100,000					100,000
S Company		20,000	(1) 20,000			
Noncontrolling Interest				(1) 18,500	18,500	18,500
Total Liabilities and Equity	\$400,000	\$130,000	\$105,000	\$105,000		\$468,500

(1) To eliminate investment in S Company and create noncontrolling interest account.

(2) To distribute the difference between implied and book value.

- b. The use of accelerated depreciation methods,
 - c. The use of the LIFO inventory method, and
 - d. The general prohibition against recognizing unrealized gains.
2. The excess payment may indicate the existence of unrecorded goodwill of the subsidiary company as reflected by its above-normal earning capacity.
 3. Liabilities, generally long-term ones, may be overvalued. For example, the subsidiary company may have 8% bonds payable outstanding when acquired by the parent company even though the market rate of interest is 12% at that time.
 4. A variety of market factors may affect the price paid for the stock. The mere entry of another large buyer of stock into the market would generally have the effect of increasing the stock's market price. In essence, the parent company is willing to pay a premium for the right to acquire control and the related economic advantages it expects to obtain from integrated operations.



IN
THE
NEWS

The agreement to a \$13.6 billion cash purchase of Jim Beam by Japanese beverage giant Suntory Holdings Limited represents the first big corporate acquisition of 2014 and is also a sign of the growing popularity of whiskey, particularly Kentucky Bourbon's whiskey, both overseas and domestically. The Japanese firm will pay \$83.50 per share, a 25 percent premium to Beam's closing price of \$66.97 on the Friday previous to the announcement. The merger represents the largest deal that the Japanese firm has ever closed, which will elevate it to the third largest maker of distilled drinks worldwide. The merged company is expected to have annual sales of more than \$4.3 billion. According to analysts, this would give Suntory 11 percent of the spirits market share in the United States, up from less than 1 percent.¹⁴

Case 3 (b): Implied Value of Subsidiary Is Less Than Book Value ($IV < BV$)—Partial Ownership (Less Than 100% of Subsidiary Stock Acquired)

Finally, we illustrate the less common situation where the purchase price is below the book value of the acquired equity, still assuming the existence of a noncontrolling interest. In this case, the implied value of the subsidiary is below its book value as well.

Assume that on January 1, 2020, P Company acquired 4,000 shares (80%) of the outstanding common stock of S Company for \$60,000, after which P Company has \$40,000 in cash and \$60,000 in an Investment in S Company. The implied value of the subsidiary is thus $\$60,000/80\%$ or \$75,000. The noncontrolling interest is $\$75,000 \times 20\%$ or \$15,000. The book value of S Company equity of \$80,000 exceeds its implied value of \$75,000 by \$5,000. We assume that the difference between implied and book values is attributable to plant and equipment, in this case an overvaluation of

¹⁴ "Japan's Suntory Limited purchases Jim Beam for \$16 billion," by Laura Gomez, Jan 21, 2014, *Industry Leaders Magazine* (www.industryleadersmagazine.com).

\$5,000. The Computation and Allocation of Difference (CAD) Schedule would appear as follows:

**Computation and Allocation of Difference
(between Implied and Book Values) Schedule**

	<i>Parent Share</i>	<i>Noncontrolling Share</i>	<i>Total Value</i>
Purchase price and implied value	<u>\$60,000</u>	<u>\$15,000</u>	<u>\$75,000</u>
Less: Book value of equity acquired:			
Common stock	40,000	10,000	50,000
Other contributed capital	8,000	2,000	10,000
Retained earnings	<u>16,000</u>	<u>4,000</u>	<u>20,000</u>
Total book value	<u>\$64,000</u>	<u>\$16,000</u>	<u>\$80,000</u>
Difference between implied and book value	(4,000)	(1,000)	(5,000)
Adjust Plant & Equipment downward	<u>4,000</u>	<u>1,000</u>	<u>5,000</u>
Balance	<u>—0—</u>	<u>—0—</u>	<u>—0—</u>

In this instance the difference is negative and is shown in parentheses, and the adjustment is a credit to plant & equipment. When the difference between cost and book value is negative (i.e., purchase price is below book values), it generally reflects one or a combination of the following:¹⁵

1. One or more of the subsidiary company's assets is overvalued,
2. One or more of the subsidiary company's liabilities is undervalued or unrecognized, or
3. The parent company simply made a bargain purchase.

As usual, the Computation and Allocation Schedule yields two eliminating/adjusting entries. The investment elimination entry is:

(1)	Common Stock—S Company	50,000
	Other Contributed Capital—S Company	10,000
	Retained Earnings—S Company	20,000
	Difference between Implied and Book Values	5,000
	Investment in S Company	60,000
	Noncontrolling Interest in Equity	15,000

Note that when the difference is negative, it appears in the journal entry as a credit in order to balance the entry. In the second workpaper entry, this account will be debited to eliminate it, and the appropriate underlying asset and/or liability accounts will be adjusted to reflect a net downward adjustment of net assets, in this case plant & equipment. The second elimination entry is:

(2)	Difference between Implied and Book Values	5,000
	Plant and Equipment	5,000

¹⁵ Chapter 5 elaborates on these alternatives, with illustrations.

A workpaper for a consolidated balance sheet at date of acquisition in this situation is presented in Illustration 3-7.

Subsidiary Treasury Stock Holdings

A subsidiary may hold some of its own shares as treasury stock at the time the parent company acquires its interest. Recall that treasury stock is a contra-equity account, which has a debit balance on the books of the subsidiary. The computation of the percentage interest acquired, as well as the total equity acquired, is based on shares outstanding and should, therefore, exclude treasury shares.

ILLUSTRATION 3-7

Acquisition Accounting

Book Value Exceeds Implied Value		Consolidated Balance Sheet Workpaper				
80% Owned Subsidiary		P Company and Subsidiary				
Date of Acquisition		January 1, 2020				
	<i>P Company</i>	<i>S Company</i>	<i>Eliminations</i>		<i>Noncontrolling Interest</i>	<i>Consolidated Balances</i>
			<i>Dr.</i>	<i>Cr.</i>		
Cash	40,000	20,000				60,000
Other Current Assets	140,000	50,000				190,000
Plant and Equipment	120,000	40,000		(2) 5,000		155,000
Land	40,000	20,000				60,000
Investment in S Company	60,000			(1) 60,000		
Difference between implied and book value			(2) 5,000	(1) 5,000		
Total Assets	<u>\$400,000</u>	<u>\$130,000</u>				<u>\$465,000</u>
Liabilities	60,000	50,000				110,000
Common Stock						
P Company	200,000					200,000
S Company		50,000	(1) 50,000			
Other Contributed Capital						
P Company	40,000					40,000
S Company		10,000	(1) 10,000			
Retained Earnings						
P Company	100,000					100,000
S Company		20,000	(1) 20,000			
Noncontrolling Interest				(1) 15,000	15,000	15,000
Total Liabilities and Equity	<u>\$400,000</u>	<u>\$130,000</u>	<u>\$85,000</u>	<u>\$85,000</u>		<u>\$465,000</u>

(1) To eliminate investment in S Company and create noncontrolling interest account.

(2) To distribute the difference between implied and book value.

For example, assume that P Company acquired 18,000 shares of S Company common stock on January 1, 2020, for a payment of \$320,000 when S Company's stockholders' equity section appeared as follows:

Common Stock, \$10 par, 25,000 shares issued	\$250,000
Other Contributed Capital	50,000
Retained Earnings	125,000
	<u>425,000</u>
Less: Treasury Stock at Cost, 1,000 Shares	20,000
Total Stockholders' Equity	<u>\$405,000</u>

P Company's interest in S Company is 75% (18,000 shares/24,000 shares), and the total implied value of S Company is \$320,000/75% or \$426,667. The implied value of the noncontrolling interest is $\$426,667 \times 25\%$ or \$106,667. This results in a difference between implied and book values of $\$426,667 - \$405,000$ or \$21,667.

Because the treasury stock account represents a contra stockholders' equity account, it must be eliminated by a credit when the investment account and subsidiary company's equity accounts are eliminated on the workpaper. Thus, the workpaper eliminating entry is:

Common Stock—S Company	250,000	
Other Contributed Capital—S Company	50,000	
Retained Earnings—S Company	125,000	
Difference between Implied and Book Values	21,667	
Investment in S Company		320,000
Noncontrolling Interest in Equity		106,667
Treasury Stock—S Company		20,000

Other Intercompany Balance Sheet Eliminations

Up to this point we have discussed the elimination of the subsidiary equity against the related investment account, with recognition in the consolidated accounts of the noncontrolling interest in equity. Balance sheet eliminations of a variety of intercompany receivables and payables are also often required. Intercompany accounts receivable, notes receivable, and interest receivable, for example, must be eliminated against the reciprocal accounts payable, notes payable, and interest payable. Cash advances among affiliated companies constitute receivables and payables and must be eliminated. Eliminations must also be made for all types of intercompany accruals for such items as rent and other services. The full amount of all intercompany receivables and payables is eliminated without regard to the percentage of control held by the parent company.

For example, to eliminate a \$25,000 cash advance made by P Company and received by S Company, the following entry would be made:

Advance from P Company	\$25,000	
Advance to S Company		\$25,000

Similarly, to eliminate a \$100,000 intercompany account receivable/payable, this entry would be made:

Accounts Payable (to S)	\$100,000	
Accounts Receivable (from P)		\$100,000

Adjusting Entries Prior to Eliminating Entries

At times, workpaper adjustments to accounting data may be needed before appropriate eliminating entries can be accomplished. The need for adjustments generally arises because of in-transit items where only one of the affiliates has recorded the effect of an intercompany transaction. For example, the parent company may have recorded a cash advance to one of its subsidiaries near year-end but the subsidiary has not yet recorded the receipt of the advance. Thus, the Advances to Subsidiary account on the parent company's books has no reciprocal account on the subsidiary company's books. An adjusting workpaper entry debiting Cash and crediting Advances from Parent is required so that the asset (cash) can be appropriately included in consolidated assets and a reciprocal account established that permits the elimination of intercompany advances. The workpaper eliminations columns may be used to enter these adjusting entries. Alternatively, it is possible simply to adjust the subsidiary company's statements prior to their entry on the workpaper.

TEST YOUR KNOWLEDGE 3.2

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

Multiple Choice

- Which of the following adjustments do not occur in the consolidating process?
 - Elimination of parent's retained earnings
 - Elimination of intra-company balances
 - Allocations of difference between implied and book values
 - Elimination of the investment account
- The noncontrolling interest in the subsidiary is reported as:
 - Asset
 - Liability
 - Equity
 - Expense

True or False

- In computing the difference between the implied and book values, the implied value of the acquired entity will always equal the purchase price to the parent.
 - In the Computation and Allocation of Difference (between Implied Value and Book Value) schedule for a stock acquisition, the implied value of subsidiary equity is computed as: (purchase price) divided by (percentage acquired by parent).
 - Once the eliminating/adjusting entry columns of the worksheet are completed, the entries are posted to the books of the company's general ledger and therefore need not be repeated in the following year in the consolidating process.
 - In allocating the difference between implied and book values, if the difference is more than needed to adjust all net assets to market values, then the excess is goodwill.

3.7 A COMPREHENSIVE ILLUSTRATION—MORE THAN ONE SUBSIDIARY COMPANY

No particular problem exists where the parent company owns a direct controlling interest in more than one subsidiary company. The balance sheet of each affiliate is entered on the workpaper, any adjustments needed are prepared, and all related intercompany accounts, including those between subsidiary companies, are eliminated. The remaining balances are combined, and they constitute the consolidated balance sheet.

It is useful at this point to look at an illustrative workpaper and consolidated balance sheet for a parent company, P Company, and its two subsidiaries, S Company and T Company. Assume that on January 1, 2020, P Company acquired 90% and 80% of the outstanding common stock of S Company and T Company for \$250,200 and \$115,000, respectively. Immediately after the stock acquisition, balance sheets of the affiliates were:

January 1, 2020

	<i>P Company</i>	<i>S Company</i>	<i>T Company</i>
Cash	\$ 81,800	\$ 36,000	\$ 4,000
Accounts receivable (net)	68,000	59,000	10,000
Inventories	76,000	64,000	15,000
Advances to T Company	20,000		
Investment in S Company	250,200		
Investment in T Company	115,000		
Plant and equipment (net)	200,000	241,000	130,000
Land	24,000	10,000	6,000
Total assets	\$835,000	\$410,000	\$165,000
Accounts payable	\$ 85,000	\$ 40,000	\$ 25,000
Notes payable	—0—	100,000	—0—
Common stock, \$10 par value	500,000	200,000	100,000
Retained earnings	250,000	70,000	40,000
Total liabilities and equity	\$835,000	\$410,000	\$165,000

Other information

1. On the date of acquisition, P Company mailed a cash advance of \$20,000 to T Company to improve T Company's working capital position. T Company had not yet received and, therefore, had not yet recorded the advance.
2. On the date of acquisition, P Company owed S Company \$6,000 for purchases on open account, and S Company owed T Company \$5,000 for such purchases. All these items had been sold by the purchasing companies prior to the date of acquisition.
3. The difference between implied and the book values of equity relates to the undervaluation of subsidiary plant and equipment.

Since the Investments are carried in two separate accounts, it is best to prepare two separate CAD Schedules, one for each investment, as follows:

**Computation and Allocation of Difference (between Implied and Book Values)
Schedule (Investment in S Company)**

	<i>Parent Share</i>	<i>Noncontrolling Share</i>	<i>Total Value</i>
Purchase price and implied value	<u>\$250,200</u>	<u>\$27,800</u>	<u>\$278,000</u>
Less: Book value of subsidiary equity:			
Common stock	180,000	20,000	200,000
Retained earnings	<u>63,000</u>	<u>7,000</u>	<u>70,000</u>
Total book value	<u>243,000</u>	<u>27,000</u>	<u>270,000</u>
Difference between implied and book value	7,200	800	8,000
Adjust plant assets upward	<u>(7,200)</u>	<u>(800)</u>	<u>(8,000)</u>
Balance	<u>—0—</u>	<u>—0—</u>	<u>—0—</u>

**Computation and Allocation of Difference (between Implied and Book Values)
Schedule (Investment in T Company)**

	<i>Parent Share</i>	<i>Noncontrolling Share</i>	<i>Total Value</i>
Purchase price and implied value	<u>\$115,000</u>	<u>\$28,750</u>	<u>\$143,750</u>
Less: Book value of subsidiary equity:			
Common stock	80,000	20,000	100,000
Retained earnings	<u>32,000</u>	<u>8,000</u>	<u>40,000</u>
Total book value	<u>112,000</u>	<u>28,000</u>	<u>140,000</u>
Difference between implied and book value	3,000	750	3,750
Adjust Plant Assets upward	<u>(3,000)</u>	<u>(750)</u>	<u>(3,750)</u>
Balance	<u>—0—</u>	<u>—0—</u>	<u>—0—</u>

A workpaper for the preparation of a consolidated balance sheet on January 1, 2020, for P, S, and T companies is presented in Illustration 3-8. Several items on the workpaper should be noted. The cash in transit from P Company to T Company was picked up through an adjusting entry; if not, \$20,000 cash would have been excluded from the consolidated balance sheet. The adjustment also provided a reciprocal account, Advance from P Company, that permitted the elimination of the intercompany transaction for advances. (The perceptive reader will have already noticed that the same net effect could have been accomplished by a combined adjusting and eliminating entry with a debit to Cash and a credit to Advance to T.)

The elimination of all intercompany accounts receivable and accounts payable, including those between subsidiary companies, was accomplished through one entry. There is no need to eliminate them individually. Notice also that the equity in each subsidiary company was eliminated against each individual investment account, with a corresponding amount recorded for the noncontrolling interest in each.

The formal consolidated balance sheet is prepared from the detail in the consolidated balance sheet columns of the workpaper and is presented in Illustration 3-9. Note the agreement between the common stock and retained earnings balances in the consolidated balance sheet and those in the final column of the workpaper

ILLUSTRATION 3-8**Acquisition Accounting**

Implied Value exceeds Book Value		Consolidated Balance Sheet Workpaper					
Two Partially Owned Subsidiaries		P Company and Subsidiaries					
Date of Acquisition		January 1, 2020					
	<i>P Company</i>	<i>S Company</i>	<i>T Company</i>	<i>Eliminations</i>		<i>Noncontrolling Interest</i>	<i>Consolidated Balances</i>
				<i>Dr.</i>	<i>Cr.</i>		
Cash	81,800	36,000	4,000	(a) 20,000			141,800
Accounts Receivable (net)	68,000	59,000	10,000		(2) 11,000		126,000
Inventories	76,000	64,000	15,000				155,000
Advance to T Company	20,000				(1) 20,000		
Investment in S Company	250,200				(3) 250,200		
Investment in T Company	115,000				(4) 115,000		
Plant and Equipment (net)	200,000	241,000	130,000	(5) 8,000			582,750
Land	24,000	10,000	6,000	(6) 3,750			40,000
Difference between implied and book value				(3) 8,000	(5) 8,000		
				(4) 3,750	(6) 3,750		
Total Assets	835,000	410,000	165,000				1,045,550
Accounts Payable	85,000	40,000	25,000	(2) 11,000			139,000
Notes Payable		100,000					100,000
Common Stock							
P Company	500,000						500,000
S Company		200,000		(3) 200,000			
T Company			100,000	(4) 100,000			
Retained Earnings							
P Company	250,000						250,000
S Company		70,000		(3) 70,000			
T Company			40,000	(4) 40,000			
Advance from P Company				(1) 20,000	(a) 20,000		
Noncontrolling Interest					(3) 27,800		
					(4) 28,750	56,550	56,550
Total Liabilities and Equity	835,000	410,000	165,000	484,500	484,500		1,045,550

(a) To adjust for cash advance in transit from P Company to T Company.

(1) To eliminate intercompany advances.

(2) To eliminate intercompany accounts payable and receivable.

(3) To eliminate investment in S Company and create noncontrolling interest account.

(4) To eliminate investment in T Company and create noncontrolling interest account.

(5) To allocate the implied over book value for S Company to plant and equipment.

(6) To allocate the implied over book value for T Company to plant and equipment.

(Illustration 3-8) for P Company. The balance sheet data are classified according to normal balance sheet arrangements. As discussed earlier, noncontrolling interest in consolidated net assets or equity should be shown as a component of stockholders' equity (preferably the first component of equity listed in the balance sheet).

ILLUSTRATION 3-9**Consolidated Balance Sheet P Company and Subsidiaries January 1, 2020**

<i>Assets</i>	
Current assets:	
Cash	\$ 141,800
Accounts receivable (net)	126,000
Inventories	155,000
Total current assets	422,800
Plant and equipment (net)	582,750
Land	40,000
Total assets	<u>\$1,045,550</u>
<i>Liabilities and Stockholders' Equity</i>	
Current liabilities:	
Accounts payable	\$ 139,000
Notes payable	100,000
Total liabilities	239,000
Stockholders' equity:	
Noncontrolling interest in consolidated net assets	\$ 56,550
Common stock, \$10 par value	500,000
Retained earnings	806,550
Total liabilities and stockholders' equity	<u>\$1,045,550</u>

3.8 LIMITATIONS OF CONSOLIDATED STATEMENTS

LO 6 Limitations of consolidated statements.

As noted earlier, consolidated statements may have limited usefulness for noncontrolling stockholders, subsidiary creditors, and some regulatory agencies. These groups may find little information of value to them in the consolidated statements because they contain insufficient detail about the individual subsidiaries. For example, creditors of a specific company have claims only against the resources of that company unless the parent guarantees the claims.

In addition, financial analysts have criticized consolidated statements on several counts. For example, highly diversified companies operating across several industries, often the result of mergers and acquisitions, are difficult to analyze or compare. For instance, *General Electric (GE)* reports consolidated financial statements that include its credit corporation. The combining of a financial company with a manufacturing company makes interpreting the statements more difficult. In an attempt to make the statements more readable, GE reports three columns with each statement: one showing the total consolidated statements, a column for GE, and a column for the credit corporation. Consolidated operating results for such companies cannot be compared with industry standards, nor can one conglomerate be compared with another. Both the SEC and the FASB have developed requirements for segmental reporting in an effort to

address these concerns. Determining what constitutes a segment is not easy, however, and the standards have met criticism and subsequent revision. Segmental reporting is discussed in Chapter 14.

Regardless of these limitations, however, consolidated statements continue to grow in importance. The vast majority of publicly held companies own one or more subsidiaries and report on a consolidated basis. Thus, consolidated statements have assumed the position of primary statements, and the separate statements of individual subsidiaries are considered supplementary.

SUMMARY

- 1** *Understand the concept of control as used in reference to consolidations.* When one firm (referred to as the parent) effectively controls the activities of another firm (the subsidiary) through the direct or indirect ownership of some or all of its voting stock or by some other means, consolidated financial statements are required.
- 2** *Explain the role of a noncontrolling interest in business combinations.* The noncontrolling interest in a consolidated entity refers to the stock of the subsidiary firm, if any, which is not controlled by the parent. This interest appears as a component of equity in the consolidated balance sheet.
- 3** *Describe the reasons why a company acquires a subsidiary rather than its net assets.* A firm may acquire stock by open market purchases or by cash tender offers to the subsidiary's stockholders, thus avoiding the often lengthy and difficult negotiations that are required in a complete takeover. Control of the subsidiary's operations can be accomplished with a much smaller investment, since not all of the stock need be acquired. Also, the separate legal existence of the individual affiliates provides an element of protection of the parent's assets from attachment by creditors of the subsidiary.
- 4** *Describe the valuation and classification of accounts in consolidated financial statements.* In the consolidated balance sheet, the assets and liabilities of the subsidiary are combined with those of the parent on an item-by-item basis. Assets and liabilities are reflected at their fair market values, as determined at the date of acquisition, including goodwill, if any (and as subsequently depreciated, amortized, or adjusted for impairment).
- 5** *List the requirements for inclusion of a subsidiary in consolidated financial statements.* Essentially all controlled corporations should be consolidated with the controlling entity. Exceptions include those situations where: the subsidiary is in legal reorganization or bankruptcy, or a foreign subsidiary operates in an environment that casts significant doubt about the parent's effective control.
- 6** *Discuss the limitations of consolidated financial statements.* Consolidated financial statements are of limited use to noncontrolling stockholders, to subsidiary creditors, and possibly to regulatory agencies (e.g., if only the subsidiary is regulated). Also, when highly diversified companies operate across several industries, the aggregation of dissimilar data makes analysis difficult.
- 7** *Record the investment in the subsidiary on the parent's books at the date of acquisition.* On the books of the parent company, the investment is recorded as a debit to Investment in Subsidiary and a credit to the appropriate account(s) based on the consideration used in the exchange (cash, debt, stock, or a combination). Any stock issued is recorded at its fair market value, and the investment is thus also recorded at the fair value of consideration paid. Direct and indirect acquisition costs, if any, are recorded (expensed) separately from the acquisition.
- 8** *Prepare the consolidated workpapers and eliminating entries at the date of acquisition.* The consolidated workpapers serve to sum the assets and liabilities of the parent and subsidiary, with adjustments made to assets and liabilities of the subsidiary to "mark" their values to market values, based on the acquisition price implied for the entire subsidiary. These adjustments are accomplished via "eliminating and adjusting" entries, which also serve to eliminate the investment account against the subsidiary's equity accounts, and to recognize the noncontrolling interest in equity.
- 9** *Compute and allocate the difference between implied value and book value of the acquired firm's equity.* The difference between implied and book values of the acquired firm's equity is the amount by which the subsidiary's assets and liabilities must be adjusted in total (including the recognition of goodwill, if any). The use of an account by this name (difference between implied and book values) facilitates this process in the eliminating entries, and the differential account itself is eliminated.

Supplemental Appendix 3A, “Deferred Taxes on the Date of Acquisition,” and supplemental Appendix 3B, “Consolidation of Variable Interest Entities,” are available from your instructor.

TEST YOUR KNOWLEDGE 3.3

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

Multiple Choice

- Parent Company P purchased 90% of Subsidiary Company S for stock worth \$100,000. Subsidiary Company S had a net book value of \$50,000 including: “bonds payable” at a book value of \$10,000 and a fair value of \$15,000; “inventory” with a book value of \$5,000 and a fair value of \$7,000; and “PP&E” with a book value of \$10,000 and a fair value of \$20,000. Assuming the tax rate is 40% (and ignoring any deferred taxes on goodwill), net deferred taxes are:
 - \$2,520
 - \$2,800
 - \$6,120
 - \$6,800
- Assuming an acquisition is not a bargain, the impact of reflecting a net deferred tax liability account is that the firm will also reflect an increased amount of:
 - Land
 - Difference between Implied and Book Value
 - Common Stock
 - Goodwill

TEST YOUR KNOWLEDGE SOLUTIONS

3.1

1. a 2. a 3. d 4. d

3.2

1. a 2. c 3. a F 3. b T 3. c F 3. d T 2. d 3. d

3.3

1. b 2. d

QUESTIONS

(The letter A or B indicated for a question, exercise, or problem refers to a related appendix.)

- | | | | |
|-------------|---|-------------|---|
| LO 3 | 1. What are the advantages of acquiring the <i>majority</i> of the voting stock of another company rather than acquiring <i>all</i> its voting stock? | LO 8 | 5. Why are consolidated workpapers used in preparing consolidated financial statements? |
| LO 1 | 2. What is the justification for preparing consolidated financial statements when, in fact, it is apparent that the consolidated group is not a legal entity? | LO 2 | 6. Define noncontrolling (minority) interest. List three methods that might be used for reporting the noncontrolling interest in a consolidated balance sheet, and state which is preferred under current GAAP. |
| LO 6 | 3. Why is it often necessary to prepare separate financial statements for each legal entity in a consolidated group even though consolidated statements provide a better economic picture of the combined activities? | LO 8 | 7. Give several reasons why a parent company would be willing to pay more than book value for subsidiary stock acquired. |
| LO 5 | 4. What aspects of control must exist before a subsidiary is consolidated? | LO 8 | 8. What effect do subsidiary treasury stock holdings have at the time the subsidiary is acquired? How should the treasury stock be treated on consolidated workpapers? |

LO 8 9. What effect does a noncontrolling interest have on the amount of intercompany receivables and payables eliminated on a consolidated balance sheet?

10A. Current rules require that a deferred tax asset or liability be recognized for likely differences between the reported values and tax bases of assets and liabilities recognized in business combinations (for example, in exchanges that are nontaxable to the selling shareholders). Does this decision change the amount of consolidated net income reported in years subsequent to the business combination? Explain. (see supplemental Appendix 3A, available from your instructor.)

Business Ethics

Part I. You are working on the valuation of accounts receivable, and bad debt reserves for the current year’s annual report. The CFO stops by and asks you to reduce the reserve by enough to increase the current year’s EPS by 2 cents a share. The company’s policy has always been to use the previous year’s actual bad debt percentage adjusted for a specific economic index. The CFO’s suggested change would still be within acceptable GAAP. However, later, you learn that with the increased EPS, the CFO would qualify for a significant bonus. What do you do and why?

Part II. Consider the following:

Accounting firm KPMG created tax shelters called BLIPS, FLIP, OPIS, and SOS that were based largely in the Cayman Islands and allowed wealthy clients (there were 186) to create \$5 billion in losses, which were then deducted from their income for IRS tax purposes. BLIPS (Bond Linked Issue Premium Structures) had clients borrow from an offshore bank for purposes of purchasing currency. The client would then sell the currency back to the lender for a loss. However, the IRS contends the losses were phony and that there was never any risk to the client in the deals. The IRS has indicted eight former KPMG partners and an outside lawyer alleging that the transactions were shams, illegal methods for avoiding taxes. KPMG has agreed to pay a \$456 million fine, no longer to do tax shelters, and to cooperate with the government in its prosecution of the nine individuals involved in the tax shelter scheme.

Many argue that the courts have not always held that such tax avoidance schemes show criminal intent because the tax laws permit individuals to minimize taxes. However, the IRS argues that these shelters evidence intent because of the lack of risk.

Question

In this case, the IRS contends that the losses generated by the tax shelters were phony and that the clients never incurred any risk. Do tax avoidance schemes indicate criminal intent if the tax laws permit individuals to minimize taxes? Justify your answer.

ANALYZING FINANCIAL STATEMENTS

AFS3-1 EBay’s Acquisitions

During 2005, eBay acquired four different companies. In the schedule below, the acquired companies are listed with the aggregate purchase price and with the estimated acquisition-related costs (dollars in thousands).

<i>Acquired Company</i>	<i>Aggregate Purchase Price</i>	<i>Acquisition-related costs</i>
Rent.com	\$435,365	\$2,000
International classified websites	81,584	1,300
Shopping.com	685,285	7,600
Skype	2,593,426	not reported

Required:

1. What are acquisition-related costs and how should eBay account for these costs?
2. Compute the ratio of acquisition-related cost to the purchase price of the acquisition for each acquired company with available information.
3. Record the journal entries made on eBay’s books on February 23, 2005 when they acquired Rent.com (include entries for the acquisition and acquisition-related costs).
4. eBay acquired Skype on October 14, 2005. eBay’s year-end is December 31, 2005, how many months of Skype’s revenues and expenses can eBay include in its income statement for 2005?

5. eBay acquired various websites when it acquired International classified websites. The excess of the purchase price over the fair value of net tangible assets and identifiable intangible assets was \$71,771 thousand (or approximately 88% of the purchase price). What does this amount represent and why is this not unusual for an acquisition of this type?

AFS3-2 eBay's Acquisition of Skype

On October 14, 2005, eBay acquired Skype, paying \$1.3 billion in cash plus \$1.3 billion in stock. However, approximately 60% of the Skype shareholders opted for a lower cash amount and stock up front for the possibility of receiving a potential performance-based payment of up to another \$1.3 billion in 2008 through 2009. In the following schedule, summary pro forma income statement data are prepared showing the performance of eBay as if the Skype acquisition were completed prior to the beginning of 2004. Summary data from the actual reported income statements for the two years are also presented in the following schedule.

Income Statement

<i>Pro Forma (assumed combined)</i>	<i>2004</i>	<i>2005</i>
Net Revenue—pro forma	\$3,277,534	\$4,594,954
Net Income—pro forma	684,905	944,057
<hr/>		
<i>As Reported by eBay</i>	<i>2004</i>	<i>2005</i>
Net Revenue—actual	3,271,309	4,552,401
Net Income—actual	778,223	1,082,043

Required:

- Using these numbers, evaluate the wisdom of the acquisition of Skype by eBay. Discuss some of the reasons that ratio analyses alone may not tell the entire story.
- Did the shareholders of Skype who opted for the lower cash amount and contingency payment make a wiser or poorer choice relative to the 40% who made the alternative choice? Why? What other factors might affect your answer?

EXERCISES

EXERCISE 3-1 Workpaper Elimination Entries: 3 Cases LO 8

Prepare in general journal form the workpaper entries to eliminate Prancer Company's investment in Saltez Company in the preparation of a consolidated balance sheet at the date of acquisition for each of the following independent cases:

<i>Cash</i>	<i>Percent of Stock Owned</i>	<i>Investment Cost</i>	<i>Saltez Company Equity Balances</i>		
			<i>Common Stock</i>	<i>Other Contributed Capital</i>	<i>Retained Earnings</i>
a.	100%	\$351,000	\$160,000	\$92,000	\$43,000
b.	90	232,000	190,000	75,000	(29,000)
c.	80	159,000	180,000	40,000	(4,000)

Any difference between book value of net assets and the value implied by the purchase price relates to subsidiary property plant and equipment except for case (c). In case (c) assume that all book values and fair values are the same.

EXERCISE 3-2 Stock Purchase Entries LO 7 LO 8

On January 1, 2019, Polo Company purchased 100% of the common stock of Save Company by issuing 40,000 shares of its (Polo's) \$10 par value common stock with a market price of \$17.50 per

share. Polo incurred cash expenses of \$20,000 for registering and issuing the common stock. The stockholders' equity section of the two companies' balance sheets on December 31, 2018, were:

	<i>Polo</i>	<i>Save</i>
Common stock, \$10 par value	\$350,000	\$320,000
Other contributed capital	590,000	175,000
Retained earnings	380,000	205,000

Required:

- A. Prepare the journal entry on the books of Polo Company to record the purchase of the common stock of Save Company and related expenses.
- B. Prepare the elimination entry required for the preparation of a consolidated balance sheet workpaper on the date of acquisition.

EXERCISE 3-3

Consolidated Balance Sheet, Stock Purchase LO 7 LO 8

On January 2, 2019, Prunce Company acquired 90% of the outstanding common stock of Sun Company for \$192,000 cash. Just before the acquisition, the balance sheets of the two companies were as follows:

	<i>Prunce</i>	<i>Sun</i>
Cash	\$260,000	\$ 64,000
Accounts receivable (net)	142,000	23,000
Inventory	117,000	54,000
Plant and equipment (net)	386,000	98,000
Land	63,000	32,000
Total asset	<u>\$968,000</u>	<u>\$271,000</u>
Accounts payable	\$104,000	\$ 47,000
Mortgage payable	72,000	39,000
Common stock, \$2 par value	400,000	70,000
Other contributed capital	208,000	20,000
Retained earnings	184,000	95,000
Total equities	<u>\$968,000</u>	<u>\$271,000</u>

The fair values of Sun Company's assets and liabilities are equal to their book values with the exception of land.

Required:

- A. Prepare a journal entry to record the purchase of Sun Company's common stock.
- B. Prepare a consolidated balance sheet at the date of acquisition.

EXERCISE 3-4

Purchase, Date of Acquisition LO 7 LO 8 LO 9

On January 1, 2018, Peach Company issued 1,500 of its \$20 par value common shares with a fair value of \$60 per share in exchange for the 2,000 outstanding common shares of Swartz Company in a purchase transaction. Registration costs amounted to \$1,700, paid in cash. Just prior to the acquisition, the balance sheets of the two companies were as follows:

	<i>Peach Company</i>	<i>Swartz Company</i>
Cash	\$ 73,000	\$ 13,000
Accounts receivable (net)	95,000	19,000
Inventory	58,000	25,000
Plant and equipment (net)	95,000	43,000
Land	26,000	22,000
Total assets	<u>\$347,000</u>	<u>\$122,000</u>

	<i>Peach Company</i>	<i>Swartz Company</i>
Accounts payable	\$ 66,000	\$ 18,000
Notes payable	82,000	21,000
Common stock, \$20 par value	100,000	40,000
Other contributed capital	60,000	24,000
Retained earnings	39,000	19,000
Total equities	<u>\$347,000</u>	<u>\$122,000</u>

Any difference between the book value of equity and the value implied by the purchase price relates to goodwill.

Required:

- A. Prepare the journal entry on Peach Company's books to record the exchange of stock.
- B. Prepare a Computation and Allocation Schedule for the difference between book value and value implied by the purchase price.
- C. Prepare a consolidated balance sheet at the date of acquisition.

EXERCISE 3-5

Treasury Stock Held by Subsidiary LO 8

Pool Company purchased 90% of the outstanding common stock of Spruce Company on December 31, 2019, for cash. At that time the balance sheet of Spruce Company was as follows:

Current assets	\$1,050,000
Plant and equipment	990,000
Land	170,000
Total assets	<u>\$2,210,000</u>
Liabilities	\$ 820,000
Common stock, \$20 par value	900,000
Other contributed capital	440,000
Retained earnings	150,000
Total	2,310,000
Less treasury stock at cost, 5,000 shares	<u>100,000</u>
Total equities	<u>\$2,210,000</u>

Required:

Prepare the elimination entry required for the preparation of a consolidated balance sheet workpaper on December 31, 2019, assuming:

- (1) The purchase price of the stock was \$1,400,000. Assume that any difference between the book value of net assets and the value implied by the purchase price relates to subsidiary land.
- (2) The purchase price of the stock was \$1,160,000. Assume that the subsidiary land has a fair value of \$180,000, and the other assets and liabilities are fairly valued.

EXERCISE 3-6

Elimination Entry, Consolidated Balance Sheet LO 8

On December 31, 2018, Price Company purchased a controlling interest in Shipley Company. The balance sheet of Price Company and the consolidated balance sheet on December 31, 2018, were as follows:

	<i>Price Company</i>	<i>Consolidated</i>
Cash	\$ 22,000	\$ 37,900
Accounts receivable	35,000	57,000
Inventory	127,000	161,600
Investment in Shipley Company	212,000	—0—
Plant and equipment (net)	190,000	337,000
Land	120,000	220,412
Total	<u>\$706,000</u>	<u>\$813,912</u>
Accounts payable	\$ 42,000	\$112,500
Note payable	100,000	100,000
Noncontrolling interest in Shipley Company	—0—	37,412
Common stock	300,000	300,000
Other contributed capital	164,000	164,000
Retained earnings	100,000	100,000
Total	<u>\$706,000</u>	<u>\$813,912</u>

On the date of acquisition, the stockholders' equity section of Shipley Company's balance sheet was as follows:

Common stock	\$ 90,000
Other contributed capital	90,000
Retained earnings	<u>56,000</u>
Total	<u>\$236,000</u>

Required:

- A. Prepare the investment elimination entry made to complete a consolidated balance sheet workpaper. Any difference between book value and the value implied by the purchase price relates to subsidiary land.
- B. Prepare Shipley Company's balance sheet as it appeared on December 31, 2018.

EXERCISE 3-7

Intercompany Receivables and Payables LO 8

Polychromasia, Inc. had a number of receivables from subsidiaries at the balance sheet date, as well as several payables to subsidiaries. Of its five subsidiaries, four are consolidated in the financial statements (Green Company, Black Inc., White & Sons, and Silver Co.). Only the Brown Company is not consolidated with Polychromasia and the other affiliates. The following list of receivables and payables shows balances at 12/31/13.

Interest receivable from the Brown Company	\$ 50,000
Interest payable to Black Inc.	75,000
Intercompany payable to Silver Co.	105,000
Long-term advance to Green Company	150,000
Long-term payable to Silver Co.	450,000
Long-term receivable from Brown Company	500,000

Required:

- A. Show the classification and amount(s) that should be reported in the consolidated balance sheet of Polychromasia, Inc. and Subsidiaries at 12/31/13 as receivable from subsidiaries.
- B. Show the classification and amount(s) that should be reported in the consolidated balance sheet of Polychromasia, Inc. and Subsidiaries at 12/31/13 as payable to subsidiaries.

EXERCISE 3-8 Stock Acquisition, Journal Entry by Parent LO 7

Peep Inc. acquired 100% of the outstanding common stock of Shy Inc. for \$2,500,000 cash and 15,000 shares of its common stock (\$2 par value). The stock's market value was \$40 on the acquisition date.

Required:

Prepare the journal entry to record the acquisition.

EXERCISE 3-9 Acquisition Costs LO 7

Assume the same information from Exercise 3-8. In addition, Peep Inc. incurred the following direct costs:

Accounting fees for the purchase	\$15,000
Legal fees for registering the common stock	30,000
Other legal fees for the acquisition	45,000
Travel expenses to meet with Shy managers	5,000
SEC filing fees	2,000
	<u>\$97,000</u>

Before the acquisition consummation date, \$90,000 of the direct costs was charged to a deferred charges account pending the completion of the acquisition. The remaining \$7,000 has not been accrued or paid.

Required:

Prepare the journal entry to record both the acquisition and the direct costs.

PROBLEMS**PROBLEM 3-1 Consolidated Workpaper: Two Cases LO 8 LO 9**

The two following separate cases show the financial position of a parent company and its subsidiary company on November 30, 2019, just after the parent had purchased 90% of the subsidiary's stock:

	<i>Case I</i>		<i>Case II</i>	
	<i>P Company</i>	<i>S Company</i>	<i>P Company</i>	<i>S Company</i>
Current assets	\$ 880,000	\$260,000	\$ 780,000	\$280,000
Investment in S Company	190,000		190,000	
Long-term assets	1,400,000	400,000	1,200,000	400,000
Other assets	90,000	40,000	70,000	70,000
Total	<u>\$2,560,000</u>	<u>\$700,000</u>	<u>\$2,240,000</u>	<u>\$750,000</u>
Current liabilities	\$ 640,000	\$270,000	\$ 700,000	\$260,000
Long-term liabilities	850,000	290,000	920,000	270,000
Common stock	600,000	180,000	600,000	180,000
Retained earnings	470,000	(40,000)	20,000	40,000
Total	<u>\$2,560,000</u>	<u>\$700,000</u>	<u>\$2,240,000</u>	<u>\$750,000</u>

Required:

- A. Prepare a November 30, 2019, consolidated balance sheet workpaper for each of the foregoing cases. In Case I, any difference between book value of equity and the value implied by the purchase price relates to subsidiary long-term assets. In Case II, assume

that any excess of book value over the value implied by purchase price is due to overvalued long-term assets.

- B.** Assume that Company S's balance sheet is the same as the balance sheet used in Case I (from part A). Suppose that there were 50,000 shares of S Company common stock outstanding and that Company P acquired 90% of the shares for \$4.50 a share. Shortly after acquisition, the noncontrolling shares were selling for \$4.25 a share. Prepare a computation and allocation of difference schedule considering this information.

PROBLEM 3-2**Consolidated Balance Sheet Workpaper LO 8 LO 9**

On January 1, 2019, Perry Company purchased 8,000 shares of Soho Company's common stock for \$120,000. Immediately after the stock acquisition, the statements of financial position of Perry and Soho appeared as follows:

<i>Assets</i>	<i>Perry</i>	<i>Soho</i>
Cash	\$ 39,000	\$ 19,000
Accounts receivable	53,000	31,000
Inventory	42,000	25,000
Investment in Soho Company	120,000	
Plant assets	160,000	110,500
Accumulated depreciation—plant assets	(52,000)	(19,500)
Total	<u>\$362,000</u>	<u>\$166,000</u>
<i>Liabilities and Owners' Equity</i>		
Current liabilities	\$ 18,500	\$ 26,000
Mortgage notes payable	40,000	
Common stock, \$10 par value	120,000	100,000
Other contributed capital	135,000	16,500
Retained earnings	48,500	23,500
Total	<u>\$362,000</u>	<u>\$166,000</u>

Required:

- A.** Calculate the percentage of Soho acquired by Perry Company. Prepare a schedule to compute the difference between book value of equity and the value implied by the purchase price. Any difference between the book value of equity and the value implied by the purchase price relates to subsidiary plant assets.
- B.** Prepare a consolidated balance sheet workpaper as of January 1, 2019.
- C.** Suppose instead that Perry acquired the 8,000 shares for \$20 per share including a \$5 per share control premium. Prepare a computation and allocation of difference schedule.

PROBLEM 3-3**Intercompany Bond Holdings at Par, 90% Owned Subsidiary LO 8 LO 9**

Balance sheets for P Company and S Company on August 1, 2019, are as follows:

	<i>P Company</i>	<i>S Company</i>
Cash	\$ 165,500	\$106,000
Receivables	366,000	126,000
Inventory	261,000	108,000
Investment in bonds	306,000	—0—
Investment in S Company stock	586,500	—0—
Plant and equipment (net)	573,000	320,000
Land	200,000	300,000
Total	<u>\$2,458,000</u>	<u>\$960,000</u>

	<i>P Company</i>	<i>S Company</i>
Accounts payable	\$ 174,000	\$ 58,000
Accrued expenses	32,400	26,000
Bonds payable, 8%	—0—	200,000
Common stock	1,500,000	460,000
Other contributed capital	260,000	60,000
Retained earnings	491,600	156,000
Total	<u>\$2,458,000</u>	<u>\$960,000</u>

Required:

Prepare a workpaper for a consolidated balance sheet for P Company and its subsidiary on August 1, 2019, taking into consideration the following:

1. P Company acquired 90% of the outstanding common stock of S Company on August 1, 2019, for a cash payment of \$586,500.
2. Included in the Investment in Bonds account are \$40,000 par value of S Company bonds payable that were purchased at par by P Company in 2002. The bonds pay interest on April 30 and October 31. S Company has appropriately accrued interest expense on August 1, 2019; P Company, however, inadvertently failed to accrue interest income on the S Company bonds.
3. Included in P Company receivables is a \$35,000 cash advance to S Company that was mailed on August 1, 2019. S Company had not yet received the advance at the time of the preparation of its August 1, 2019.
4. Assume that any excess of book value over the value implied by purchase price is due to overvalued plant and equipment.

PROBLEM 3-4**Parent and Two Subsidiaries, Intercompany Notes**

On January 2, 2019, Phillips Company purchased 80% of Sanchez Company and 90% of Thomas Company for \$225,000 and \$168,000, respectively. Immediately before the acquisitions, the balance sheets of the three companies were as follows:

	<i>Phillips</i>	<i>Sanchez</i>	<i>Thomas</i>
Cash	\$400,000	\$ 43,700	\$ 20,000
Accounts receivable	28,000	24,000	20,000
Note receivable	—0—	10,000	—0—
Interest receivable	—0—	300	—0—
Inventory	120,000	96,000	43,000
Equipment	60,000	40,000	30,000
Land	180,000	80,000	70,000
Total	<u>\$788,000</u>	<u>\$294,000</u>	<u>\$183,000</u>
Accounts payable	\$ 28,000	\$ 20,000	\$ 18,000
Note payable	—0—	—0—	10,000
Common stock	300,000	120,000	75,000
Other contributed capital	300,000	90,000	40,000
Retained earnings	160,000	64,000	40,000
Total	<u>\$788,000</u>	<u>\$294,000</u>	<u>\$183,000</u>

The note receivable and interest receivable of Sanchez relate to a loan made to Thomas Company on October 1, 2018. Thomas failed to record the accrued interest expense on the note.

Required:

Prepare a consolidated balance sheet workpaper as of January 2, 2019. Any difference between book value and the value implied by the purchase price relates to subsidiary land.

PROBLEM 3-5**Determining Balance Sheet Prior to Consolidation LO 8**

On January 1, 2019, Pat Company purchased 90% of the outstanding common stock of Solo Company for \$236,000 cash. The balance sheet for Pat Company just before the acquisition of Solo Company stock, along with the consolidated balance sheet prepared at the date of acquisition, follows.

	<i>Pat Company</i> <i>December 31, 2018</i>	<i>Consolidated</i> <i>January 1, 2019</i>
Cash	\$ 540,000	\$ 352,000
Accounts receivable	272,000	346,000
Advances to Solo Company	10,000	
Inventory	376,000	451,000
Plant and equipment	622,000	820,000
Land	350,000	421,000
Total	<u>\$2,170,000</u>	<u>\$2,390,000</u>
Accounts payable	\$ 280,000	\$ 386,000
Long-term liabilities	520,000	605,500
Noncontrolling interest in subsidiary		28,500
Common stock	890,000	890,000
Other contributed capital	300,000	300,000
Retained earnings	180,000	180,000
Total	<u>\$2,170,000</u>	<u>\$2,390,000</u>

One week before the acquisition, Pat Company had advanced \$10,000 to Solo Company. Solo Company had not yet recorded the transaction on the date of acquisition. In addition, on the date of acquisition, Solo Company owed Pat Company \$4,000 for purchases of merchandise on account. The merchandise had been sold to outside parties prior to the date of acquisition.

Required:

- A. Determine the amount of cash that appeared on Solo Company's balance sheet immediately prior to the acquisition of its stock by Pat Company.
- B. Determine the amount of total stockholders' equity on Solo Company's separate balance sheet at the date of acquisition.
- C. Determine the amount of total assets appearing on Solo Company's separate balance sheet on the date of acquisition.

PROBLEM 3-6**In-Transit Items LO 8**

On July 31, 2019, Ping Company purchased 90% of Santos Company's common stock for \$2,010,000 cash. Immediately after the acquisition, the two companies' balance sheets were as follows:

	<i>Ping</i>	<i>Santos</i>
Cash	\$ 320,000	\$ 150,000
Accounts receivable	600,000	300,000
Note receivable	100,000	—0—
Inventory	1,840,000	400,000
Advance to Santos Company	60,000	—0—
Investment in Santos Company	2,010,000	—0—
Plant and equipment (net)	3,000,000	1,500,000
Land	90,000	90,000
Total	<u>\$8,020,000</u>	<u>\$2,440,000</u>

	<i>Ping</i>	<i>Santos</i>
Accounts payable	\$ 800,000	\$ 140,000
Notes payable	900,000	100,000
Common stock	2,400,000	900,000
Other contributed capital	2,200,000	680,000
Retained earnings	1,720,000	620,000
Total	<u>\$8,020,000</u>	<u>\$2,440,000</u>

Santos Company has not yet recorded the \$60,000 cash advance from Ping Company. Ping Company's accounts receivable include \$20,000 due from Santos Company. Santos Company's \$100,000 note payable is payable to Ping Company. Neither company has recorded \$7,000 of interest accrued on the note from January 1 to July 31. Any difference between book value and the value implied by the purchase price relates to land.

Required:

Prepare a consolidated balance sheet workpaper on July 31, 2019.

PROBLEM 3-7

Purchase Using Cash and Using Stock LO 8

Balance sheets for Prego Company and Sprague Company as of December 31, 2018, follow:

	<i>Prego Company</i>	<i>Sprague Company</i>
Cash	\$ 700,000	\$111,000
Accounts receivable (net)	892,000	230,000
Inventory	544,000	60,000
Property and equipment (net)	\$1,927,000	\$468,000
Land	120,000	94,000
Total assets	<u>\$4,183,000</u>	<u>\$963,000</u>
Accounts payable	\$ 302,000	\$152,000
Notes payable	588,000	61,000
Long-term debt	350,000	90,000
Common stock	1,800,000	500,000
Other contributed capital	543,000	80,000
Retained earnings	600,000	80,000
Total equities	<u>\$4,183,000</u>	<u>\$963,000</u>

The fair values of Sprague Company's assets and liabilities are equal to their book values.

Required:

Prepare a consolidated balance sheet as of January 1, 2019, under each of the following assumptions:

- A. On January 1, 2019, Prego Company purchased 90% of the outstanding common stock of Sprague Company for \$594,000.
- B. On January 1, 2019, Prego Company exchanged 11,880 of its \$20 par value common shares with a fair value of \$50 per share for 90% of the outstanding common shares of Sprague Company. The transaction is a purchase.

PROBLEM 3-8

Intercompany Items, Two Subsidiaries LO 7 LO 8 LO 9

On February 1, 2019, Punto Company purchased 95% of the outstanding common stock of Sara Company and 85% of the outstanding common stock of Rob Company. Immediately before the two acquisitions, balance sheets of the three companies were as follows:

	<i>Punto</i>	<i>Sara</i>	<i>Rob</i>
Cash	\$165,000	\$ 45,000	\$17,000
Accounts receivable	35,000	35,000	26,000
Notes receivable	18,000	—0—	—0—
Merchandise inventory	106,000	35,500	14,000
Prepaid insurance	13,500	2,500	500
Advances to Sara Company	10,000		
Advances to Rob Company	5,000		
Land	248,000	43,000	15,000
Buildings (net)	100,000	27,000	16,000
Equipment (net)	35,000	10,000	2,500
Total	\$735,500	\$198,000	\$91,000
Accounts payable	\$ 25,500	\$ 20,000	\$10,500
Income taxes payable	30,000	10,000	—0—
Notes payable	—0—	6,000	10,500
Bonds payable	100,000	—0—	—0—
Common stock, \$10 par value	300,000	144,000	42,000
Other contributed capital	150,000	12,000	38,000
Retained earnings (deficit)	130,000	6,000	(10,000)
Total	\$735,500	\$198,000	\$91,000

The following additional information is relevant.

- One week before the acquisitions, Punto Company had advanced \$10,000 to Sara Company and \$5,000 to Rob Company. Sara Company recorded an increase to Accounts Payable for its advance, but Rob Company had not recorded the transaction.
- On the date of acquisition, Punto Company owed Sara Company \$12,000 for purchases on account, and Rob Company owed Punto Company \$3,000 and Sara Company \$6,000 for such purchases. The goods purchased had all been sold to outside parties prior to acquisition.
- Punto Company exchanged 13,400 shares of its common stock with a fair value of \$12 per share for 95% of the outstanding common stock of Sara Company. In addition, stock issue fees of \$4,000 were paid in cash. The acquisition was accounted for as a purchase.
- Punto Company paid \$50,000 cash for the 85% interest in Rob Company.
- Three thousand dollars of Sara Company's notes payable and \$9,500 of Rob Company's notes payable were payable to Punto Company.
- Assume that for Sara, any difference between book value and the value implied by the purchase price relates to subsidiary land. However, for Rob, assume that any excess of book value over the value implied by the purchase price is due to overvalued buildings.

Required:

- Give the book entries to record the two acquisitions in the accounts of Punto Company.
- Prepare a consolidated balance sheet workpaper immediately after acquisition.
- Prepare a consolidated balance sheet at the date of acquisition for Punto Company and its subsidiaries.

PROBLEM 3-9 Intercompany Notes, 90% Acquisition LO 8 LO 9

On January 1, 2020, Pope Company purchased 90% of Sun Company's common stock for \$5,800,000 cash. Immediately after the acquisition, the two companies' balance sheets were as follows:

	<i>Pope</i>	<i>Sun</i>
Cash	\$ 297,000	\$ 165,000
Accounts receivable	432,000	468,000
Notes receivable	90,000	
Inventory	1,980,000	1,447,000
Investment in Sun Company	5,800,000	
Plant and equipment (net)	5,730,000	3,740,000
Land	1,575,000	908,000
Total	\$15,904,000	\$6,728,000
Accounts payable	\$ 698,000	\$ 247,000
Notes payable	2,250,000	110,000
Common stock (\$15 par)	4,500,000	5,250,000
Other contributed capital	5,198,000	396,000
Treasury stock held		(1,200,000)
Retained earnings	3,258,000	1,925,000
Total	\$15,904,000	\$6,728,000

Sun Company's note payable includes a \$90,000 note payable to Pope Company, plus \$20,000 payable to a bank. Any difference between book value and the value implied by the purchase price relates to subsidiary property and equipment.

Required:

- A. Prepare a Computation and Allocation Schedule for the difference between book value of equity and the value implied by the purchase price.
- B. Prepare a consolidated balance sheet workpaper on January 1, 2020.

PROBLEM 3-10A Deferred Tax Effects (See supplemental Appendix 3A, available from your instructor.)

On January 1, 2020, Pruitt Company issued 25,500 shares of its common stock in exchange for 85% of the outstanding common stock of Shah Company. Pruitt's common stock had a fair value of \$28 per share at that time (par value of \$2 per share). Pruitt Company uses the cost method to account for its investment in Shah Company and files a consolidated income tax return. A schedule of the Shah Company assets acquired and liabilities assumed at book values (which are equal to their tax bases) and fair values follows.

<i>Item</i>	<i>Book Value/ Tax Basis</i>	<i>Fair Value</i>	<i>Excess</i>
Receivables (net)	\$125,000	\$ 125,000	\$ —0—
Inventory	167,000	195,000	28,000
Land	86,500	120,000	33,500
Plant assets (net)	467,000	567,000	100,000
Patents	95,000	200,000	105,000
Total	\$940,500	\$1,207,000	\$266,500
Current liabilities	\$ 89,500	\$ 89,500	\$ —0—
Bonds payable	300,000	360,000	60,000
Common stock	120,000		
Other contributed capital	164,000		
Retained earnings	267,000		
Total	\$940,500		

Additional Information:

1. Pruitt's income tax rate is 35%.
2. Shah's beginning inventory was all sold during 2020.
3. Useful lives for depreciation and amortization purposes are:

Plant assets	10 years
Patents	8 years
Bond premium	10 years
4. Pruitt uses the straight-line method for all depreciation and amortization purposes.

Required:

- A. Prepare the stock acquisition entry on Pruitt Company's books.
- B. Prepare the eliminating entries for a consolidated statements workpaper on January 1, 2020, immediately after acquisition.

Note: See Chapter 5, Problem 5-18 for an expanded version of this problem on the effects of deferred taxes in subsequent periods.

4

CONSOLIDATED FINANCIAL STATEMENTS AFTER ACQUISITION

CHAPTER CONTENTS

- 4.1 ACCOUNTING FOR INVESTMENTS BY THE COST, PARTIAL EQUITY, AND COMPLETE EQUITY METHODS
- 4.2 CONSOLIDATED STATEMENTS AFTER ACQUISITION—COST METHOD
- 4.3 RECORDING INVESTMENTS IN SUBSIDIARIES—EQUITY METHOD (PARTIAL OR COMPLETE)
- 4.4 ELIMINATION OF INTERCOMPANY REVENUE AND EXPENSE ITEMS
- 4.5 INTERIM ACQUISITIONS OF SUBSIDIARY STOCK
- 4.6 CONSOLIDATED STATEMENT OF CASH FLOWS
- 4.7 ILLUSTRATION OF PREPARATION OF A CONSOLIDATED STATEMENT OF CASH FLOWS—YEAR OF ACQUISITION

LEARNING OBJECTIVES

- 1 Describe the accounting treatment required under current GAAP for varying levels of influence or control by investors.
- 2 Prepare journal entries on the parent's books to account for an investment using the cost method, the partial equity method, and the complete equity method.
- 3 Understand the use of the workpaper in preparing consolidated financial statements.
- 4 Prepare a schedule for the computation and allocation of the difference between implied and book values.
- 5 Prepare the workpaper eliminating entries for the year of acquisition (and subsequent years) for the cost and equity methods.
- 6 Describe how to account for interim acquisitions of subsidiary stock at the end of the first year.
- 7 Explain how the consolidated statement of cash flows differs from a single firm's statement of cash flows.
- 8 Understand how the reporting of an acquisition on the consolidated statement of cash flows differs when stock is issued instead of cash payment.

IN THE NEWS

Intel announced its biggest acquisition in its 42-year history when it agreed to buy giant McAfee for \$7.68 billion in August 2010. McAfee, founded in 1987, was No. 2 in antivirus software with 21.9% of the market according to Infonetics Research. The move was designed to jump-start the chip giant's uphill effort to move its technology beyond computers and also improve the security of the chip. Intel is paying \$48 in cash for each McAfee share. The deal sent off shock waves on Wall Street and in Silicon Valley because of a lofty 60% premium.¹

Recent health-care M&A activity may change the way Americans go to the doctor. Amazon is shaking up the pharmacy services industry after obtaining approval to

¹ WSJ.com, "Intel Bets Its Chips on McAfee," by Don Clark, 8/19/10.

distribute pharmaceuticals. This prompted CVS, the U.S.'s largest drug store chain, to purchase Aetna Inc., the third largest insurer, for \$69B. Months later, Walgreens Boots Alliance, who already owns 26% of Amerisource, made a takeover approach of the drug distributor, which generates \$153.1B in revenue and \$364.5M in profit.² Investments in voting stock of other companies may be consolidated, or they may be separately reported in the financial statements at cost, at fair value, or carrying value of equity. The method of reporting adopted depends on a number of factors including the size of the investment, the extent to which the investor exercises control over the activities of the investee, and the marketability of the securities. **Investor** refers to a *business entity that holds an investment in voting stock of another company*. **Investee** refers to a *corporation that issued voting stock held by an investor or investors*.

4.1 ACCOUNTING FOR INVESTMENTS BY THE COST, PARTIAL EQUITY, AND COMPLETE EQUITY METHODS

LO 1 Varying levels of ownership are accounted for differently.

RELATED CONCEPTS

When available for sale securities are adjusted to market, the unrealized gain or loss is recorded as *other comprehensive income* rather than a component of net income.

Generally speaking, there are three levels of influence or control by an investor over an investee, which determine the appropriate accounting treatment. There are no absolute percentages to distinguish among these levels, but there are guidelines. The three levels and the corresponding accounting treatments are summarized as follows:

Level	Guideline Percentages	Usual Accounting Treatment
No significant influence	Less than 20%	Investment carried at fair value at current year-end (trading or available for sale securities)—method traditionally referred to as <i>cost</i> method with an adjustment for market changes.
Significant influence (no control)	20 to 50% ^a	Investment measured under the equity method; may be elected to be carried at fair value under an irrevocable option. ^b
Effective control	Greater than 50%	Consolidated statements required (investment eliminated, combined financial statements): investment recorded under <i>cost</i> , <i>partial equity</i> , or <i>complete equity</i> method.

^aThe IASB defines control using three elements: power over the investee; exposure, or rights, to variable returns; and the ability to affect the amount of those returns.
^bFASB ASC paragraph 825–10–25–4.

IFRS

The focus in this chapter is on presenting financial statements for consolidated entities (i.e., those in the third category above). Nonetheless, the parent company must account for its investment income from the subsidiary in its own books by one of the methods used for accounting for investments. Investment income will subsequently be eliminated, as will the investment account itself, when the two sets of books are merged into one consolidated set of financial data. Thus, so long as the eliminating process is carried out accurately, the parent has a certain amount of discretion in choosing how it accounts for its investment. This discretion exists because the consolidated financial statements will be identical, regardless of which method is used. However, *if the parent issues*

² *WSJ*, “Walgreens Has Made Takeover Approach to AmericasourceBergen”, by Michael Siconolfi, Dana Mattioli, and Joseph Walker, February 12, 2018.

parent-only financial statements for any purpose, the complete equity method should be used on those statements for investees over which the parent has either significant influence or effective control.

To understand the effect of the earnings of the subsidiary on the consolidated entity, and on the noncontrolling interest, the reader needs to understand the mechanics that lead to the blending of two sets of books (income statement, retained earnings statement, and balance sheet) into one. Thus, we begin this chapter with a general discussion of accounting for investments, keeping in mind that our purpose is to prepare consolidated financial statements where appropriate.

In distinguishing among the three levels of influence/control, an investor is generally presumed not to have significant influence if the percentage owned is less than 20% of the investee's outstanding common stock. Exceptions are possible; for example, the investor might own only 18% but be the single largest investor, with the remaining 82% spread among a large number of very small investors, in which case the 18% would represent significant influence, and the equity method would be appropriate. In general, however, an investor owning less than 20% of the investee's stock accounts for the investment account at its fair value, under a method traditionally referred to as the "cost" method but with adjustments for changes in the fair value over time.

When a company owns a sufficient amount of another company's stock to have significant influence (usually at least 20%), but not enough to effectively control the other company (less than 50% in most cases), the equity method is required. Under FASB ASC paragraph 825-10-25-2, these equity investments may alternatively be carried at fair value under an irrevocable election to do so. Once the investor is deemed to have effective control over the other company (with or without a majority of stock ownership), consolidated statements are required.

In Chapter 3, we focused on the preparation of the consolidated balance sheet at the date of acquisition. With the passage of time, however, consolidating procedures are needed to prepare not only the consolidated balance sheet, but also a consolidated income statement, a consolidated statement of retained earnings, and a consolidated statement of cash flows. In this chapter we address the preparation of these statements subsequent to the date of acquisition.

When consolidated financial statements are appropriate (the investor has effective control over the investee), then the investment account, which is carried on the books of the parent company, will be eliminated in the consolidation process. Thus, it is not relevant to the consolidated statements whether the investor measures the investment account using the cost method or using the equity method, so long as the eliminating entries are properly prepared. When prepared correctly, the resulting consolidated financial statements will be identical, regardless of how the investment was carried in the books of the parent company (investor). At least three possible methods exist and are used in practice on the books of the parent company: the cost method, the partial equity method, and the complete equity method. Recognition of which of these methods is being used is important because the appropriate eliminating entries will vary depending on that choice. Further, because all three are used in practice, it is worthwhile to compare and contrast the three briefly at this point.

Of the three methods, only the complete equity method is acceptable for those investments where ***significant influence but not control*** is present. Our focus, however, is on investments that will be consolidated (for example, majority ownership). *Nonetheless, from an internal decision-making standpoint, if the parent firm relies upon the unconsolidated statements for any purposes, the complete equity method*

might be considered superior to the other two in terms of approximating the operating effects of the investment. In contrast, the cost method is the simplest of the three to prepare on the books of the parent and is the most commonly used method in practice. The partial equity method might be viewed as a compromise, being somewhat easier to prepare on the books of the parent than the complete equity method but also providing a rough approximation of the operating effects of the investment. When decisions are based solely on the consolidated statements, the primary consideration is ease and cost of preparation; this may explain why many companies choose the simplest method (cost method).

Under all three methods, the investment account is initially recorded at its cost. The differences among the three methods then lie in subsequent entries. If the cost method is used, the investment account is adjusted only when additional shares of stock in the investee are purchased or sold (or in the event of a liquidating dividend).³ Fair value adjustments will be made periodically as needed, but these are generally accomplished using a separate account, Fair Value Adjustment, thus preserving historical cost in the investment account. (The Fair Value Adjustment account has a debit balance when fair value is higher than historical cost, and a credit balance when fair value is lower than historical cost.) Since these fair value adjustments have no impact on the consolidated financial statements (they would have to be reversed if made), we do not make such adjustments in this text.

Under the equity method, more frequent entries appear in the investment account on the books of the parent. Under the partial equity method, the investor adjusts the investment account upward for its share of the investee's earnings and downward for its share of the investee's dividends declared. Under the complete equity method, additional adjustments are made to the investment account for the effects of unrealized intercompany profits, the depreciation or amortization of any differences between market and book values, and possible impairment losses on any goodwill implied in the acquisition price. ***Remember, the cost method and various forms of the equity method are methods to record investments after acquisition.*** All acquisitions reflect cost at the date of acquisition.

Because all three methods have advantages and disadvantages, and because individual preferences will vary as to which method(s) are most important to the student, book entries and workpaper eliminating entries assuming the use of each of the three methods are discussed and illustrated in separate sections throughout this text. In *some* portions of this chapter, however, partial equity and complete equity methods are indistinguishable given the assumptions of the example, in which case they are illustrated only once to conserve space. Icons in the margin of the pages are used to distinguish between the cost and equity methods. To distinguish between partial and complete equity, the word "complete" or "partial" appears on the icon when needed. In addition, blue print (e-book only) is used to help identify those sections of text that distinguish the equity method from the cost method.

First, though, every student should have a basic understanding of the differences among the three methods in accounting for the investment on the books of the parent. These are illustrated below, and are also summarized in Illustration 4-1, presented at the end of this section.

³ A liquidating dividend occurs when the investee has paid cumulative dividends in excess of cumulative earnings (since acquisition). Such excess dividends are treated as a return of capital and, upon their receipt, are recorded by the investor as a decrease in the investment account under the cost method.

Cost Method on Books of Investor

To illustrate the accounting for an investment in a subsidiary accounted for by the **cost method**, assume that P Company acquired 90% of the outstanding voting stock of S Company at the beginning of Year 1 for \$800,000. As mentioned previously, icons in the margin of the pages are used to distinguish between the cost and equity methods. Income (loss) of S Company and dividends declared by S Company during the next three years are listed below. During the third year, the firm pays a liquidating dividend (i.e., the cumulative dividends declared exceeds the cumulative income earned).

<i>Year</i>	<i>Income (Loss)</i>	<i>Dividends Declared</i>	<i>Cumulative Income over (under) Cumulative Dividends</i>
1	\$90,000	\$30,000	\$60,000
2	(20,000)	30,000	10,000
3	10,000	30,000	(10,000)

Journal entries on the books of P Company to account for the investment in S Company during the three years follow:

LO 2 Journal entries for Parent using cost method.

Year 1—P's Books

Investment in S Company	800,000	
Cash		800,000
To record the initial investment.		
Cash	27,000	
Dividend Income		27,000
To record dividends received ($0.9 \times \$30,000$).		

Year 2—P's Books

Cash	27,000	
Dividend Income		27,000
To record dividends received ($0.9 \times \$30,000$).		

Year 3—P's Books

Cash	27,000	
Dividend Income		18,000
Investment in S Company		9,000
To record dividends received, \$9,000 of which represents a return of investment.		

After these entries are posted, the investment account will appear as follows:

Investment in S Company (Cost Method)

Year 1 Cost	800,000	
		Year 3 Liquidating dividend
		9,000
Year 3 Balance	791,000	

Year 1 entries record the initial investment and the receipt of dividends from S Company. In year 2, although S Company incurred a \$20,000 loss, there was a

\$60,000 excess of earnings over dividends from Year 1. Consequently, the dividends received are recognized as income by P Company. In year 3, however, a **liquidating dividend** occurs. From the point of view of a parent company, a purchased subsidiary is deemed to have distributed a liquidating dividend when the cumulative amount of its dividends declared exceeds its cumulative reported earnings after its acquisition. Such excess dividends are treated as a return of capital and are recorded as a reduction of the investment account rather than as dividend income. The liquidating dividend is 90% of the excess of dividends paid over cumulative earnings since acquisition (90% of \$10,000).

Partial Equity Method on Books of Investor

LO 2 Journal entries for Parent using partial equity method.

Next, assume that P Company has elected to use the partial equity method to record the investment in S Company above. The entries for the first three years would appear as follows:

Year 1—P's Books		
Investment in S Company	800,000	
Cash		800,000
To record the initial investment.		
Investment in S Company	81,000	
Equity in Subsidiary Income .9 (\$90,000)		81,000
To record P's share of subsidiary income.		
Cash	27,000	
Investment in S Company		27,000
To record dividends received .9 (\$30,000)		
<i>Note: The entries to record equity in subsidiary income and dividends received may be combined into one entry, if desired.</i>		

Year 2—P's Books		
Equity in Subsidiary Loss	18,000	
Investment in S Company		18,000
To record equity in subsidiary loss .9 (\$20,000).		
Cash	27,000	
Investment in S Company		27,000
To record dividends received .9 (\$30,000).		

Year 3—P's Books		
Investment in S Company	9,000	
Equity in Subsidiary Income		9,000
To record equity in subsidiary income .9 (\$10,000).		
Cash	27,000	
Investment in S Company		27,000
To record dividends received .9 (\$30,000).		

After these entries are posted, the investment account will appear as follows:

Year 1 Cost	800,000		
Year 1 Equity in subsidiary income	81,000	Year 1 Share of dividends declared	27,000
Year 1 Balance	854,000		
		Year 2 Equity in subsidiary loss	18,000
		Year 2 Share of dividends declared	27,000
Year 2 Balance	809,000		
Year 3 Equity in subsidiary income	9,000	Year 3 Share of dividends declared	27,000
Year 3 Balance	791,000		

Complete Equity Method on Books of Investor

IN
THE
NEWS

"BlackRock, a U.S.-based investment management firm with approximately \$342 billion in assets under management, acquired Merrill Lynch's investment management business in exchange for a 49 percent ownership interest. Upon the closing of this transaction, PNC Financial Services continued to own 44.5 million shares of BlackRock, representing an ownership interest of approximately 34 percent. Thereafter, BlackRock was deconsolidated from PNC's financial statements and was accounted for using the equity method."⁴

1. Although Merrill Lynch did not own more than 50% of BlackRock, would you consider Merrill to have "control" of BlackRock? Why or why not?
2. Does PNC have "control" of BlackRock, as defined by FASB?

LO 2 Journal entries for Parent using complete equity method.

The complete equity method is usually required to report common stock investments in the 20% to 50% range, assuming the investor has the ability to exercise significant influence over the operating activities of the investee and does *not* have effective control over the investee. In addition, a parent company may use, in its own books, the complete equity method to *account for* investments in subsidiaries that will be consolidated. This method is similar to the partial equity method up to a point, but it requires additional entries in most instances.

Continuing the illustration above, assume additionally that the \$800,000 purchase price exceeded the book value of the underlying equity of S Company by \$100,000; and that the difference was attributed half to goodwill (\$50,000) and half to an excess of market over book values of depreciable assets (\$50,000). Under current FASB regulations, goodwill would be capitalized and not amortized. The additional depreciation expense implied by the difference between market and book values, however, must still be accounted for. The depreciation of the excess, if spread over a remaining useful life of 10 years, would result in a charge to earnings of \$5,000 per year. This charge has the impact of lowering the equity in subsidiary income, or increasing the equity in subsidiary loss, recorded by the parent.

⁴ PNC Financial Services Group press release, "PNC to Report \$1.6 Billion Gain on the Merger of BlackRock and Merrill Lynch Investment Managers," 2/15/06.

The entries for the first 3 years under the complete equity method are as follows:

Year 1—P's Books

Investment in S Company	800,000	
Cash		800,000
To record the initial investment.		
Investment in S Company	81,000	
Equity in Subsidiary Income .9 (\$90,000)		81,000
To record equity in subsidiary income.		
Equity in Subsidiary Income	5,000	
Investment in S Company (\$50,000/10 years)		5,000
To adjust equity in subsidiary income for the excess depreciation		
Cash	27,000	
Investment in S Company		27,000
To record dividends received .9 (\$30,000).		

Note: The entries to record equity in subsidiary income and dividends received may be combined into one entry, if desired.

Year 2—P's Books

Equity in Subsidiary Loss	18,000	
Investment in S Company		18,000
To record equity in subsidiary loss .9 (\$20,000).		
Equity in Subsidiary Loss (\$50,000/10 years)	5,000	
Investment in S Company		5,000
To adjust equity in subsidiary loss for the excess depreciation.		
Cash	27,000	
Investment in S Company		27,000
To record dividends received .9 (\$30,000).		

Year 3—P's Books

Investment in S Company	9,000	
Equity in Subsidiary Income		9,000
To record equity in subsidiary income .9 (\$10,000).		
Equity in Subsidiary Income (\$50,000/10 years)	5,000	
Investment in S Company		5,000
To adjust equity in subsidiary income for the excess depreciation.		
Cash	27,000	
Investment in S Company		27,000
To record dividends received .9 (\$30,000).		

After these entries are posted, the investment account will appear as follows:

Investment in S Company (Complete Equity Method)			
Year 1 Cost	800,000		
Year 1 Equity in subsidiary income	81,000	Year 1 Excess depreciation	5,000
		Year 1 Share of dividends declared	27,000
Year 1 Balance	849,000		
		Year 2 Equity in subsidiary loss	18,000
		Year 2 Excess depreciation	5,000
		Year 2 Share of dividends declared	27,000
Year 2 Balance	799,000		
Year 3 Equity in subsidiary income	9,000	Year 3 Excess depreciation	5,000
		Year 3 Share of dividends declared	27,000
Year 3 Balance	776,000		

The additional entry to adjust the equity in subsidiary income for the additional depreciation in Year 1 may be viewed as reversing out a portion of the income recognized; the result is a net equity in subsidiary income for Year 1 of \$76,000 (\$81,000 minus \$5,000). In Year 2, however, since the subsidiary showed a loss for the period, the additional depreciation has the effect of increasing the loss from the amount initially recorded (\$18,000) to a larger loss of \$23,000.

A solid understanding of the entries made on the books of the investor (presented above) will help greatly in understanding the eliminating entries presented in the following sections. In some sense these entries may be viewed as “undoing” the above entries. It is important to realize, however, that the eliminating entries are not “parent-only” entries. In many cases an eliminating entry will affect certain accounts of the parent and others of the subsidiary. For example, the entry to eliminate the investment account (a parent company account) against the equity accounts of the subsidiary affects both parent and subsidiary accounts. Some accounts do not need elimination because the effects on parent and subsidiary are offsetting. For example, in the entries above, we saw that the parent debited cash when dividends were received from the subsidiary. We know that cash on the books of the subsidiary is credited when dividends are paid. The net effect on cash of the consolidated entry is thus zero. No entry is made to the cash account in the consolidating process. See Illustration 4-1 for a comparison of the three methods on the books of the parent.

ILLUSTRATION 4-1

Comparison of the Investment T-Accounts (Cost vs. Partial Equity vs. Complete Equity Method)

Investment in S Company—Cost Method			
Year 1 Acquisition cost	800,000		
Year 1 and 2 Balance	800,000		
		Year 3 Subsidiary liquidating dividend	9,000
Year 3 Balance	791,000		

ILLUSTRATION 4-1 (CONTINUED)**Investment in S Company—Partial Equity Method**

Year 1 Acquisition cost	800,000	Year 1 Share of dividends declared	27,000
Year 1 Equity in subsidiary income	81,000		
Year 1 Balance	854,000	Year 2 Equity in subsidiary loss	18,000
		Year 2 Share of dividend declared	27,000
Year 2 Balance	809,000		
Year 3 Equity in subsidiary income	9,000	Year 3 Share of dividend declared	27,000
Year 3 Balance	791,000		

Investment in S Company—Complete Equity Method

Year 1 Acquisition cost	800,000	Year 1 Share of dividend declared	27,000
Year 1 Equity in subsidiary income adjusted for excess depreciation	76,000		
Year 1 Balance	849,000	Year 2 Equity in subsidiary loss, adjusted	23,000
		Year 2 Share of dividend declared	27,000
Year 2 Balance	799,000		
Year 3 Equity in subsidiary income adjusted for excess depreciation	4,000	Year 3 Share of dividend declared	27,000
Year 3 Balance	776,000		

TEST YOUR KNOWLEDGE 4.1

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

True or False

- _____ a. Under the cost method for recording investments, dividends are recorded by reducing the Investment in Subsidiary asset account.
_____ b. Under *current GAAP* additional depreciation due to market values in excess of book values no longer necessitates a reduction in the equity in subsidiary income (on the books of the parent) under the complete equity method.

Multiple Choice

- Assuming that the acquisition price of Company S includes some differences between market and book values of depreciable assets, differences arise between the complete equity method and the partial equity method in how the accounts of the parent reflect:
 - Dividends
 - Income
 - Retained Earnings
 - Both B and C
- Which of the following statements regarding methods to record investments after acquisition is incorrect?
 - It is not relevant to the consolidated financial statements whether the parent company measures its investment account using the cost method or using one of the equity methods so long as the eliminating entries are properly prepared.
 - Initial recording of the investment (at its cost) is identical in all three methods, i.e., cost, partial equity, or complete equity method.
 - Under the partial equity method, the investor adjusts the investment account upward for its share of the investee's earnings and dividends declared.
 - For periods subsequent to acquisition, both the investment account and the equity in subsidiary income will be larger under the partial equity method than under the complete equity method if the subsidiary carries depreciable assets with market values greater than book values.

4.2 CONSOLIDATED STATEMENTS AFTER ACQUISITION—COST METHOD

The preparation of consolidated financial statements after acquisition is not materially different in concept from preparing them at the acquisition date in the sense that reciprocal accounts are eliminated and remaining balances are combined. The process is more complex, however, because time has elapsed and business activity has taken place between the date of acquisition and the date of consolidated statement preparation. On the date of acquisition, the only relevant financial statement is the consolidated balance sheet; after acquisition, a complete set of consolidated financial statements—income statement, retained earnings statement, balance sheet, and statement of cash flows—must be prepared for the affiliated group of companies. Deferred tax issues are presented in supplemental Appendix 4B which is available from your instructor.

Workpaper Format

LO 3 Use of workpapers.

Accounting workpapers are used to accumulate, classify, and arrange data for a variety of accounting purposes, including the preparation of financial reports and statements. Although workpaper style and technique vary among firms and individuals, we have adopted a three-section workpaper for illustrative purposes in this book. The format includes a separate section for each of three basic financial statements—income statement, retained earnings statement, and balance sheet. In some cases the input to the workpaper comes from the individual financial statements of the affiliates to be consolidated, in which case the three-section workpaper is particularly appropriate. At other times, however, input may be from affiliate trial balances, and the data must be arranged in financial statement form before the workpaper can be completed. Organizing the data provides a useful review for students, however, and emphasizes the linkages among these three financial statements. An alternative format to preparing the workpaper is provided in Appendix A in this chapter (using the information in Illustration 4-5).



COST

The fourth statement, the statement of cash flows, is prepared from the information in the consolidated income statement and from two comparative consolidated balance sheets. It will be presented later in this chapter.

The discussion and illustrations that follow are based on trial balances at December 31, 2020, for P Company and S Company given in Illustration 4-2. Throughout this chapter, any difference between the cost of the investment and the book value of the equity interest acquired is assumed to relate to the under- or over-valuation of subsidiary goodwill or to land and is, therefore, assigned to goodwill or land in the second eliminating entry. Because neither goodwill nor land is subject to depreciation or amortization under current GAAP, this serves to defer at least one complication to Chapter 5. More realistic assumptions, and the resulting complications, will be dealt with fully in Chapter 5.

Year of Acquisition—Cost Method

Assume that P Company purchased 80% of the outstanding shares of S Company common stock on January 1, 2020, for \$165,000. The underlying book value of S company's net assets on that date was \$190,000. P Company made the following entry:

P's Books

Investment in S Company	165,000	
Cash		165,000

ILLUSTRATION 4-2**P Company and S Company Trial Balances December 31, 2020**

	<i>P Company</i>		<i>S Company</i>	
	<i>Dr.</i>	<i>Cr.</i>	<i>Dr.</i>	<i>Cr.</i>
Cash	\$ 79,000		\$ 18,000	
Accounts Receivable (net)	64,000		28,000	
Inventory, 1/1	56,000		32,000	
Investment in S Company	165,000			
Property and Equipment (net)	180,000		165,000	
Goodwill	35,000		17,000	
Accounts Payable		\$ 35,000		\$ 24,000
Other Liabilities		62,000		37,000
Common Stock, \$10 par value		200,000		100,000
Other Contributed Capital		40,000		50,000
Retained Earnings, 1/1		210,000		40,000
Dividends Declared	20,000		10,000	
Sales		300,000		160,000
Dividend Income		8,000		
Purchases	186,000		95,000	
Expenses	70,000		46,000	
	<u>\$855,000</u>	<u>\$855,000</u>	<u>\$411,000</u>	<u>\$411,000</u>
Inventory, 12/31	\$ 67,000		\$ 43,000	

On June 6, 2020, S Company paid a \$10,000 dividend and made the following entry:

S's Books

Dividends Declared	10,000	
Cash		10,000

(Recall that the Dividends Declared account is a temporary account that is closed to retained earnings at year-end. An alternative is to debit retained earnings directly when dividends are declared.) Since P Company owns 80% of S Company's common stock, the receipt of the dividend was recorded by P Company as follows:

P's Books

Cash	8,000	
Dividend Income (80% × \$10,000)		8,000

LO 4 Preparing Computation and Allocation Difference (CAD) Schedule.

Note that the trial balance data in Illustration 4-2 reflect the effects of both the investment and dividend transactions. Also note that the existing balances in goodwill on the books of both companies indicate that both firms have been involved in previous net asset acquisitions (as discussed in Chapter 2).

Begin the consolidating process, as always, by preparing a Computation and Allocation Schedule, as follows:

Computation and Allocation of Difference Schedule

	<i>Parent Share</i>	<i>Noncontrolling Share</i>	<i>Total Value</i>
Purchase price and implied value	\$165,000	\$41,250	\$206,250
Less: Book value of equity acquired:			
Common stock	80,000	20,000	100,000
Other contributed capital	40,000	10,000	50,000
Retained earnings	32,000	8,000	40,000
Total book value	<u>152,000</u>	<u>38,000</u>	<u>190,000</u>
Difference between implied and book value	13,000	3,250	16,250
Record new goodwill	(13,000)	(3,250)	(16,250)
Balance	<u>—0—</u>	<u>—0—</u>	<u>—0—</u>

RELATED CONCEPTS

The *historical cost* principle allows for the recording of goodwill only when a purchase transaction occurs. Whether or not the total value implied by the purchase price should extend to the NCI is a subject of much debate.

Because the difference between implied and book values is established only at the date of acquisition, **this schedule will not change in future periods**. Thus, there will be \$16,250 to distribute each year, although the make-up of that distribution may shift over time. Since it is attributed to goodwill in this example, the distribution will not change unless the goodwill is subsequently impaired.

A workpaper for the preparation of consolidated financial statements at December 31, 2020, the end of the year of acquisition, is presented in Illustration 4-3.

Data from the trial balances are arranged in statement form and entered on the workpaper. Consolidated financial statements should include only balances resulting from transactions with outsiders. Eliminating techniques are designed to accomplish this end. The consolidated income statement is essentially a combination of the revenue, expense, gain, and loss accounts of all consolidated affiliates after elimination of amounts representing the effect of transactions among the affiliates. The combined income of the affiliates, after eliminating any intercompany transactions, is referred to as **consolidated net income**. This amount is allocated to the controlling and noncontrolling interests. In the workpaper, consolidated net income is reduced by the noncontrolling interest's share (if any) of the net income of the subsidiaries to arrive at the **controlling interest in consolidated net income**. Note that in the past, the controlling interest has often been referred to as consolidated net income. The terminology used here and by the FASB reflects the change from the parent concept to the economic entity concept for consolidated financial statements. The controlling interest in consolidated net income consists of parent company net income plus (minus) its share of the affiliate's income (loss) resulting from transactions with outside parties. The consolidated retained earnings statement consists of beginning consolidated retained earnings plus the controlling interest in consolidated net income (or minus the controlling interest in a consolidated loss), minus parent company dividends declared. The net balance represents consolidated retained earnings at the end of the period. The noncontrolling interest in net assets is reflected as a separate component of equity.



COST

ILLUSTRATION 4-3 Cost Method

80% Owned		Consolidated Statements Workpaper—Cost Method				
Year of Acquisition	P Company and Subsidiary for the Year Ended December 31, 2020					
<i>Income Statement</i>	<i>P Company</i>	<i>S Company</i>	<i>Eliminations</i>		<i>Noncontrolling Interest</i>	<i>Consolidated Balances</i>
			<i>Dr.</i>	<i>Cr.</i>		
Sales	300,000	160,000				460,000
Dividend Income	8,000		(3)	8,000		
Total Revenue	<u>308,000</u>	<u>160,000</u>				<u>460,000</u>
Cost of Goods Sold:						
Inventory, 1/1	56,000	32,000				88,000
Purchases	186,000	95,000				281,000
	<u>242,000</u>	<u>127,000</u>				<u>369,000</u>
Inventory, 12/31	67,000	43,000				110,000
Cost of Goods Sold	175,000	84,000				259,000
Expenses	70,000	46,000				116,000
Total Cost and Expense	<u>245,000</u>	<u>130,000</u>				<u>375,000</u>
Net/Consolidated Income	63,000	30,000				85,000
Noncontrolling Interest in Income					6,000	(6,000)*
Net Income to Retained Earnings	<u>63,000</u>	<u>30,000</u>	<u>8,000</u>	<u>—0—</u>	<u>6,000</u>	<u>79,000</u>
<i>Retained Earnings Statement</i>						
1/1 Retained Earnings						
P Company	210,000					210,000
S Company		40,000	(1)	40,000		
Net Income from above	63,000	30,000	8,000	—0—	6,000	79,000
Dividends Declared						
P Company	(20,000)					(20,000)
S Company		(10,000)		(3)	8,000	(2,000)
12/31 Retained Earnings to Balance Sheet	<u>253,000</u>	<u>60,000</u>	<u>48,000</u>	<u>8,000</u>	<u>4,000</u>	<u>269,000</u>
<i>Balance Sheet</i>						
Cash	79,000	18,000				97,000
Accounts Receivable (net)	64,000	28,000				92,000
Inventory, 12/31	67,000	43,000				110,000
Investment in S Company	165,000			(1)	165,000	
Difference between Implied and Book Value			(1)	16,250	(2)	16,250
Property and Equipment (net)	180,000	165,000				345,000
Goodwill	35,000	17,000	(2)	16,250		68,250
Total	<u>590,000</u>	<u>271,000</u>				<u>712,250</u>
Accounts Payable	35,000	24,000				59,000
Other Liabilities	62,000	37,000				99,000
Common Stock						
P Company	200,000					200,000
S Company		100,000	(1)	100,000		
Other Contributed Capital						
P Company	40,000					40,000
S Company		50,000	(1)	50,000		
Retained Earnings from above	253,000	60,000	48,000	8,000	4,000	269,000
1/1 Noncontrolling Interest in Net Assets				(1)	41,250	41,250
12/31 Noncontrolling Interest in Net Assets					<u>45,250</u>	<u>45,250</u>
Total	<u>590,000</u>	<u>271,000</u>	<u>230,500</u>	<u>230,500</u>		<u>712,250</u>

*2(\$30,000) = \$6,000

(1) To eliminate the investment in S Company and create noncontrolling interest account.

(2) To allocate the difference between implied and book value to goodwill.

(3) To eliminate intercompany dividends.

Workpaper Observations

LO 5 Workpaper eliminating entries.

Several observations should be noted concerning the workpaper presented in Illustration 4-3.

1. *Each section of the workpaper represents one of three consolidated financial statements:* Note that the **entire bottom line** of the income statement, which represents net income, is transferred to the Net Income line on the retained earnings statement. Similarly, the **entire bottom line** of the retained earnings statement, which represents ending retained earnings, is transferred to the Retained Earnings line on the balance sheet.
2. *Elimination of the investment account:* The elimination of the investment account at the end of the first year is the same one that would be made at the date of acquisition for the preparation of a consolidated balance sheet. One exception is that S Company's beginning retained earnings is eliminated in the **retained earnings section** of the workpaper, rather than in the balance sheet section. In subsequent years, the debit to Retained Earnings—S Company will always be for the subsidiary retained earnings balance at the **beginning of the current year**. Changes in retained earnings during the current year are always reflected in the retained earnings statement section of the workpaper. Also note that in subsequent years, there will be an additional entry preceding the elimination of the investment account, and this entry will arise from changes in the Retained Earnings account of the subsidiary from the date of acquisition to the beginning of the current year. This entry is not needed in year 1 because no such change has occurred yet.

It is useful to formulate eliminating entries in **general journal entry form**, even though they are not recorded in the general journal, to be sure that they balance before entering them in the workpaper. Be sure to number each entry as it is entered in the workpaper. This helps to keep the eliminating entries in balance as well. It may also be helpful to think of each entry by a shortened name, as indicated in quotation marks after the following entries.

(1)	Common Stock—S Company	100,000	
	Other Contributed Capital—S Company	50,000	
	1/1 Retained Earnings—S Company	40,000	
	Difference between Implied and Book Values	16,250	
	Investment in S Company		165,000
	Noncontrolling Interest in Equity		41,250
	<i>“The investment entry”</i>		

RELATED CONCEPTS

When control is achieved with a relatively low percentage ownership (55% for example), a *conservative* view might question whether it is appropriate to record the entire (100%) implied value of \$16,250 of goodwill.

3. *Allocation of the difference between implied and book value:* The second elimination entry is also identical to that which would have been made at the date of acquisition. It serves to distribute the difference between implied and book values of subsidiary equity to the appropriate account(s), in this case to goodwill.

(2)	Goodwill	16,250	
	Difference between Implied and Book Value		16,250
	<i>“The differential entry”</i>		

IFRS

It is worth noting that the recording of goodwill is one of the more controversial of the topics addressed by FASB in its decisions regarding business combinations. Some respondents during the comment period expressed a preference to conform to the International Accounting model used in the past for business combinations, which has marked the identifiable net assets entirely to their fair value at the date of the acquisition (as here), but has recorded goodwill only to the extent of the parent's percentage of the subsidiary. In other words, goodwill would be recorded for only $80\% \times \$16,250$, or \$13,000, and the noncontrolling interest would be lowered by \$3,250 if the choice allowed under IFRS, which permits recognition of goodwill using either the "full" goodwill method or "parent-only" goodwill method, were followed.

4. *Intercompany dividends*: The elimination of intercompany dividends is made by a debit to Dividend Income and a credit to Dividends Declared. In placing this entry into the Eliminations columns of the workpaper, note that the Dividend Income debit appears in the *Income Statement* section, while the Dividends Declared credit appears in the *Retained Earnings Statement* section. It is commonly the case that an eliminating entry will affect more than one of the three statements, as here [and also in entry (1)].

(3)	Dividend Income	8,000	
	Dividends Declared—S Company		8,000
	<i>"The dividend entry"</i>		

This eliminating entry also serves to prevent the double counting of income, since the subsidiary's individual income and expense items are combined with the parent's in the determination of consolidated income.

5. *Noncontrolling interest in consolidated net income*: There is one number on the workpaper that is calculated and then inserted directly into the income statement, and does not flow from the trial balance columns. That number is the *noncontrolling interest in consolidated net income*. To facilitate the calculation of the noncontrolling and controlling interests in consolidated income, a t-account approach is helpful. In later chapters, the presence of intercompany profits and other complications will make the calculation more complex than it is at this point. It is, therefore, useful to form the habit of using the t-accounts now.



Noncontrolling Interest in Consolidated Net Income

Internally generated income of S Company	\$30,000
Any needed adjustments (see Chapter 5)	0
Adjusted income of subsidiary	<u>30,000</u>
Noncontrolling percentage owned	20%
Noncontrolling interest in income	<u>6,000</u>

The first t-account (above) calculates the distribution of consolidated net income to the noncontrolling interest. This number can be inserted directly into the next-to-bottom line of the *Income Statement* Section. When this amount is subtracted from the consolidated income of \$85,000, the resulting amount of \$79,000 represents the **controlling interest in consolidated net income**. (\$30,000).8

The parent company t-account serves as a useful check of the controlling interest in consolidated net income. The 80% controlling percentage in the adjusted income of subsidiary (\$30,000 from t-account above) will appear in P Company's t-account as part of the controlling interest. For the parent company, the internally generated income represents the amount from the first column of the trial balance (\$63,000) minus any income which came from the subsidiary (dividend income, in this case, of \$8,000), or \$55,000 income from P Company's independent operations.

Controlling Interest in Consolidated Net Income

Internally generated income of P Company (\$63,000 income minus \$8,000 dividend income from subsidiary)	\$55,000
Any needed adjustments (see Chapter 5) Percentage of subsidiary adjusted income (80%)(30,000)	0
Controlling interest in income	<u>24,000</u> <u>\$79,000</u>

6. *Consolidated retained earnings*: Consolidated retained earnings on December 31, 2020, of \$269,000 can be determined as follows:

P Company's reported retained earnings, 1/1	\$210,000
Plus: controlling interest in consolidated net income for 2020	79,000
Less: P Company's dividends declared during 2020	<u>(20,000)</u>
Consolidated Retained Earnings, 12/31	<u>\$269,000</u>

The calculation above appears in the final column of the workpaper in the Retained Earnings Statement section. Alternatively, or as a check, consolidated retained earnings may be determined as:

P Company's reported retained earnings, 12/31	\$253,000
Plus P Company's share of the increase in S Company's retained earnings from the date of acquisition to the end of 2020: .8(\$60,000 - \$40,000)	<u>16,000</u>
Consolidated Retained Earnings, 12/31	<u>\$269,000</u>

7. The eliminations columns in each section do not balance, since individual eliminations made involve more than one section. The total eliminations for all three sections, however, must be in balance.
8. Noncontrolling interest in consolidated net assets or equity at the beginning of the year (\$41,250) can be obtained from the first line of the CAD schedule, or can be determined directly by multiplying the noncontrolling interest percentage times the implied value of the subsidiary at acquisition. Thus, noncontrolling interest

in consolidated net assets can be computed as $\$206,250 \times 20\%$ at this date. To calculate the noncontrolling interest at year-end, sum the following components:

The sum of the noncontrolling interest column is transferred to the consolidated balance sheet as one amount since it reflects the noncontrolling stockholders' interest in the net assets of the consolidated group.



<i>Total Noncontrolling Interest</i>	
\$41,250	Noncontrolling interest at the date of acquisition, representing 20% of the implied value of the subsidiary.
6,000	A \$6,000 ($20\% \times \$30,000$) interest in the amount of S Company income that is included in consolidated net income. The \$6,000 is considered an allocation of consolidated net income to the noncontrolling shareholders.
(2,000)	A \$2,000 ($20\% \times \$10,000$) decrease for dividends distributed to the noncontrolling stockholders during the year. The other \$8,000 in dividends represents parent company dividend income and is, therefore, eliminated.
<u>\$45,250</u>	Total Noncontrolling Interest

After Year of Acquisition—Cost Method

LO 5 Workpaper eliminating entries after acquisition (cost method).

For illustrative purposes, assume continuation of the previous example with data updated to the following year. Trial balances for P Company and S Company at December 31, 2021, are given in Illustration 4-4. Because we are using the cost method, the Investment in S Company account still reflects the cost of the investment, \$165,000. The beginning retained earnings balances for P and S Companies on January 1, 2021, are the same as the

ILLUSTRATION 4-4

P Company and S Company Trial Balances December 31, 2021

	<i>P Company</i>		<i>S Company</i>	
	<i>Dr.</i>	<i>Cr.</i>	<i>Dr.</i>	<i>Cr.</i>
Cash	\$ 74,000		\$ 41,000	
Accounts Receivable (net)	71,000		33,000	
Inventory, 1/1	67,000		43,000	
Investment in S Company	165,000			
Property and Equipment (net)	245,000		185,000	
Goodwill	35,000		17,000	
Accounts Payable		\$ 61,000		\$ 30,000
Other Liabilities		70,000		45,000
Common Stock, \$10 par value		200,000		100,000
Other Contributed Capital		40,000		50,000
Retained Earnings, 1/1		253,000		60,000
Dividends Declared	30,000		10,000	
Sales		350,000		190,000
Dividend Income		8,000		
Purchases	215,000		90,000	
Expenses	80,000		56,000	
	<u>\$982,000</u>	<u>\$982,000</u>	<u>\$475,000</u>	<u>\$475,000</u>
Inventory, 12/31	\$ 82,000		\$ 39,000	

ending retained earnings balances on December 31, 2020 (confirmed in Illustration 4-3, first two columns). Although the trial balance is dated December 31, 2020, the retained earnings balance is dated January 1, 2021, because the income statement and Dividends Declared accounts are still open.

A workpaper for the preparation of consolidated financial statements for P and S Companies for the year ended December 31, 2021, is presented in Illustration 4-5. Note that the detail comprising cost of goods sold is provided in Illustration 4-3. (beginning inventory plus purchases minus ending inventory). In Illustration 4-5 and subsequent illustrations in this chapter, the detail will be collapsed into one item, Cost of Goods Sold. In later chapters, however, we will use the detailed accounts when the focus is more directly upon inventory and the calculation of cost of goods sold (in the presence of intercompany profit, for instance).

The workpaper entries in years after the year of acquisition are essentially the same as those made for the year of acquisition (Illustration 4-3) with one major exception. Before the elimination of the investment account, a workpaper entry, (1) in Illustration 4-5, is made to the investment account and P Company's beginning retained earnings to recognize P Company's share of the cumulative undistributed income or loss of S Company from the *date of acquisition to the beginning of the current year* as follows:

(1)	Investment in S Company	16,000	
	1/1 Retained Earnings—P Company		16,000
	(Consolidated Retained Earnings)		
	[80% × (\$60,000 – \$40,000)]		

This entry may be viewed as either *the entry to convert from the cost method to the equity method or the entry to establish reciprocity*. The following two points explain these essentially complementary views of the entry.

1. The reciprocity entry adjusts P Company's beginning retained earnings balance on the workpaper to the appropriate beginning consolidated retained earnings amount. As indicated earlier, consolidated retained earnings on January 1, 2021, consists of P Company's reported retained earnings plus P Company's share of the undistributed earnings (income less dividends) of S Company from the date of stock acquisition to the beginning of 2021. Note that, after the reciprocity entry is made, the beginning (1/1/21) consolidated retained earnings of \$269,000 (Illustration 4-5) equals the ending (12/31/20) consolidated retained earnings amount (Illustration 4-3).
2. If this entry is viewed as a conversion to the equity method, the following question might well arise: Why should we convert to the equity method if all methods are acceptable and all yield the same final results? Recall that under the equity method, the parent records its equity in the subsidiary income in its income statement and thus ultimately in its retained earnings. If we consider the two accounts in the conversion entry, it is true that the investment is going to be eliminated to zero anyway; but the retained earnings account of the parent company, which must ultimately reflect the equity in subsidiary income, will not be eliminated. Instead, it needs to be adjusted if the cost method is used.

Although it is true that the investment account must be eliminated after it is adjusted, the reciprocity (conversion) entry facilitates this elimination. The amount needed for the workpaper entry to establish reciprocity can be most accurately

ILLUSTRATION 4-5**Cost Method**

80% Owned

Consolidated Statements WorkpaperSubsequent to Year
of Acquisition**P Company and Subsidiary
for the Year Ended December 31, 2021**

<i>Income Statement</i>	<i>P Company</i>	<i>S Company</i>	<i>Eliminations</i>		<i>Noncontrolling Interest</i>	<i>Consolidated Balances</i>
			<i>Dr.</i>	<i>Cr.</i>		
Sales	350,000	190,000				540,000
Dividend Income	8,000		(4) 8,000			
Total Revenue	<u>358,000</u>	<u>190,000</u>				<u>540,000</u>
Cost of Goods Sold	200,000	94,000				294,000
Expenses	80,000	56,000				136,000
Total Cost and Expense	<u>280,000</u>	<u>150,000</u>				<u>430,000</u>
Net/Consolidated Income	78,000	40,000				110,000
Noncontrolling Interest in Income					8,000	(8,000)*
Net Income to Retained Earnings	<u>78,000</u>	<u>40,000</u>	<u>8,000</u>	<u>—0—</u>	<u>8,000</u>	<u>102,000</u>
<i>Retained Earnings Statement</i>						
1/1 Retained Earnings						
P Company	253,000			(1) 16,000		269,000
S Company		60,000	(2) 60,000			
Net Income from Above	78,000	40,000	8,000	—0—	8,000	102,000
Dividends Declared						
P Company	(30,000)					(30,000)
S Company		(10,000)		(4) 8,000	(2,000)	
12/31 Retained Earnings to Balance Sheet	<u>301,000</u>	<u>90,000</u>	<u>68,000</u>	<u>24,000</u>	<u>6,000</u>	<u>341,000</u>
<i>Balance Sheet</i>						
Cash	74,000	41,000				115,000
Accounts Receivable (net)	71,000	33,000				104,000
Inventory, 12/31	82,000	39,000				121,000
Investment in S Company	165,000		(1) 16,000	(2) 181,000		
Difference between Implied and Book Value			(2) 16,250	(3) 16,250		
Property and Equipment (net)	245,000	185,000				430,000
Goodwill	35,000	17,000	(3) 16,250			68,250
Total	<u>672,000</u>	<u>315,000</u>				<u>838,250</u>
Accounts Payable	61,000	30,000				91,000
Other Liabilities	70,000	45,000				115,000
Common Stock						
P Company	200,000					200,000
S Company		100,000	(2) 100,000			
Other Contributed Capital						
P Company	40,000					40,000
S Company		50,000	(2) 50,000			
Retained Earnings from above	301,000	90,000	68,000	24,000	6,000	341,000
1/1 Noncontrolling Interest in Net Assets				(2) 45,250 **	45,250	
12/31 Noncontrolling Interest in Net Assets					<u>51,250</u>	<u>51,250</u>
Total	<u>672,000</u>	<u>315,000</u>	<u>266,500</u>	<u>266,500</u>		<u>838,250</u>

* 2(\$40,000) = \$8,000.

**\$41,250 + (\$60,000 - \$40,000) × .2 = \$45,250.

(1) To recognize P Company's share (80%) of S Company's undistributed income from date of acquisition to beginning of the current year. (Also referred to as "To establish reciprocity" or "to convert to equity method".)

(2) To eliminate the investment in S Company and create noncontrolling interest account.

(3) To allocate the difference between implied and book value to goodwill.

(4) To eliminate intercompany dividends.

computed by multiplying the parent company's percentage of ownership times the increase or decrease in the subsidiary's retained earnings from the date of stock acquisition to the beginning of the current year. This approach adjusts for complications that might arise where the subsidiary may have made direct entries to its retained earnings for prior period adjustments.

This approach is also the most efficient because it provides a shortcut in lieu of making separate entries for each year's income and each year's dividend declarations. Recall that the workpaper entries are just that, workpaper only, and as such they do not get posted to the accounts of either the parent or subsidiary company. Hence entries that were made on a previous year's workpaper must be "caught up" in subsequent periods. If income and dividend entries were made separately for each year, imagine the number of entries in year 9 or year 20!

After the investment account is adjusted by workpaper entry (1), P Company's share of S Company's equity is eliminated against the **adjusted investment account** in entry (2) below:



(2)	Common Stock—S Company	100,000	
	Other Contributed Capital—S Company	50,000	
	1/1 Retained Earnings—S Company	60,000	
	Difference between Implied and Book Value	16,250	
	Investment in S Company [$\$165,000 + .8(60,000 - 40,000)$]	181,000	
	Noncontrolling Interest in Equity [$\$41,250 + .2(60,000 - 40,000)$]	45,250	

Entry (3) distributes the difference between implied and book values, as follows:

(3)	Goodwill	16,250	
	Difference between Implied and Book Values		16,250

Next, intercompany dividend income is eliminated as follows:

(4)	Dividend Income	8,000	
	Dividends Declared—S Company		8,000

Consolidated balances are then determined in the same manner as in previous illustrations. Remember that the entry to establish reciprocity (convert to equity) is a cumulative one that recognizes the parent's share of the change in the subsidiary's retained earnings from the date of acquisition to the beginning of the current year. Thus, for example, the reciprocity entry for the *third year* in the December 31, 2022, workpaper is as follows:

	Investment in S Company	40,000	
	1/1 Retained Earnings—P Company $.8(\$90,000 - \$40,000)$		40,000
	<i>"The reciprocity/conversion entry for year three"</i>		

An example of a consolidated statement of income and retained earnings and a consolidated balance sheet (based on Illustration 4-5) is presented in Illustration 4-6. Notice that *all (100%) of S Company's revenues and expenses* are included in the consolidated income statement. The noncontrolling interest's share of the subsidiary's income is shown as a separate component of consolidated net income and is deducted from consolidated net income (NI) to arrive at the controlling interest. Likewise, *all of S Company's assets and liabilities* are included with those of P Company in the consolidated balance sheet. The noncontrolling interest's share of the net assets is then included as a separate item within the stockholders' equity section of the consolidated balance sheet.

ILLUSTRATION 4-6**P Company and Subsidiary Consolidated Statement of Income and Retained Earnings for the Year Ended December 31, 2021**

Sales	\$540,000
Cost of goods sold	<u>294,000</u>
Gross margin	246,000
Expenses	<u>136,000</u>
Consolidated net income	110,000
Noncontrolling interest in income	<u>8,000</u>
Controlling interest in income	102,000
Retained earnings, 1/1/2021	<u>269,000</u>
Total	371,000
Dividends declared	<u>30,000</u>
Retained earnings, 12/31/2021	<u>\$341,000</u>

P Company and Subsidiary Consolidated Balance Sheet December 31, 2021

<i>Assets</i>	
Current Assets:	
Cash	\$115,000
Accounts Receivable (net)	104,000
Inventories	<u>121,000</u>
Total current assets	340,000
Property and Equipment (net)	430,000
Goodwill	<u>68,250</u>
Total assets	<u>\$838,250</u>
<i>Liabilities and Stockholders' Equity</i>	
Accounts payable	\$ 91,000
Other liabilities	<u>115,000</u>
Total liabilities	206,000
Stockholders' equity:	
Noncontrolling interest in net assets	51,250
Common Stock, \$10 par value	200,000
Other contributed capital	40,000
Retained earnings	<u>341,000</u>
Total liabilities and stockholders' equity	<u>\$838,250</u>

TEST YOUR KNOWLEDGE

4.2

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

Multiple Choice

1. The entry to establish reciprocity or convert from the cost to the equity method usually involves a debit to Investment in Subsidiary and a credit to what account?
 - (A) Subsidiary's end-of-the-year Retained Earnings
 - (B) Parent's end-of-the-year Retained Earnings
 - (C) Parent's beginning-of-the-year Retained Earnings
 - (D) Subsidiary's beginning-of-the-year Retained Earnings

4.3 RECORDING INVESTMENTS IN SUBSIDIARIES—EQUITY METHOD (PARTIAL OR COMPLETE)

Companies may elect to use the equity method to record their investments in subsidiaries to estimate the operating effects of their investments for internal decision-making purposes. As with the cost method, the investment is recorded initially at its cost under the equity method. Subsequent to acquisition, the major differences between the cost and equity methods pertain to the period in which subsidiary income is formally recorded on the books of the parent company and the amount of income recognized. Under the assumptions of this chapter, partial and complete equity methods are indistinguishable. Thus, the differences between the two do not become important until Chapter 5. In Chapter 5, we will explore alternative assumptions regarding the disposition of the difference between implied value and book value, which will necessitate amortization, depreciation, or impairment adjustments. In subsequent chapters, we will explore other complications that may arise under the complete equity method. **To facilitate an understanding of the differences among the methods, the sections of text that differ depending on the method choice are presented in blue for the equity method (e-book only).**

One frequent complication occurs when the parent and subsidiary have different year-ends. The SEC allows the parent to use a different year-end for its subsidiary provided the subsidiary data are not more than 93 days old. The parent simply combines the data for the subsidiary's 12 months with its own, just as though the year-ends were the same. The SEC requirement has become broadly acceptable in practice. In some cases, firms find it desirable for the subsidiary's year to end earlier to facilitate the adjusting, closing, and consolidating procedures in a timely fashion. However, the preference is to use the "best available data," weighing the tradeoffs between reliability and timeliness. Thus, in some cases, the best alternative may be to combine the subsidiary's interim data with the parent's year-end data.

As illustrated in previous sections of this chapter, no income from the subsidiary is recorded by the parent company under the cost method until it is distributed as dividends. When distributed, the parent records its share of the dividends as dividend income. Under the equity method, income is recorded in the books of the parent company in the same accounting period that it is reported by the subsidiary company, whether or not such income is distributed to the parent company.



Assume that P Company purchased 80% of the outstanding shares of S Company common stock on January 1, 2020, for \$165,000. The underlying book value of S Company's net assets (100%) on that date was \$190,000. P Company made the following entry:

P's Books		
Investment in S Company	165,000	
Cash		165,000



P Company would record income in the first year based not on dividends received, but on its share of the subsidiary's income. Under the partial equity method, this amount will be based on income **reported** by the subsidiary. Under the complete equity method, the subsidiary's reported income will be adjusted under certain circumstances, as illustrated at the beginning of this chapter. Throughout the remainder of this chapter, however, we assume that those adjustments will not be needed. Hence adjusted income will equal reported income. The "adjustments" concept will be introduced very briefly in this chapter and developed in later chapters.

Assuming a current period income of \$30,000 reported by S Company, P Company would make the following entry on its books:

P's Books		
Investment in S Company	24,000	
Equity in subsidiary income .8(\$30,000)		24,000

Dividends received from the subsidiary (parent's share assumed to be \$8,000) are then **credited** to the Investment account, as follows:

P's Books		
Cash (or Dividends Receivable)	8,000	
Investment in S Company		8,000

Consequently, the parent company's share of the **cumulative undistributed income (income less dividends)** of the subsidiary is accumulated over time as an addition to the investment account. In this example, the parent's share of undistributed income for the year was \$16,000 (i.e., the same amount as the reciprocity entry for firms using the cost method!).

Investment Carried at Equity—Year of Acquisition

In this section we illustrate the consolidated workpaper used to prepare consolidated financial statements under the equity method. Keep in mind that workpapers are just that, a means to an end, with the real goal being the preparation of correct financial statements. Regardless of whether the parent's books are kept using the cost method or one of the equity methods, the consolidated financial statements should be identical. The eliminating entries needed to achieve the correct balances, however, are not identical.

LO 5 Workpaper eliminating entries (equity method).

Assume that at the end of the first year, the trial balances of P Company and S Company appear as shown in Illustration 4-7. Begin the consolidating process, as always, by preparing a Computation and Allocation (CAD) Schedule, as follows:



Computation and Allocation of Difference Schedule

	<i>Parent Share</i>	<i>Noncontrolling Share</i>	<i>Total Value</i>
Purchase price and implied value	<u>165,000</u>	<u>41,250</u>	<u>206,250</u>
Less: Book value of equity acquired:			
Common stock	80,000	20,000	100,000
Other contributed capital	40,000	10,000	50,000
Retained earnings	<u>32,000</u>	<u>8,000</u>	40,000
Total book value	<u>152,000</u>	<u>38,000</u>	<u>190,000</u>
Difference between implied and book value	13,000	3,250	16,250
Record new goodwill	<u>(13,000)</u>	<u>(3,250)</u>	<u>(16,250)</u>
Balance	<u>—0—</u>	<u>—0—</u>	<u>—0—</u>

Because the difference between implied and book values is established only at the date of acquisition, this schedule will not change in future periods.

Note that the trial balance data in Illustration 4-7 reflect the effects of the investment, equity in subsidiary income, and dividend transactions presented above. These balances are next arranged into *income statement*, *retained earnings statement*, and *balance sheet statement* sections as they are entered into the first two columns of the consolidated workpaper presented in Illustration 4-8.

When the investment account is carried on the Equity basis, it is necessary first to make a workpaper entry reversing the effects of the parent company's entries to the

ILLUSTRATION 4-7

P Company and S Company Trial Balances December 31, 2020

	<i>P Company</i>		<i>S Company</i>	
	<i>Dr.</i>	<i>Cr.</i>	<i>Dr.</i>	<i>Cr.</i>
Cash	\$ 79,000		\$ 18,000	
Accounts Receivable (net)	64,000		28,000	
Inventory, 1/1	56,000		32,000	
Investment in S Company	181,000			
Property and Equipment (net)	180,000		165,000	
Goodwill	35,000		17,000	
Accounts Payable		\$ 35,000		\$ 24,000
Other Liabilities		62,000		37,000
Common Stock, \$10 par value		200,000		100,000
Other Contributed Capital		40,000		50,000
Retained Earnings, 1/1		210,000		40,000
Dividends Declared	20,000		10,000	
Sales		300,000		160,000
Equity in Subsidiary Income		24,000		
Purchases	186,000		95,000	
Expenses	<u>70,000</u>		<u>46,000</u>	
	<u>\$871,000</u>	<u>\$871,000</u>	<u>\$411,000</u>	<u>\$411,000</u>
Inventory, 12/31	<u>\$ 67,000</u>		<u>\$ 43,000</u>	

ILLUSTRATION 4-8**Equity Method**

80% Owned Subsidiary

Consolidated Statements Workpaper

Year of Acquisition

P Company and Subsidiary for the Year Ended December 31, 2020

<i>Income Statement</i>	<i>P Company</i>	<i>S Company</i>	<i>Eliminations</i>		<i>Noncontrolling Interest</i>	<i>Consolidated Balances</i>
			<i>Dr.</i>	<i>Cr.</i>		
Sales	300,000	160,000				460,000
Equity in Subsidiary Income	<u>24,000</u>		(1) 24,000			
Total Revenue	<u>324,000</u>	<u>160,000</u>				<u>460,000</u>
Cost of Goods Sold	175,000	84,000				259,000
Expenses	<u>70,000</u>	<u>46,000</u>				<u>116,000</u>
Total Cost and Expense	<u>245,000</u>	<u>130,000</u>				<u>375,000</u>
Net/Consolidated Income	79,000	30,000				85,000
Noncontrolling Interest in NI					6,000*	(6,000)
Net Income to Retained Earnings	<u>79,000</u>	<u>30,000</u>	<u>24,000</u>	<u>—0—</u>	<u>6,000</u>	<u>79,000</u>
<i>Retained Earnings Statement</i>						
1/1 Retained Earnings						
P Company	210,000					210,000
S Company		40,000	(3) 40,000			
Net Income from above	79,000	30,000	24,000	—0—	6,000	79,000
Dividends Declared						
P Company	(20,000)					(20,000)
S Company		(10,000)		(2) 8,000	(2,000)	
12/31 Retained Earnings to Balance Sheet	<u>269,000</u>	<u>60,000</u>	<u>64,000</u>	<u>8,000</u>	<u>4,000</u>	<u>269,000</u>
<i>Balance Sheet</i>						
Cash	79,000	18,000				97,000
Accounts Receivable (net)	64,000	28,000				92,000
Inventory, 12/31	67,000	43,000				110,000
Investment in S Company	181,000		(2) 8,000	(1) 24,000		
				(3) 165,000		
Difference between Implied and Book Value			(3) 16,250	(4) 16,250		
Property and Equipment (net)	180,000	165,000				345,000
Goodwill	<u>35,000</u>	<u>17,000</u>	(4) 16,250			<u>68,250</u>
Total	<u>606,000</u>	<u>271,000</u>				<u>712,250</u>
Accounts Payable	<u>35,000</u>	<u>24,000</u>				<u>59,000</u>
Other Liabilities	62,000	37,000				99,000
Common Stock						
P Company	200,000					200,000
S Company		100,000	(3) 100,000			
Other Contributed Capital						
P Company	40,000					40,000
S Company		50,000	(3) 50,000			
Retained Earnings from above	269,000	60,000	64,000	8,000	4,000	269,000
1/1 Noncontrolling Interest in Net Assets				(3) 41,250	41,250	
12/31 Noncontrolling Interest in Net Assets					45,250	45,250
Total	<u>606,000</u>	<u>271,000</u>	<u>254,500</u>	<u>254,500</u>		<u>712,250</u>

*20% × \$30,000 = \$6,000.

- (1) To reverse the effect of parent company entry during the year for subsidiary income.
- (2) To reverse the effect of parent company entry during the year for subsidiary dividends.
- (3) To eliminate the investment in S Company and create noncontrolling interest.
- (4) To allocate the excess of implied over book value to goodwill.

Investment account for subsidiary income and dividends during the current year. Here the entry differs from that under the Cost Method.

To eliminate the account “equity in subsidiary income” from the consolidated income statement, the following workpaper entry, presented in general journal form, is made:

(1)	Equity in Subsidiary Income	24,000	
	Investment in S Company		24,000

Next, to eliminate intercompany dividends under the equity method, this workpaper entry is made:

(2)	Investment in S Company	8,000	
	Dividends Declared		8,000

Alternatively, these two entries may be collapsed into one entry, as follows:

(1)–(2)	Equity in Subsidiary Income	24,000	
	Investment in S Company		16,000
	Dividends Declared		8,000



This reversal has two effects. First, it eliminates the equity in subsidiary income and dividends recorded by P Company. Second, it returns the investment account to its balance as of the beginning of the year. This is necessary because it is the parent company’s share of the subsidiary’s retained earnings at the *beginning of the year* that is eliminated in the investment elimination entry.

A third eliminating entry must then be made to eliminate the Investment account against subsidiary equity, and the fourth entry distributes the difference between implied and book values of equity, as follows:

(3)	Common Stock—S Company	100,000	
	Other Contributed Capital—S Company	50,000	
	1/1 Retained Earnings—S Company	40,000	
	Difference between Implied and Book Values	16,250	
	Investment in S Company		165,000
	Noncontrolling Interest in Equity		41,250
	“The investment entry”		
(4)	Goodwill	16,250	
	Difference between Implied and Book Value		16,250
	“The differential entry”		

The next few paragraphs relate to basic workpaper concepts that do not differ between the cost and equity methods. Thus, for those who have already read the section of the chapter on the cost method, this will serve as a review.

To complete the worksheet, the account balances are extended from left to right. Two lines merit attention. First, the **entire bottom line** of the income statement, which represents net income, is transferred to the Net Income line on the retained earnings statement. Similarly, the **entire bottom line** of the retained earnings statement, which represents ending retained earnings, is transferred to the retained earnings line on the balance sheet. Throughout this and future chapters on consolidation, we will see that *any eliminating entries to the account Retained Earnings will be entered in the Beginning Balance on the retained earnings statements (not on the balance sheet, ending balance)*. Because the Current Year Income and Dividends Declared accounts are still open, current year changes in Retained Earnings will be adjusted through those accounts (or in the retained earnings section of the workpaper).

There is one number on the workpaper that is calculated and then inserted directly into the income statement, and does not flow from the trial balance columns. That number is the **noncontrolling interest in consolidated net income**. To facilitate the calculation of the noncontrolling and controlling interests in consolidated net income, a t-account approach is helpful. In later chapters, the presence of intercompany profits and other complications will make the calculation more complex than it is at this point. It is, nonetheless, useful to form the habit of using the t-accounts now.

The first t-account (below) calculates the distribution of consolidated net income to the noncontrolling interest. This number can be inserted directly into the next-to-bottom line of the Income Statement section. When this amount is subtracted from the consolidated income of \$85,000, the resulting amount of \$79,000 represents the **controlling interest in consolidated net income**. It is interesting to note that this is the very same amount that the parent reported in its trial balance originally. In future chapters, we will see that this is the case only if the parent uses the complete equity method. For example, if profit or loss on intercompany sales between parent and subsidiary must be eliminated at the balance sheet date, an adjustment will be required to reconcile the two numbers under the partial equity method. Similarly, if any difference between implied and book values is attributed to depreciable assets, an adjustment will also be needed under the partial equity method. Hence it is useful to check the calculation of the controlling interest in consolidated net income.



Noncontrolling Interest in Consolidated Net Income

Internally generated income of S Company	\$30,000
Any needed adjustments (see Chapter 5)	0
Adjusted income of subsidiary	<u>30,000</u>
Noncontrolling percentage owned	20%
Noncontrolling interest in income	<u>6,000</u>

The next t-account serves as a check of the controlling interest in consolidated income. The 80% controlling percentage in the adjusted income of subsidiary (\$30,000 from t-account above) will appear in P Company's t-account as part of the controlling interest. For the parent company, the internally generated income represents the amount from the first column of the trial balance (\$79,000) minus any income which came from the subsidiary (equity in subsidiary income, in this case, of \$24,000), or \$55,000 income from P Company's independent operations.

(\$30,000).8

Controlling Interest in Consolidated Net Income

Internally generated income (\$79,000 income minus \$24,000 equity in subsidiary income)	\$55,000
Any needed adjustments (see Chapter 5)	0
Percentage of subsidiary adjusted income (80%) (\$30,000)	<u>24,000</u>
Controlling interest in income	<u>\$79,000</u>



Consolidated retained earnings on December 31, 2020, of \$269,000 can be determined as follows:

P Company's reported retained earnings, 1/1	\$210,000
Plus controlling interest in consolidated net income for 2020	79,000
Less P Company's dividends declared during 2020	<u>(20,000)</u>
Consolidated Retained Earnings, 12/31	<u>\$269,000</u>

The calculation above appears in the final column of the workpaper in the Retained Earnings Statement section.

Under the complete equity method (or the partial equity method if there are no complicating adjustments, as here), the ending Consolidated Retained Earnings equals Retained Earnings—P at the end of the year as shown in the first column of the workpaper.

Note that the eliminations columns in each section do not balance, since individual eliminations often involve more than one section. The total eliminations for all three sections, however, must be in balance.

Noncontrolling interest in consolidated net assets or equity at the beginning of the year (\$41,250) can be obtained from the first line of the CAD schedule, or can be determined directly by multiplying the noncontrolling interest percentage times the implied value of the subsidiary at acquisition. Thus, noncontrolling interest in consolidated net assets can be computed as $\$206,250 \times 20\%$ at this date. To calculate the noncontrolling interest at year-end, sum the following components:

Total Noncontrolling Interest

\$41,250	Noncontrolling interest at the date of acquisition, representing 20% of the implied value of the subsidiary.
6,000	A \$6,000 ($20\% \times \$30,000$) interest in the amount of S Company income that is included in consolidated net income. The \$6,000 is considered an allocation of consolidated net income to the noncontrolling shareholders.
(2,000)	A \$2,000 ($20\% \times \$10,000$) decrease for dividends distributed to the noncontrolling stockholders during the year. The other \$8,000 in dividends represents parent company dividend income and is, therefore, eliminated.
\$45,250	Total Noncontrolling Interest

Comparison of Illustration 4-3 and Illustration 4-8 brings out an important observation. ***The consolidated column of the workpaper is the same under the cost and equity methods. Thus, the decision to use the cost or equity method to record investments in subsidiaries that will be consolidated has no impact on the consolidated financial statements. Only the elimination process is affected.***

Note once more that P Company's reported net income of \$79,000 (Illustration 4-8) and consolidated net income are identical. Likewise, P Company's December 31, 2020, retained earnings equal consolidated retained earnings at that date. In later chapters we will see that this will always be true under the complete equity method, but not under the partial equity method. We obtain this result here because P Company has recorded its share of S Company's earnings, and because of the absence of complicating assumptions.

Investment Carried at Equity—After Year of Acquisition

To illustrate the preparation of a consolidated workpaper for years after the year of acquisition under the equity method, assume the data given in Illustration 4-9, and the use of the equity method rather than the cost method. After P Company has recorded its share

**ILLUSTRATION 4-9****P Company and S Company Trial Balances (Year after Acquisition) December 31, 2021**

	<i>P Company</i>		<i>S Company</i>	
	<i>Dr.</i>	<i>Cr.</i>	<i>Dr.</i>	<i>Cr.</i>
Cash	\$ 74,000		\$ 41,000	
Accounts Receivable (net)	71,000		33,000	
Inventory, 1/1	67,000		43,000	
Investment in S Company	205,000			
Property and Equipment (net)	245,000		185,000	
Goodwill	35,000		17,000	
Accounts Payable		\$ 61,000		\$ 30,000
Other Liabilities		70,000		45,000
Common Stock		200,000		100,000
Other Contributed Capital		40,000		50,000
Retained Earnings, 1/1		269,000		60,000
Dividends Declared	30,000		10,000	
Sales		350,000		190,000
Equity in Subsidiary Income		32,000		
Purchases	215,000		90,000	
Expenses	80,000		56,000	
	<u>\$1,022,000</u>	<u>\$1,022,000</u>	<u>\$475,000</u>	<u>\$475,000</u>
Inventory, 12/31	<u>\$ 82,000</u>		<u>\$ 39,000</u>	

of S Company's income (\$32,000) and dividends declared (\$8,000), the Investment in S Company account appears as follows:

The preparation of the Computation and Allocation (CAD) Schedule is the same as it was in the year of acquisition; that is, it does not need to be prepared again. The elimination process also follows the same procedures as in the year of acquisition (with current year amounts). A consolidated statements workpaper in this case is presented in Illustration 4-10. We next review the workpaper entries in general journal entry form. Note that although the CAD Schedule does not change, the third eliminating entry (to eliminate the Investment account against the equity accounts of the subsidiary) will change to reflect the Retained Earnings balance of the subsidiary at the *beginning of the current year* and the corresponding change in the Investment account $(\$60,000 - \$40,000) \times 80\%$ and in the noncontrolling interest $(\$60,000 - \$40,000) \times 20\%$.

As in the year of acquisition, the Equity in Subsidiary account must be eliminated against the Investment in Subsidiary account. The amount of this entry is obtained from the trial balance column for P Company, and it equals the parent's percentage (80%) of S Company's reported net income (\$40,000):

(1)	Equity in Subsidiary Income	32,000	
	Investment in S Company		32,000

Next, to eliminate intercompany dividends under the equity method, this workpaper entry is made:

(2)	Investment in S Company	8,000	
	Dividends Declared		8,000

LO 5 Workpaper eliminating entries after acquisition (equity method).

ILLUSTRATION 4-10

Equity Method

80% Owned Subsidiary

Consolidated Statements Workpaper

Subsequent to Year
of AcquisitionP Company and Subsidiary for
the Year Ended December 31, 2021

Income Statement	P Company	S Company	Eliminations		Noncontrolling Interest	Consolidated Balances
			Dr.	Cr.		
Sales	350,000	190,000				540,000
Equity in Subsidiary Income	<u>32,000</u>		(1) 32,000			
Total Revenue	<u>382,000</u>	<u>190,000</u>				<u>540,000</u>
Cost of Goods Sold	200,000	94,000				294,000
Expenses	<u>80,000</u>	<u>56,000</u>				<u>136,000</u>
Total Cost and Expense	<u>280,000</u>	<u>150,000</u>				<u>430,000</u>
Net/Consolidated Income	102,000	40,000				110,000
Noncontrolling Interest in Income					<u>8,000</u>	<u>(8,000)*</u>
Net Income to Retained Earnings	<u>102,000</u>	<u>40,000</u>	<u>32,000</u>	<u>—0—</u>	<u>8,000</u>	<u>102,000</u>
<i>Retained Earnings Statement</i>						
1/1 Retained Earnings						
P Company	269,000					269,000
S Company		60,000	(3) 60,000			
Controlling Interest in Net Income from above	102,000	40,000	32,000	—0—	8,000	102,000
Dividends Declared						
P Company	(30,000)					(30,000)
S Company		(10,000)		(2) 8,000	(2,000)	
12/31 Retained Earnings to Balance Sheet	<u>341,000</u>	<u>90,000</u>	<u>92,000</u>	<u>8,000</u>	<u>6,000</u>	<u>341,000</u>
<i>Balance Sheet</i>						
Cash	74,000	41,000				115,000
Accounts Receivable (net)	71,000	33,000				104,000
Inventory, 12/31	82,000	39,000				121,000
Investment in S Company	205,000		(2) 8,000	(1) 32,000		
				(3) 181,000		
Difference between Implied and Book Value			(3) 16,250	(4) 16,250		
Property and Equipment (net)	245,000	185,000				430,000
Goodwill	<u>35,000</u>	<u>17,000</u>	(4) 16,250			<u>68,250</u>
Total	<u>712,000</u>	<u>315,000</u>				<u>838,250</u>
Accounts Payable	61,000	30,000				91,000
Other Liabilities	70,000	45,000				115,000
Common Stock						
P Company	200,000					200,000
S Company		100,000	(3) 100,000			
Other Contributed Capital						
P Company	40,000					40,000
S Company		50,000	(3) 50,000			
Retained Earnings from above	341,000	90,000	92,000	8,000	6,000	341,000
1/1 Noncontrolling Interest in Net Assets				(3) 45,250**	45,250	
12/31 Noncontrolling Interest in Net Assets					<u>51,250</u>	<u>51,250</u>
Total	<u>712,000</u>	<u>315,000</u>	<u>282,500</u>	<u>282,500</u>		<u>838,250</u>

*20% × \$40,000 = \$8,000.

**\$41,250 + (\$60,000 − \$40,000) × .2 = \$45,250.

- (1) To reverse the effect of parent company entry during the year for subsidiary income.
- (2) To reverse the effect of parent company entry during the year for subsidiary dividends.
- (3) To eliminate the investment in S Company and create noncontrolling interest account.
- (4) To allocate the excess of implied over book value to goodwill.

Investment in S Company				
12/31/20	Balance	181,000	Dividends	8,000
	Subsidiary income	32,000		
12/31/21	Balance	205,000		

Alternatively, these two entries may be collapsed into one entry, as follows:

(1)–(2)	Equity in Subsidiary Income	32,000	
	Investment in S Company		24,000
	Dividends Declared		8,000

As in the year of acquisition, these entries eliminate the equity in subsidiary income and dividends recorded by P Company, and return the investment account to its balance as of the beginning of the year. This is necessary because it is the subsidiary's retained earnings at the *beginning of the year* that is eliminated in the third or investment elimination entry.

The third eliminating entry eliminates the Investment account against subsidiary equity and recognizes the noncontrolling interest as of the beginning of the current year. The fourth entry distributes the difference between implied and book values of equity, as follows:

(3)	Common Stock—S Company	100,000	
	Other Contributed Capital—S Company	50,000	
	1/1 Retained Earnings—S Company	60,000	
	Difference between Implied and Book Value	16,250	
	Investment in S Company $\$165,000 + .8(60,000 - 40,000)$		181,000
	or $(\$205,000 - \$24,000, \text{ from entries (1) and (2)})$		
	Noncontrolling Interest in Equity $\$41,250 + .2(60,000 - 40,000)$		45,250
(4)	Goodwill	16,250	
	Difference between Implied and Book Values		16,250

The only differences in the affiliates' account data as compared to the cost method workpaper appear in P Company's statements. The Investment account in P Company's balance sheet shows a balance of \$205,000 rather than \$165,000; and equity in subsidiary income of \$32,000, rather than dividend income of \$8,000, is listed in P Company's income statement. In addition, P Company's beginning and ending retained earnings are \$16,000 and \$40,000 larger, respectively, which reflects the effect of recording its share (80%) of S Company's income in 2020 and 2021 rather than recording only its share of dividends distributed by S Company.

Also, observe that the consolidated columns in Illustration 4-5 and Illustration 4-10 are the same; regardless of the method used (cost or equity), the consolidated results are unaffected.



LO 5 Workpaper eliminating entries (complete equity method).

Investment Carried at Complete Equity

Under the assumptions of the preceding illustration, the complete equity method and the partial equity method are identical, not only in the end result but also in the steps to consolidate. Under other assumptions, however, the two may differ in the steps (though not in the end result).

Recall that the complete equity method is quite similar to the partial equity method, but involves additional entries to the investment account on the books of the parent. These additional adjustments are made to the investment account for the amortization, depreciation, or impairment of differences between market and book values, for the effects of unrealized intercompany profits, and for stockholders' equity transactions undertaken by the subsidiary.

In the absence of these types of transactions, the complete equity method is identical to the partial equity method, both on the books of the parent and in the workpaper eliminating entries, as in the preceding illustration.

Let us assume that no unrealized intercompany profits are involved (neither the parent nor the subsidiary made sales to the other party), and the subsidiary did not participate in any stockholders' equity transactions. In this situation we need only consider the possible amortization, depreciation, or impairment of differences between market and book values, in addition to the concepts presented in the preceding illustration. In that illustration, we assumed that any difference between purchase price and the book value of equity acquired related to goodwill. Under generally accepted accounting principles, we do not amortize, depreciate, or appreciate goodwill over time. Instead it is reviewed for impairment. In Chapter 5, we will explore alternative assumptions regarding the disposition of the difference between implied value and book value, which will necessitate amortization or depreciation adjustments. In subsequent chapters, we will explore other complications that may result in differences between the partial and complete equity methods.

Summary of Workpaper Eliminating Entries

Basic workpaper consolidating (eliminating/adjusting) entries depend on whether (1) the cost method or equity method is used to record the investment on the books of the parent company, and (2) the workpaper is being prepared at the end of the year of acquisition or at the end of periods after the year of acquisition. Workpaper eliminating entries for the alternatives are summarized in Illustration 4-11.

ILLUSTRATION 4-11

Summary of Basic Workpaper Eliminating Entries

<i>Cost Method</i>	<i>Partial Equity Method</i>	<i>Complete Equity Method</i>
<i>End of Year of Acquisition</i>		
Dividend Income Dividends Declared—S	Equity in Subsidiary Income Dividends Declared—S Investment in S Company	Equity in Subsidiary Income Dividends Declared—S Investment in S Company
To eliminate intercompany dividend income.	To eliminate equity in subsidiary reported income and dividends and return the investment account to its cost at date of acquisition.	To eliminate equity in subsidiary adjusted income and dividends and return the investment account to its cost at date of acquisition. (Adjustments are addressed in Chapter 5.)

ILLUSTRATION 4-11 (CONTINUED)

<i>Cost Method</i>	<i>Partial Equity Method</i>	<i>Complete Equity Method</i>
<i>End of Year of Acquisition</i>		
Capital Stock—S		
Other Contributed Capital—S		
Retained Earnings—S	Same as Cost Method	Same as Cost Method
Difference between Implied and Book Value		
Investment in S Company		
NCI		
To eliminate P Company's share of S Company's stockholders' equity against the investment account, and create an account for the noncontrolling interest, if any.		
<i>End of Periods Subsequent to Year of Acquisition</i>		
Investment in S Company		
Retained Earnings—P	No Entry Needed	No Entry Needed
To recognize P Company's share of S Company's undistributed income from the date of acquisition to beginning of the current year (reciprocity or conversion entry).		
Dividend Income	Equity in Subsidiary Income	Equity in Subsidiary Income
Dividends Declared—S	Dividends Declared—S	Dividends Declared—S
	Investment in S Company	Investment in S Company
To eliminate intercompany dividend income.	To eliminate equity in subsidiary <i>reported</i> income and dividends and return the investment account to its balance as of beginning of the current year.	To eliminate equity in subsidiary <i>adjusted</i> income and dividends and return the investment account to its balance as of beginning of the current year. (Adjustments are addressed in Chapter 5.)
Capital Stock—S		
Other Contributed Capital—S		
Retained Earnings—S	Same as Cost Method	Same as Cost Method
Difference between Implied and Book Value		
Investment in Company		
NCI		
To eliminate P Company's share of S Company's stockholders' equity against the investment account, and recognize NCI.		

4.4 ELIMINATION OF INTERCOMPANY REVENUE AND EXPENSE ITEMS

Discussion and illustrations to this point have emphasized the procedures used to eliminate the parent company's interest in subsidiary equity against the investment account at the end of the year of stock acquisition and for subsequent periods. Before proceeding with a discussion of some special topics relating to consolidated statements in succeeding chapters, it should be noted that several types of intercompany revenue and expense items must be eliminated in the preparation of a consolidated income statement.

Affiliates often engage in numerous sale/purchase transactions with other affiliates, such as the sale of merchandise or equipment by a subsidiary to its parent, or vice versa. Procedures used to eliminate these intercompany sales (purchases), as well as any unrealized profit remaining in inventories, are discussed and illustrated in Chapters 6 and 7. Eliminating workpaper entries are also needed for such intercompany revenue and expense items as interest, rent, and professional services. For example,

the workpaper entry to eliminate intercompany interest revenue and expense takes the following form:

Interest Revenue	8,000	
Interest Expense		8,000

TEST YOUR KNOWLEDGE 4.3

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

Multiple Choice

- In periods subsequent to acquisition and in *the absence of intercompany profits or other complicating transactions*, the noncontrolling interest (as shown in the consolidated balance sheet) can be determined by summing the noncontrolling interest in equity at acquisition *and*:
 - The noncontrolling percentage of the book value of the subsidiary's net assets.
 - The noncontrolling percentage of the fair value of the subsidiary's net assets.
 - The noncontrolling percentage of the subsidiary's year-end retained earnings.
 - The noncontrolling percentage of the change in subsidiary retained earnings from acquisition to the end of the current year.

4.5 INTERIM ACQUISITIONS OF SUBSIDIARY STOCK

LO 6 Two approaches for interim acquisitions.

Discussion and illustrations to this point have been limited to situations in which the parent company acquired its interest in a subsidiary at the beginning of the subsidiary's fiscal period. That condition is unrealistic because many stock acquisitions are made during the subsidiary's fiscal period. Thus, the proper treatment in consolidated financial statements of the subsidiary's revenue and expense items for the partial period *before* acquisition must be considered.

For example, suppose that P Company acquires 90% of the outstanding common stock of S Company on April 1, 2020. Both companies close their books on December 31. Consider S's income statement in Illustration 4-12. In this illustration, the revenues and expenses for S Company are presented in total, and also separately for the periods before and after the acquisition. S Company earns \$36,000 of income for the entire year. P Company is entitled to 90% of the income earned since April (90% of \$27,000 or \$24,300). As mentioned earlier, *under acquisition accounting, revenues and expenses of the acquired company are included with those of the acquiring company only from the date of acquisition forward*. In essence, the amounts to be combined with the parent in the year of acquisition are shown in the third column of Illustration 4-12. However, the totals from column 1 are often shown as the starting point for two reasons: (1) the revenue and expense accounts in the books of the subsidiary are likely to reflect the entire year, and (2) users may be interested in preacquisition information.

FASB requires that the consolidated financial statements include the subsidiary's revenues, expenses, gains, and losses only from the date of acquisition (FASB ASC paragraph 810-10-45-4). To accomplish this, the subsidiary usually closes the books on the date of acquisition (i.e., preacquisition income is closed to retained earnings). In Illustration 4-12, the third column shows the revenues and expenses to be reported under this approach.

ILLUSTRATION 4-12

S Company
Income Statement and Allocation to Various Interests
for the Year Ended December 31, 2020

<i>Income Statement</i>	(1) <i>Entire Year</i>	(2) <i>January to April</i>	(3) <i>April to December</i>
Sales	160,000	40,000	120,000
Dividend Income			
Total Revenue	160,000	40,000	120,000
Cost of Goods Sold	80,000	20,000	60,000
Other Expenses	44,000	11,000	33,000
Total Cost and Expense	124,000	31,000	93,000
Net Income	36,000	9,000	27,000
Noncontrolling Interest in Income (10%) after Purchase			2,700
Controlling Interest in Consolidated Net Income (after Purchase)			24,300

Note: P acquires S Company on April 1, 2020.

Interim Acquisition under the Cost Method

Assume that P Company acquired 90% of the outstanding common stock of S Company on April 1, 2020, for a cash payment of \$290,700. The difference between implied and book value relates to the undervaluation of S Company land. Trial balances at December 31, 2020, for P and S companies appear below.



COST

	<i>P Company</i>		<i>S Company</i>	
	<i>Dr.</i>	<i>Cr.</i>	<i>Dr.</i>	<i>Cr.</i>
Current Assets	\$ 145,300		\$ 71,000	
Investment in S Company	290,700			
Plant and Equipment (net)	326,000		200,000	
Land	120,000		90,000	
Liabilities		\$ 100,000		\$ 65,000
Common Stock		500,000		200,000
Retained Earnings, 1/1		214,000		80,000
Dividends Declared, 11/1	50,000		20,000	
Sales		600,000		160,000
Dividend Income		18,000		
Cost of Goods Sold	380,000		80,000	
Other Expense	120,000		44,000	
	\$1,432,000	\$1,432,000	\$505,000	\$505,000

In the computation of subsidiary income before acquisition, it is assumed that S Company's income of \$36,000 was earned evenly throughout the year. Because one-fourth of the year had expired by April 1, the date of acquisition, net income prior to the acquisition date was $\$36,000 \times \frac{1}{4}$ or \$9,000. Only three-fourths of S Company's sales, cost of goods sold, and other expense are included in the consolidated income statement as if S Company's books had been closed on April 1, 2020. These are the amounts shown in column 3 of Illustration 4-12.

If the books are actually closed on April 1, 2020, this alternative is facilitated. The following entry should be made on S's books:

S's Books		
Income Summary	9,000	
Retained Earnings		9,000

If this occurs, the balance in the retained earnings account on the books of the subsidiary (after closing entries on 4/1) is: \$80,000 (balance at 1/1) + \$9,000 (income for first three months of the year, column 2 of Illustration 4-12), or \$89,000.

Computation and Allocation of Difference Schedule

	<i>Parent Share</i>	<i>Noncontrolling Share</i>	<i>Total Value</i>
Purchase price and implied value	<u>290,700</u>	<u>32,300</u>	323,000
Less: Book value of equity:			
Common stock	180,000	20,000	200,000
Retained earnings, 4/1	<u>80,100</u>	<u>8,900</u>	89,000
Total book value	<u>260,100</u>	<u>28,900</u>	<u>289,000</u>
Difference between implied and book value	30,600	3,400	34,000
Adjust land upward (mark to market)	<u>(30,600)</u>	<u>(3,400)</u>	<u>(34,000)</u>
Balance	<u>—0—</u>	<u>—0—</u>	<u>—0—</u>



COST

A workpaper for the preparation of consolidated financial statements on December 31, 2020, is presented in Illustration 4-13.

The workpaper entry to eliminate the investment account is:

(1)	Common Stock—S Company	200,000	
	4/1 Retained Earnings—S Company	89,000	
	Difference between Implied and Book Values	34,000	
	Investment in S Company		290,700
	Noncontrolling Interest in Equity		32,300

Note that S Company's beginning retained earnings is \$9,000 greater than it is in Illustration 4-12, reflecting the effect of the closing to retained earnings of income earned during the first three months. Noncontrolling interest in net income included in consolidated net income is 10% of \$27,000, or \$2,700 earned subsequent to acquisition. Note that consolidated net income, consolidated retained earnings, and the consolidated balance sheet are identical to those in Illustration 4-13. Only the detail included in the consolidated income statement is different.

Interim Acquisition: The Equity Method

The preceding discussion assumed that the parent company recorded its investment using the cost method. If the equity method had been used, P Company would have recognized

ILLUSTRATION 4-13**Cost Method**

Interim Purchase of Stock

Consolidated Statements Workpaper**90% Owned Subsidiary****P Company and Subsidiary****for the Year Ended December 31, 2020**

<i>Income Statement</i>	<i>P Company</i>	<i>S Company</i>	<i>Eliminations</i>		<i>Noncontrolling Interest</i>	<i>Consolidated Balances</i>
			<i>Dr.</i>	<i>Cr.</i>		
Sales	600,000	120,000				720,000
Dividend Income	18,000		(3) 18,000			
Total Revenue	<u>618,000</u>	<u>120,000</u>				<u>720,000</u>
Cost of Goods Sold	380,000	60,000				440,000
Other Expenses	120,000	33,000				153,000
Total Cost and Expense	<u>500,000</u>	<u>93,000</u>				<u>593,000</u>
Net/Consolidated Income	118,000	27,000				127,000
Noncontrolling Interest in Income					2,700*	(2,700)
Net Income to Retained Earnings	<u>118,000</u>	<u>27,000</u>	<u>18,000</u>	<u>—0—</u>	<u>2,700</u>	<u>124,300</u>
<i>Retained Earnings Statement</i>						
Retained Earnings						
P Company	214,000					214,000
S Company		89,000	(1) 89,000			
Net Income from above	118,000	27,000	18,000	—0—	2,700	124,300
Dividends Declared						
P Company	(50,000)					(50,000)
S Company		(20,000)		(3) 18,000	(2,000)	
12/31 Retained Earnings to Balance Sheet	<u>282,000</u>	<u>96,000</u>	<u>107,000</u>	<u>18,000</u>	<u>700</u>	<u>288,300</u>
<i>Balance Sheet</i>						
Current Assets	145,300	71,000				216,300
Investment in S Company	290,700			(1) 290,700		
Difference between Implied and Book Value			(1) 34,000	(2) 34,000		
Property and Equipment (net)	326,000	200,000				526,000
Land	120,000	90,000	(2) 34,000			244,000
Total	<u>882,000</u>	<u>361,000</u>				<u>986,300</u>
Liabilities	100,000	65,000				165,000
Common Stock						
P Company	500,000					500,000
S Company		200,000	(1) 200,000			
Retained Earnings from above	282,000	96,000	107,000	18,000	700	288,300
4/1 Noncontrolling Interest in Net Assets				(1) 32,300	32,300	
12/31 Noncontrolling Interest in Net Assets					<u>33,000</u>	<u>33,000</u>
Total	<u>882,000</u>	<u>361,000</u>	<u>375,000</u>	<u>375,000</u>		<u>986,300</u>

*Noncontrolling interest (NCI) = .1 (\$27,000) = \$2,700.

(1) To eliminate the investment in S Company and create noncontrolling interest account.

(2) To allocate the difference between implied and book value to land.

(3) To eliminate intercompany dividends.

(in actual entries posted to the general ledger) its share of subsidiary income earned *after* acquisition. On the books of the parent company, dividends would be treated as usual as a reduction in the investment account. Thus, still using the example introduced in Illustration 4-12, P Company would make the following dividend and earnings entries relative to its investment in S Company for the year 2020.



P's Books		
Investment in S Company	24,300	
Equity in Subsidiary Income .9(\$27,000)		24,300
To record equity in subsidiary income.		
Cash	18,000	
Investment in S Company		18,000
To record dividends received .9(\$20,000).		

The CAD schedule is:

Computation and Allocation of Difference Schedule

	<i>Parent Share</i>	<i>Noncontrolling Share</i>	<i>Total Value</i>
Purchase price and implied value	<u>290,700</u>	<u>32,300</u>	<u>323,000</u>
Less: Book value of equity acquired:			
Common stock	180,000	20,000	200,000
Retained earnings, 4/1	<u>80,100</u>	<u>8,900</u>	89,000
Total book value	<u>260,100</u>	<u>28,900</u>	<u>289,000</u>
Difference between implied and book value	30,600	3,400	34,000
Adjust land upward (mark to market)	<u>(30,600)</u>	<u>(3,400)</u>	(34,000)
Balance	<u>—0—</u>	<u>—0—</u>	<u>—0—</u>

A workpaper for the preparation of consolidated financial statements on December 31, 2020, is presented in Illustration 4-14. Workpaper elimination entries are then as follows:

(1)	Equity in Subsidiary Income	24,300	
	Investment in S Company		24,300
(2)	Investment in S Company	18,000	
	Dividends Declared—S Company		18,000
(3)	Common Stock—S Company	200,000	
	4/1 Retained Earnings—S Company	89,000	
	Difference between Implied and Book Values	34,000	
	Investment in S Company		290,700
	Noncontrolling Interest in Equity		32,300
(4)	Land	34,000	
	Difference between Implied and Book Value		34,000

ILLUSTRATION 4-14**Equity Method**

Interim Purchase of Stock		Consolidated Statements Workpaper				
90% Owned Subsidiary		P Company and Subsidiary				
for the Year Ended December 31, 2020						
Income Statement	P Company	S Company	Eliminations		Noncontrolling Interest	Consolidated Balances
			Dr.	Cr.		
Sales	600,000	120,000				720,000
Equity in Subsidiary Income	24,300		(1) 24,300			
Total Revenue	624,300	120,000				720,000
Cost of Goods Sold	380,000	60,000				440,000
Other Expenses	120,000	33,000				153,000
Total Cost and Expense	500,000	93,000				593,000
Net/Consolidated Income	124,300	27,000				127,000
Noncontrolling Interest in Income					2,700*	(2,700)
Net Income to Retained Earnings	124,300	27,000	24,300	—0—	2,700	124,300
<i>Retained Earnings Statement</i>						
Retained Earnings						
P Company	214,000					214,000
S Company		89,000	(3) 89,000			
Net Income from above	124,300	27,000	24,300	—0—	2,700	124,300
Dividends Declared						
P Company	(50,000)					(50,000)
S Company		(20,000)		(2) 18,000	(2,000)	
12/31 Retained Earnings to Balance Sheet	288,300	96,000	113,300	18,000	700	288,300
<i>Balance Sheet</i>						
Current Assets	145,300	71,000				216,300
Investment in S Company	297,000		(2) 18,000	(1) 24,300		
				(3) 290,700		
Difference between Implied and Book Value			(3) 34,000	(4) 34,000		
Property and Equipment (net)	326,000	200,000				526,000
Land	120,000	90,000	(4) 34,000			244,000
Total	888,300	361,000				986,300
Liabilities	100,000	65,000				165,000
Common Stock						
P Company	500,000					500,000
S Company		200,000	(3) 200,000			
Retained Earnings from above	288,300	96,000	113,300	18,000	700	288,300
4/1 Noncontrolling Interest in Net Assets				(1) 32,300	32,300	
12/31 Noncontrolling Interest in Net Assets					33,000	33,000
Total	888,300	361,000	399,300	399,300		986,300

*Noncontrolling interest (NCI) = .10(\$27,000) = \$2,700.

(1) To reverse the effect of parent company entry during the year for subsidiary income.

(2) To reverse the effect of parent company entry during the year for subsidiary dividends.

(3) To eliminate the investment in S Company and create noncontrolling interest account.

(4) To allocate the excess of implied over book value to land.

To verify the amount of income reported, prepare t-accounts for the noncontrolling and controlling interests as follows:

Noncontrolling Interest in Consolidated Net Income

Internally generated income of S Company (after acquisition)	\$27,000	
Any needed adjustments (Chapter 5)	0	
Adjusted income of subsidiary	<u>27,000</u>	
Noncontrolling percentage owned	10%	
Noncontrolling interest in income	<u>2,700</u>	
		<u>(90%)(27,000)</u>

Controlling Interest in Consolidated Income

Internally generated income of P Company (entire year: \$124,300 – \$24,300)	\$100,000	
Any needed adjustments (Chapter 5)	0	
Percentage of subsidiary adjusted income (90%) (\$27,000)	<u>24,300</u>	
Controlling interest in income	<u>\$124,300</u>	

TEST YOUR KNOWLEDGE 4.4

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

Multiple Choice

- Cash spent or received in consummating an acquisition should be reflected in which of the following sections of the statement of cash flows:
 - Operating
 - Investing
 - Financing
 - Notes to the statement of cash flows

4.6 CONSOLIDATED STATEMENT OF CASH FLOWS

Lo 7 Peculiarities of Consolidated Statement of Cash Flows.

The procedures followed in the preparation of a statement of cash flows are discussed in most intermediate accounting texts. When the company is reporting on a consolidated basis, the statement of cash flows must also be presented on a consolidated basis. The starting point for the consolidated cash flow statement is the consolidated income statement and comparative consolidated balance sheets (beginning and end of current year). Thus the preparation of the consolidated statement of cash flows will be the same, regardless of how the parent accounts for its investment (cost method, partial equity method, or complete equity method). This is true because the final product (the consolidated financial statements) is always the same if the consolidating procedures are done correctly.

We will first discuss years subsequent to the year of acquisition, and then the preparation of the consolidated statement of cash flows in the year of acquisition. In years subsequent to the year of acquisition, a consolidated balance sheet should be available for both the beginning and end of the current year. The consolidated statement of cash flows reflects all cash outlays and inflows of the consolidated entity except those

between parent and subsidiary. Therefore, we are interested in explaining 100% of the changes in balance sheet accounts of parent and subsidiary (not just the portion of the subsidiary controlled by the parent). Because the consolidated balance sheet reflects 100% of the assets and liabilities of both parent and subsidiary, the preparation of a consolidated statement of cash flows is quite similar in most respects to that of a single (unconsolidated) firm. At least three aspects of the statement do, however, differ (or require modification). They are:

1. *Noncontrolling interest in consolidated net income.* Accounting standards require the disclosure of cash flows from operating activities for the reporting period. Like the consolidated balance sheet and the consolidated income statement, the consolidated statement of cash flows presents **combined** information for the parent and its subsidiaries (i.e., combined cash flows). Cash flows from operating activities may be presented by either the direct or the indirect method. Under the indirect method, we begin with net income for the period and add back (or deduct) any items recognized in determining that net income that did not result in an outflow (or inflow) of cash. These adjustments normally include such items as depreciation and amortization. ***If the statement of cash flows starts with consolidated net income, then the noncontrolling interest is already included and need not be added back.*** However, if the starting amount (net income) reflects only the **controlling interest** in consolidated net income (often the “bottom line” on the consolidated income statement), an additional adjustment for a consolidated statement of cash flows is the **add-back of the noncontrolling interest in consolidated net income** (or deduction of the noncontrolling interest’s share of a loss).
2. *Subsidiary dividends paid:* Because we are interested in reflecting 100% of cash outlays and inflows between the consolidated entity and outsiders, any subsidiary dividends **paid to the noncontrolling stockholders** must be included with dividends paid by the parent company when calculating cash outflow from financing activities. The dividends paid by the subsidiary to the parent do not involve cash flows to or from outsiders and thus are not reported on the consolidated statement of cash flows.
3. *Parent company acquisition of additional subsidiary shares:* The cost of the acquisition of additional shares in a subsidiary by the parent company may or may not constitute a cash outflow from investing activities. If the acquisition is an open market purchase, it does represent such an outflow.

Illustration of Preparation of a Consolidated Statement of Cash Flows—Year after Acquisition

As an illustration of the preparation of a consolidated statement of cash flows, a consolidated income statement and comparative consolidated balance sheets for P Company and its 90% owned subsidiary, S Company, along with other information, are presented in Illustration 4-15.

Other Information for the Current Year:

1. Depreciation expense of \$26,000 is included in operating expenses.
2. Manufacturing equipment was acquired for cash of \$185,000.
3. Investments include a 30% common stock investment in Zorn Company on which \$6,000 of equity in investee income was recognized. No dividends were received during the year.

ILLUSTRATION 4-15**P Company and Subsidiary Consolidated Income Statement for the Year Ended December 31, 2021**

Sales	\$540,000
Cost of goods sold	<u>294,000</u>
Gross profit	246,000
Operating expenses	<u>136,000</u>
Income from operations	110,000
Equity in income of Zorn Company	<u>6,000</u>
Consolidated net income	116,000
Noncontrolling interest in consolidated net income	<u>4,000</u>
Controlling interest in consolidated net income	<u>\$112,000</u>

P Company and S Company Comparative Consolidated Balance Sheets

	<i>December 31</i>	
	<i>2020</i>	<i>2021</i>
<i>Assets</i>		
Cash	\$ 60,000	97,000
Accounts receivable (net)	92,000	120,000
Inventories	110,000	101,000
Plant and equipment (net)	245,000	404,000
Investments	152,000	158,000
Goodwill	<u>20,000</u>	<u>20,000</u>
Total assets	<u>\$679,000</u>	<u>\$900,000</u>
<i>Liabilities and Equity</i>		
Accounts payable	\$ 60,000	\$ 93,000
Accrued expenses payable	<u>99,000</u>	<u>89,000</u>
Total liabilities	<u>159,000</u>	<u>182,000</u>
Stockholders' equity:		
Noncontrolling interest in net assets	20,000	22,000
Common stock, \$2 par value	200,000	220,000
Other contributed capital	40,000	140,000
Retained earnings	<u>260,000</u>	<u>336,000</u>
Total stockholders' equity	<u>520,000</u>	<u>718,000</u>
Total Liabilities and Equity	<u>\$679,000</u>	<u>\$900,000</u>

4. Noncontrolling interest in consolidated net income was \$4,000. However, \$2,000 was distributed to noncontrolling stockholders as dividends during the year. Thus noncontrolling interest in net assets on the balance sheet increased by only \$2,000.
5. Ten thousand shares of common stock were issued by P Company on the open market for cash at \$12 per share.
6. Dividend payments totaled \$38,000, of which \$36,000 were to P Company stockholders (thereby reducing consolidated retained earnings), and \$2,000 were to S Company noncontrolling stockholders.

A consolidated statement of cash flows, using the indirect method of presenting cash flows from operating activities, is shown in Illustration 4-16.

ILLUSTRATION 4-16**P Company and Subsidiary Consolidated Statement of Cash Flows for the Year Ended December 31, 2021**

Cash flows from operating activities:		
Consolidated Net Income		\$116,000
Adjustments to convert net income to net cash		
flow from operating activities:		
Depreciation expense		26,000
Increase in accounts receivable		(28,000)
Decrease in inventories		9,000
Increase in accounts payable		33,000
Decrease in accrued expenses payable		(10,000)
Equity in income of Zorn Company		<u>(6,000)</u>
Net cash flow from operating activities		\$140,000
Cash flows from investing activities:		
Payments for purchase of plant assets		(185,000)
Cash flows from financing activities:		
Proceeds from the issuance of common stock	\$120,000	
Cash dividends declared and paid	<u>(38,000)</u>	
Net cash flow from financing activities		<u>82,000</u>
Increase in cash		\$37,000
Cash Balance, beginning		<u>60,000</u>
Cash Balance, ending		<u>\$97,000</u>

If the direct method is used to report cash from operations on the consolidated statement of cash flows, the statement would be identical to Illustration 4-16 with one exception. The “cash flows from operating activities” would be replaced with the following:

Cash flows from operating activities:		
Cash received from customers (1)		\$512,000
Less cash paid for:		
Purchases of merchandise (2)	\$252,000	
Operating expenses (3)	<u>120,000</u>	<u>372,000</u>
Net cash flow from operating activities		<u>\$140,000</u>
(1) Beginning accounts receivable		\$ 92,000
Sales		540,000
Ending accounts receivable		<u>(120,000)</u>
Cash received from customers		<u>(\$512,000)</u>
(2) Cost of goods sold		\$294,000
Beginning inventory		(110,000)
Ending inventory		<u>101,000</u>
Accrual basis purchases		285,000
Beginning accounts payable		60,000
Ending accounts payable		<u>(93,000)</u>
Cash basis purchases		<u>\$252,000</u>
(3) Operating expenses		\$136,000
Depreciation expense		(26,000)
Beginning accrued expenses		99,000
Ending accrued expenses		<u>(89,000)</u>
Cash paid for operating expenses		<u>\$120,000</u>

4.7 ILLUSTRATION OF PREPARATION OF A CONSOLIDATED STATEMENT OF CASH FLOWS—YEAR OF ACQUISITION

LO 8 Stock issued as Consideration in Statement of Cash Flows.

The preparation of the consolidated statement of cash flows in the year of acquisition is complicated slightly because the comparative balance sheets at the beginning and end of the current year are dissimilar. Specifically, the balance sheet at the *end* of the year of acquisition reflects consolidated balances, while the beginning of the year reflects parent-only balances. Thus the net change in cash that investors wish to interpret is the change from the parent's beginning-of-year balance to the combined (consolidated) end-of-year cash balance. To accomplish this reconciliation, two realizations are important.

1. Any cash spent or received in the acquisition itself should be reflected in the **Investing** activities section of the consolidated statement of cash flows. For example, if the parent paid total cash of \$1,000,000 to acquire a subsidiary, which brought \$300,000 cash to the consolidated entity, the net decrease in cash would appear as a \$700,000 outlay. On the other hand, if the parent issued only stock or debt (no cash) to acquire the same subsidiary, the net increase would appear as a \$300,000 cash inflow. The issuance of stock or debt would appear in the notes to the financial statements as a significant noncash investing and financing activity.
2. To explain the change in cash successfully, the assets and liabilities of the subsidiary **at the date of acquisition** must be added to those of the parent at the beginning of the current year. For example, assume that P Company had \$1,500,000 in long-term notes payable at the beginning of the year, S Company had \$500,000 in long-term notes payable at the date of acquisition, and the consolidated entity had \$3,000,000 in long-term notes payable at the end of the year. To explain the net change, the **Financing** section of the statement of cash flows might reflect a cash inflow of \$1,000,000 from borrowing activities.

To illustrate the preparation of a consolidated statement of cash flows in the year of acquisition, consider the information in Illustration 4-17. In this problem, P Company acquires 80% of S Company on April 1, 2021 for \$200,000 cash. In this illustration the last six columns are the familiar columns used to prepare the consolidated balance sheet and income statement at the end of 2021. However, two additional columns have been added: one showing the beginning-of-year balances (January 1, 2021) for the balance sheet accounts for P Company and one showing the balances on the date of acquisition (April 1, 2021) for S Company. The information in these columns is needed to prepare the consolidated statement of cash flows for 2021, but does not affect any of the extensions or calculations needed to complete the worksheet in Illustration 4-17. Other information used in the example includes the following:

1. Total consolidated depreciation expense is \$30,000.
2. The companies issued \$205,000 of debt.
3. The companies purchased \$95,000 of property, plant, and equipment.
4. The excess of implied over book value is attributable to land ($\$200,000 - .8(\$160,000 + \$80,000) = \$8,000$).
5. The partial-year alternative is used for presenting subsidiary income and expense accounts.

The comparative consolidated balance sheet, prepared from Illustration 4-17, is shown in Illustration 4-18. Notice that the beginning of the year balance sheet amounts

ILLUSTRATION 4-17

Cost Method

Interim Purchase of Stock
80% Owned SubsidiaryConsolidated Statements Workpaper
for the Year Ended December 31, 2021

Income Statement	P Company	S Company	P Company 1/1 to 12/31	S Company 4/1 to 12/31	Eliminations		Noncontrolling Interest	Consolidated Balances
					Dr.	Cr.		
Sales			350,000	200,000				550,000
Dividend Income .8(\$12,000)			9,600		(3)	9,600		
Total Revenue			<u>359,600</u>	<u>200,000</u>				550,000
Cost of Goods Sold			200,000	95,000				295,000
Other Expenses			80,000	65,000				145,000
Total Cost and Expense			<u>280,000</u>	<u>160,000</u>				440,000
Net/Consolidated Income			79,600	40,000				110,000
Noncontrolling Interest in Income							8,000*	(8,000)
Net Income to Retained Earnings			<u>79,600</u>	<u>40,000</u>	<u>9,600</u>	<u>—0—</u>	<u>8,000</u>	<u>102,000</u>
Retained Earnings								
P Company, 1/1			90,000					90,000
S Company, 4/1				80,000	(1)	80,000		
Net Income from above			79,600	40,000		9,600	8,000	102,000
Dividends Declared								
P Company			(30,000)					(30,000)
S Company				(12,000)		(3)	9,600	(2,400)
12/31 Retained Earnings to Balance Sheet			<u>139,600</u>	<u>108,000</u>	<u>89,600</u>	<u>9,600</u>	<u>5,600</u>	<u>162,000</u>
Balance Sheet	At 1/1/2021	At 4/1/2021	At 12/31/21	At 12/31/21				
Cash	80,000	28,000	75,000	40,000				115,000
Accounts Receivable	65,000	38,000	70,000	53,000				123,000
Inventory	70,000	53,000	86,600	40,000				126,600
Investment in S Company			200,000			(1) 200,000		
Difference between Implied and Book Value					(1)	10,000	(2) 10,000	
Property and Equipment (net)	180,000	175,000	245,000	175,000				420,000
Land	35,000	27,000	35,000	27,000	(2)	10,000		72,000
Total	<u>430,000</u>	<u>321,000</u>	<u>711,600</u>	<u>335,000</u>				856,600
Accounts Payable	35,000	34,000	60,000	22,000				82,000
Other Liabilities	65,000	47,000	272,000	45,000				317,000
Common Stock								
P Company	240,000		240,000					240,000
S Company		160,000		160,000	(1)	160,000		
Retained Earnings	90,000	80,000	139,600	108,000		89,600	9,600	162,000
4/1 Noncontrolling Interest in Net Assets							(1) 50,000	50,000
12/31 Noncontrolling Interest in Net Assets								55,600
Total	<u>430,000</u>	<u>321,000</u>	<u>711,600</u>	<u>335,000</u>	<u>269,600</u>	<u>269,600</u>		<u>856,600</u>

*.2 (\$40,000) = \$8,000

(1) To eliminate the investment in S Company and create noncontrolling interest account.

(2) To allocate the difference between implied and book value to land.

(3) To eliminate intercompany dividends.

are the same as P Company's beginning of the year balance sheet (or the first column in the workpaper in Illustration 4-17). Therefore, the change in cash in the consolidated statement of cash flows is an increase of \$35,000, calculated as the \$115,000 ending consolidated balance less the \$80,000 beginning balance.

Now consider the two points made above. How is the \$200,000 cash acquisition reported on the statement of cash flows? The acquisition is listed in the investing activities section and represents the net assets acquired. But since S Company had \$28,000 cash on hand on the date of acquisition, the net effect on cash from the acquisition is the \$200,000 paid less the \$28,000 acquired or \$172,000. Hence, on the statement of cash flows, the acquisition is listed as a \$172,000 cash outflow. The consolidated statement of cash flows is shown in Illustration 4-19.

Second, all calculations of changes in balance sheet accounts require that assets and liabilities acquired from S Company be added to the beginning P Company balances. For instance, on the comparative balance sheets shown in Illustration 4-18, accounts receivable has a beginning balance of \$65,000 and an ending balance of \$123,000. Because accounts receivable of \$38,000 were acquired on April 1, 2021, the change in receivables is the ending consolidated amount of \$123,000 less the beginning balance of \$65,000 and the amount purchased in the acquisition of \$38,000. (See Illustration 4-17.) This gives the correct increase in accounts receivable of \$20,000. As a result, in published annual reports, the changes in the working capital accounts from the previous year's balance sheet do not reconcile to the amounts shown on the statement of cash flows in the year of acquisition. Similar reasoning is used for all the remaining changes in balance sheet accounts, such as property, plant, and equipment.

Another point about the consolidated statement of cash flows concerns the \$12,000 dividends paid by S Company. Since P Company purchased 80% of S Company,

ILLUSTRATION 4-18

P Company and S Company (S Company Included in 2021 Only) Comparative Consolidated Balance Sheets

<i>Assets</i>	<i>December 31</i>	
	<i>2020</i>	<i>2021</i>
Cash	\$80,000	\$115,000
Accounts receivable (net)	65,000	123,000
Inventories	70,000	126,600
Plant and equipment (net)	180,000	420,000
Land	35,000	72,000
Total assets	<u>\$430,000</u>	<u>\$856,600</u>
<i>Liabilities and Equity</i>		
Accounts payable	\$ 35,000	\$ 82,000
Other Liabilities	<u>65,000</u>	<u>317,000</u>
Total liabilities	<u>100,000</u>	<u>399,000</u>
Stockholders' equity:		
Noncontrolling interest in net assets		55,600
Common stock, \$2 par value	240,000	240,000
Retained earnings	<u>90,000</u>	<u>162,000</u>
Total stockholders' equity	<u>330,000</u>	<u>457,600</u>
Total Liabilities and Equity	<u>\$430,000</u>	<u>\$856,600</u>

\$9,600 of the dividends must be eliminated. However, the \$2,400 remaining dividends paid by S Company to the noncontrolling shareholders must be subtracted as a financing item. We have shown this separately on the cash flow statement in Illustration 4-19 even though in practice the dividend amounts paid by P Company and S Company are often combined.

Finally, the preparation of the consolidated statement of cash flows is the same regardless of whether the parent uses the cost method, partial equity method, or complete equity method to account for its investment in any subsidiaries that are consolidated. This is true because the preparation is based on the consolidated income statement and consolidated balance sheets, and these are identical under the three methods.

SUMMARY

- 1 *Describe the accounting treatment required under current GAAP for varying levels of influence or control by investors.* With few exceptions, all **subsidiaries** (investments in which the investor has a controlling interest), as well as other entities controlled by the investor, either directly or indirectly, must be consolidated and may not be reported as separate investments in the consolidated financial statements. The equity method is used to account for investments in investees in which the investor has significant influence but **not control** (usually more than 20%) unless the fair value option is chosen at acquisition. For investments in investees where the investor does not have significant influence (normally less than 20%), the investment should be reported at its fair value.
- 2 *Prepare journal entries on the parent's books to account for an investment using the cost method, the partial equity method, and the complete equity method.* The most important difference between the cost and equity methods pertains to the period in which the parent recognizes subsidiary income on its books. If the cost method is in use, the parent recognizes its share of subsidiary income only when dividends are declared by the subsidiary. Under the partial equity method, the investor will recognize its share of the subsidiary's income when reported by the subsidiary, regardless of whether dividends have been distributed. A debit to cash and a credit to the investment account record the receipt of dividends under the partial equity method. The complete equity method differs from the partial equity method in that the share of subsidiary income is often adjusted from the amount reported by the subsidiary (e.g., for depreciation on the excess of market over book values).
- 3 *Understand the use of the workpaper in preparing consolidated financial statements.* Accounting workpapers are helpful in accumulating, classifying, and arranging data for the preparation of consolidated financial statements. The three-section workpaper format used in this text includes a separate section for each of three basic financial statements—**income statement, retained earnings statement, and balance sheet.** In some cases the input to the workpaper comes from the individual financial statements of the affiliates to be consolidated, in which case the three-section workpaper is particularly appropriate. At other times, however, input may be from affiliate trial balances, and the data must be arranged in financial statement form before the workpaper can be completed.
- 4 *Prepare a schedule for the computation and allocation of the difference between implied and book values.* The schedule begins with the cost (or purchase price) and divides this amount by the percentage acquired to compute the implied value of the subsidiary. Next, the book value of the subsidiary's equity at the date of acquisition is subtracted from the implied value. This difference is then allocated to adjust the assets and/or liabilities of the subsidiary for differences between their book values and fair values. Any remaining excess is labeled as goodwill. Special rules apply for bargain purchases.
- 5 *Prepare the workpaper eliminating entries for the year of acquisition (and subsequent years) for the cost and equity methods.* Under the cost method, dividends declared by the subsidiary are eliminated against dividend income recorded by the parent. The investment account is eliminated against the equity accounts of the subsidiary, and an account is created for the noncontrolling interest in equity. The difference between implied and book values is recorded in a separate account by that name. The difference is then allocated to adjust underlying assets and/or liabilities, and to record goodwill in some cases. Under the equity method, the dividends declared by the subsidiary are eliminated against the investment account, as is the equity in subsidiary income. In subsequent years, the cost method requires an initial entry to establish reciprocity or convert to equity. This entry debits the investment account and credits retained earnings of the parent (for the change in retained earnings of the subsidiary from the date of acquisition to the beginning of the current year multiplied by the parent's ownership percentage).

- 6** Describe how to account for interim acquisitions of subsidiary stock at the end of the first year. If an investment in the common stock of a subsidiary is made during the year rather than on the first day, only the subsidiary revenues, expenses, gains, and losses for the period after acquisition are included in the consolidated income statement.
- 7** Explain how the consolidated statement of cash flows differs from a single firm's statement of cash flows. In the preparation of a consolidated statement of cash flows, the starting point under the indirect approach should be **consolidated net income** (including the noncontrolling interest). Subsidiary dividend payments to noncontrolling shareholders represent a **Financing** outflow of cash. Subsidiary dividend payments to the parent

company represent an intercompany transfer and thus are not reflected on the consolidated statement of cash flows. The cost of acquiring additional subsidiary shares of common stock is an **Investing** outflow of cash if the purchase is made from outsiders, but not if made directly from the subsidiary.

- 8** Understand how the reporting of an acquisition on the consolidated statement of cash flows differs when stock is issued rather than cash. Any cash spent or received in the acquisition itself should be reflected in the **Investing** activities section of the consolidated statement of cash flows. The issuance of stock or debt would appear in the **Notes to the Financial Statements** as a significant noncash investing and financing activity.

See Supplemental Appendix 4A, “Alternative Workpaper Format,” and supplemental Appendix 4B, “Deferred Tax Consequences When Affiliates File Separate Income Tax Returns—Undistributed Income,” are available from your instructor.

TEST YOUR KNOWLEDGE SOLUTIONS

- 4.1** 1. a. F b. F 2. d 3. c **4.2** 1. c **4.3** 1. d **4.4** 1. b

QUESTIONS

(The letter A or B indicated for a question, exercise, or problem refers to a related appendix.)

- LO 1** 1. How should nonconsolidated subsidiaries be reported in consolidated financial statements? **LO 5**
- LO 2** 2. How are liquidating dividends treated on the books of an investor, assuming the investor uses the cost method? Assuming the investor uses the equity method? **LO 5**
- LO 5** 3. How are dividends declared and paid by a subsidiary during the year eliminated in the consolidated workpapers under each method of accounting for investments? **LO 5**
- LO 2** 4. How is the income reported by the subsidiary reflected on the books of the investor under each of the methods of accounting for investments? **LO 6**
- LO 2** 5. Define: Consolidated net income; consolidated retained earnings. **LO 1**
- LO 5** 6. At the date of an 80% acquisition, a subsidiary had common stock of \$100,000 and retained earnings of \$16,250. Seven years later, at December 31, 2020, the subsidiary's retained earnings had increased to \$461,430. What adjustment will be made on the consolidated workpaper at December 31, 2021, to recognize the parent's share of the cumulative undistributed profits (losses) of its subsidiary? Under which method(s) is this adjustment needed? Why? **LO 7**
7. On a consolidated workpaper for a parent and its partially owned subsidiary, the noncontrolling interest column accumulates the noncontrolling interests' share of several account balances. What are these accounts? **LO 5**
8. If a parent company elects to use the partial equity method rather than the cost method to record its investments in subsidiaries, what effect will this choice have on the consolidated financial statements? If the parent company elects the complete equity method? **LO 5**
9. Describe two methods for treating the preacquisition revenue and expense items of a subsidiary purchased during a fiscal period. **LO 6**
10. A principal limitation of consolidated financial statements is their lack of separate financial information about the assets, liabilities, revenues, and expenses of the individual companies included in the consolidation. Identify some problems that the reader of consolidated financial statements would encounter as a result of this limitation. **LO 1**
11. In the preparation of a consolidated statement of cash flows, what adjustments are necessary because of the existence of a noncontrolling interest? (AICPA adapted) **LO 7**

- LO 9 12.** What do potential voting rights refer to, and how do they affect the application of the equity method for investments under IFRS? Under U.S. GAAP? What is the term generally used for equity method investments under IFRS?
- 13B.** Is the recognition of a deferred tax asset or deferred tax liability when allocating the difference between book value and the value implied by the purchase price affected by whether or not the affiliates file a consolidated income tax return? (See supplemental appendix 4B available from your instructor.)
- 14B.** What assumptions must be made about the realization of undistributed subsidiary income when the affiliates file separate income tax returns? Why? (See supplemental appendix 4B available from your instructor.)
- 15B.** The FASB elected to require that deferred tax effects relating to unrealized intercompany profits be calculated based on the income tax paid by the selling affiliate rather than on the future tax benefit to the purchasing affiliate. Describe circumstances where the amounts calculated

under these approaches would be different. (See supplemental appendix 4B available from your instructor.)

- 16B.** Identify two types of temporary differences that may arise in the consolidated financial statements when the affiliates file separate income tax returns. (See supplemental appendix 4B available from your instructor.)

Business Ethics

On April 5, 2006, the New York State Attorney sued a New York online advertising firm for surreptitiously installing spyware advertising programs on consumers’ computers. The Attorney General claimed that consumers believed they were downloading free games or ‘browser’ enhancements.

The company claimed that the spyware was identified as ‘advertising-supported’ and that the software is easy to remove and doesn’t collect personal data.

Is there an ethical issue for the company? Comment on and justify your position.

ANALYZING FINANCIAL STATEMENTS

AFS4-1 eBay Acquires Skype

On October 14, 2005, eBay acquired all of the outstanding securities of Skype Technologies S.A. (“Skype”), for a total initial consideration of approximately \$2.6 billion, plus potential performance-based payments of approximately \$1.3 billion (based on the euro–dollar exchange rate at the time of the acquisition and using an income approach to estimating the value of the earnout). The initial consideration of approximately \$2.6 billion was comprised of approximately \$1.3 billion in cash and 32.8 million shares of eBay’s common stock. For accounting purposes, the stock portion of the initial consideration was valued at approximately \$1.3 billion based on the average closing price of eBay common stock surrounding the acquisition announcement date of September 12, 2005.

Required:

- A.** Prepare the journal entry on eBay’s books to record the acquisition.
- B.** Where are the three components of the purchase price reported on the statement of cash flows? Be specific as to category and amount, and include required note disclosures in your answer.

AFS4-2 Various Acquisitions

During 2005, eBay acquired 100% of four different companies as follows (assume all companies have a December 31 year-end). Net income amounts are stated in thousands of dollars; assume that the net income is earned uniformly throughout the year 2005.

<i>Company</i>	<i>Acquired on</i>	<i>2005 Annual Net Income</i>
Rent.com	February 1, 2005	\$12,000
International classified websites	April 1, 2005	5,000
Shopping.com	September 1, 2005	20,000
Skype	October 14, 2005	120,000

Required:

- A. How much of the income earned by each of these companies will be recorded in consolidated net income in the year of acquisition?
- B. In addition to reported earnings for the year of acquisition, GAAP requires certain pro forma earnings disclosures for the consolidated entity. What amount of earnings from each of these acquisitions would be included in proforma earnings disclosures?

EXERCISES**EXERCISE 4-1 Parent Company Entries, Liquidating Dividend LO 2**

Percy Company purchased 80% of the outstanding voting shares of Song Company at the beginning of 2019 for \$387,000. At the time of purchase, Song Company's total stockholders' equity amounted to \$475,000. Income and dividend distributions for Song Company from 2019 through 2021 are as follows:

	2019	2020	2021
Net income (loss)	\$63,500	\$52,500	(\$55,000)
Dividend distribution	25,000	50,000	35,000

Required:

Prepare journal entries on the books of Percy Company from the date of purchase through 2021 to account for its investment in Song Company under each of the following assumptions:

- A. Percy Company uses the cost method to record its investment.
- B. Percy Company uses the partial equity method to record its investment.
- C. Percy Company uses the complete equity method to record its investment. The difference between book value of equity acquired and the value implied by the purchase price was attributed solely to an excess of market over book values of depreciable assets, with a remaining life of 10 years.

EXERCISE 4-2 Workpaper Eliminating Entries, Cost Method LO 5

Park Company purchased 90% of the stock of Salt Company on January 1, 2019, for \$465,000, an amount equal to \$15,000 in excess of the book value of equity acquired. This excess payment relates to an undervaluation of Salt Company's land. On the date of purchase, Salt Company's retained earnings balance was \$50,000. The remainder of the stockholders' equity consists of no-par common stock. During 2023, Salt Company declared dividends in the amount of \$10,000, and reported net income of \$40,000. The retained earnings balance of Salt Company on December 31, 2022, was \$160,000. Park Company uses the cost method to record its investment.

Required:

Prepare in general journal form the workpaper entries that would be made in the preparation of a consolidated statements workpaper on December 31, 2023.

EXERCISE 4-3 Workpaper Eliminating Entries, Equity Method LO 5

At the beginning of 2014, Presidio Company purchased 95% of the common stock of Succo Company for \$494,000. On that date, Succo Company's stockholders' equity consisted of the following:

Common stock	\$300,000
Other contributed capital	100,000
Retained earnings	<u>120,000</u>
Total	<u>\$520,000</u>

During 2022, Succo Company reported net income of \$40,000 and distributed dividends in the amount of \$19,000. Succo Company's retained earnings balance at the end of 2021 amounted to \$160,000. Presidio Company uses the equity method.

Required:

Prepare in general journal form the workpaper entries necessary in the compilation of consolidated financial statements on December 31, 2022. Explain why the partial and complete equity methods would result in the same entries in this instance.

EXERCISE 4-4**Workpaper Eliminating Entries, Losses by Subsidiary LO 5**

Poco Company purchased 85% of the outstanding common stock of Serena Company on December 31, 2019, for \$310,000 cash. On that date, Serena Company's stockholders' equity consisted of the following:

Common stock	\$240,000
Other contributed capital	55,000
Retained earnings	<u>50,000</u>
	<u>\$345,000</u>

During 2022, Serena Company distributed a dividend in the amount of \$12,000 and at year-end reported a net loss of \$10,000. During the time that Poco Company has held its investment in Serena Company, Serena Company's retained earnings balance has decreased \$29,500 to a net balance of \$20,500 after closing on December 31, 2022. Serena Company did not declare or distribute any dividends in 2020 or 2021. The difference between book value and the value implied by the purchase price relates to goodwill.

Required:

- A. Assume that Poco Company uses the equity method. Prepare in general journal form the entries needed in the preparation of a consolidated statements workpaper on December 31, 2022. Explain why the partial and complete equity methods would result in the same entries in this instance.
- B. Assume that Poco Company uses the cost method. Prepare in general journal form the entries needed in the preparation of a consolidated statements workpaper on December 31, 2022.

EXERCISE 4-5**Eliminating Entries, Noncontrolling Interest LO 2**

On January 1, 2019, Plate Company purchased a 90% interest in the common stock of Set Company for \$650,000, an amount \$20,000 in excess of the book value of equity acquired. The excess relates to the understatement of Set Company's land holdings.

Excerpts from the consolidated retained earnings section of the consolidated statements workpaper for the year ended December 31, 2019, follow:

	<i>Set Company</i>	<i>Consolidated Balances</i>
1/1/19 retained earnings	190,000	880,000
Net income from above	132,000	420,000
Dividends declared	<u>(50,000)</u>	<u>(88,000)</u>
12/31/19 retained earnings to the balance sheet	<u>272,000</u>	<u>1,212,000</u>

Set Company's stockholders' equity is composed of common stock and retained earnings only.

Required:

- A. Prepare the eliminating entries required for the preparation of a consolidated statements workpaper on December 31, 2019, assuming the use of the cost method.

- B.** Prepare the eliminating entries required for the preparation of a consolidated statements workpaper on December 31, 2019, assuming the use of the equity method.
- C.** Determine the total noncontrolling interest that will be reported on the consolidated balance sheet on December 31, 2019. How does the noncontrolling interest differ between the cost method and the equity method?

EXERCISE 4-6 Parent Entries and Eliminating Entries, Equity Method, Year of Acquisition LO 2 LO 5

On January 1, 2019, Pert Company purchased 85% of the outstanding common stock of Sales Company for \$350,000. On that date, Sales Company's stockholders' equity consisted of common stock, \$100,000; other contributed capital, \$40,000; and retained earnings, \$140,000. Pert Company paid more than the book value of net assets acquired because the recorded cost of Sales Company's land was significantly less than its fair value.

During 2019 Sales Company earned \$148,000 and declared and paid a \$50,000 dividend. Pert Company used the partial equity method to record its investment in Sales Company.

Required:

- A.** Prepare the investment-related entries on Pert Company's books for 2019.
- B.** Prepare the workpaper eliminating entries for a workpaper on December 31, 2019.

EXERCISE 4-7 Equity Method, Year Subsequent to Acquisition LO 2 LO 5

Continue the situation in Exercise 4-6 and assume that during 2020 Sales Company earned \$190,000 and declared and paid a \$50,000 dividend.

Required:

- A.** Prepare the investment-related entries on Pert Company's books for 2020.
- B.** Prepare the workpaper eliminating entries for a workpaper on December 31, 2020.

EXERCISE 4-8 Interim Purchase of Stock, Cost Method LO 6

On May 1, 2020, Peters Company purchased 80% of the common stock of Smith Company for \$50,000. Additional data concerning these two companies for the years 2020 and 2021 are:

	2020		2021	
	<i>Peters</i>	<i>Smith</i>	<i>Peters</i>	<i>Smith</i>
Common stock	\$100,000	\$25,000	\$100,000	\$25,000
Other contributed capital	40,000	10,000	40,000	10,000
Retained earnings, 1/1	80,000	10,000	129,000	53,000
Net income (loss)	64,000	45,000	37,500	(5,000)
Cash dividends (11/30)	15,000	2,000	5,000	—0—

Any difference between book value and the value implied by the purchase price relates to Smith Company's land. Peters Company uses the cost method to record its investment.

Required:

- A.** Prepare the workpaper entries that would be made on a consolidated statements workpaper for the years ended December 31, 2020 and 2021 for Peters Company and its subsidiary, assuming that Smith Company's income is earned evenly throughout the year.
- B.** Calculate consolidated net income and consolidated retained earnings for 2020 and 2021.

EXERCISE 4-9 Interim Purchase, Equity Method LO 2 LO 6

On October 1, 2020, Para Company purchased 90% of the outstanding common stock of Star Company for \$210,000. Additional data concerning Star Company for 2020 follows:

Common stock	\$70,000
Other contributed capital	30,000
Retained earnings, 1/1	70,000
Net income	60,000
Dividends declared and paid (12/15)	10,000

Any difference between book value and the value implied by the purchase price relates to goodwill. Para Company uses the partial equity method to record its investment in Star Company.

Required:

- Prepare on Para Company's books journal entries to record the investment-related activities for 2020.
- Prepare workpaper eliminating entries for a workpaper on December 31, 2020. Star Company's net income is earned evenly throughout the year.

EXERCISE 4-10 Cash Flow from Operations LO 7

A consolidated income statement and selected comparative consolidated balance sheet data for Palano Company and subsidiary follow:

**Palano Company and Subsidiary
Consolidated Income Statement
for the Year Ended December 31, 2020**

Sales		\$701,000
Cost of sales		<u>263,000</u>
Gross profit		438,000
Operating expenses:		
Depreciation expense	\$76,000	
Selling expenses	122,000	
Administrative expenses	<u>85,000</u>	<u>283,000</u>
Consolidated net income		155,000
Less noncontrolling interest in consolidated net income		<u>38,750</u>
Controlling interest in consolidated net income		\$116,250

	<i>December 31</i>	
	<u>2019</u>	<u>2020</u>
Accounts receivable	\$229,000	\$318,000
Inventory	194,000	234,000
Prepaid selling expenses	26,000	30,000
Accounts payable	99,000	79,000
Accrued selling expenses	96,000	84,000
Accrued administrative expenses	56,000	39,000

Required:

Prepare the cash flow from operating activities section of a consolidated statement of cash flows assuming use of the:

- Direct method.
- Indirect method.

EXERCISE 4-11 Allocation of Difference between Book Value and the Value Implied by the Purchase Price, Parent Company Entries, Three Methods LO 2 LO 4 LO 5

On January 1, 2022, Plutonium Corporation acquired 80% of the outstanding stock of Sulfurst Inc. for \$268,000 cash. The following balance sheet shows Sulfurst Inc.'s book values immediately prior to acquisition, as well as the appraised values of its assets and liabilities by Plutonium's experts.

	<i>Sulfurst Inc.'s Book Values</i>	<i>Sulfurst Inc.'s Market Values</i>
Current assets	\$ 90,000	\$ 90,000
Property, plant & equipment:		
Land	80,000	100,000
Building & machinery (net)	170,000	170,000
Total assets	<u>\$340,000</u>	
Total liabilities	\$100,000	\$100,000
Common stock, \$5 par value	100,000	
Additional paid-in-capital	20,000	
Retained earnings	<u>120,000</u>	
Total liabilities and equities	<u>\$340,000</u>	

Required:

- A. Prepare a Computation and Allocation Schedule for the Difference between Book Value and the Value Implied by the Purchase Price.
- B. Prepare the entry to be made on the books of Plutonium Corporation to record its investment in Sulfurst Inc.

Assume that during the first two years after acquisition of Sulfurst Inc., Sulfurst reports the following changes in its retained earnings:

Retained earnings, January 1, 2022	\$120,000
Net income, 2022	40,000
Less: dividends, 2022	(24,000)
Net income, 2023	45,000
Less: dividends, 2023	<u>(21,600)</u>
Retained earnings, December 31, 2023	\$159,400

- C. Prepare journal entries under each of the following methods to record the information above on the books of Plutonium Corporation for the years 2022 and 2023, assuming that all depreciable assets have a remaining life of 20 years.
- (1) Plutonium uses the cost method to account for its investment in Sulfurst.
 - (2) Plutonium uses the partial equity method to account for its investment in Sulfurst.
 - (3) Plutonium uses the complete equity method to account for its investment in Sulfurst.

EXERCISE 4-12 Subsidiary Loss LO 5

The following accounts appeared in the separate financial statements at the end of 2019 for Pressing Inc. and its wholly-owned subsidiary, Stressing Inc. Stressing was acquired in 2014.

	<i>Pressing Inc.</i>	<i>Stressing Inc.</i>
Investment in subsidiary	660,000	
Dividends receivable	5,000	
Dividends payable	20,000	5,000
Common stock	300,000	20,000
Additional paid-in-capital	500,000	380,000
Retained earnings, 12/31/19	500,000	260,000
Dividends declared	(75,000)	(24,000)
Equity in net loss of subsidiary	(55,000)	
Retained earnings at 1/1/19	<u>380,000</u>	

Required:

1. How can you determine whether Pressing is using the cost or equity method to account for its investment in Stressing?
2. Compute controlling interest in consolidated income.

3. How much income did Pressing Inc. earn from its own independent operations?
4. Compute consolidated retained earnings at 12/31/19.
5. What are consolidated dividends?
6. Compute retained earnings at 1/1/19 for Stressing Inc.
7. Was there any difference between book value and the value implied by the purchase price at acquisition? Prepare workpaper entries needed at the end of 2019.
8. If Pressing used the cost method instead of the equity method, how would Pressing Inc's retained earnings change at the end of 2019? Describe in words.
9. If Pressing uses the cost method instead of the equity method, what workpaper entries would be required at the end of 2019? Describe in words.

EXERCISE 4-13 Cash Flow Statement, Year of Acquisition LO 7

Badco Inc. purchased a 90% interest in Lazytoo Company for \$600,000 cash on January 1, 2021. Any excess of implied over book value was attributed to depreciable assets with a 15-year remaining life (straight-line depreciation). To help pay for the acquisition, Badco issued \$300,000, 20-year, 12% bonds at par value. Lazytoo's balance sheet on the date of acquisition was as follows:

<i>Assets</i>		<i>Liabilities and Equity</i>	
Cash	\$ 10,000	Accrued payables	\$ 90,000
Inventory	140,000	Bonds payable	100,000
Fixed assets (net)	540,000	Common stock (\$10 par)	200,000
		Retained earnings	300,000
Total assets	<u>\$690,000</u>	Total liabilities and equity	<u>\$690,000</u>

Consolidated net income for 2021 was \$155,889. Badco declared and paid dividends of \$10,000 and Lazytoo declared and paid dividends of \$5,000. There were no purchases or sales of property, plant, and equipment during the year.

At the end of 2021, the following information was also available:

	<i>Badco Company 12/31/20</i>		<i>Consolidated 12/31/21</i>	
	<i>Debits</i>	<i>Credits</i>	<i>Debits</i>	<i>Credits</i>
Cash	\$ 390,000		\$ 63,500	
Inventory	190,000		454,000	
Fixed Assets	750,000		1,385,555	
Accrued payables		150,000		111,000
Bonds payable		200,000		600,000
Noncontrolling interest				73,055
Common Stock, (\$10 par)		200,000		200,000
Additional paid-in-capital		550,000		550,000
Retained earnings		230,000		369,000
Total	<u>\$1,330,000</u>	<u>\$1,330,000</u>	<u>\$1,903,055</u>	<u>\$1,903,055</u>

Required:

Prepare a consolidated statement of cash flows using the indirect method for Badco and its subsidiary for the year ended December 31, 2021.

PROBLEMS

PROBLEM 4-1 Parent Company Entries, Three Methods LO 2

On January 1, 2016, Perelli Company purchased 90,000 of the 100,000 outstanding shares of common stock of Singer Company as a long-term investment. The purchase price of \$4,972,000 was paid in cash. At the purchase date, the balance sheet of Singer Company included the following:

Current assets	\$2,926,550
Long-term assets	3,894,530
Other assets	759,690
Current liabilities	1,557,542
Common stock, \$20 par value	2,000,000
Other contributed capital	1,891,400
Retained earnings	1,621,000

Additional data on Singer Company for the four years following the purchase are:

	2016	2017	2018	2019
Net income (loss)	\$1,997,800	\$476,000	\$(179,600)	\$(323,800)
Cash dividends paid, 12/30	500,000	500,000	500,000	500,000

Required:

Prepare journal entries under each of the following methods to record the purchase and all investment-related subsequent events on the books of Perelli Company for the four years, assuming that any excess of purchase price over equity acquired was attributable solely to an excess of market over book values of depreciable assets (with a remaining life of 15 years). (Assume straight-line depreciation.)

- Perelli uses the cost method to account for its investment in Singer.
- Perelli uses the partial equity method to account for its investment in Singer.
- Perelli uses the complete equity method to account for its investment in Singer.

PROBLEM 4-2 Determine Method, Consolidated Workpaper, Wholly Owned Subsidiary LO 5

Parry Corporation acquired a 100% interest in Sent Company on January 1, 2016, paying \$140,000. Financial statement data for the two companies for the year ended December 31, 2016 follow:

<i>Income Statement</i>	<i>Parry</i>	<i>Sent</i>
Sales	\$476,000	\$154,500
Cost of goods sold	285,600	121,000
Other expense	45,500	29,500
Dividend income	3,500	—0—
<i>Retained Earnings Statement</i>		
Balance, 1/1	76,000	19,500
Net income	148,400	4,000
Dividends declared	17,500	3,500
<i>Balance Sheet</i>		
Cash	84,400	29,000
Accounts receivable	76,000	56,500
Inventory	49,500	36,500
Investment in Sent Company	140,000	—0—
Land	4,000	12,000
Accounts payable	27,000	14,000
Common stock	120,000	100,000
Retained earnings	206,900	20,000

Required:

- A. What method is being used by Parry to account for its investment in Sent Company? How can you tell?
- B. Prepare a workpaper for the preparation of consolidated financial statements on December 31, 2016. Any difference between the book value of equity acquired and the value implied by the purchase price relates to subsidiary land.

PROBLEM 4-3**Consolidated Workpaper, Wholly Owned Subsidiary**

Perkins Company acquired 100% of Schultz Company on January 1, 2017, for \$161,500. On December 31, 2017, the companies prepared the following trial balances:

	<i>Perkins</i>	<i>Schultz</i>
Cash	\$ 25,000	\$ 30,000
Inventory	105,000	97,500
Investment in Schultz Company	222,000	—0—
Land	111,000	97,000
Cost of Goods Sold	225,000	59,500
Other Expense	40,000	40,000
Dividends Declared	15,000	10,000
Total Debits	<u>\$743,000</u>	<u>\$334,000</u>
Accounts Payable	\$ 72,500	\$ 17,500
Capital Stock	160,000	75,000
Other Contributed Capital	35,000	17,500
Retained Earnings, 1/1	25,000	54,000
Sales	380,000	170,000
Equity in Subsidiary Income	70,500	—0—
Total Credits	<u>\$743,000</u>	<u>\$334,000</u>

Required:

- A. What method is being used by Perkins to account for its investment in Schultz Company? How can you tell?
- B. Prepare a workpaper for the preparation of consolidated financial statements on December 31, 2017. Any difference between the book value of equity acquired and the value implied by the purchase price relates to goodwill.

PROBLEM 4-4**Consolidated Workpaper, Partially Owned Subsidiary, Cost Method LO 5**

Place Company purchased 92% of the common stock of Shaw, Inc. on January 1, 2017, for \$400,000. Trial balances at the end of 2017 for the companies were:

	<i>Place</i>	<i>Shaw</i>
Cash	\$ 80,350	\$ 87,000
Accounts and Notes Receivable	200,000	210,000
Inventory, 1/1	70,000	50,000
Investment in Shaw, Inc.	400,000	—0—
Plant Assets	300,000	200,000
Dividends Declared	35,000	22,000
Purchases	240,000	150,000
Selling Expenses	28,000	20,000
Other Expenses	15,000	13,000
	<u>\$1,368,350</u>	<u>\$752,000</u>

	<i>Place</i>	<i>Shaw</i>
Accounts and Notes Payable	\$ 99,110	\$ 38,000
Other Liabilities	45,000	15,000
Common Stock, \$10 par	150,000	100,000
Other Contributed Capital	279,000	149,000
Retained Earnings, 1/1	225,000	170,000
Sales	550,000	280,000
Dividend Income	<u>20,240</u>	<u>—0—</u>
	<u>\$1,368,350</u>	<u>\$752,000</u>

Inventory balances on December 31, 2017, were \$25,000 for Place and \$15,000 for Shaw, Inc. Shaw's accounts and notes payable contain a \$15,000 note payable to Place.

Required:

Prepare a workpaper for the preparation of consolidated financial statements on December 31, 2012. The difference between book value of equity acquired and the value implied by the purchase price relates to subsidiary land, which is included in plant assets.

PROBLEM 4-5

Consolidated Workpaper, Partially Owned Subsidiary—Subsequent Years

On January 1, 2017, Perez Company purchased 90% of the capital stock of Sanchez Company for \$85,000. Sanchez Company had capital stock of \$70,000 and retained earnings of \$12,000 at that time. On December 31, 2021, the trial balances of the two companies were:

	<i>Perez</i>	<i>Sanchez</i>
Cash	\$ 13,000	\$ 14,000
Accounts receivable	22,000	36,000
Inventory, 1/1	14,000	8,000
Advance to Sanchez Company	8,000	—0—
Investment in Sanchez Company	85,000	—0—
Plant and equipment	50,000	44,000
Land	17,800	6,000
Dividends declared	10,000	12,000
Purchases	84,000	20,000
Other expense	<u>10,000</u>	<u>16,000</u>
Total debits	<u>\$313,800</u>	<u>\$156,000</u>
Accounts payable	\$ 6,000	\$ 6,000
Other liabilities	37,000	—0—
Advance from Perez Company	—0—	8,000
Capital stock	100,000	70,000
Retained earnings	50,000	30,000
Sales	110,000	42,000
Dividend income	<u>10,800</u>	<u>—0—</u>
Total credits	<u>\$313,800</u>	<u>\$156,000</u>
Inventory, 12/31	<u>\$ 40,000</u>	<u>\$ 15,000</u>

Any difference between book value and the value implied by the purchase price relates to goodwill.

Required:

- A. What method is being used by Perez to account for its investment in Sanchez Company? How can you tell?
- B. Prepare a workpaper for the preparation of consolidated financial statements on 12/31/21.

PROBLEM 4-6 Consolidated Workpaper, Partially Owned Subsidiary—Subsequent Years LO 5

On January 1, 2016, Plank Company purchased 80% of the outstanding capital stock of Scoba Company for \$53,000. At that time, Scoba's stockholders' equity consisted of capital stock, \$55,000; other contributed capital, \$5,000; and retained earnings, \$4,000. On December 31, 2020, the two companies' trial balances were as follows:

	<i>Plank</i>	<i>Scoba</i>
Cash	\$ 42,000	\$ 22,000
Accounts Receivable	21,000	17,000
Inventory	15,000	8,000
Investment in Scoba Company	69,800	—0—
Land	52,000	48,000
Dividends Declared	10,000	8,000
Cost of Goods Sold	85,400	20,000
Other Expense	10,000	12,000
	<u>\$305,200</u>	<u>\$135,000</u>
Accounts Payable	\$ 12,000	\$ 6,000
Other Liabilities	5,000	4,000
Capital Stock	100,000	55,000
Other Contributed Capital	20,000	5,000
Retained Earnings, 1/1	48,800	15,000
Sales	105,000	50,000
Equity in Subsidiary Income	14,400	—0—
	<u>\$305,200</u>	<u>\$135,000</u>

The accounts payable of Scoba Company include \$3,000 payable to Plank Company.

Required:

- A. What method is being used by Plank to account for its investment in Scoba Company? How can you tell?
- B. Prepare a consolidated statements workpaper at December 31, 2020. Any difference between book value and the value implied by the purchase price relates to subsidiary land.

PROBLEM 4-7 Consolidated Workpaper, Partially Owned Subsidiary—Subsequent Years, Cost Method

Price Company purchased 90% of the outstanding common stock of Score Company on January 1, 2016, for \$450,000. At that time, Score Company had stockholders' equity consisting of common stock, \$200,000; other contributed capital, \$160,000; and retained earnings, \$90,000. On December 31, 2020, trial balances for Price Company and Score Company were as follows:

	<i>Price</i>	<i>Score</i>
Cash	\$ 109,000	\$ 78,000
Accounts Receivable	166,000	94,000
Note Receivable	75,000	—0—
Inventory	309,000	158,000
Investment in Score Company	450,000	—0—
Plant and Equipment	940,000	420,000
Land	160,000	70,000
Dividends Declared	70,000	50,000
Cost of Goods Sold	822,000	242,000
Operating Expenses	250,500	124,000
Total Debits	<u>\$3,351,500</u>	<u>\$1,236,000</u>

	<i>Price</i>	<i>Score</i>
Accounts Payable	\$ 132,000	\$ 46,000
Notes Payable	300,000	120,000
Common Stock	500,000	200,000
Other Contributed Capital	260,000	160,000
Retained Earnings, 1/1	687,000	210,000
Sales	1,420,000	500,000
Dividend and Interest Income	<u>52,500</u>	<u>—0—</u>
Total Credits	<u>\$3,351,500</u>	<u>\$1,236,000</u>

Price Company's note receivable is receivable from Score Company. Interest of \$7,500 was paid by Score to Price during 2020. Any difference between book value and the value implied by the purchase price relates to goodwill.

Required:

Prepare a consolidated statements workpaper on December 31, 2020.

PROBLEM 4-8

Consolidated Workpapers, Two Consecutive Years, Cost Method LO 5

On January 1, 2017, Parker Company purchased 95% of the outstanding common stock of Sid Company for \$160,000. At that time, Sid's stockholders' equity consisted of common stock, \$120,000; other contributed capital, \$10,000; and retained earnings, \$23,000. On December 31, 2017, the two companies' trial balances were as follows:

	<i>Parker</i>	<i>Sid</i>
Cash	\$ 62,000	\$ 30,000
Accounts Receivable	32,000	29,000
Inventory	30,000	16,000
Investment in Sid Company	160,000	—0—
Plant and Equipment	105,000	82,000
Land	29,000	34,000
Dividends Declared	20,000	20,000
Cost of Goods Sold	130,000	40,000
Operating Expenses	<u>20,000</u>	<u>14,000</u>
Total Debits	<u>\$588,000</u>	<u>\$265,000</u>
Accounts Payable	\$ 19,000	\$ 12,000
Other Liabilities	10,000	20,000
Common Stock	180,000	120,000
Other Contributed Capital	60,000	10,000
Retained Earnings, 1/1	40,000	23,000
Sales	260,000	80,000
Dividend Income	<u>19,000</u>	<u>—0—</u>
Total Credits	<u>\$588,000</u>	<u>\$265,000</u>

Required:

- A. Prepare a consolidated statements workpaper on December 31, 2017.
- B. Prepare a consolidated statements workpaper on December 31, 2018, assuming trial balances for Parker and Sid on that date were:

	<i>Parker</i>	<i>Sid</i>
Cash	\$ 67,000	\$ 16,000
Accounts Receivable	56,000	32,000
Inventory	38,000	48,500
Investment in Sid Company	160,000	—0—

	<i>Parker</i>	<i>Sid</i>
Plant and Equipment	124,000	80,000
Land	29,000	34,000
Dividends Declared	20,000	20,000
Cost of Goods Sold	155,000	52,000
Operating Expenses	<u>30,000</u>	<u>18,000</u>
Total Debits	<u>\$679,000</u>	<u>\$300,500</u>
Accounts Payable	\$ 16,000	\$ 7,000
Other Liabilities	15,000	14,500
Common Stock	180,000	120,000
Other Contributed Capital	60,000	10,000
Retained Earnings, 1/1	149,000	29,000
Sales	240,000	120,000
Dividend Income	<u>19,000</u>	<u>—0—</u>
Total Credits	<u>\$679,000</u>	<u>\$300,500</u>

PROBLEM 4-9 Consolidated Workpaper, Treasury Stock, Cost Method

December 31, 2019, trial balances for Pledge Company and its subsidiary Stom Company follow:

	<i>Pledge</i>	<i>Stom</i>
Cash and Marketable Securities	\$ 184,600	\$ 72,000
Receivables (net)	182,000	180,000
Inventory	214,000	212,000
Investment in Stom Company	300,000	—0—
Plant and Equipment (net)	309,000	301,000
Land	85,000	75,000
Cost of Goods Sold	460,000	185,000
Operating Expenses	225,000	65,000
Dividends Declared	50,000	30,000
Treasury Stock (10,000 shares at cost)	<u>—0—</u>	<u>20,000</u>
Total Debits	<u>\$2,009,600</u>	<u>\$1,140,000</u>
Accounts Payable	\$ 96,000	\$ 79,000
Accrued Expenses	31,000	18,000
Notes Payable	100,000	200,000
Common Stock, \$1 par value	300,000	100,000
Other Contributed Capital	150,000	80,000
Retained Earnings, 1/1	422,000	320,000
Sales	880,000	340,000
Dividend and Interest Income	<u>30,600</u>	<u>3,000</u>
Total Credits	<u>\$2,009,600</u>	<u>\$1,140,000</u>

Pledge Company purchased 72,000 shares of Stom Company's common stock on January 1, 2016, for \$300,000. On that date, Stom Company's stockholders' equity was as follows:

Common Stock, \$1 par value	\$100,000
Other Contributed Capital	80,000
Retained Earnings	160,000
Treasury Stock (10,000 shares at cost)	<u>(20,000)</u>
Total	<u>\$320,000</u>

Additional information:

1. Receivables of Pledge Company include a \$55,000, 12% note receivable from Stom Company.
2. Interest amounting to \$6,600 has been accrued by each company on the note payable from Stom to Pledge. Stom Company has not yet paid this interest.
3. The difference between book value and the value implied by the purchase price relates to subsidiary land.

Required:

Prepare a consolidated statements workpaper for the year ended December 31, 2019.

PROBLEM 4-10 Consolidated Workpaper, Equity Method LO 5

Poco Company purchased 80% of Solo Company's common stock on January 1, 2017, for \$250,000. On December 31, 2017, the companies prepared the following trial balances:

	<i>Poco</i>	<i>Solo</i>
Cash	\$ 161,500	\$125,000
Inventory	210,000	195,000
Investment in Solo Company	402,000	—0—
Land	75,000	150,000
Cost of Goods Sold	410,000	125,000
Other Expense	100,000	80,000
Dividends Declared	30,000	15,000
Total Debits	<u>\$1,388,500</u>	<u>\$690,000</u>
Accounts Payable	\$ 154,500	\$ 35,000
Common Stock	200,000	150,000
Other Contributed Capital	60,000	35,000
Retained Earnings, 1/1	50,000	60,000
Sales	760,000	410,000
Equity in Subsidiary Income	164,000	—0—
Total Credits	<u>\$1,388,500</u>	<u>\$690,000</u>

Required:

Prepare a consolidated statements workpaper on December 31, 2017. Any difference between book value and the value implied by the purchase price relates to goodwill.

PROBLEM 4-11 Consolidated Workpaper, Equity Method LO 5

(Note that this is the same problem as Problem 4-7, but assuming the use of the partial equity method.)

Price Company purchased 90% of the outstanding common stock of Score Company on January 1, 2016, for \$450,000. At that time, Score Company had stockholders' equity consisting of common stock, \$200,000; other contributed capital, \$160,000; and retained earnings, \$90,000. On December 31, 2020, trial balances for Price Company and Score Company were as follows:

	<i>Price</i>	<i>Score</i>
Cash	\$ 109,000	\$ 78,000
Accounts Receivable	166,000	94,000
Note Receivable	75,000	—0—
Inventory	309,000	158,000
Investment in Score Company	633,600	—0—
Plant and Equipment	940,000	420,000

	<i>Price</i>	<i>Score</i>
Land	160,000	70,000
Dividends Declared	70,000	50,000
Cost of Goods Sold	822,000	242,000
Operating Expenses	250,500	124,000
Total Debits	<u>\$3,535,100</u>	<u>\$1,236,000</u>
Accounts Payable	\$ 132,000	\$ 46,000
Notes Payable	300,000	120,000
Common Stock	500,000	200,000
Other Contributed Capital	260,000	160,000
Retained Earnings, 1/1	795,000	210,000
Sales	1,420,000	500,000
Equity in Subsidiary Income	120,600	—0—
Interest Income	7,500	—0—
Total Credits	<u>\$3,535,100</u>	<u>\$1,236,000</u>

Price Company's note receivable is receivable from Score Company. Interest of \$7,500 was paid by Score to Price during 2020. Any difference between book value and the value implied by the purchase price relates to goodwill.

Required:

Prepare a consolidated statements workpaper on December 31, 2020.

PROBLEM 4-12 Equity Method, Two Consecutive Years LO 5

On January 1, 2017, Parker Company purchased 90% of the outstanding common stock of Sid Company for \$180,000. At that time, Sid's stockholders' equity consisted of common stock, \$120,000; other contributed capital, \$20,000; and retained earnings, \$25,000. Assume that any difference between book value of equity and the value implied by the purchase price is attributable to land. On December 31, 2017, the two companies' trial balances were as follows:

	<i>Parker</i>	<i>Sid</i>
Cash	\$ 65,000	\$ 35,000
Accounts Receivable	40,000	30,000
Inventory	25,000	15,000
Investment in Sid Company	184,500	—0—
Plant and Equipment	110,000	85,000
Land	48,500	45,000
Dividends Declared	20,000	15,000
Cost of Goods Sold	150,000	60,000
Operating Expenses	35,000	15,000
Total Debits	<u>\$678,000</u>	<u>\$300,000</u>
Accounts Payable	\$ 20,000	\$ 15,000
Other Liabilities	15,000	25,000
Common Stock, par value \$10	200,000	120,000
Other Contributed Capital	70,000	20,000
Retained Earnings, 1/1	55,000	25,000
Sales	300,000	95,000
Equity in Subsidiary Income	18,000	—0—
Total Credits	<u>\$678,000</u>	<u>\$300,000</u>

Required:

- A. Prepare a consolidated statements workpaper on December 31, 2017.
- B. Prepare a consolidated statements workpaper on December 31, 2018, assuming trial balances for Parker and Sid on that date were:

	<i>Parker</i>	<i>Sid</i>
Cash	\$ 70,000	\$ 20,000
Accounts Receivable	60,000	35,000
Inventory	40,000	30,000
Investment in Sid Company	193,500	—0—
Plant and Equipment	125,000	90,000
Land	48,500	45,000
Dividends Declared	20,000	15,000
Cost of Goods Sold	160,000	65,000
Operating Expenses	<u>35,000</u>	<u>20,000</u>
Total Debits	<u>\$752,000</u>	<u>\$320,000</u>
Accounts Payable	\$ 16,500	\$ 16,000
Other Liabilities	15,000	24,000
Common Stock, par value \$10	200,000	120,000
Other Contributed Capital	70,000	20,000
Retained Earnings, 1/1	168,000	30,000
Sales	260,000	110,000
Equity in Subsidiary Income	<u>22,500</u>	<u>—0—</u>
Total Credits	<u>\$752,000</u>	<u>\$320,000</u>

PROBLEM 4-13 Consolidated Workpaper, Treasury Stock, Equity Method LO 5

(Note that this problem is the same as Problem 4-9, but assuming the use of the partial equity method.)
December 31, 2019, trial balances for Pledge Company and its subsidiary Stom Company follow:

	<i>Pledge</i>	<i>Stom</i>
Cash and Marketable Securities	\$ 184,600	\$ 72,000
Receivables (net)	182,000	180,000
Inventory	214,000	212,000
Investment in Stom Company	478,400	—0—
Plant and Equipment (net)	309,000	301,000
Land	85,000	75,000
Cost of Goods Sold	460,000	185,000
Operating Expenses	225,000	65,000
Dividends Declared	50,000	30,000
Treasury Stock (10,000 shares at cost)	<u>—0—</u>	<u>20,000</u>
Total Debits	<u>\$2,188,000</u>	<u>\$1,140,000</u>
Accounts Payable	\$ 96,000	\$ 79,000
Accrued Expenses	31,000	18,000
Notes Payable	100,000	200,000
Common Stock, \$1 par value	300,000	100,000
Other Contributed Capital	150,000	80,000
Retained Earnings, 1/1	550,000	320,000
Sales	880,000	340,000
Equity in Subsidiary Income	74,400	—0—
Interest Income	<u>6,600</u>	<u>3,000</u>
Total Credits	<u>\$2,188,000</u>	<u>\$1,140,000</u>

Pledge Company purchased 72,000 shares of Stom Company's common stock on January 1, 2016, for \$300,000. On that date, Stom Company's stockholders' equity was as follows:

Common Stock, \$1 par value	\$100,000
Other Contributed Capital	80,000
Retained Earnings	160,000
Treasury Stock (10,000 shares at cost)	<u>(20,000)</u>
Total	\$320,000

Other information:

1. Receivables of Pledge Company include a \$55,000, 12% note receivable from Stom Company.
2. Interest amounting to \$6,600 has been accrued by each company on the note payable from Stom to Pledge. Stom Company has not yet paid this interest.
3. The difference between book value and the value implied by the purchase price relates to subsidiary land.

Required:

Prepare a consolidated statements workpaper for the year ended December 31, 2019. Note that the percentage purchased is based on outstanding shares of Stom and not issued shares.

PROBLEM 4-14 Interim Purchase, Cost Method LO 6

Punca Company purchased 85% of the common stock of Surrano Company on July 1, 2017, for a cash payment of \$590,000. December 31, 2017, trial balances for Punca and Surrano were:

	<i>Punca</i>	<i>Surrano</i>
Current Assets	\$ 150,000	\$ 180,000
Treasury Stock at Cost, 500 shares	—0—	48,000
Investment in Surrano Company	590,000	—0—
Property and Equipment	1,250,000	750,000
Cost of Goods Sold	1,540,000	759,000
Other Expenses	415,000	250,000
Dividends Declared	<u>—0—</u>	<u>50,000</u>
Total	<u>\$3,945,000</u>	<u>\$2,037,000</u>
Accounts and Notes Payable	\$ 277,500	\$ 150,000
Dividends Payable	—0—	50,000
Capital Stock, \$5 par value	270,000	40,000
Other Contributed Capital	900,000	250,000
Retained Earnings, 1/1	355,000	241,000
Sales	2,100,000	1,300,000
Dividend Income	<u>42,500</u>	<u>6,000</u>
Total	<u>\$3,945,000</u>	<u>\$2,037,000</u>

Surrano Company declared a \$50,000 cash dividend on December 20, 2017, payable on January 10, 2018, to stockholders of record on December 31, 2017. Punca Company recognized the dividend on its declaration date. Any difference between book value and the value implied by the purchase price relates to subsidiary land, included in property and equipment. Income is earned evenly throughout the year.

Required:

Prepare a consolidated statements workpaper at December 31, 2017.

PROBLEM 4-15 Interim Purchase, Equity Method LO 6

Pillow Company purchased 90% of the common stock of Satin Company on May 1, 2016, for a cash payment of \$474,000. December 31, trial balances for Pillow and Satin were:

	<i>Pillow</i>	<i>Satin</i>
Current Assets	\$ 390,600	\$ 179,200
Treasury Stock at Cost, 500 shares		32,000
Investment in Satin Company	510,000	—0—
Property and Equipment	1,334,000	562,000
Cost of Goods Sold	1,261,000	584,000
Other Expenses	484,000	242,000
Dividends Declared	—0—	60,000
Total	<u>\$3,979,600</u>	<u>\$1,659,200</u>
Accounts and Notes Payable	\$ 270,240	\$ 124,000
Dividends Payable		60,000
Capital Stock, \$10 par value	1,000,000	200,000
Other Contributed Capital	364,000	90,000
Retained Earnings	315,360	209,200
Sales	1,940,000	976,000
Equity in Subsidiary Income	90,000	—0—
Total	<u>\$3,979,600</u>	<u>\$1,659,200</u>

Satin Company declared a \$60,000 cash dividend on December 20, 2016, payable on January 10, 2017, to stockholders of record on December 31, 2016. Pillow Company recognized the dividend on its declaration date. Any difference between book value and the value implied by the purchase price relates to subsidiary land, included in property and equipment. Income is earned evenly throughout the year.

Required:

Prepare a consolidated statements workpaper at December 31, 2016.

PROBLEM 4-16 Consolidated Statement of Cash Flows, Indirect Method LO 8

A consolidated income statement for 2018 and comparative consolidated balance sheets for 2017 and 2018 for P Company and its 80% owned subsidiary follow:

**P COMPANY AND SUBSIDIARY
Consolidated Income Statement
for the Year Ended December 31, 2018**

Sales	\$1,900,000
Cost of goods sold	<u>1,000,000</u>
Gross margin	900,000
Expenses	<u>300,000</u>
Operating income before tax	600,000
Dividend income	<u>50,000</u>
Income before tax	550,000
Income taxes	<u>220,000</u>
Consolidated net income	330,000
Less: Noncontrolling interest in consolidated net income	<u>66,000</u>
Controlling interest in consolidated net income	<u>\$ 264,000</u>

P COMPANY
Consolidated Balance Sheets
December 31, 2017 and 2018

<i>Assets</i>	<i>2018</i>	<i>2017</i>
Cash	\$ 250,000	\$ 300,000
Accounts receivable	360,000	250,000
Inventories	210,000	190,000
Equipment (net)	950,000	500,000
Long-term investments	800,000	800,000
Goodwill	<u>175,000</u>	<u>175,000</u>
Total assets	<u>\$2,745,000</u>	<u>\$2,215,000</u>
 <i>Liabilities and Equity</i>		
Accounts payable	\$ 268,000	\$ 500,000
Accrued payable	260,000	200,000
Bonds payable	200,000	—0—
Premium on bonds payable	40,000	—0—
Noncontrolling interest	148,000	90,000
Common stock, \$1 par value	600,000	450,000
Other contributed capital	275,000	225,000
Retained earnings	<u>954,000</u>	<u>750,000</u>
Total equities	<u>\$2,745,000</u>	<u>\$2,215,000</u>

Other information:

1. Equipment depreciation was \$95,000.
2. Equipment was purchased during the year for cash, \$545,000.
3. Dividends paid during 2018:
 - a. Declared and paid by S Company, \$40,000.
 - b. Declared and paid by P Company, \$60,000.
4. The bonds payable were issued on December 30, 2018, for \$240,000.
5. Common stock issued during 2018, 150,000 shares.

Required:

Prepare a consolidated statement of cash flows for the year ended December 31, 2018, using the indirect method.

PROBLEM 4-17 Consolidated Statement of Cash Flows: Direct Method LO 7

The consolidated income statement for the year December 31, 2019, and comparative balance sheets for 2018 and 2019 for Parks Company and its 90% owned subsidiary SCR, Inc. are as follows:

PARKS COMPANY AND SUBSIDIARY
Consolidated Income Statement
for the Year Ended December 31, 2019

Sales		\$239,000
Cost of goods sold		<u>104,000</u>
Gross margin		135,000
Depreciation expense	\$27,000	
Other operating expenses	<u>72,000</u>	<u>99,000</u>
Income from operations		36,000
Investment income		<u>4,500</u>
Consolidated net income		40,500
Noncontrolling interest in consolidated net income		<u>3,000</u>
Controlling interest in consolidated net income		<u>\$37,500</u>

PARKS COMPANY AND SUBSIDIARY
Consolidated Balance Sheets
December 31, 2018 and 2019

	<i>2019</i>	<i>2018</i>
Cash	\$ 36,700	\$ 16,000
Receivables	55,000	90,000
Inventory	126,000	92,000
Property, plant, and equipment (net of depreciation)	231,000	225,000
Long-term investment	39,000	39,000
Goodwill	<u>60,000</u>	<u>60,000</u>
Total assets	<u>\$547,700</u>	<u>\$522,000</u>
Accounts payable	\$ 67,500	\$ 88,500
Accrued expenses	30,000	41,000
Bonds payable, due July 1, 2020	<u>100,000</u>	<u>150,000</u>
Total liabilities	<u>197,500</u>	<u>279,500</u>
Noncontrolling interest	32,200	30,000
Common stock	187,500	100,000
Retained earnings	<u>130,500</u>	<u>112,500</u>
Total stockholders' equity	<u>350,200</u>	<u>242,500</u>
Total equities	<u>\$547,700</u>	<u>\$522,000</u>

SCR, Inc. declared and paid an \$8,000 dividend during 2019.

Required:

Prepare a consolidated statement of cash flows using the direct method.

Additional problems for interim acquisitions are available from your instructor.

PROBLEM 4-18 Consolidated Statement of Cash Flows—Interim Acquisition—Cost Method

PROBLEM 4-19 Consolidated Statement of Cash Flows—Interim Acquisition—Complete Equity Method

PROBLEM 4-20 Interim Acquisition, Contingent Consideration, Cost Method

PROBLEM 4-21 Interim Acquisition, Contingent Consideration, Complete Equity Method

ALLOCATION AND DEPRECIATION OF DIFFERENCES BETWEEN IMPLIED AND BOOK VALUES

CHAPTER CONTENTS

- 5.1 COMPUTATION AND ALLOCATION OF THE DIFFERENCE BETWEEN IMPLIED AND BOOK VALUES TO ASSETS AND LIABILITIES OF SUBSIDIARY—ACQUISITION DATE
- 5.2 EFFECT OF DIFFERENCES BETWEEN IMPLIED AND BOOK VALUES ON CONSOLIDATED NET INCOME—YEAR SUBSEQUENT TO ACQUISITION
- 5.3 CONSOLIDATED STATEMENTS WORKPAPER—USING THE COST METHOD
- 5.4 CONTROLLING AND NONCONTROLLING INTERESTS IN CONSOLIDATED NET INCOME AND RETAINED EARNINGS—USING THE COST METHOD
- 5.5 CONSOLIDATED STATEMENTS WORKPAPER—USING PARTIAL EQUITY METHOD
- 5.6 CONTROLLING AND NONCONTROLLING INTERESTS IN CONSOLIDATED NET INCOME AND RETAINED EARNINGS—USING PARTIAL EQUITY METHOD
- 5.7 CONSOLIDATED STATEMENTS WORKPAPER—USING COMPLETE EQUITY METHOD
- 5.8 CONTROLLING INTEREST IN CONSOLIDATED NET INCOME AND RETAINED EARNINGS—USING COMPLETE EQUITY METHOD
- 5.9 ADDITIONAL CONSIDERATIONS RELATING TO TREATMENT OF DIFFERENCE BETWEEN IMPLIED AND BOOK VALUES
- 5.10 PUSH DOWN ACCOUNTING (AVAILABLE TO INSTRUCTORS)

LEARNING OBJECTIVES

- 1 Calculate the difference between implied and book values and allocate to the subsidiary's assets and liabilities.
- 2 Describe FASB's position on accounting for bargain acquisitions.
- 3 Explain how goodwill is measured at the time of the acquisition.
- 4 Describe how the allocation process differs if less than 100% of the subsidiary is acquired.
- 5 Record the entries needed on the parent's books to account for the investment under the three methods: the cost, the partial equity, and the complete equity methods.
- 6 Prepare workpapers for the year of acquisition and the year(s) subsequent to the acquisition, assuming that the parent accounts for the investment alternatively using the cost, the partial equity, and the complete equity methods.
- 7 Understand the allocation of the difference between implied and book values to long-term debt components.
- 8 Explain how to allocate the difference between implied and book values when some assets have fair values below book values.
- 9 Distinguish between recording the subsidiary depreciable assets at net versus gross fair values.
- 10 Understand the concept of push down accounting.

Time Warner Cable (TWC) Inc. accepted a \$45.2 billion stock proposal by Comcast in February 2014, a price (\$159 per share) substantially greater than the most recent prior bid (\$132.50 per share) by competitor Charter Communications Inc. Although the price nearly equaled TWC's asking price of \$160 a share, the deal lacked some of the protections often desired or negotiated in proposals of this magnitude. The deal could collapse due to antitrust hurdles, for example, in

which case TWC is not guaranteed any compensation; i.e., no break-up fee. In contrast, AT&T Inc. paid \$4 billion to T-Mobile when their deal fell through due to antitrust pressures. Also, the TWC-Comcast proposal does not include a protective “collar” in the event Comcast share price should plummet (such a collar would require Comcast to issue additional shares). Statistics reveal the use of collars in approximately thirteen percent of public company acquisitions (in which stock was the primary consideration) between 2006 and 2014 in the U.S.¹

When a company pays a large premium to consummate an acquisition, the allocation of that premium to the accounts in the balance sheet becomes a crucial issue under acquisition accounting rules. As they mature, the balance sheet accounts will impact the income statement via depreciation, cost of goods sold, impairment charges, and so on, affecting the patterns and trends in reported earnings for years to come. These effects on earnings provide incentives for firms to use creative means to avoid depressing future earnings. A popular technique used in past years was to charge large amounts to *in-process research and development* expense.

Historically, goodwill was amortized over a period not to exceed 40 years. Current GAAP now treats goodwill as an asset with an indefinite life on the balance sheet, and the account is not adjusted unless an impairment exists. Tests for impairment involve an optional assessment of qualitative factors; see Chapter 2 for details.

The common complaint from past years that acquisition or purchase accounting “drained” future earnings via the amortization of goodwill was replaced with other concerns. Instead of being expensed through the income statement via the amortization process, goodwill now remains on the balance sheet at the value determined as of the acquisition date, except when impairment is deemed to have occurred. Because of complaints regarding the costliness and subjectivity of the impairment test, FASB has decided to require the impairment testing only when an optional qualitative assessment indicates a likelihood of impairment. The quantitative steps have been simplified for annual periods beginning 12-15-2019, with early implementation permitted.

Further, the current standards of the FASB require that *in-process research and development (R&D)* acquired as part of a business combination must be capitalized, rather than expensed. Thus, the dynamics of the games companies are often accused of playing have shifted, and are continuing to shift, dramatically.²

Opinions are mixed, however, as to how informative the goodwill impairment disclosures really are. One critic writes: “Even newly revised accounting standards don’t adequately address the nature of knowledge-intensive enterprises . . . Analysts and management will discount the charge as an accounting rules change and largely ignore it.”³

A quirky deferred revenue GAAP rule can cause acquired firms to realize less revenue than expected in periods immediately following an acquisition. FASB requires that liabilities and assets are valued at fair value when accounting for M&A. Fair value of deferred revenue is often less than revenue that would have been recognized in the absence of an M&A deal. Post deal, deferred revenue is revalued at fair value and this lesser fair value is then recognized when services are performed. Technology and telecommunications firms are most impacted as they are more likely to have significant deferred revenue.⁴ The ultimate impact of the changes in the accounting for R&D, goodwill, and other creative maneuvers has yet to be determined.

¹ *The Wall Street Journal*, “Deal to Test Cable Chief’s Capital Clout,” by Gautham Nagesh, 2/14/2014

² Money.CNN.com, “Toshiba shares plummet after warning of ‘billions’ in losses,” by Sherisse Pham, 12/28/2016.

³ Gartner.com, “AOL’s Charge Shows Accounting Standards Have Dubious Value,” by Nigel Rayner, 1/14/02.

⁴ *Journal of Accountancy*, “Tax Compliance After M&A,” by Justin N. Wilcox, CPA, and Lisa J. LaSarcina, CPA, December 1, 2017.


 IN
THE
NEWS

Professor Paul Chaney, Vanderbilt University, told MarketWatch that companies have one year from the acquisition to adjust the amount of purchase price allocated to various financial statement lines such as deferred revenue. For Blue Lock, that one year expired on September 30, 2017. For LifeLock, the company can decide to allocate more to deferred revenue, as well as decide to write off any or all of the remaining \$76 million of deferred revenue for both companies. That gives executives a “cookie jar” that can be used to boost the adjusted revenue metric that drives incentive compensation, Chaney told MarketWatch.⁵

In the preceding chapter, it was often assumed that any difference between implied and book values of the subsidiary’s equity was entirely attributable to the under or overvaluation of land, a nonamortizable asset, on the books of the subsidiary. This chapter focuses on a more complex and realistic allocation of the difference to various assets and liabilities in the consolidated balance sheet, and the depreciation or amortization of the difference in the consolidated income statement. In the following pages, we first provide examples of the allocation of the difference between implied and book values *on the acquisition date*. We next extend the examples to deal with the *subsequent* effects on the consolidated financial statements under the three methods of accounting for investments that we reviewed in Chapter 4.

5.1 COMPUTATION AND ALLOCATION OF THE DIFFERENCE BETWEEN IMPLIED AND BOOK VALUES TO ASSETS AND LIABILITIES OF SUBSIDIARY—ACQUISITION DATE

LO 1 Computation and Allocation of Difference (CAD).

When consolidated financial statements are prepared, asset and liability values must be adjusted by allocating the difference between implied and book values to specific recorded or unrecorded tangible and intangible assets and liabilities. In the case of a **wholly owned** subsidiary, the implied value of the subsidiary equals the acquisition price. The following two steps are taken.

LO 3 Measurement of goodwill.

- a. *Step One*: The difference between the implied value and book value is used first to adjust the individual assets and liabilities to their fair values on the date of acquisition.
- b. *Step Two*: If, after adjusting identifiable assets and liabilities to fair values, a residual amount of difference remains, it is treated as follows:
 1. When the implied value exceeds the aggregate fair values of *identifiable** assets less liabilities, the residual amount will be *positive* (a debit balance). A positive residual difference is evidence of an unspecified intangible and is accounted for as goodwill.
 2. When the implied value is below the aggregate fair value of identifiable assets less liabilities, the residual amount will be *negative* (a credit balance). A negative residual difference is evidence of a bargain purchase, with the difference between acquisition cost and fair value designating the amount of the bargain.** When a bargain acquisition occurs, some of the acquired assets have, in the past, been reduced below their fair values (as reflected after step 1). However, under *current GAAP, after a careful review of fair values*, the negative (or credit) balance should be recognized as an ordinary gain in the year of acquisition. Under current GAAP, no assets should be recorded below their fair values.

* The term identifiable refers to all assets and liabilities (that are recorded under GAAP) except goodwill.

(Continued)

⁵ MarketWatch.com, “Companies are using ‘ghost revenue’ to calculate executive bonuses,” by Francine McKenna, 11/13/2017.

** Note that the following situation is possible and, technically, would be a bargain purchase: FV (of identifiable Net Assets) $>$ Implied Value $>$ BV . Because the fair value is higher than the value implied by the purchase price, the bargain acquisition rules apply, even though the implied value is higher than the book value of the underlying equity. In practice, this situation is less likely to be referred to as a “bargain” than the situation where $BV > FV >$ Implied Value. Nonetheless it is the comparison between FV and Implied Value that determines a bargain, regardless of the level of BV (book value).

A true bargain is not likely to occur except in situations where nonquantitative factors play a role; for example, a closely held company wishes to sell quickly because of the health of a family member. However, research by the textbook authors revealed that bargains do in fact occur more frequently than might be expected.

Acquisitions leading to the recording of goodwill have nevertheless been far more common in recent years than bargain acquisitions. The impact of goodwill on future earnings has drawn a great deal of attention, with standard setters attempting to lighten the burden by no longer requiring the amortization of goodwill or other intangible assets with indefinite lives. Other acquired intangibles with *finite* useful lives, such as franchises, patents, and software, must still be amortized over their estimated useful lives. The examples presented in this chapter focus primarily on depreciable assets and goodwill. Note, however, that other identified intangibles with finite lives would be accounted for in the same manner as depreciable assets, with the term **amortization expense** replacing the term **depreciation expense**.

The FASB requires that R&D incurred in the regular course of business be expensed, and the Board initially interpreted the standard to allow the expensing of certain types of R&D transferred in corporate acquisitions. The Board went on to state that the R&D expense, or write-off, amount would be based on the amount paid by the acquiring firm rather than its historical cost to the acquired firm. By allocating large amounts to R&D in the period of the acquisition, firms have sometimes taken a large one-time hit to earnings to avoid an increased asset base (e.g., for return on asset calculations). This practice became increasingly popular in the late 1990s among high-technology firms, drawing the attention of the SEC and causing the firms to complain that they were being singled out for scrutiny. As stated previously, the current *FASB* position on business combinations requires that in-process R&D acquired should be recorded as an asset and amortized over the period of expected benefit.

Case 1: Implied Value “in Excess of” Fair Value of Identifiable Net Assets of a Subsidiary

To illustrate the allocation of the difference between implied and book values to individual assets and liabilities of a subsidiary, assume that on January 1, 2020, S Company has capital stock and retained earnings of \$1,500,000 and \$500,000, respectively, and identifiable assets and liabilities as presented in Illustration 5-1.

**IN
THE
NEWS**

Broadcom is trying to buy Qualcomm. Broadcom makes chips for modems, Wi-Fi, switches, and routers. Qualcomm, who invented the 2G and 3G wireless network technology used by Verizon and Sprint, has rejected the offer. However, if the deal goes through, it would be the second biggest merger in American corporate history.⁶

⁶ CNN.com, “The biggest mergers, acquisitions, and name changes of the year,” by Danielle Wiener-Bronner, February 21, 2018.

ILLUSTRATION 5-1**Identifiable Assets and Liabilities of S Company—January 1, 2020**

	<i>Fair Value</i>	<i>Book Value</i>	<i>Difference between Fair Value and Book Value</i>
Inventory	\$ 350,000	\$ 300,000	\$ 50,000
Other Current Assets	450,000	450,000	—0—
Equipment (net)	600,000	300,000	300,000
Land	400,000	250,000	150,000
Other Noncurrent Assets	1,000,000	1,000,000	—0—
Liabilities	<u>(300,000)</u>	<u>(300,000)</u>	<u>—0—</u>
Identifiable Net Assets	<u>\$2,500,000</u>	<u>\$2,000,000</u>	<u>\$500,000</u>

Adjustment of Assets and Liabilities: Wholly Owned Subsidiaries Assume further that P Company acquires a 100% interest in S Company on January 1, 2020, for \$2,750,000. The Computation and Allocation Schedule would appear as follows:

**Computation and Allocation of
Difference between Implied and Book Values**

Cost (purchase price/100%) = Implied Value	\$2,750,000
Book value of equity	<u>2,000,000</u>
Difference between implied and book value	750,000
Adjust to fair value	
Inventory (assume FIFO)	(50,000)
Equipment (with remaining life of 10 years)	(300,000)
Land	<u>(150,000)</u>
Balance	250,000
Record goodwill	<u>250,000</u>
Balance	<u>\$ 0</u>

The consolidated statements workpaper entry to eliminate the investment balance on January 1, 2020, will result in a debit to Difference between Implied and Book Value in the amount of \$750,000 as follows:

Capital Stock—S Company	1,500,000	
Retained Earnings—S Company	500,000	
Difference between Implied and Book Value	750,000	
Investment in S Company		2,750,000

Referring to the Computation and Allocation (CAD) Schedule, the workpaper entry to allocate the difference between implied and book value to specific consolidated assets takes the following form:

Inventory	50,000	
Equipment (net)	300,000	
Land	150,000	
Goodwill	250,000	
Difference between Implied and Book Value		750,000

The amount of the difference between implied and book values that is not allocated to specific identifiable assets and liabilities of the subsidiary is recognized as goodwill. As defined earlier, goodwill is the excess of implied value over the *fair value* of the identifiable net assets of the subsidiary on the acquisition date [$\$2,750,000 - \$2,500,000 = \$250,000$].

LO 4 Allocation of difference in a partially owned subsidiary.

Adjustment of Assets and Liabilities: Less than Wholly Owned Subsidiaries

When P Company exchanges \$2,750,000 for a 100% interest in S Company, the implication is that the fair value of the net assets, *including unspecified intangible assets*, of S Company is \$2,750,000. As illustrated earlier, if the recorded book value of those net assets is \$2,000,000, adjustments totaling \$750,000 are made to specific assets and liabilities, including goodwill, in the consolidated financial statements, serving to recognize the total implied fair value of the subsidiary assets and liabilities.

Assume now that rather than acquiring a 100% interest for \$2,750,000, P Company pays \$2,200,000 for an 80% interest in S Company. The fair value of the net assets, including unspecified intangible assets, of S Company implied by this transaction is still \$2,750,000 ($\$2,200,000 / .80$), and the implication remains that the net assets, including unspecified intangible assets, of S Company are understated by \$750,000. In the case of a less than wholly owned subsidiary, prior GAAP and practice have restricted the write-up of the net assets of S Company in the consolidated financial statements to the extent of P's acquisition percentage. Current GAAP, however, differ markedly, and require that here, too, the consolidated net assets should be reflected at their entire fair value.

To illustrate the existence of a noncontrolling interest in the context of, first, a *positive* difference between implied and book value and, later, a *negative* difference, refer again to Illustration 5-1.

Assume first that P Company acquires an 80% interest in S Company for \$2,200,000. The Computation and Allocation (CAD) Schedule is prepared in Illustration 5-2. The implied value is $\$2,200,000 / 80\% = \$2,750,000$.⁷

In this case, goodwill is equal to the excess of implied value over the fair value of the identifiable net assets of the subsidiary [$\$2,750,000 - \$2,500,000 = \$250,000$]. The following entries made to eliminate the investment, to recognize the noncontrolling

RELATED CONCEPTS

The characteristic of comparability suggests that the inventory be written up for the entire difference of \$50,000 (see Illustrations 5-1 and 5-2), even if the percentage acquired is less than 100%. *Otherwise* the NCI remains at book value while the controlling share is adjusted to fair value.

ILLUSTRATION 5-2

Computation and Allocation of the Difference between Implied and Book Value Excess of Implied over Fair Value

	Parent Share	Noncontrolling Share	Entire Value
Purchase Price and Implied Value	\$2,200,000	\$550,000	\$2,750,000
Book Value of Equity Acquired	<u>1,600,000</u>	<u>400,000</u>	<u>2,000,000</u>
Difference between Implied and Book Value	\$ 600,000	150,000	750,000
Adjust to Fair Value			
Inventory, FIFO Method	\$ (40,000)	\$(10,000)	\$ (50,000)
Equipment—net, 10-year life	(240,000)	(60,000)	(300,000)
Land	<u>(120,000)</u>	<u>(30,000)</u>	<u>(150,000)</u>
Balance (Excess of Implied over Fair Value)	\$ 200,000	\$ 50,000	\$ 250,000
Goodwill	<u>(200,000)</u>	<u>(50,000)</u>	<u>(250,000)</u>
Balance	<u>\$ —0—</u>	<u>\$ —0—</u>	<u>\$ —0—</u>

⁷ This calculation assumes that the amount paid by P Company does not reflect a control premium or other reason to value the noncontrolling interest differently from the controlling interest.

interest (NCI) in equity, and to allocate the difference between implied and book values are worksheet-only entries:

Retained Earnings—S Company	500,000	
Capital Stock—S Company	1,500,000	
Difference between Implied and Book Value	750,000	
Investment in S Company		2,200,000
Noncontrolling Interest in Equity		550,000

Referring to the Computation and Allocation Schedule, the workpaper entry to allocate the difference between implied and book value is:

Inventory	50,000	
Equipment (net)	300,000	
Land	150,000	
Goodwill	250,000	
Difference between Implied and Book Value		750,000

These amounts are all found in the right-hand column of the CAD Schedule.

As pointed out in Chapter 3, when the acquisition is for less than 100% of the subsidiary, the fair value of both the controlling interest and the noncontrolling interest must be determined. The fair value of the controlling interest is generally assumed to equal the amount paid by the acquirer. Determination of the fair value of the noncontrolling interest is not always this straightforward. For instance, as noted in FASB ASC paragraphs 805-20-30-7 and 8, the per-share amount paid by the acquirer could include a “control premium.” If the acquirer is able to measure the fair value of the noncontrolling interest on the basis of active market prices for the shares not obtained by the acquirer at the acquisition date, this will provide the basis for valuing the noncontrolling interest. If not, other valuation techniques must be applied.

To illustrate, suppose an investor acquires 80% of another company for \$70 per share and the remaining shares actively trade at \$65 per share immediately following the acquisition. This would imply a control premium of \$5 per share, and it would be appropriate to value the noncontrolling shares at \$65 rather than \$70 per share.

However, throughout this textbook, we assume the value of the controlling and noncontrolling shares to be equal unless explicitly stated otherwise. Thus, the fair value of the noncontrolling interest can be inferred from the value implied by the acquisition price. This approach is illustrated next.

Case 2: Acquisition Cost “Less Than” Fair Value of Identifiable Net Assets of a Subsidiary

Less than Wholly Owned Subsidiaries Refer to Illustration 5-1 and assume that P Company acquires an 80% interest in S Company for \$1,900,000. The implied value of S is $\$1,900,000/80\% = \$2,375,000$. The difference between *implied* and *book value* is \$375,000 [$\$2,375,000 - \$2,000,000$]. However, the *fair value* of the identifiable net assets of the subsidiary (\$2,500,000) exceeds the implied value of \$2,375,000 by \$125,000. The Computation and Allocation Schedule is started as usual, but a negative balance requires the recording of a gain after adjusting the identifiable assets and

liabilities to their fair values. The excess of fair value over implied value represents the initial difference between implied and book values of \$375,000 minus the adjustments to net assets of \$500,000, or \$125,000. The excess is allocated between the noncontrolling and controlling interests in the consolidated entity. The noncontrolling share of this excess (\$25,000) serves to adjust the noncontrolling interest in equity to fair value, while the parent's share (\$100,000) is recorded as a gain to the acquirer. As in all CAD schedules in the text, the items in bold represent workpaper entry amounts.

LO 4 CAD Schedule for less than wholly owned subsidiary.

Computation and Allocation of Difference Schedule

	<i>Parent Share</i>	<i>Noncontrolling Share</i>	<i>Entire Value</i>
Purchase price and implied value	\$1,900,000	475,000	2,375,000
Less: Book value of equity acquired	<u>1,600,000</u>	<u>400,000</u>	2,000,000*
Difference between implied and book value	300,000	75,000	375,000
Adjust to Fair Value			
Inventory	(40,000)	(10,000)	(50,000)
Equipment	(240,000)	(60,000)	(300,000)
Land	<u>(120,000)</u>	<u>(30,000)</u>	(150,000)
Balance (excess of FV over implied value)	(100,000)	(25,000)	(125,000)
P's gain	100,000		
Increase noncontrolling interest to fair value of assets		25,000	
Total allocated bargain			<u>125,000</u>
Balance	<u>—0—</u>	<u>—0—</u>	<u>—0—</u>

* In the workpaper, this is decomposed into Capital Stock and Retained Earnings.

Note that the amounts in bold in parentheses in the Computation and Allocation Schedule require debits in the workpaper entry (to increase assets/decrease liabilities).

The workpaper entries to eliminate the investment account and to allocate the difference between implied and book values may be summarized in general journal form as follows:

Retained Earnings—S Company	500,000	
Capital Stock—S Company	1,500,000	
Difference between Implied and Book Value	375,000	
Investment in S Company		1,900,000
Noncontrolling Interest in Equity (NCI)		475,000
Inventory	50,000	
Equipment (net)	300,000	
Land	150,000	
Gain on Acquisition (income statement account)		100,000
Noncontrolling Interest in Equity		25,000
Difference between Implied and Book Value		375,000

Implied Value Less than Book Value Less than Fair Value of Identifiable Net Assets It is possible for the value implied by the parent's acquisition cost to be less than the book value as well as the fair value of the net assets of the subsidiary. In that

ILLUSTRATION 5-3**Computation & Allocation of the Difference between Implied and Book Value
(Book Value of Interest Acquired Exceeds Implied Value)**

	<i>Parent Share</i>	<i>Noncontrolling Share</i>	<i>Entire Value</i>
Purchase Price and Implied Value	\$1,500,000	375,000	1,875,000
Book Value of Equity	<u>1,600,000</u>	<u>400,000</u>	2,000,000
Difference between Implied and Book Value	\$ (100,000)	\$ (25,000)	\$ (125,000)
Adjust to Fair Value			
Inventory	\$ (40,000)	\$ (10,000)	\$ (50,000)
Equipment (net)	(240,000)	(60,000)	(300,000)
Land	(120,000)	(30,000)	(150,000)
Balance (Excess of FV over implied value)	<u>\$ (500,000)</u>	<u>\$ (125,000)</u>	<u>\$ (625,000)</u>
Gain on Acquisition	<u>500,000</u>		
Increase Noncontrolling Interest to FV		<u>\$ 125,000</u>	
Total Allocated Bargain			\$ 625,000
Balance	<u>\$ —0—</u>	<u>\$ —0—</u>	<u>\$ —0—</u>

case, the difference between implied and book value initially will be credited in the investment elimination workpaper entry. The analysis of the allocation of this credit balance, however, takes the same form as that just illustrated; that is, we begin by adjusting assets upward first and then determine the necessary gain recognition. For example, refer to Illustration 5-1 and assume that P Company acquired an 80% interest in S Company on January 1, 2020, for \$1,500,000. See Illustration 5-3.

The workpaper entries to eliminate the investment account and to allocate the difference between implied and book values are presented next in general journal form.

Capital Stock—S Company	1,500,000	
Retained Earnings—S Company	500,000	
Difference between Implied and Book Value		125,000
Investment in S Company		1,500,000
Noncontrolling Interest in Equity (NCI) (.2)(\$1,875,000)		375,000
Difference between Implied and Book Value	125,000	
Inventory	50,000	
Equipment (net)	300,000	
Land	150,000	
Gain on Acquisition (income statement account)		500,000
Noncontrolling Interest in Equity		125,000

5.2 EFFECT OF DIFFERENCES BETWEEN IMPLIED AND BOOK VALUES ON CONSOLIDATED NET INCOME—YEAR SUBSEQUENT TO ACQUISITION

Depreciation and amortization in the consolidated income statement should be based on the values allocated to depreciable and amortizable assets in the consolidated balance sheet. When any portion of the difference between implied and book values is allocated to such assets, recorded income must be adjusted in determining consolidated net income in

current and future periods. ***This adjustment is needed to reflect the difference between the amount of amortization and/or depreciation recorded by the subsidiary and the appropriate amount based on consolidated carrying values.***

To illustrate, assume that on January 1, 2020, P Company acquires an 80% interest in S Company for \$2,200,000, at which time S Company has net assets of \$2,000,000 as presented in Illustration 5-1. As previously shown in Illustration 5-2, the implied value of S is \$2,200,000/80%, or \$2,750,000. The difference between implied and book values in the amount of \$750,000 is allocated as follows:

Inventory	\$ 50,000
Equipment (net)	300,000
Land	150,000
Goodwill	<u>250,000</u>
Difference between Implied and Book Value	\$750,000

A comparison of the recorded and consolidated carrying values of the assets and liabilities of S Company on January 1, 2020, is presented in Illustration 5-4.

Assume now that all the inventory is sold during 2020 and that the equipment has a remaining life of 10 years from January 1, 2020. Adjustments in the computation of consolidated net income that result from the allocation, amortization, and depreciation amortization, and/or impairment of the differences between implied and book values are summarized in Illustration 5-5.

As a result of the sale of the inventory in 2020, S Company will include \$300,000 in cost of goods sold, whereas from a consolidated point of view the cost of goods sold should be \$350,000 (inventory from Illustration 5-4). Hence, the recorded cost of goods sold must be increased by \$50,000 in determining consolidated net income in 2020. This adjustment to cost of goods sold is necessary only in the year(s) the inventory is sold.

S Company will record on its books \$30,000 (\$300,000/10 years) in depreciation of the equipment each year. Consolidated annual depreciation, however, should be \$60,000 (\$600,000/10 years). Accordingly, depreciation expense must be increased each year by \$30,000 in determining consolidated net income. Note that this amount may be computed directly from the Calculation and Allocation Schedule simply by dividing the adjustment to Equipment (\$300,000) by the remaining life (10 years).

Goodwill arising in the acquisition is not recorded by S Company. ***It remains in the consolidated balance sheet indefinitely, and it is adjusted only in the event of impairment.*** In the event of impairment, an adjustment to recorded income would

ILLUSTRATION 5-4

Comparison of Consolidated and Recorded Carrying Values of Net Assets of S Company, January 1, 2020

	<i>Carrying Value in S Company's Books (Illustration 5-1)</i>	<i>Allocation of Difference between Implied and Book Value</i>	<i>Consolidated Carrying Value</i>
Inventory	\$ 300,000	\$ 50,000	\$ 350,000
Equipment (net)	300,000	300,000	600,000
Land	250,000	150,000	400,000
Goodwill (excess of implied over fair values)	—0—	250,000	250,000
Other Assets and Liabilities (net)	<u>1,150,000</u>	<u>—0—</u>	<u>1,150,000</u>
Net Assets	<u>\$2,000,000</u>	<u>\$750,000</u>	<u>\$2,750,000</u>

ILLUSTRATION 5-5**Adjustments in Determination of Consolidated Net Income Resulting from Allocation, Amortization, and Depreciation of the Difference between Implied and Book Value**

	<i>Difference between Implied and Book Value</i>	<i>Annual Adjustment in Determining Consolidated Net Income</i>		
		<i>2020</i>	<i>2021–2029</i>	<i>2030–2040</i>
Inventory	\$ 50,000	\$50,000	\$ —0—	\$ —0—
Equipment (net)	300,000	30,000	30,000	—0—
Land	150,000	—0—	—0—	—0—
Goodwill	<u>250,000</u>	<u>—0—</u>	<u>—0—</u>	<u>—0—</u>
Total	<u>\$750,000</u>	<u>\$80,000</u>	<u>\$30,000</u>	<u>\$ —</u>

Note: Inventory is expensed in 2020 assuming the FIFO method and equipment is depreciated over 10 years.

be needed to determine consolidated net income. The allocation of a portion of the difference between implied and book values to land does not require an adjustment to recorded income in determining consolidated net income until it is sold, since land is not a depreciable (or amortizable) asset.

The worksheet entries needed to ensure that all balance sheet and income statement accounts reflect the correct consolidated balances differ depending on which method the parent company uses to account for its investment: complete equity, partial equity, or cost. The correct consolidated balances will not differ, but the means of arriving at them will. Thus, after the worksheet entries are made, the resulting balances should be identical under the three methods.

Much of the consolidating process is the same for all three methods, but important differences exist. Each of the following stand-alone sections presents the entire process, including an impairment loss on goodwill in one year. For those who are interested in focusing on only one or two of the three methods, the other sections may be omitted without loss of continuity. To facilitate this choice, icons in the margin of the pages are used to distinguish between the cost and equity methods when needed. To distinguish between partial and complete equity, separate icons are used. First, however, it is worth noting that ***only three basic accounts are reported differently in the books of the parent.*** A brief review of the entries made by the parent under the three methods (see opening of Chapter 4) reveals two of these accounts: the ***investment account*** itself and the ***income recognized from the subsidiary*** (dividend income or equity in subsidiary income). Since the amount of income recognized from the subsidiary is added into the retained earnings of the parent each year, it follows that the third important account that differs among these methods is the ***retained earnings of the parent.*** To further facilitate an understanding of the differences among the methods, or to aid in skipping redundant sections, we present the cost method first and then we present the sections of the text that *differ* depending on the method choice in blue (e-book only) for the equity methods.

Under all three methods, the worksheet entries will separate current year effects from the effects of the previous years because the current year income statement accounts are open and need to be reported separately and correctly. Hence, worksheet entries to retained earnings (and to the noncontrolling interest in net assets) will always adjust the balance at the ***beginning*** of the current year (or the date of acquisition, if it is the first year) under the cost and partial equity methods. Under the complete equity method, beginning retained earnings of the parent is the same as beginning consolidated retained earnings and therefore needs no adjustment (the noncontrolling interest in equity still requires adjustment). Illustrations 5-6 through 5-8 present three

years of entries for a parent company and for a consolidating worksheet under all three methods. In the following sections, we explain these entries in detail.

5.3 CONSOLIDATED STATEMENTS WORKPAPER—USING THE COST METHOD

In the preparation of consolidated financial statements, the recorded balances of individual assets, liabilities, and expense accounts must be adjusted to reflect the allocation, amortization, and depreciation of the differences between implied and book values, as well as any impairment of goodwill. These adjustments are accomplished through the use of *workpaper entries* in the preparation of the consolidated statements workpaper.

ILLUSTRATION 5-6

Cost Method Three Year Summary

Entries on P's Books		Year 2020		Year 2021		Year 2022	
Investment in S		2,200,000					
Cash			2,200,000				
Cash		16,000		48,000		60,000	
Dividend Income			16,000		48,000		60,000

Entries on the Worksheet		Year 2020		Year 2021		Year 2022	
Dividend Income		16,000		48,000		60,000	
Dividends Declared			16,000		48,000		60,000
Investment in S				84,000		148,000	
Beginning Retained Earnings—P				84,000		148,000	
Beginning Retained Earnings—S		500,000		605,000		685,000	
Common Stock—S		1,500,000		1,500,000		1,500,000	
Difference between Implied and Book Value		750,000		750,000		750,000	
Investment in S			2,200,000		2,284,000		2,348,000
Noncontrolling Interest			550,000		571,000		587,000
Cost of Goods Sold		50,000					
Beginning Retained Earnings—P				40,000		40,000	
Noncontrolling Interest				10,000		10,000	
Equipment		300,000		300,000		300,000	
Land		150,000		150,000		150,000	
Goodwill		250,000		250,000		250,000	
Difference between Implied and Book value			750,000		750,000		750,000
Beginning Retained Earnings—P		—		24,000		48,000	
Depreciation Expense		30,000		30,000		30,000	
Noncontrolling Interest		—		6,000		12,000	
Equipment (net)			30,000		60,000		90,000
Beginning Retained Earnings—P		—				16,000	
Loss on Impairment—Goodwill		—		20,000		4,000	
Noncontrolling Interest		—					
Goodwill		—		20,000		20,000	

ILLUSTRATION 5-7

Partial Equity Method Three Year Summary

Entries on P's Books	<u>Year 2020</u>		<u>Year 2021</u>		<u>Year 2022</u>	
Investment in S	2,200,000					
Cash		2,200,000				
Cash	16,000		48,000		60,000	
Investment in S		16,000		48,000		60,000
Investment in S	100,000		112,000		160,000	
Equity in S Income		100,000		112,000		160,000

Entries on the Worksheet	<u>Year 2020</u>		<u>Year 2021</u>		<u>Year 2022</u>	
Investment in S	16,000		48,000		60,000	
Dividends Declared		16,000		48,000		60,000
Equity in S Income	100,000		112,000		160,000	
Investment in S		100,000		112,000		160,000
Beginning Retained Earnings—S	500,000		605,000		685,000	
Common stock—S	1,500,000		1,500,000		1,500,000	
Difference between Implied and Book Value	750,000		750,000		750,000	
Investment in S		2,200,000		2,284,000		2,348,000
Noncontrolling Interest		550,000		571,000		587,000
Cost of Goods Sold	50,000					
Beginning Retained Earnings			40,000		40,000	
Noncontrolling Interest			10,000		10,000	
Equipment	300,000		300,000		300,000	
Land	150,000		150,000		150,000	
Goodwill	250,000		250,000		250,000	
Difference between Implied and Book Value		750,000		750,000		750,000
Beginning Retained Earnings—P	—		24,000		48,000	
Depreciation Expense	30,000		30,000		30,000	
Noncontrolling Interest	—		6,000		12,000	
Equipment (net)		30,000		60,000		90,000
Beginning retained Earnings—P	—				16,000	
Loss on impairment—Goodwill	—		20,000		4,000	
Noncontrolling Interest	—					
Goodwill	—			20,000		20,000

TEST YOUR KNOWLEDGE 5.1

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

Multiple Choice

1. In the event of a bargain acquisition (after carefully considering the fair valuation of all subsidiary assets and liabilities), FASB requires the following accounting:
 - a. an ordinary gain is reported in the financial statements of the consolidated entity.
 - b. an ordinary loss is reported in the financial statements of the consolidated entity.
 - c. negative goodwill is reported on the balance sheet.
 - d. assets are written down to zero value, if needed.

To illustrate, assume the following:

1. P Company acquires an 80% interest in S Company on January 1, 2020, for \$2,200,000, at which time S Company has capital stock of \$1,500,000 and retained earnings of \$500,000. P Company uses the cost method to record its investment in S Company.
2. The allocation of the difference between implied and book values in the amount of \$750,000 $[(\$2,200,000/80\%) - \$2,000,000]$, as previously presented in Illustration 5-5, includes \$50,000 to Inventory, \$300,000 to Equipment (10-year life), \$150,000 to Land, and \$250,000 to Goodwill.

ILLUSTRATION 5-8

Complete Equity Method Three Year Summary

Entries on P's Books		Year 2020		Year 2021		Year 2022	
Investment in S	2,200,000						
Cash		2,200,000					
Cash	16,000		48,000		60,000		
Investment in S		16,000		48,000		60,000	
Investment in S	100,000		112,000		160,000		
Equity in S Income		100,000		112,000		160,000	
Equity in S Income	64,000		40,000		24,000		
Investment in S		64,000		40,000		24,000	

Entries on the Worksheet		Year 2020		Year 2021		Year 2022	
Investment in S	16,000		48,000		60,000		
Dividends Declared		16,000		48,000		60,000	
Equity in S Income	36,000		72,000		136,000		
Investment in S		36,000		72,000		136,000	
Beginning Retained Earnings—S	500,000		605,000		685,000		
Common stock—S	1,500,000		1,500,000		1,500,000		
Difference between Implied and Book Value	750,000		750,000		750,000		
Investment in S		2,200,000		2,284,000		2,348,000	
Noncontrolling Interest		550,000		571,000		587,000	
Cost of Goods Sold	50,000						
Investment in S			40,000		40,000		
Noncontrolling Interest			10,000		10,000		
Equipment	300,000		300,000		300,000		
Land	150,000		150,000		150,000		
Goodwill	250,000		250,000		250,000		
Difference between Implied and Book Value		750,000		750,000		750,000	
Investment in S	—		24,000		48,000		
Depreciation Expense	30,000		30,000		30,000		
Noncontrolling Interest	—		6,000		12,000		
Equipment (net)		30,000		60,000		90,000	
Investment in S	—				16,000		
Loss on impairment—Goodwill	—		20,000		4,000		
Noncontrolling Interest	—						
Goodwill		—		20,000		20,000	



COST

LO 5 Recording investment on books of Parent.

3. In 2020, S Company reported net income of \$125,000 and declared and paid dividends of \$20,000. During the annual review of its goodwill, the determination is made that the goodwill is currently worth \$255,000.
4. In 2021, S Company reported net income of \$140,000 and declared and paid dividends of \$60,000. During the annual review of its goodwill, the determination is made that the goodwill is currently worth \$230,000 (after performing the two step process described in Chapter 2).
5. In 2022, S Company reported net income of \$200,000 and declared and paid dividends of \$75,000. During the annual review of its goodwill, the determination is made that the goodwill is currently worth \$250,000.

Year of Acquisition

Entries on Books of P Company—2020 (Year of Acquisition) Entries recorded on the books of the P Company under the cost method to reflect the acquisition of its interest in S Company and the receipt of dividends in 2020 are as follows:

Investment in S Company	2,200,000	
Cash		2,200,000
To record purchase of an 80% interest in S Company.		
Cash	16,000	
Dividend Income		16,000
To record receipt of dividends from S Company (.80 × \$20,000).		

Workpaper Entries—2020 (Year of Acquisition) The consolidated statements workpaper for the year ended December 31, 2020, is presented in Illustration 5-9. An analysis of the workpaper elimination entries in Illustration 5-9 is presented here:

(1) Dividend Income	16,000	
Dividends Declared		16,000
To eliminate intercompany dividends.		

LO 6 Workpaper entries (cost method).

(2) Beginning Retained Earnings—S Company	500,000	
Capital Stock—S Company	1,500,000	
Difference between Implied and Book Value	750,000	
Investment in S Company		2,200,000
Noncontrolling Interest in Equity		550,000
To eliminate the investment account against the equity accounts of S Company using equity balances at the <i>beginning of the current year</i> , and recognize the Noncontrolling Interest in Equity.		

(3a) Cost of Goods Sold (beginning inventory)	50,000	
Equipment (net) (10-year remaining life)	300,000	
Land	150,000	
Goodwill	250,000	
Difference between Implied and Book Value		750,000
To allocate the amount of difference between implied and book value at date of acquisition to specific assets and liabilities, see Illustration 5-2.		

ILLUSTRATION 5-9**Cost Method**

80% Owned Subsidiary						
Consolidated Statements Workpaper						
P Company and Subsidiary						
Year of Acquisition						
for Year Ended December 31, 2020						
	P	S	Eliminations		Noncontrolling	Consolidated
	Company	Company	Dr.	Cr.	Interest	Balances
<i>Income Statement</i>						
Sales	3,100,000	2,200,000				5,300,000
Dividend Income	16,000		(1)	16,000		
Total Revenue	<u>3,116,000</u>	<u>2,200,000</u>				<u>5,300,000</u>
Cost of Goods Sold	1,700,000	1,360,000	(3a)	50,000		3,110,000
Depreciation—Equipment	120,000	30,000	(3b)	30,000		180,000
Other Expenses	998,000	685,000				<u>1,683,000</u>
Total Cost and Expense	<u>2,818,000</u>	<u>2,075,000</u>				<u>4,973,000</u>
Net/Consolidated Income	298,000	125,000				327,000
Noncontrolling Interest in Income					9,000*	9,000
Net Income to Retained Earnings	<u>298,000</u>	<u>125,000</u>	<u>96,000</u>	<u>—0—</u>	<u>9,000</u>	<u>318,000</u>
<i>Retained Earnings Statement</i>						
1/1 Retained Earnings						
P Company	1,650,000					1,650,000
S Company		500,000	(2)	500,000		
Net Income from above	298,000	125,000	96,000	—0—	9,000	318,000
Dividends Declared						
P Company	(150,000)					(150,000)
S Company		(20,000)		(1) 16,000	(4,000)	
12/31 Retained Earnings to						
Balance Sheet	<u>1,798,000</u>	<u>605,000</u>	<u>596,000</u>	<u>16,000</u>	<u>5,000</u>	<u>1,818,000</u>
<i>Balance Sheet</i>						
Investment in S Company	2,200,000			(2) 2,200,000		
Difference between Implied and Book Value			(2) 750,000	(3a) 750,000		
Land	1,250,000	250,000	(3a) 150,000			1,650,000
Equipment (net)	1,080,000	270,000	(3a) 300,000	(3b) 30,000		1,620,000
Other Assets (net)	2,402,000	1,885,000				4,287,000
Goodwill (excess of implied over fair value)			(3a) 250,000			250,000
Total Assets	<u>6,932,000</u>	<u>2,405,000</u>				<u>7,807,000</u>
Liabilities	<u>2,134,000</u>	<u>300,000</u>				<u>2,434,000</u>
Capital Stock						
P Company	3,000,000					3,000,000
S Company		1,500,000	(2) 1,500,000			
Retained Earnings from above	1,798,000	605,000	596,000	16,000	5,000	1,818,000
1/1 Noncontrolling Interest in Net Assets						
				(2) 550,000	550,000	
12/31 Noncontrolling Interest in Net Assets						
					<u>555,000</u>	<u>555,000</u>
Total Liabilities and Equity	<u>6,932,000</u>	<u>2,405,000</u>	<u>3,546,000</u>	<u>3,546,000</u>		<u>7,807,000</u>

(*) $20\% \times [\$125,000 - \$50,000 \text{ COGS} - \$30,000 \text{ Depreciation}] = \$9,000$.

(1) To eliminate intercompany dividends.

(2) To eliminate investment account and create noncontrolling interest account.

(3a) To allocate differences between implied and book value.

(3b) To depreciate the difference between implied and book value assigned to equipment (300,000/10).



By the end of the first year, under a *FIFO* (*first-in, first-out*) cost flow assumption, the inventory that necessitated the \$50,000 adjustment would have been sold. Recall that at the date of acquisition, this adjustment was to Inventory. At the end of the first year, however, the entry is to Cost of Goods Sold (or to Beginning Inventory, as a sub-component of the Cost of Goods Sold). Since S Company will not have included the additional \$50,000 allocated to inventory in its reported *Cost of Goods Sold* (*COGS*), consolidated Cost of Goods Sold must be increased by this workpaper entry. If the inventory were still on hand on December 31, 2020 (for example, if a LIFO flow were assumed), the \$50,000 would be allocated to ending inventory in the balance sheet rather than to Cost of Goods Sold.

This entry to Cost of Goods Sold is appropriate only in the year of acquisition. In subsequent years, consolidated Cost of Goods Sold will have been reflected in the 2020 consolidated net income and hence consolidated retained earnings at the end of 2020. Thus, the adjustment (\$50,000 debit) in future years will be to Beginning Retained Earnings-P Company (80%) and to the Noncontrolling Interest in Equity (20%).

(3b)	Depreciation Expense (\$300,000/10 years)	30,000	
	Equipment (net) ⁸		30,000
	To depreciate the amount of difference between implied and book value allocated to equipment, see Illustration 5-5.		

As previously noted, depreciation in the consolidated income statement should be based on the value assigned to the equipment in the consolidated balance sheet. Since the depreciation recorded by S Company is based on the book value of the equipment in its records, consolidated depreciation must be increased by a workpaper entry.

The amount of the difference between implied and book values not allocated to specific identifiable assets or liabilities is treated in the consolidated financial statements as goodwill. Companies are not currently required to amortize goodwill. Instead it is adjusted only when impaired. In the year 2020, goodwill is assessed to be worth \$255,000, which is more than its carrying value of \$250,000. Thus, no impairment entry is needed.

It is possible, of course, to combine the workpaper entries relating to the allocation and depreciation of the differences between implied and book values into one entry. In Illustration 5-9, for example, workpaper entries (3a) and (3b) could be presented in one combined entry as follows:

(3)	Cost of Goods Sold (Beginning Inventory)	50,000	
	Depreciation Expense	30,000	
	Equipment (net) (\$300,000 – \$30,000)	270,000	
	Land	150,000	
	Goodwill	250,000	
	Difference between Implied and Book Value		750,000

⁸ The credit to this entry could alternatively be accumulated depreciation.



In Illustration 5-9, the calculation of Noncontrolling Interest is also affected by the depreciation of the differences between implied and book values. Since the difference between implied and book values is distributed between the controlling and noncontrolling interests, 20% of the charges to COGS and depreciation expense reduce the noncontrolling interest (NCI) in consolidated earnings. Thus, the noncontrolling interest in earnings is computed as 20% of: [S earnings of \$125,000 – \$50,000 additional COGS – \$30,000 excess depreciation], or \$9,000. The other 80% reduces the controlling interest in consolidated net income.

Year Subsequent to Acquisition

LO 5 P company entries after acquisition.

Entries on Books of P Company—2021 (Year Subsequent to Acquisition) In 2021, P Company will record dividend income as follows:

Cash	48,000	
Dividend Income		48,000
To record receipt of dividends from S Company (.8 × \$60,000).		

Under the Cost Method, the parent company makes no entry for the reported income of the subsidiary.

Workpaper Entries—2021 (Year Subsequent to Acquisition) The consolidated statements workpaper for the year ended December 31, 2021, is presented in Illustration 5-10.

Workpaper elimination entries in Illustration 5-10 are presented in general journal form as follows:

LO 6 Workpaper entries after acquisition, subsequent years (cost method).

(1)	Investment in S Company	84,000	
	Beginning Retained Earnings—P Company		84,000
	To convert to equity/establish reciprocity as of 1/1/21 [(\$605,000 – \$500,000) × .80].		

This entry represents the change in retained earnings of S Company from the date of acquisition to the beginning of the current year. This also converts retained earnings to the value that would be recorded if the partial equity method had been used.



(2)	Dividend Income	48,000	
	Dividends Declared		48,000
	To eliminate the intercompany dividends.(\$60,000 × 80%).		

In the investment elimination entry, the amount debited or credited to the Difference between Implied and Book Values is equal to the amount of the difference between implied and book values on the date of acquisition. The amount does not change subsequent to acquisition and may be obtained from the Computation and Allocation Schedule (Illustration 5-2). Both the entry to Investment in S and Noncontrolling

ILLUSTRATION 5-10

Cost Method

80% Owned Subsidiary							
Consolidated Statements Workpaper							
Subsequent to							
P Company and Subsidiary							
Year of Acquisition							
for Year Ended December 31, 2021							
Income Statement	P	S	Eliminations		Noncontrolling Interest	Consolidated Balances	
	Company	Company	Dr.	Cr.			
Sales	3,534,000	2,020,000				5,554,000	
Dividend Income	48,000		(2)	48,000			
Total Revenue	<u>3,582,000</u>	<u>2,020,000</u>				<u>5,554,000</u>	
Cost of Goods Sold	2,040,000	1,200,000				3,240,000	
Depreciation—Equipment	120,000	30,000	(4b)	30,000		180,000	
Other Expenses	993,000	650,000	(4c)	20,000		1,663,000	
Total Cost and Expense	<u>3,153,000</u>	<u>1,880,000</u>				<u>5,083,000</u>	
Net/Consolidated Income	429,000	140,000				471,000	
Noncontrolling Interest in Income					18,000*	18,000	
Net Income to Retained Earnings	<u>429,000</u>	<u>140,000</u>	<u>98,000</u>	<u>—0—</u>	<u>18,000</u>	<u>453,000</u>	
<i>Retained Earnings Statement</i>							
1/1 Retained Earnings							
P Company	1,798,000		(4a)	40,000	(1)	84,000	1,818,000
S Company		605,000	(3)	605,000			
Net Income from above	429,000	140,000	(4c)	98,000	—0—	18,000	453,000
Dividends Declared							
P Company	(150,000)						(150,000)
S Company		(60,000)			(2)	48,000	(12,000)
12/31 Retained Earnings to Balance Sheet	<u>2,077,000</u>	<u>685,000</u>	<u>767,000</u>	<u>132,000</u>	<u>6,000</u>	<u>2,121,000</u>	
<i>Balance Sheet</i>							
Investment in S Company	2,200,000		(1)	84,000	(3)	2,284,000	
Difference between Implied and Book Value			(3)	750,000	(4a)	750,000	
Land	2,000,000	250,000	(4a)	150,000			2,400,000
Equipment (net)	960,000	240,000	(4a)	300,000	(4b)	60,000	1,440,000
Other Assets (net)	2,137,000	2,200,000					4,337,000
Goodwill			(4a)	250,000	(4c)	20,000	230,000
Total Assets	<u>7,297,000</u>	<u>2,690,000</u>					<u>8,407,000</u>
Liabilities	2,220,000	505,000					2,725,000
Capital Stock							
P Company	3,000,000						3,000,000
S Company		1,500,000	(3)	1,500,000			
Retained Earnings from above	2,077,000	685,000	767,000	132,000	6,000	2,121,000	
1/1 Noncontrolling Interest in Net Assets			(4a)	10,000			
			(4b)	6,000	(3)	571,000**	555,000
12/31 Noncontrolling Interest in Net Assets						561,000	561,000
Total Liabilities and Equity	<u>7,297,000</u>	<u>2,690,000</u>	<u>3,817,000</u>	<u>3,817,000</u>		<u>8,407,000</u>	

(*) $20\% \times (140,000 - 30,000 - 20,000) = 18,000$.

(**) $\$550,000 + [20\% \times (\$605,000 - \$500,000)] = \$571,000$.

(1) To establish reciprocity/convert to equity as of 1/1/21 [$.80 \times (\$605,000 - \$500,000)$].

(2) To eliminate intercompany dividends.

(3) To eliminate investment account and create Noncontrolling Interest account.

(4a) To assign the difference between implied and book value at the date of acquisition to specific assets and liabilities.

(4b) To depreciate the amount of the difference between implied and book value assigned to equipment.

(4c) To record goodwill impairment.

Interest reflect one year of change since acquisition. For example, the Noncontrolling Interest was valued at \$550,000 at acquisition and increased in the first year by $20\% \times [\$125,000 - \$20,000 \text{ (Dividends Declared)}] = \$21,000$. The noncontrolling interest must also be adjusted for the noncontrolling share in depreciation expense and Cost of Goods Sold from 2020, but those adjustments will be shown in separate entries below.

(3)	Beginning Retained Earnings—S Company	605,000	
	Capital Stock—S Company	1,500,000	
	Difference between Implied and Book Value	750,000	
	Investment in S Company (\$2,200,000 + \$84,000)		2,284,000
	Noncontrolling Interest [\$550,000 + 20% (\$125,000 - \$20,000)]		571,000

Workpaper entry (4) is presented next, first in a combined single entry and then (alternatively) in its components. The authors find the second approach (components) easier to understand, though less space efficient.

(4)	Beginning Retained Earnings—P Company (beginning consolidated retained earnings) (40,000 + 24,000)	64,000	
	Noncontrolling Interest	16,000	
	Depreciation Expense (\$300,000/10)	30,000	
	Impairment Loss on Goodwill (\$250,000 - \$230,000)	20,000	
	Equipment (net) (\$300,000 - \$30,000 - \$30,000)	240,000	
	Land	150,000	
	Goodwill	230,000	
	Difference between Implied and Book Value		750,000
	To allocate and depreciate the difference between implied and book values.		



COST

Beginning consolidated retained earnings and the noncontrolling interest must be adjusted each year for the cumulative amount of depreciation and other deductions that have been made from consolidated net income because of the Depreciation, amortization, and/or impairment of the difference between implied and book values in the consolidated statements workpapers of prior years. By reducing previously reported consolidated net income, these workpaper adjustments also reduce previously reported consolidated retained earnings and noncontrolling interest. The reduction of beginning consolidated retained earnings and noncontrolling interest is accomplished by debits to the beginning retained earnings of the parent company and to Noncontrolling Interest in Equity in the consolidated statements workpaper. The \$64,000 debit to beginning retained earnings is equal to the $80\% \times (\$50,000 \text{ charged to cost of goods sold plus } \$30,000 \text{ charged to depreciation expense})$. The \$16,000 debit to Noncontrolling Interest in Equity is equal to the $20\% \times (\$50,000 \text{ charged to cost of goods sold plus } \$30,000 \text{ charged to depreciation expense})$. Where part of the difference between implied and book values is allocated to depreciable assets, the workpaper adjustments to the beginning retained earnings of the parent company and to noncontrolling interest will become progressively larger each year.

To separate the preceding entry into its more digestible components, begin with the allocation of the difference between implied and book values and then proceed to record excess depreciation and goodwill impairment as follows:

(4a)	Beginning Retained Earnings—P Company (previous year's cost of goods sold \times 80%)	40,000	
	Noncontrolling Interest (20% of previous year's cost of goods sold)	10,000	
	Equipment	300,000	
	Land	150,000	
	Goodwill	250,000	
	Difference between Implied and Book Value		750,000
	To allocate the amount of difference between implied and book values at date of acquisition to specific assets and liabilities (see Illustration 5-2).		

Entry (4a) is identical to that recorded in the preceding year, with the exception that the entry to Cost of Goods Sold is appropriate only in the year of acquisition. Thus, the adjustment in year 2 (and future years) is split between the controlling and noncontrolling interests in equity (80% to Beginning Retained Earnings of P and 20% to Noncontrolling Interest).

(4b)	Depreciation Expense (current year)	30,000	
	Beginning Retained Earnings—P Company (80% of previous year's depreciation expense)	24,000	
	Noncontrolling Interest (20% of previous year's depreciation expense)	6,000	
	Equipment (net) or Accumulated Depreciation		60,000
	To depreciate the amount of difference between implied and book values allocated to equipment.		

This entry differs from the first-year entry in that the excess depreciation from the year 2020 is now reflected in Beginning Retained Earnings—P Company. Although the adjustment to Equipment (net) was already made in the prior-year workpaper for one year's depreciation adjustment, it was not posted to the books of S Company and hence must be made again. If the following year (2022) were being presented, the debit to Depreciation Expense would remain at 30,000, but the debit to Beginning Retained Earnings would be \$48,000 to reflect two prior years of excess depreciation, Noncontrolling Interest in Equity would be debited for \$12,000, and the credit to Net Equipment would total \$90,000.



Entry (4c) is a new entry that is needed in 2021 because goodwill is assessed to have been impaired. Goodwill is still carried in the workpaper for the consolidated entity at its acquisition value of \$250,000, and this amount exceeds its current estimated value of \$230,000 in 2021. Therefore, a workpaper entry is needed to reduce the carrying value to \$230,000, which entails the recording of an impairment loss of \$20,000. This charge, like the excess depreciation, is distributed to the controlling and noncontrolling interests in the income statement for 2021. The impairment loss may be combined with "other expenses" in the consolidating workpaper. In subsequent years,

the charge to earnings (like excess depreciation) will flow 80% to the Beginning Retained Earnings of P and 20% to Noncontrolling Interest in Equity.

(4c)	Impairment loss (current year)	20,000	
	Goodwill		20,000
	To reflect the impairment of goodwill recorded in the acquisition of 2020 due to a decline in value as of 2021.		

Clearly, if entries (4a), (4b), and (4c) are recorded separately, the combined entry (4) is not needed.

The amounts charged to expense each year were calculated in Illustration 5-5. Since inventory was sold in 2020, no part of the difference between implied and book value is allocated to inventory in the years after its sale. The amounts allocated to assets (and liabilities) are the unamortized amounts at the end of the year. Thus, the amounts allocated to depreciable assets in the balance sheet will become progressively smaller each year.

In the consolidated statements workpaper for the third year after acquisition (December 31, 2022), for example, the workpaper elimination entry will be as follows (if combined into one entry):

At December 31, 2022:			
(4)	Beginning Retained Earnings—P Company (beginning consolidated retained earnings [80%(\$50,000 + \$30,000) from 2020 + 80%(\$30,000 + \$20,000) from 2019]	104,000	
	Beginning Noncontrolling Interest in Equity [20%(\$50,000 + \$30,000) from 2020 + 20%(\$30,000 + \$20,000) from 2019]	26,000	
	Depreciation Expense (\$300,000/10)	30,000	
	Equipment (net) (\$300,000 – \$30,000 – \$30,000 – \$30,000)	210,000	
	Land	150,000	
	Goodwill	230,000	
	Difference between Implied and Book Value		750,000



COST

Note in the entry for 2022 that the goodwill remains at the \$230,000 carrying value, even though it is currently valued at \$250,000. Once impairment has been recorded, no recovery is permitted to be recorded in subsequent years under GAAP.

The debit to the beginning retained earnings of the parent company in 2022 (\$64,000 + \$40,000) is equal to the amount by which the controlling interest in consolidated net income and consolidated retained earnings had been reduced because of the depreciation and impairment of the difference between implied and book values. These charges amounted to \$64,000 for the parent's share in the year 2020 (COGS \$40,000 + Depreciation \$24,000) and to \$40,000 for the parent's share in the year 2021 (Goodwill Impairment \$16,000 + Depreciation \$24,000), and were reflected in the consolidated statements workpapers for those years. **However, recall that they were not posted to the ledgers of either P or S Company, thus necessitating the adjustments to Beginning Retained Earnings and Noncontrolling Interest in Equity in subsequent years.** [See Illustration 5-5; also see entries (3a and 3b) in Illustration 5-9 and entries (4b and 4c) in Illustration 5-10]. The calculation of the debit to Noncontrolling Interest is analogous, reflecting the remaining 20% of the charges to consolidated net income. This entry [(4) for 2022] can also be simplified by breaking it into its components.

Illustration 5-6 (on page 196) presents the entries in their separate components for all three years side by side for the cost method.

5.4 CONTROLLING AND NONCONTROLLING INTERESTS IN CONSOLIDATED NET INCOME AND RETAINED EARNINGS—USING THE COST METHOD



COST

In the preceding chapter, a t-account approach to the calculation of the controlling and noncontrolling interests in consolidated net income was presented. This approach must now be refined to accommodate the effect of the allocation and depreciation of the difference between implied and book values.

Consolidated net income is the parent company's income from its independent operations plus (minus) the reported subsidiary income (loss) plus or minus adjustments for the period relating to the depreciation/amortization/impairment of the difference between implied and book values.

The calculation of *controlling and noncontrolling interests in consolidated net income* for the year ended December 31, 2021, presented in Illustration 5-11, is based on Illustration 5-10. These amounts are, of course, the same as the controlling and noncontrolling interests in consolidated net income shown in the consolidated financial statements workpaper.

Consolidated retained earnings is the parent company's cost basis retained earnings plus (minus) the parent company's share of the increase (decrease) in

ILLUSTRATION 5-11

Calculation of the Noncontrolling Interest in Consolidated Income—Cost Method for Year Ended December 31, 2021

Noncontrolling Interest in Consolidated Income			
Additional depreciation and amortization of the difference between implied and book value related to:			
Depreciation Expense (\$300,000/10)	30,000	Net income reported by S Company	140,000
Impairment of Goodwill (\$250,000 – \$230,000)	20,000		
		Adjusted Net Income	90,000
		Noncontrolling Ownership Percentage Interest	20%
		Noncontrolling Interest in Consolidated Income	<u>18,000</u>
Controlling Interest in Consolidated Income			80% (\$90,000)
		P Company's net income from its independent operations (\$429,000 reported net income less \$48,000 dividend income from S Company included therein)	\$381,000
		P Company's share of the reported income of S Company (.8 × \$90,000)	72,000
		Controlling Interest in Consolidated Net Income	<u>\$453,000</u>

ILLUSTRATION 5-12**Analytical Calculation of Consolidated Retained Earnings: Cost Method
December 31, 2021**

P Company's retained earnings on December 31, 2021	\$2,077,000
P Company's share of the increase in S Company's retained earnings from date of acquisition to December 31, 2021 [.8(\$685,000 – \$500,000)]	148,000

Less cumulative effect to December 31, 2021, of the amortization of the difference between implied and book value (parent's share):

	<u>2020</u>	<u>2021</u>	
Inventory (to cost of goods sold)	\$40,000	\$—0—	
Depreciation from Equipment	24,000	24,000	
Impairment of Goodwill	<u>—0—</u>	<u>16,000</u>	
	<u>64,000</u>	<u>40,000</u>	(104,000)

Consolidated Retained Earnings on December 31, 2021 \$2,121,000

Alternatively, consolidated retained earnings can be computed by adding beginning consolidated retained earnings to the controlling interest in net income and subtracting dividends declared by P Company.

Beginning Consolidated Retained Earnings	\$1,818,000
Plus: Controlling Interest in Consolidated Net Income	453,000
Less: Dividends Declared by P Company	<u>(150,000)</u>
Ending Consolidated Retained Earnings	<u>\$2,121,000</u>

Similarly, the noncontrolling interest in equity can be computed as follows:

Beginning Noncontrolling Interest in Equity	\$555,000
Plus: Noncontrolling Interest in Consolidated Net Income	18,000
Less: Dividends Declared by S Company to Outsiders	<u>(12,000)</u>
Ending Noncontrolling Interest in Equity	<u>\$561,000</u>

reported subsidiary retained earnings from the date of acquisition to the current date plus or minus the cumulative effect of adjustments to date relating to the depreciation/amortization/impairment of the difference between implied and book values.

The calculation of **consolidated retained earnings** on December 31, 2021, presented in Illustration 5-12, is based on Illustration 5-10. This is the same amount of consolidated retained earnings as that shown in the consolidated statements worksheet presented in Illustration 5-10 and may be used as a means of checking the balance.

TEST YOUR KNOWLEDGE 5.2

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

Multiple Choice

- The difference between implied and book values that is not allocated to specific identifiable assets or liabilities is treated as goodwill, which is:
 - Expensed completely
 - Capitalized and amortized over 20 years
 - Capitalized and amortized over the expected useful life, not to exceed 40 years
 - Capitalized and checked periodically for impairment.

5.5 CONSOLIDATED STATEMENTS WORKPAPER—USING PARTIAL EQUITY METHOD

In the preparation of consolidated financial statements, the recorded balances of individual assets, liabilities, and expense accounts must be adjusted to reflect the allocation, depreciation, amortization, and potential impairment of the difference between implied and book values.

Although the equity methods (partial and complete) reflect the effects of certain transactions more fully than the cost method on the books of the parent, the adjustments have not been made to individual underlying asset or income statement accounts. For example, under the partial equity method, the parent records its equity in subsidiary income in its books, but it does not record the underlying revenue and expense accounts that combine to form that total. Also, under this method, the parent does not record excess depreciation, amortization, or impairment of identifiable intangibles arising in the acquisition in its investment account. These adjustments must be accomplished through the use of workpaper entries in the preparation of the consolidated statements workpaper. To illustrate, assume the following:



PARTIAL

1. P Company acquires an 80% interest in S Company on January 1, 2020, for \$2,200,000, at which time S Company has capital stock of \$1,500,000 and retained earnings of \$500,000. P Company uses the partial equity method to record its investment in S Company.
2. The allocation of the difference between implied and book values in the amount of \$750,000 $[(\$2,200,000/80\%) - \$2,000,000]$, as previously presented in Illustration 5-5, includes \$50,000 to Inventory, \$300,000 to Equipment (10-year life), \$150,000 to Land, and \$250,000 to Goodwill.
3. In 2020, S Company reported net income of \$125,000 and declared and paid dividends of \$20,000. During the annual review of its goodwill, the determination is made that the goodwill is currently worth \$255,000.
4. In 2021, S Company reported net income of \$140,000 and declared and paid dividends of \$60,000. During the annual review of its goodwill, the determination is made that the goodwill is currently worth \$230,000 (after performing the two-step process described in Chapter 2).
5. In 2022, S Company reported net income of \$200,000 and declared and paid dividends of \$75,000. During the annual review of its goodwill, the determination is made that the goodwill is currently worth \$250,000.

LO 5 Recording investment by Parent, partial equity method.

Entries on the Books of P Company—2020 (Year of Acquisition) Entries recorded on the books of P Company under the partial equity method are as follows:



PARTIAL

(1)	Investment in S Company	2,200,000	
	Cash		2,200,000
	To record purchase of 80% interest in S Company.		
(2)	Cash	16,000	
	Investment in S Company		16,000
	To record dividends received $(.80 \times \$20,000)$.		
(3)	Investment in S Company	100,000	
	Equity in Subsidiary Income		100,000
	To record equity in subsidiary income $(.80 \times \$125,000)$.		

Entries on the Books of P Company—2021 (Year Subsequent to Acquisition)

(4)	Cash	48,000	
	Investment in S Company		48,000
	To record dividends received (.80 × \$60,000).		
(5)	Investment in S Company	112,000	
	Equity in Subsidiary Income		112,000
	To record equity in subsidiary income (.80 × \$140,000).		

After these entries are posted, the Investment account will appear as follows:

Investment in S Company			
(1) Cost	2,200,000	(2) Dividends	16,000
(3) Subsidiary Income	100,000		
12/31/20 Balance	2,284,000	(4) Dividends	48,000
(5) Subsidiary Income	112,000		
12/31/21 Balance	2,348,000		

LO 6 Workpaper entries, year of acquisition, partial equity method.

Workpaper Entries—2020 (Year of Acquisition) A consolidated statements workpaper under the partial equity method for the year ended December 31, 2020, is presented in Illustration 5-13. Workpaper entries in Illustration 5-13 are presented in general journal form as follows:



(1)	Beginning Retained Earnings—S Company	500,000	
	Capital Stock—S Company	1,500,000	
	Difference between Implied and Book Value	750,000	
	Investment in S Company		2,200,000
	Noncontrolling Interest in Equity		550,000
	To eliminate the investment account against the equity accounts of S Company using equity balances at the beginning of the current year and recognize the noncontrolling interest in equity.		
(2a)	Cost of Goods Sold (beginning inventory)	50,000	
	Equipment (net) (10 year remaining life)	300,000	
	Land	150,000	
	Goodwill	250,000	
	Difference between Implied and Book Value		750,000
	To allocate the amount of difference between implied and book values at date of acquisition to specific assets and liabilities (see Illustration 5-2).		

By the end of the first year, under a FIFO cost flow assumption, the inventory that necessitated the \$50,000 adjustment would have been sold. Recall that at the date of acquisition, this adjustment was to Inventory. At the end of the first year, however, the entry is to Cost of Goods Sold (or to Beginning Inventory, as a subcomponent of the Cost of Goods Sold). Since S Company will not have included the additional \$50,000 allocated to inventory in its reported Cost of Goods Sold (COGS), consolidated Cost of Goods Sold must be increased by this workpaper entry. If the inventory were still on hand on December 31, 2020 (for example, if a LIFO flow were assumed), the \$50,000 would be allocated to ending inventory in the balance sheet rather than to Cost of Goods Sold.

ILLUSTRATION 5-13**Partial Equity Method**

80% Owned Subsidiary		Consolidated Statements Workpaper				
Year of Acquisition		P Company and Subsidiary				
		for Year Ended December 31, 2020				
<i>Income Statement</i>	<i>P</i>	<i>S</i>	<i>Eliminations</i>		<i>Noncontrolling Interest</i>	<i>Consolidated Balances</i>
	<i>Company</i>	<i>Company</i>	<i>Dr.</i>	<i>Cr.</i>		
Sales	3,100,000	2,200,000				5,300,000
Equity in Subsidiary Income	100,000		(3a)	100,000		
Total Revenue	<u>3,200,000</u>	<u>2,200,000</u>				<u>5,300,000</u>
Cost of Goods Sold	1,700,000	1,360,000	(2a)	50,000		3,110,000
Depreciation—Equipment	120,000	30,000	(2b)	30,000		180,000
Other Expenses	998,000	685,000				1,683,000
Total Cost and Expense	<u>2,818,000</u>	<u>2,075,000</u>				<u>4,973,000</u>
Net/Consolidated Income	382,000	125,000				327,000
Noncontrolling Interest in Income					9,000*	9,000
Net Income to Retained Earnings	<u>382,000</u>	<u>125,000</u>	<u>180,000</u>	<u>—0—</u>	<u>9,000</u>	<u>318,000</u>
<i>Retained Earnings Statement</i>						
1/1 Retained Earnings						
P Company	1,650,000					1,650,000
S Company		500,000	(1)	500,000		
Net Income from above	382,000	125,000	180,000	—0—	9,000	318,000
Dividends Declared						
P Company	(150,000)					(150,000)
S Company		(20,000)		(3b)	16,000	(4,000)
12/31 Retained Earnings to Balance Sheet	<u>1,882,000</u>	<u>605,000</u>	<u>680,000</u>	<u>16,000</u>	<u>5,000</u>	<u>1,818,000</u>
<i>Balance Sheet</i>						
Investment in S Company	2,284,000		(3b)	16,000	(1) 2,200,000 (3a) 100,000	
Difference between Implied and Book Value			(1)	750,000	(2a) 750,000	
Land	1,250,000	250,000	(2a)	150,000		1,650,000
Equipment (net)	1,080,000	270,000	(2a)	300,000	(2b) 30,000	1,620,000
Other Assets (net)	2,402,000	1,885,000				4,287,000
Goodwill (Excess of Implied over Fair Value)			(2a)	250,000		250,000
Total Assets	<u>7,016,000</u>	<u>2,405,000</u>				<u>7,807,000</u>
Liabilities	<u>2,134,000</u>	<u>300,000</u>				<u>2,434,000</u>
Capital Stock						
P Company	3,000,000					3,000,000
S Company		1,500,000	(1)	1,500,000		
Retained Earnings from above	1,882,000	605,000	680,000	16,000	5,000	1,818,000
1/1 Noncontrolling Interest in Net Assets					(1) 550,000	550,000
12/31 Noncontrolling Interest in Net Assets						<u>555,000</u>
Total Liabilities and Equity	<u>7,016,000</u>	<u>2,405,000</u>	<u>3,646,000</u>	<u>3,646,000</u>		<u>7,807,000</u>

* 20% × (\$125,000 – \$30,000 – \$50,000) = \$9,000.

(1) To eliminate the investment account against the equity accounts of S Company at the date of acquisition and create noncontrolling interest account.

(2a) To allocate the difference between implied and book value at the date of acquisition to specific assets and liabilities.

(2b) To depreciate the amount of the difference between implied and book value assigned to equipment (\$300,000/10 years).

(3a) To reverse the effect of subsidiary income recognized on the books of the parent.

(3b) To reverse the effects of dividends declared by the subsidiary and received by the parents.

This entry to Cost of Goods Sold is appropriate only in the year of acquisition. In subsequent years, consolidated Cost of Goods Sold will have been reflected in the 2020 consolidated net income. Thus, the adjustment (\$50,000 debit) in future years will be split between Beginning Retained Earnings—P Company (80%, or \$40,000) and Noncontrolling Interest in Equity (20%, or \$10,000).

(2b)	Depreciation Expense (\$300,000/10 years)	30,000	
	Equipment (net)		30,000

To depreciate the amount of difference between implied and book value allocated to equipment (see Illustration 5-5).

As previously noted, depreciation in the consolidated income statement should be based on the value assigned to the equipment in the consolidated balance sheet. Since the depreciation recorded by S Company is based on the book value of the equipment in its records, consolidated depreciation must be increased by a workpaper entry.

It is possible, of course, to combine the workpaper entries relating to the allocation, amortization, and depreciation of the difference between implied and book value into one entry. In Illustration 5-13, for example, workpaper entries (2a) and (2b) could be presented in one combined entry as follows:

(2)	Cost of Goods Sold (beginning inventory)	50,000	
	Depreciation Expense	30,000	
	Equipment (net) (\$300,000 – \$30,000)	270,000	
	Land	150,000	
	Goodwill	250,000	
	Difference between Implied and Book Value		750,000

Next, the workpaper entries to reverse the effect of the parent company entries during the year for subsidiary dividends and income may be separated to record the reversal of dividends in one entry and the reversal of income in another, as follows (and as shown in Illustration 5-13):

(3a)	Equity in Subsidiary Income	100,000	
	Investment in S Company		100,000
	To reverse the effect of subsidiary income recognized in the books of the parent.		
(3b)	Investment in S Company	16,000	
	Dividends Declared		16,000
	To reverse the effect of dividends declared by the subsidiary and received by the parent.		

Alternatively, the effects of entries (3a) and (3b) may be combined into one entry. The calculation of noncontrolling interest in Illustration 5-13 is affected by the amortization/depreciation of the differences between implied and book value (20% accrues to the noncontrolling interest).

LO 6 Workpaper entries, subsequent year, partial equity.

Workpaper Entries—2021 (Year Subsequent to Acquisition)—Partial Equity Method Next, a consolidated statements workpaper under the partial equity method for the year ended December 31, 2021, is presented in Illustration 5-14. Workpaper entries in Illustration 5-14 are presented in general journal form below.

ILLUSTRATION 5-14**Partial Equity Method**

80% Owned Subsidiary		Consolidated Statements Workpaper				
Subsequent to		P Company and Subsidiary				
Year of Acquisition		for Year Ended December 31, 2021				
	<i>P</i>	<i>S</i>	<i>Eliminations</i>		<i>Noncontrolling</i>	<i>Consolidated</i>
	<i>Company</i>	<i>Company</i>	<i>Dr.</i>	<i>Cr.</i>	<i>Interest</i>	<i>Balances</i>
Income Statement						
Sales	3,534,000	2,020,000				5,554,000
Equity in Subsidiary Income	112,000		(3)	112,000		
Total Revenue	<u>3,646,000</u>	<u>2,020,000</u>				<u>5,554,000</u>
Cost of Goods Sold	2,040,000	1,200,000				3,240,000
Depreciation—Equipment	120,000	30,000	(2b)	30,000		180,000
Other Expenses	993,000	650,000	(2c)	20,000		1,663,000
Total Cost and Expense	<u>3,153,000</u>	<u>1,880,000</u>				<u>5,083,000</u>
Net/Consolidated Income	493,000	140,000				471,000
Noncontrolling Interest in Income					18,000*	18,000
Net Income to Retained Earnings	<u>493,000</u>	<u>140,000</u>	<u>162,000</u>	<u>—0—</u>	<u>18,000</u>	<u>453,000</u>
Retained Earnings Statement						
1/1 Retained Earnings						
P Company	1,882,000		(2a)	40,000		1,818,000
S Company		605,000	(1)	605,000		
Net Income from above	493,000	140,000	162,000	—0—	18,000	453,000
Dividends Declared						
P Company	(150,000)					(150,000)
S Company		(60,000)		(3)	48,000	(12,000)
12/31 Retained Earnings to						
Balance Sheet	<u>2,225,000</u>	<u>685,000</u>	<u>831,000</u>	<u>48,000</u>	<u>6,000</u>	<u>2,121,000</u>
Balance Sheet						
Investment in S Company	2,348,000			(3) 64,000		
				(1) 2,284,000		
Difference between Implied and Book Value			(1)	750,000	(2a)	750,000
Land	2,000,000	250,000	(2a)	150,000		2,400,000
Equipment (net)	960,000	240,000	(2a)	300,000	(2b)	60,000
Other Assets (net)	2,137,000	2,200,000				4,337,000
Goodwill (Excess of Implied over Fair Value)			(2a)	250,000	(2c)	20,000
Total Assets	<u>7,445,000</u>	<u>2,690,000</u>				<u>8,407,000</u>
Liabilities	2,220,000	505,000				2,725,000
Capital Stock						
P Company	3,000,000					3,000,000
S Company		1,500,000	(1)	1,500,000		
Retained Earnings from above	2,225,000	685,000	831,000	48,000	6,000	2,121,000
1/1 Noncontrolling Interest in Net Assets			(2a)	10,000		
			(2b)	6,000	(1)	571,000**
12/31 Noncontrolling Interest in Net Assets						561,000
Total Liabilities and Equity	<u>7,445,000</u>	<u>2,690,000</u>	<u>3,797,000</u>	<u>3,797,000</u>		<u>8,407,000</u>

* $20\% \times (\$140,000 - \$30,000 - \$20,000) = \$18,000$.

** $\$550,000 + [20\% \times (\$605,000 - \$500,000)] = \$571,000$.

(1) To eliminate the investment account and create noncontrolling interest account.

(2a) To allocate the difference between implied and book value at the date of acquisition to specific assets and liabilities.

(2b) To depreciate the amount of the difference between implied and book value assigned to equipment (\$300,000/10 years).

(2c) To record goodwill impairment.

(3) To reverse the effect of parent company entries during the year for subsidiary dividends and income.



(1)	Beginning Retained Earnings—S Company	605,000	
	Capital Stock—S Company	1,500,000	
	Difference between Implied and Book Value	750,000	
	Investment in S Company (\$2,200,000 + \$84,000)		2,284,000
	Noncontrolling Interest in Equity [\$550,000 + 20%(\$125,000 – \$20,000)]		571,000

For those who have read the cost method discussion, note that *under the partial equity method, there is no need to establish reciprocity*. That feature was unique to the cost method and, in fact, may be viewed as a sort of conversion to the equity method.

In the investment elimination entry, the amount debited or credited to the Difference between Implied and Book Value is equal to the amount of the Difference between Implied and Book Value on the date of acquisition. The amount does not change subsequent to acquisition and may be obtained from the Computation and Allocation Schedule (Illustration 5-2).

Workpaper entry (2) is presented next, first in a combined single entry and then (alternatively) in its components. The authors find the second approach (components) easier to understand, though less compact.

(2)	Beginning Retained Earnings—P Company (Beginning Consolidated Retained Earnings) (40,000 + 24,000)	64,000	
	Noncontrolling Interest	16,000	
	Depreciation Expense (\$300,000/10)	30,000	
	Impairment Loss on Goodwill (\$250,000 – \$230,000)	20,000	
	Equipment (net) (\$300,000 – \$30,000 – \$30,000)	240,000	
	Land	150,000	
	Goodwill	230,000	
	Difference between Implied and Book Value		750,000
	To allocate and depreciate the difference between implied and book values.		

To separate the preceding entry into its more digestible components, begin with the allocation of the difference between implied and book value and then proceed to record excess depreciation as follows:

(2a)	Beginning Retained Earnings—P Company (80% of previous year's cost of goods sold)	40,000	
	Noncontrolling Interest (20% of previous year's cost of goods sold)	10,000	
	Equipment	300,000	
	Land	150,000	
	Goodwill	250,000	
	Difference between Implied and Book Value		750,000
	To allocate the amount of difference between implied and book values at date of acquisition to specific assets and liabilities (see Illustration 5-2).		



Entry (2a) is identical to that recorded in the preceding year, with the exception that the entry to Cost of Goods Sold is appropriate only in the year of acquisition. Thus, the adjustment in year 2 (and future years) is split between the controlling and noncontrolling interests in equity (80% to Beginning Retained Earnings of P Company and 20% to Noncontrolling Interest).

(2b)	Depreciation Expense (current year)	30,000	
	Beginning Retained Earnings—P Company (previous year’s depreciation expense × 80%)	24,000	
	Noncontrolling Interest (previous year’s depreciation expense × 20%)	6,000	
	Equipment (net) or Accumulated Depreciation		60,000
	To depreciate the amount of difference between implied and book values allocated to equipment.		

This entry differs from the first-year entry in that the excess depreciation from the year 2020 is now reflected in Beginning Retained Earnings—P Company and Noncontrolling Interest. Although the adjustment to Equipment was already made in the prior year workpaper for one year’s depreciation adjustment, it was not posted to the books of S Company and hence must be made again. If the following year (2022) were being presented, the debit to Depreciation Expense would remain at \$30,000, but the debit to Beginning Retained Earnings would be \$48,000 to reflect two prior years of excess depreciation (with a \$12,000 debit to Noncontrolling Interest and a credit to Equipment of \$90,000 for all three years).

Entry (2c) is a new entry that is needed in 2021 because goodwill is assessed to have been impaired. Goodwill is still carried in the workpaper for the consolidated entity at its acquisition value of \$250,000, and this amount exceeds its current estimated value of \$230,000 in 2021. Therefore, a workpaper entry is needed to reduce the carrying value to \$230,000, which entails the recording of an impairment loss of \$20,000. This charge, like the excess depreciation, is distributed to the controlling and noncontrolling interests in the income statement for 2021. The impairment loss may be combined with “other expenses” in the consolidating workpaper. In subsequent years, the charge to earnings (like excess depreciation) will flow 80% to the Beginning Retained Earnings of P and 20% to Noncontrolling Interest.

RELATED CONCEPTS

FASB Concept No. 5 suggests that losses be recognized when previously recognized economic benefits are reduced, as is the case with goodwill impairment. This *loss of benefit* approach attempts to *match* or *time* the recording of expenses or losses in the Income Statement.

(2c)	Impairment loss (current year)	20,000	
	Goodwill		20,000
	To reflect the impairment of goodwill recorded in the acquisition of 2018 due to a decline in estimated value in 2021.		

Clearly, if entries (2a), (2b), and (2c) are recorded separately, the combined entry (2) is not needed.

(3)	Equity in Subsidiary Income	112,000	
	Dividends Declared		48,000
	Investment in S Company		64,000
	To reverse the effect of parent company entries during the year 2021 for subsidiary dividends and income.		



Observe that the consolidated balances in Illustration 5-14 are the same as those in Illustration 5-10 (cost method workpaper). The workpaper entries to eliminate the investment account and to allocate and depreciate the difference between implied and book values are the same regardless of whether the investment is recorded using the cost method or the partial equity method. Only the entries for intercompany dividends and income and for reciprocity differ.

Illustration 5-7 (on page 197) presents the entries in their separate components for all three years (2020 through 2022) side by side for the partial equity method.

TEST YOUR KNOWLEDGE

5.3

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

Multiple Choice

1. Assuming a FIFO cost flow, which account should normally be debited for the inventory adjustment (assuming market value of subsidiary's inventory to be higher than its book value) when allocating the difference between implied and book values at the end of the year of acquisition?
 - (A) Inventory
 - (B) Beginning Retained Earnings—Parent
 - (C) Cost of Goods Sold
 - (D) Depreciation Expense

5.6 CONTROLLING AND NONCONTROLLING INTERESTS IN CONSOLIDATED NET INCOME AND RETAINED EARNINGS—USING PARTIAL EQUITY METHOD

The t-account calculation of consolidated net income (as well as the controlling and noncontrolling interests therein) does not differ between the cost and partial equity methods. As stated earlier, *consolidated net income is the parent company's income from its independent operations plus (minus) the reported subsidiary income (loss) plus or minus adjustments for the period relating to the depreciation/amortization/impairment of the difference between implied and book value.*



The calculation of consolidated net income for the year ended December 31, 2021, presented in Illustration 5-15, is based on Illustration 5-14. This, of course, is the same amount of consolidated net income as that calculated in the consolidated statements workpaper presented in Illustration 5-14.

When the parent company uses the partial equity method to account for its investment, the parent company's share of subsidiary income since acquisition is already included in the parent company's reported retained earnings. Consequently, *consolidated retained earnings are calculated as the parent company's recorded partial equity basis retained earnings plus or minus the cumulative effect of the adjustments to date relating to the depreciation/amortization/impairment of the difference between implied and book value.*

The analytical calculation of consolidated retained earnings on December 31, 2021, presented in Illustration 5-16, is based on Illustration 5-14. This, too, is the same amount of consolidated retained earnings as that shown in the consolidated statements workpaper presented in Illustration 5-14.

Alternatively, consolidated retained earnings can be computed by adding beginning consolidated retained earnings to the controlling interest in consolidated net income and subtracting dividends declared by Company P.

Beginning consolidated retained earnings	\$1,818,000
Plus: controlling interest in consolidated net income	453,000
Less: dividends declared by P Company	<u>(150,000)</u>
Ending consolidated retained earnings	<u>\$2,121,000</u>

Similarly, the Noncontrolling Interest in Equity can be computed as follows:

Beginning Noncontrolling Interest in Equity	\$555,000
Plus: Noncontrolling Interest in Consolidated Net Income	18,000
Less: Dividends Declared by S Company to Outsiders	<u>(12,000)</u>
Ending Noncontrolling Interest in Equity	<u>\$561,000</u>

ILLUSTRATION 5-15**T-account Calculation of Controlling and Noncontrolling Interest in Consolidated Income for Year Ended December 31, 2021**

Noncontrolling Interest in Consolidated Income	
Additional depreciation and amortization of the difference between implied and book value related to: Depreciation Expense (\$ 300,000/10)	30,000
Impairment of goodwill (\$250,000 – \$230,000)	20,000
<hr/>	
Net income reported by S Company	140,000
<hr/>	
Adjusted Net Income	90,000
Noncontrolling Ownership percentage interest	20%
Noncontrolling Interest	<u>18,000</u>
Consolidated Income	<u>18,000</u>
Controlling Interest in Consolidated Income	
<hr/>	
P Company's net income from its independent operations (\$493,000 reported net income less \$112,000 equity in subsidiary income included therein)	\$381,000
P Company's share of the reported income of S company (.8 × \$90,000)	72,000
<hr/>	
Controlling interest in Consolidated Net Income	<u>\$453,000</u>

.8(\$90,000)

ILLUSTRATION 5-16**Analytical Calculation of Consolidated Retained Earnings December 31, 2021**

P Company's retained earnings on December 31, 2021		\$2,225,000
Less cumulative effect to December 31, 2021, of the amortization of the difference between implied and book value (parent's share):		
	2020	2021
Inventory (to cost of goods sold)	\$40,000	\$ —0—
Depreciation from Equipment	24,000	24,000
Impairment of Goodwill	<u>—0—</u>	<u>16,000</u>
	<u>64,000</u>	<u>40,000</u>
Consolidated Retained Earnings on December 31, 2021		<u>\$2,121,000</u>

5.7 CONSOLIDATED STATEMENTS WORKPAPER—USING COMPLETE EQUITY METHOD

In the preparation of consolidated financial statements, the recorded balances of individual assets, liabilities, and expense accounts must be adjusted to reflect the allocation and depreciation of the differences between implied and book values.

When the parent accounts for its investment using the complete equity method, the parent records excess depreciation, amortization, and impairment arising in the acquisition in its investment account. The income statement effects are recorded as adjustments to the amount recognized as “equity in subsidiary income” each year. Even under this method, however, adjustments are needed to record the effects in the proper accounts for the consolidated entity. For example, the account “equity in subsidiary income” will be eliminated in the consolidated financial statements, and the effects need to be shown directly in “depreciation expense.” Similarly, the investment account will be eliminated, and the adjustments for any differences between implied and book values need to be shown directly in the appropriate asset (inventory, land, equipment, goodwill, etc.) and/or liability accounts. These adjustments must be accomplished through the use of *workpaper entries* in the preparation of the consolidated statements workpaper.



To illustrate, assume the following:

1. P Company acquires an 80% interest in S Company on January 1, 2020, for \$2,200,000, at which time S Company has capital stock of \$1,500,000 and retained earnings of \$500,000. P Company uses the complete equity method to record its investment in S Company.
2. The allocation of the difference between implied and book values in the amount of \$750,000 [$(\$2,200,000/80\%) - \$2,000,000$], as previously presented in Illustration 5-5, includes \$50,000 to Inventory, \$300,000 to Equipment (10-year life), \$150,000 to Land, and \$250,000 to Goodwill.
3. In 2020, S Company reported net income of \$125,000 and declared and paid dividends of \$20,000. During the annual review of its goodwill, the determination is made that the goodwill is currently worth \$255,000.
4. In 2021, S Company reported net income of \$140,000 and declared and paid dividends of \$60,000. During the annual review of its goodwill, the determination is made that the goodwill is currently worth \$230,000 (after performing the two-step process described in Chapter 2).
5. In 2022, S Company reported net income of \$200,000 and declared and paid dividends of \$75,000. During the annual review of its goodwill, the determination is made that the goodwill is currently worth \$250,000.

LO 5 Recording investment by Parent, complete equity method.

Entries on Books of P Company—2020 (year of acquisition) and 2021 (subsequent year) Entries recorded on the books of P Company under the complete equity method are as follows:

2020—Year of Acquisition			
(1)	Investment in S Company	2,200,000	
	Cash		2,200,000
	To record purchase of 80% interest in S Company.		
(2)	Cash	16,000	
	Investment in S Company		16,000
	To record dividends received (.80 × \$20,000).		
(3)	Investment in S Company	100,000	
	Equity in Subsidiary Income		100,000
	To record equity in subsidiary income (.80 × \$125,000).		
(4)	Equity in Subsidiary Income	64,000	
	Investment in S Company		64,000
	To adjust equity in subsidiary income for excess depreciation (80% × \$30,000, or \$24,000) and the higher value placed on inventory and thus on cost of goods sold (80% × \$50,000, or \$40,000). No impairment of goodwill in 2020 since its estimated value > carrying value. See Illustration 5-5.		

Entries (3) and (4) could be collapsed into one combined entry of \$36,000 (\$100,000 minus \$64,000).

2021—Year Subsequent to Acquisition			
(1)	Cash	48,000	
	Investment in S Company		48,000
	To record dividends received (.80 × \$60,000).		
(2)	Investment in S Company	112,000	
	Equity in Subsidiary Income		112,000
	To record equity in subsidiary income (.80 × \$140,000).		
(3)	Equity in Subsidiary Income	40,000	
	Investment in S Company		40,000
	To reduce equity in subsidiary income for excess depreciation (\$30,000 × 80%) plus impairment of goodwill (\$20,000 × 80%).		



Again, entries (2) and (3) could be collapsed into one combined entry of \$72,000 (\$112,000 minus \$40,000).

Note also that the inventory adjustment was needed only in the first year under a first-in, first-out (FIFO) cost flow assumption.

After these entries are posted, the Investment account will appear as follows:

Investment in S Company			
(1) Cost	2,200,000	(2) Dividends	16,000
(3) Subsidiary Income	100,000	(4) Excess depreciation, and Cost of Goods Sold	64,000
12/31/20 Balance	2,220,000		
(2) Subsidiary Income	112,000	(1) Dividends	48,000
		(3) Excess depreciation and goodwill impairment	40,000
12/31/21 Balance	2,244,000		

LO 6 Workpaper entries, year of acquisition, complete equity.

Workpaper Entries—2020 (Year of Acquisition) A consolidated statements workpaper under the complete equity method for the year ended December 31, 2020, is presented in Illustration 5-17. Workpaper entries in Illustration 5-17 are presented in general journal form as follows:

(1)	Beginning Retained Earnings—S Company	500,000	
	Capital Stock—S Company	1,500,000	
	Difference between Implied and Book Value	750,000	
	Investment in S Company		2,200,000
	Noncontrolling Interest in Equity		550,000

To eliminate the investment account against the equity accounts of S Company using equity balances at the *beginning of the current year*, and recognize the noncontrolling interest in equity.

(2a)	Cost of Goods Sold (beginning inventory)	50,000	
	Equipment (net) (10-year remaining life)	300,000	
	Land	150,000	
	Goodwill	250,000	
	Difference between Implied and Book Value		750,000



By the end of the first year, under a FIFO cost flow assumption, the inventory that necessitated the \$50,000 adjustment would have been sold. Recall that at the date of acquisition, this adjustment was to Inventory. At the end of the first year, however, the entry is to Cost of Goods Sold (or to Beginning Inventory, as a subcomponent of the Cost of Goods Sold). Since S Company will not have included the additional \$50,000 allocated to inventory in its reported Cost of Goods Sold (COGS), consolidated Cost of Goods Sold must be increased by this workpaper entry. If the inventory were still on hand on December 31, 2020 (for example, if a LIFO flow were assumed), the \$50,000 would be allocated to ending inventory in the balance sheet rather than to Cost of Goods Sold.

This entry to Cost of Goods Sold is appropriate only in the year of acquisition. In subsequent years, consolidated COGS will have been reflected in the 2020 consolidated net income and hence consolidated retained earnings at the end of 2020. On the books of P Company, the adjustment is reflected in equity in subsidiary income (and thus in ending retained earnings) and in the investment account. Because the investment account must be eliminated in the consolidating process, the entry to COGS is replaced in future years by entries to Investment in S Company (\$40,000 debit) and to Noncontrolling Interest (\$10,000 debit). These workpaper entries serve to facilitate the elimination of the investment account by reversing an adjustment made by the parent, and to adjust Beginning Noncontrolling Interest in Equity downward for its share (20%) of the charge.

(2b)	Depreciation Expense (\$300,000/10 years)	30,000	
	Equipment (net) ⁹		30,000
	To depreciate the amount of difference between implied and book value allocated to equipment (see Illustration 5-5).		

⁹ The credit to this entry could also be accumulated depreciation.

ILLUSTRATION 5-17**Complete Equity Method**

80% Owned Subsidiary		Consolidated Statements Workpaper				
Year of Acquisition		P Company and Subsidiary				
		for Year Ended December 31, 2020				
<i>Income Statement</i>	<i>P</i>	<i>S</i>	<i>Eliminations</i>		<i>Noncontrolling Interest</i>	<i>Consolidated Balances</i>
	<i>Company</i>	<i>Company</i>	<i>Dr.</i>	<i>Cr.</i>		
Sales	3,100,000	2,200,000				5,300,000
Equity in Subsidiary Income	36,000		(3b) 100,000	(3c) 64,000		
Total Revenue	<u>3,136,000</u>	<u>2,200,000</u>				<u>5,300,000</u>
Cost of Goods Sold	1,700,000	1,360,000	(2a) 50,000			3,110,000
Depreciation—Equipment	120,000	30,000	(2b) 30,000			180,000
Other Expenses	998,000	685,000				1,683,000
Total Cost and Expense	<u>2,818,000</u>	<u>2,075,000</u>				<u>4,973,000</u>
Net/Consolidated Income	318,000	125,000				327,000
Noncontrolling Interest in Income					9,000*	9,000
Net Income to Retained Earnings	<u>318,000</u>	<u>125,000</u>	<u>180,000</u>	<u>64,000</u>	<u>9,000</u>	<u>318,000</u>
<i>Retained Earnings Statement</i>						
1/1 Retained Earnings						
P Company	1,650,000					1,650,000
S Company		500,000	(1) 500,000			
Net Income from above	318,000	125,000	180,000	64,000	9,000	318,000
Dividends Declared						
P Company	(150,000)					(150,000)
S Company		(20,000)		(3a) 16,000	(4,000)	
12/31 Retained Earnings to Balance Sheet	<u>1,818,000</u>	<u>605,000</u>	<u>680,000</u>	<u>80,000</u>	<u>5,000</u>	<u>1,818,000</u>
<i>Balance Sheet</i>						
Investment in S Company	2,220,000		(3a) 16,000	(1) 2,200,000		
			(3c) 64,000	(3b) 100,000		
Difference between Implied and Book Value			(1) 750,000	(2a) 750,000		
Land	1,250,000	250,000	(2a) 150,000			1,650,000
Equipment (net)	1,080,000	270,000	(2a) 300,000	(2b) 30,000		1,620,000
Other Assets (net)	2,402,000	1,885,000				4,287,000
Goodwill (Excess of Implied over Fair Value)			(2a) 250,000			250,000
Total Assets	<u>6,952,000</u>	<u>2,405,000</u>				<u>7,807,000</u>
Liabilities	<u>2,134,000</u>	<u>300,000</u>				<u>2,434,000</u>
Capital Stock						
P Company	3,000,000					3,000,000
S Company		1,500,000	(1) 1,500,000			
Retained Earnings from above	1,818,000	605,000	680,000	80,000	5,000	1,818,000
1/1 Noncontrolling Interest in Net Assets				(1) 550,000	550,000	
12/31 Noncontrolling Interest in Net Assets					555,000	555,000
Total Liabilities and Equity	<u>6,952,000</u>	<u>2,405,000</u>	<u>3,710,000</u>	<u>3,710,000</u>		<u>7,807,000</u>

* 20% × (\$125,000 – \$30,000 – \$50,000) = \$9,000.

(1) To eliminate the investment account and create noncontrolling interest account.

(2a) To allocate differences between implied and book value.

(2b) To depreciate the difference between implied and book value assigned to equipment (300,000/10).

(3a) To eliminate equity in subsidiary income.

(3b) To eliminate intercompany dividends.

(3c) To reverse the adjustments to subsidiary income recognized by the parent.



As previously noted, depreciation in the consolidated income statement should be based on the value assigned to the equipment in the consolidated balance sheet. Since the depreciation recorded by S Company is based on the book value of the equipment in its records, consolidated depreciation must be increased by a workpaper entry.

The amount of the difference between implied and book values not allocated to specific identifiable assets or liabilities is treated in the consolidated financial statements as goodwill. Companies are not currently required to amortize goodwill. Instead it is adjusted only when impaired. In the year 2020, goodwill is assessed to be worth \$255,000, which is more than its carrying value of \$250,000. Thus, no impairment entry is needed.

It is possible, of course, to combine the workpaper entries relating to the allocation and depreciation of the differences between implied and book values into one entry. In Illustration 5-17, for example, workpaper entries (2a) and (2b) could be presented in one combined entry as follows:

(2)	Cost of Goods Sold (Beginning Inventory)	50,000	
	Depreciation Expense	30,000	
	Equipment (net) (\$300,000 – \$30,000)	270,000	
	Land	150,000	
	Goodwill	250,000	
	Difference between Implied and Book Value		750,000

Next we reverse the effect of parent company entries during the year for subsidiary dividends and income. Here entries may also be combined or separated to record the reversal of dividends in one entry, the reversal of reported income in a second entry, and the reversal of adjustments to subsidiary income in a third.

(3a)	Investment in S Company	16,000	
	Dividends Declared		16,000
	To reverse the effect of dividends declared by the subsidiary and received by the parent.		
(3b)	Equity in Subsidiary Income	100,000	
	Investment in S Company		100,000
	To reverse the effect of subsidiary reported income recognized in the books of the parent.		
(3c)	Investment in S Company	64,000	
	Equity in Subsidiary Income		64,000
	To reverse the adjustments to subsidiary income recognized by the parent $80\% \times (\$50,000 \text{ cost of goods sold and } \$30,000 \text{ depreciation})$.		

Alternatively, the effects of entries (3a) through (3c) may be combined into one entry, as follows:

(3)	Equity in Subsidiary Income	36,000	
	Dividends Declared		16,000
	Investment in S Company		20,000
	To reverse the effect of parent company entries during the year for subsidiary dividends and income.		

The calculation of noncontrolling interest in Illustration 5-17 is affected by the amortization/depreciation of the differences between implied and book value.

Entries on Workpapers—2021 (Year Subsequent to Acquisition) Next, a consolidated statements workpaper under the complete equity method for the year ended December 31, 2021, is presented in Illustration 5-18. Workpaper entries in Illustration 5-18 are presented in general journal form as follows:



COMPLETE

(1)	Beginning Retained Earnings—S Company	605,000	
	Capital Stock—S Company	1,500,000	
	Difference between Implied and Book Value	750,000	
	Investment in S Company (\$2,200,000 + \$84,000)		2,284,000
	Noncontrolling Interest [\$550,000 + 20% (\$125,000 – \$20,000)]		571,000

(2)	Investment in S Company (adjustments from prior year for 80% depreciation and for 80% COGS: 40,000 + 24,000)	64,000	
	Noncontrolling Interest (adjustments from prior year for 20% depreciation & COGS)	16,000	
	Depreciation Expense (\$300,000/10)	30,000	
	Impairment Loss on Goodwill (\$250,000 – \$230,000)	20,000	
	Equipment (net) (\$300,000 – \$30,000 – \$30,000)	240,000	
	Land	150,000	
	Goodwill	230,000	
	Difference between Implied and Book Value		750,000
	To allocate and depreciate the difference between implied and book values.		

To separate the preceding entry into its more digestible components, begin with the allocation of the difference between implied and book values and then proceed to record excess depreciation and goodwill impairment as follows:

(2a)	Investment in S Company (80% of previous year's cost of goods sold)	40,000	
	Noncontrolling Interest (20% of previous year's cost of goods sold)	10,000	
	Equipment	300,000	
	Land	150,000	
	Goodwill	250,000	
	Difference between Implied and Book Value		750,000
	To allocate the amount of difference between implied and book values at date of acquisition to specific assets and liabilities (see Illustration 5-2).		



COMPLETE

Entry(2a) is identical to that recorded in the preceding year, with the exception that the entry to Cost of Goods Sold is appropriate only in the year of acquisition. Consolidated COGS will have been reflected in the 2020 consolidated net income and hence consolidated retained earnings (80%) and Noncontrolling Interest (20%) at the end of 2020. On the books of P Company, the adjustment was reflected in equity in

ILLUSTRATION 5-18**Complete Equity Method**

80% Owned Subsidiary		Consolidated Statements Workpaper				
Subsequent to		P Company and Subsidiary				
Year of Acquisition		for Year Ended December 31, 2021				
	<i>P</i>	<i>S</i>	<i>Eliminations</i>		<i>Noncontrolling</i>	<i>Consolidated</i>
	<i>Company</i>	<i>Company</i>	<i>Dr.</i>	<i>Cr.</i>	<i>Interest</i>	<i>Balances</i>
<i>Income Statement</i>						
Sales	3,534,000	2,020,000				5,554,000
Equity in Subsidiary Income	72,000		(3)	72,000		
Total Revenue	3,606,000	2,020,000				5,554,000
Cost of Goods Sold	2,040,000	1,200,000				3,240,000
Depreciation—Equipment	120,000	30,000	(2b)	30,000		180,000
Other Expenses	993,000	650,000	(2c)	20,000		1,663,000
Total Cost and Expense	3,153,000	1,880,000				5,083,000
Net/Consolidated Income	453,000	140,000				471,000
Noncontrolling Interest in Income					18,000*	18,000
Net Income to Retained Earnings	453,000	140,000	122,000	—0—	18,000	453,000
<i>Retained Earnings Statement</i>						
1/1 Retained Earnings						
P Company	1,818,000					1,818,000
S Company		605,000	(1)	605,000		
Net Income from above	453,000	140,000	122,000	—0—	18,000	453,000
Dividends Declared						
P Company	(150,000)					(150,000)
S Company		(60,000)		(3)	48,000	(12,000)
12/31 Retained Earnings to Balance Sheet	2,121,000	685,000	727,000	48,000	6,000	2,121,000
<i>Balance Sheet</i>						
Investment in S Company	2,244,000		(2a) 40,000	(3) 24,000		
			(2b) 24,000	(1) 2,284,000		
Difference between Implied and Book Value			(1) 750,000	(2a) 750,000		
Land	2,000,000	250,000	(2a) 150,000			2,400,000
Equipment (net)	960,000	240,000	(2a) 300,000	(2b) 60,000		1,440,000
Other Assets (net)	2,137,000	2,200,000				4,337,000
Goodwill (Excess of Implied over Fair Value)			(2a) 250,000	(2c) 20,000		230,000
Total Assets	7,341,000	2,690,000				8,407,000
Liabilities	2,220,000	505,000				2,725,000
Capital Stock						
P Company	3,000,000					3,000,000
S Company		1,500,000	(1) 1,500,000			
Retained Earnings from above	2,121,000	685,000	727,000	48,000	6,000	2,121,000
1/1 Noncontrolling Interest in Net Assets						
			(2a) 10,000			
			(2b) 6,000	(1) 571,000**	555,000	
12/31 Noncontrolling Interest in Net Assets					561,000	561,000
Total Liabilities and Equity	7,341,000	2,690,000	3,757,000	3,757,000		8,407,000

* $20\% \times (\$140,000 - \$30,000 - \$20,000) = \$18,000$.

** $\$550,000 + [20\% \times (\$605,000 - \$500,000)] = \$571,000$.

(1) To eliminate investment account and create noncontrolling interest account.

(2a) To allocate the amount of difference between implied and book value at date of acquisition to specific assets and liabilities.

(2b) To depreciate the amount of difference between implied and book value allocated to equipment.

(2c) To record goodwill impairment.

(3) To reverse the effect of parent company entries during the year for subsidiary dividends and income.

subsidiary income in 2020 (and thus in ending retained earnings) and in the investment account. Because the investment account must be eliminated in the consolidating process, the entry to COGS is replaced here and in future years by an entry (\$40,000 debit) to Investment in S Company, and a \$10,000 debit to Beginning Noncontrolling Interest in Equity.

This component of the entry captures one of the basic differences between the Complete Equity method and the other two methods. Only under the Complete Equity method does the parent's beginning retained earnings exactly match the amount reported as consolidated retained earnings at the end of the previous year. Hence fewer workpaper adjustments to Beginning Retained Earnings—P Company are needed under the Complete Equity method. The \$40,000 adjustment in year 2 (and future years) related to inventory valuation is made to Investment in S Company, serving to facilitate the elimination of the investment account (by reversing an adjustment made by the parent).

(2b)	Depreciation Expense (current year)	30,000	
	Investment in S (80% of previous year's depreciation expense)	24,000	
	Noncontrolling Interest (20% of previous year's depreciation expense)	6,000	
	Equipment (net) or Accumulated Depreciation		60,000
	To depreciate the amount of difference between implied and book values allocated to equipment.		

This entry differs from the first-year entry in that the excess depreciation from the year 2020 is now reflected in a lowered balance in the Investment account, and this entry serves to reverse that adjustment (again to facilitate eliminating the Investment account). Although the adjustment to Equipment (net) was already made in the prior-year workpaper for one year's depreciation adjustment, it was not posted to the books of S Company and hence must be made again. If the following year (2022) were being presented, the debit to Depreciation Expense would remain at 30,000, but the debit to Investment in S Company would be \$48,000 to reflect two prior years of excess depreciation, Noncontrolling Interest would be debited for \$12,000, and the credit to Net Equipment would total 90,000.

Entry (2c) is a new entry that is needed in 2021 because goodwill is assessed to have been impaired. Goodwill is still carried in the workpaper for the consolidated entity at its acquisition value of \$250,000, and this amount exceeds its current estimated value of \$230,000 in 2021. Therefore, a workpaper entry is needed to reduce the carrying value to \$230,000, which entails the recording of an impairment loss of \$20,000. This charge, like the excess depreciation, is distributed to the controlling and noncontrolling interests in the income statement for 2021. The impairment loss may be combined with "other expenses" in the consolidating workpaper.

In subsequent years, the charge to earnings (like excess depreciation) will flow 80% to the Investment in S Company and 20% to Noncontrolling Interest.

(2c)	Impairment loss (current year)	20,000	
	Goodwill		20,000
	To reflect the impairment of goodwill recorded in the acquisition of 2018 due to a decline in value as of 2019.		

Clearly, if entries (2a) through (2c) are recorded separately, the combined entry (2) is not needed.

(3)	Equity in Subsidiary Income (after depreciation and goodwill impairment adjustments)	72,000	
	Dividends Declared		48,000
	Investment in S Company		24,000
	To reverse the effect of parent company entries during the year 2019 for subsidiary dividends and income.		

Observe that the consolidated balances in Illustration 5-18 are the same as those in Illustration 5-10 (cost method workpaper) and in Illustration 5-14 (partial equity workpaper). Illustration 5-8 (on page 198) presents the entries in their separate components for all three years side by side for the complete equity method.

5.8 CONTROLLING INTEREST IN CONSOLIDATED NET INCOME AND RETAINED EARNINGS—USING COMPLETE EQUITY METHOD

When the parent uses the complete equity method, its reported income equals the controlling interest in consolidated net income. As with the other methods, the amount of consolidated income is *the parent company's income from its independent operations plus (minus) the subsidiary income (loss) plus or minus adjustments for the period relating to the depreciation/amortization/impairment of the difference between implied and book values of depreciable or amortizable assets (and liabilities)*. Note that *consolidated income*, as opposed to the *controlling interest in consolidated income*, includes both the parent's share and the noncontrolling interest in subsidiary income (loss).



The amount of consolidated net income for the year ended December 31, 2021, is \$471,000, with \$18,000 allocated to the noncontrolling interest and the remaining \$453,000 to the controlling interest. Observe that the \$453,000 is reported both in the farthest left-hand column of Illustration 5-18 (P Company income) and again in the farthest right-hand column, labeled as “Net Income to Retained Earnings” (controlling interest in consolidated net income).

Similarly, the amount of consolidated retained earnings (\$2,121,000) at the end of 2021 is the same as the ending retained earnings reported by P Company. Again compare the amount in the retained earnings section in the farthest left-hand column of Illustration 5-18 (P Company) to the amount in the farthest right-hand column (consolidated retained earnings). The amounts agree because P Company recognizes all adjustments in the income statement account “equity in subsidiary income” and thus in retained earnings.

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Pursuant to the provisions of Accounting Standards Codification topic 350, “Intangibles—Goodwill and Other” (“ASC 350”), our goodwill was tested for impairment annually (or more frequently if impairment indicators arose). As a result of our annual test on January 31, 2009, all of the goodwill of our continuing operations was impaired, and we recorded a resulting charge of \$40.3 million in the fourth quarter of 2008. This impairment was primarily the result of a decrease in fair value due to the material decline in our market capitalization during the fourth quarter of 2008. The charge is categorized as “Goodwill impairment” on our consolidated statements of operations.¹⁰

¹⁰ Borders Group Inc. 10K, 2011.

5.9 ADDITIONAL CONSIDERATIONS RELATING TO TREATMENT OF DIFFERENCE BETWEEN IMPLIED AND BOOK VALUES

We present additional considerations relating to the treatment of the difference between implied and book value in the following sections. These considerations include allocation of the difference between implied and book values to liabilities and to assets with fair values less than book values; the separate disclosure of accumulated depreciation; premature disposals of long-lived assets by the subsidiary; and depreciable assets used in manufacturing.

Allocation of Difference between Implied and Book Values to Debt

Adjustment of Contingent Liabilities and Reserves Often an acquiring firm reassesses the adequacy of the acquired firm's accounting for contingent liabilities, purchase commitments, reserves, and so on, prior to its allocation of any difference between implied and book values. If the accounting for these items falls into a gray area of GAAP, the purchaser may decide to allocate some of the difference between implied and book values to adjust or create liability accounts. For example, suppose that the purchaser assesses a contingent liability of the acquired firm to be both probable and reasonably estimable, whereas the acquired firm had previously disclosed it only in a note because it was deemed reasonably possible (but not probable). By adjusting liabilities upward, the difference to be allocated to assets (and potentially to goodwill) is increased.

Interestingly, although many firms have been criticized for manipulating earnings to avoid recording goodwill, the Walt Disney Company, in its acquisition of Capital/ABC, was accused by some sources of managing earnings via liabilities to record *excessive* goodwill. The *increase in recorded liabilities* in such a case could be viewed as providing a sort of cushion or management tool for future earnings manipulation.

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Disney's accountants created \$2.5 billion in liabilities by asserting that Capital Cities/ABC ignored the timing of anticipated cash flows from future programming that the network agreed to finance (at least in part). This implies that after the merger, if programming costs increased, Disney would have an option of writing these amounts off against these liabilities instead of running them through the income statement.¹¹

Allocation of Difference between Implied and Book Values to Long-Term Debt

LO 7 Allocating difference to long-term debt.

Notes payable, long-term debt, and other obligations of an acquired company should be valued for consolidation purposes at their fair values. The fair value of liabilities is the price that would be paid to transfer a liability in an orderly transaction between market participants at the measurement date. A fair value measurement assumes both, that the liability is transferred to a market participant at the measurement date and that the non-performance risk relating to that liability is the same before and after its transfer. The fair value of the liability should reflect the nonperformance risk relating to that liability.¹²

¹¹ *Barron's*, "Disney's Real Magic," by Abraham Briloff, 3/23/98, pp. 17–20.

¹² FASB ASC topic 820 [Fair Value Measurement] states, "If a present value technique is used, the estimated future cash flows should not ignore relevant provisions of the debt agreement (for example, the right of the issuer to prepay)."

The reporting entity should consider the effect of its credit risk (credit standing) on the fair value of the liability. Valuation techniques used to measure fair value should be consistently applied. Valuation techniques consistent with the market approach or income approach should be used to measure fair value. The market approach is defined as a valuation technique that uses prices and other relevant information generated by market transactions involving identical or comparable liabilities. The income approach is defined as an approach that uses valuation techniques to convert future amounts (for example, cash flows or earnings) to a single present amount (discounted). This is the present value technique.

To increase consistency and comparability in fair value measurements and related disclosures, the fair value hierarchy prioritizes the inputs to valuation techniques used to measure fair value into three broad levels. The fair value hierarchy gives the highest priority to quoted prices (unadjusted) in active markets for identical liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). In some cases, the inputs used to measure fair value might fall in different levels of the fair value hierarchy. The level in the fair value hierarchy within which the fair value measurement in its entirety falls should be determined based on the lowest level input that is significant to the entire fair value measurement. Assessing the significance of a particular input to the fair value measurement in its entirety requires judgment, and consideration of factors specific to the asset or liability.

Assume that S Company has outstanding \$500,000 in 6%, 30-year bonds that were issued at par on January 1, 1990, and that interest on the bonds is paid annually. Assume further that on January 1, 2020, when P Company acquires a 100% interest in S Company, the yield rate on bonds with similar risk is 10%. The present value of S Company's bonds payable determined at the effective yield rate on the acquisition date for five periods (the time until maturity) is calculated as follows:

(1) Interest Payments $\$30,000 \times 3.79079 =$	\$113,724
(2) Principal Payment $\$500,000 \times .62092 =$	310,460
Present Value of Future Cash Payments Discounted at 10%	<u>\$424,184</u>

(1) The present value of an annuity of one for five periods discounted at 10% is 3.79079.

(2) The present value of an amount of one received five periods hence discounted at 10% is 0.62092.

From the point of view of the consolidated entity, bonds payable are overstated on January 1, 2020, by \$75,816 ($\$500,000 - \$424,184$) and a corresponding amount of the total difference between implied and book values on the date of acquisition must be allocated to "unamortized discount on bonds payable." In years after acquisition, interest expense reported by the subsidiary will be understated for consolidation purposes. Thus, workpaper entries must be made to amortize the discount in a manner that will reflect consolidated interest expense as a constant rate on the carrying value of the liability to the consolidated entity. An amortization schedule for this purpose is presented in Illustration 5-19. Consolidated statements workpaper entries necessary in the first five years subsequent to P Company's acquisition of S Company are summarized in the following table.

At maturity the bonds will be redeemed at par value (\$500,000), which also will be the carrying value to the consolidated entity. In all subsequent years after redemption, \$75,816 of the difference between implied and book value will be debited to the beginning retained earnings of the parent company in the consolidated statements workpaper in order to reduce beginning consolidated retained earnings for the cumulative amount of additional interest expense recognized in the consolidated

ILLUSTRATION 5-19**Bond Discount Amortization Schedule**

<i>Date</i>	<i>Interest Expense Recorded by S</i>	<i>Consolidated Interest Expense</i>	<i>Discount Amortization</i>	<i>Consolidated Carrying Value</i>
1/1/2020	\$ —0—	\$ —0—	\$ —0—	\$424,184
12/31/2020	30,000	42,418(1)	12,418(2)	436,602(3)
12/31/2021	30,000	43,660(4)	13,660	450,262
12/31/2022	30,000	45,026	15,026	465,288
12/31/2023	30,000	46,529	16,529	481,817
12/31/2024	30,000	48,183	18,183	500,000
	<u>150,000</u>	<u>225,816</u>	<u>75,816</u>	

(1) $.10 \times \$424,184 = \$42,418$.(2) $\$42,418 - \$30,000 = \$12,418$.(3) $\$424,184 + \$12,418 = \$436,602$.(4) $.10 \times \$436,602 = \$43,660$.

financial statements in prior years. If the complete equity method is used, the debit will be to the Investment account, as the parent should have already reflected the adjustment to earnings in its equity in subsidiary income and hence in its retained earnings.

Cost and Partial Equity Methods

<i>December 31</i>	<i>2020</i>		<i>2021</i>		<i>2022</i>		<i>2023</i>		<i>2024</i>	
	<i>Debit</i>	<i>Credit</i>	<i>Debit</i>	<i>Credit</i>	<i>Debit</i>	<i>Credit</i>	<i>Debit</i>	<i>Credit</i>	<i>Debit</i>	<i>Credit</i>
Unamortized Discount on Bonds Payable	75,816		75,816		75,816		75,816		75,816	
Difference between Implied and Book Value		75,816		75,816		75,816		75,816		75,816
Beginning Retained Earnings—P Company (Consolidated Retained Earnings)	—0—		12,418		26,078		41,104		57,633	
Interest Expense	12,418		13,660		15,026		16,529		18,183	
Unamortized Discount on Bonds Payable		12,418		26,078		41,104		57,633		75,816

Complete Equity Method

<i>December 31</i>	<i>2020</i>		<i>2021</i>		<i>2022</i>		<i>2023</i>		<i>2024</i>	
	<i>Debit</i>	<i>Credit</i>	<i>Debit</i>	<i>Credit</i>	<i>Debit</i>	<i>Credit</i>	<i>Debit</i>	<i>Credit</i>	<i>Debit</i>	<i>Credit</i>
Unamortized Discount on Bonds Payable	75,816		75,816		75,816		75,816		75,816	
Difference between Implied and Book Value		75,816		75,816		75,816		75,816		75,816
Investment in S Company	—0—		12,418		26,078		41,104		57,633	
Interest Expense	12,418		13,660		15,026		16,529		18,183	
Unamortized Discount on Bonds Payable		12,418		26,078		41,104		57,633		75,816

The preceding example was based on the assumption that P Company owned a 100% interest in S Company. If P Company owned an 80% interest rather than a 100% interest in S Company, the amount of the difference between implied and book value allocated to unamortized discount on bonds payable on the date of acquisition is still \$75,816. However, the subsequent year debits would be split between beginning retained earnings of the parent company (80%) and Noncontrolling Interest (20%) under the cost and partial equity methods. Under the complete equity method, the subsequent year debits would be split between the Investment account (80%) and Noncontrolling Interest (20%).

Allocating the Difference to Assets (Liabilities) with Fair Values Less (Greater) than Book Values

LO 8 Allocation when the fair value is below book value.

Sometimes the fair value of an asset on the date of acquisition is less than the amount recorded on the books of the subsidiary. In this case, the allocation of the difference between the fair value and the book value of the asset will result in a reduction of the asset. If the asset is depreciable, this difference will be amortized over the life of the asset as a reduction of depreciation expense. Likewise, the fair value of the long-term debt may be greater rather than less than its recorded value on the date of acquisition. In this case, entries are necessary to allocate the difference between the fair value and book value of the debt to unamortized bond premium and to amortize it over the remaining life of the debt as a reduction of interest expense.

To illustrate, assume that P Company paid \$2,240,000 for 80% of the outstanding stock of S Company when S Company had identifiable net assets with a fair value of \$2,600,000 and a book value of \$2,150,000. The fair values and book values of identifiable assets and liabilities are presented in Illustration 5-20. The Computation and Allocation (CAD) Schedule is presented next.

ILLUSTRATION 5-20

Allocation of Difference between Implied and Book Value

	<i>Fair Value</i>	<i>Book Value</i>	<i>Difference between Fair Value and Book Value</i>
Securities	550,000	400,000	150,000
Equipment (net)	1,250,000	1,500,000	(250,000)
Land	1,225,000	550,000	675,000
Bonds payable	(725,000)	(600,000)	(125,000)
Other assets and liabilities (net)	300,000	300,000	—0—
Total	<u>2,600,000</u>	<u>2,150,000</u>	<u>450,000</u>

Computation and Allocation of Difference Schedule

	<i>Parent Share</i>	<i>Noncontrolling Share</i>	<i>Entire Value</i>
Purchase price and implied value	\$2,240,000	560,000	2,800,000
Less: Book value of equity acquired	<u>1,720,000</u>	<u>430,000</u>	2,150,000
Difference between implied and book value	520,000	130,000	650,000
Increase Securities	(120,000)	(30,000)	(150,000)
Decrease Equipment	200,000	50,000	250,000
Increase Land	(540,000)	(135,000)	(675,000)
Increase Bonds Payable	100,000	25,000	125,000
Balance	160,000	40,000	200,000
Record Goodwill	<u>(160,000)</u>	<u>(40,000)</u>	(200,000)
Balance	<u>—0—</u>	<u>—0—</u>	<u>—0—</u>

Assume that the \$125,000 allocated to bond premium is amortized over five years using the straight-line method¹³ and that the equipment has a remaining life of four years.

End of First Year after Acquisition (Worksheet Entries) At the end of the first year, the workpaper entries are:

(1)	Securities	150,000	
	Land	675,000	
	Goodwill	200,000	
	Equipment (net)		250,000
	Unamortized Premium on Bonds Payable		125,000
	Difference between Implied and Book Values		650,000
To allocate the difference between implied and book value on the date of acquisition.			

Note that the assets accounts increased are recorded by debits and those decreased by credits (Equipment), while a credit records an increase in a liability (increase in Unamortized Premium on Bonds Payable).

(2)	Equipment (net)	62,500	
	Depreciation expense		62,500
To adjust depreciation expense downward (\$250,000/4 years).			

(3)	Unamortized premium on bonds payable	25,000	
	Interest expense		25,000
To amortize premium on bonds payable (\$125,000/5 years).			

End of Second Year after Acquisition (Worksheet Entries) At the end of the second year the workpaper entries are:

(1)	Securities	150,000	
	Land	675,000	
	Goodwill	200,000	
	Equipment (net)		250,000
	Unamortized Premium on Bonds Payable		125,000
	Difference between Implied and Book Value		650,000
To allocate the difference between implied and book value on the date of acquisition (this entry is repeated in subsequent years because the year of acquisition entry was recorded only on a workpaper).			

¹³ The straight-line method is illustrated here as a matter of expediency. Where differences between the straight-line method and the effective interest rate method of amortization are material, the effective interest rate method as shown in Illustration 5-19 should be used.

<i>Cost and Partial Equity Methods</i>		<i>Complete Equity Method</i>	
(2) Equipment (net)	125,000	Equipment (net)	125,000
Beginning Retained Earnings—Company P	50,000	Investment in S Company	50,000
Noncontrolling Interest in Equity	12,500	Noncontrolling Interest in Equity	12,500
Depreciation expense	62,500	Depreciation expense	62,500
To adjust depreciation downward for the current and prior year (\$250,000/4 years)			

<i>Cost and Partial Equity Methods</i>		<i>Complete Equity Method</i>	
(3) Unamortized premium on bond payable	50,000	Unamortized premium on bond payable	50,000
Beginning Retained Earnings—Company P	20,000	Investment in S Company	20,000
Noncontrolling Interest in Equity (20%)	5,000	Noncontrolling Interest in Equity (20%)	5,000
Interest expense	25,000	Interest expense	25,000
To amortize premium on bond payable for current and prior year (\$125,000/5 years)			

In the second year, under the cost or partial equity method, adjustments to the beginning retained earnings of the parent company and Noncontrolling Interest are necessary so that consolidated retained earnings and Noncontrolling Interest at the beginning of the second year will be equal to the consolidated equity balances reported at the end of the first year. The debits and credits are equal to the adjustments to consolidated net income that resulted from the reduction of depreciation expense (\$62,500) and the reduction in interest expense (\$25,000) in the prior year's workpaper. Under the complete equity method, no such adjustment to retained earnings is needed since the parent's retained earnings reflect accurately the consolidated retained earnings each year. Instead, entries are needed to the Investment account to facilitate the elimination of that account (by reversing the adjustments reflected therein), as well as to Noncontrolling Interest in Equity.

Reporting Accumulated Depreciation in Consolidated Financial Statements as a Separate Balance

LO 9 Depreciable assets at net and gross values.

In previous illustrations, we have assumed that any particular classification of depreciable assets will be presented in the consolidated financial statements as a single balance net of accumulated depreciation. When accumulated depreciation is reported as a separate balance in the consolidated financial statements, the workpaper entry to allocate and depreciate the difference between implied and book value must be slightly modified. To illustrate, assume that P Company acquires a 90% interest in S Company on January 1, 2020, and that the difference between implied and book value in the amount of \$200,000 is entirely attributable to equipment with an original life of nine years and a remaining life on January 1, 2020, of five years. Pertinent information regarding the equipment is presented in Illustration 5-21.

In Illustration 5-21, the \$1,200,000 fair value of the equipment (gross) is the replacement cost of the equipment if purchased *new* and is referred to as **replacement cost new**. The \$500,000 in accumulated depreciation in the fair value column is the portion of replacement cost now necessary to bring the net fair market value to \$700,000, which is the fair market value of the subsidiary's *used* equipment. The \$700,000 fair value of the used equipment is sometimes referred to in appraisal reports as the equipment's **sound value**.

If the equipment is to be presented in the consolidated financial statements as one balance net of accumulated depreciation, workpaper elimination entries to allocate and depreciate the difference between implied and book value are similar to those presented in Illustration 5-9 and Illustration 5-10, and are summarized in Illustration 5-22 for three years. However, when equipment and accumulated depreciation are reported as separate balances in the consolidated financial statements,

ILLUSTRATION 5-21**Determination of Amount of Difference between Implied and Book Value Allocated to Equipment and to Accumulated Depreciation January 1, 2020**

	<i>Fair Value</i>	<i>Book Value</i>	<i>Difference Between Fair Value and Book Value</i>
Equipment (gross)	\$1,200,000	\$900,000	\$300,000
Accumulated depreciation	<u>500,000</u>	<u>400,000</u>	<u>100,000</u>
Equipment (net)	<u>\$ 700,000</u>	<u>\$500,000</u>	<u>\$200,000</u>
Annual Depreciation (original life nine years, remaining life five years)		<u>\$100,000</u>	<u>\$ 40,000</u>

ILLUSTRATION 5-22**Summary of Workpaper Entries Equipment Presented Net of Accumulated Depreciation**

<i>Cost or Partial Equity Method</i>	<i>1/1/2020</i>		<i>12/31/2020</i>		<i>12/31/2021</i>		<i>12/31/2022</i>	
	<i>Debit</i>	<i>Credit</i>	<i>Debit</i>	<i>Credit</i>	<i>Debit</i>	<i>Credit</i>	<i>Debit</i>	<i>Credit</i>
Equipment (net)	200,000		200,000		200,000		200,000	
Difference between Implied and Book Value		200,000		200,000		200,000		200,000
Depreciation Expense	—0—		40,000		40,000		40,000	
Beginning Retained Earnings— Parent Company (Beginning Consolidated Retained Earnings)	—0—		—0—		36,000		72,000	
Noncontrolling Interest	—0—		—0—		4,000		80,000	
Equipment (net)		—0—		40,000		80,000		120,000
<i>Complete Equity Method</i>								
Equipment (net)	200,000		200,000		200,000		200,000	
Difference between Implied and Book Value		200,000		200,000		200,000		200,000
Depreciation Expense	—0—		40,000		40,000		40,000	
Investment in S Company	—0—		—0—		36,000		72,000	
Noncontrolling Interest	—0—		—0—		4,000		8,000	
Equipment (net)		—0—		40,000		80,000		120,000

ILLUSTRATION 5-23

Summary of Workpaper Entries Accumulated Depreciation Presented as Separate Balance

Cost or Partial Equity Method	1/1/2020		12/31/2020		12/31/2021		12/31/2022	
	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit
Equipment (gross)	300,000		300,000		300,000		300,000	
Accumulated Depreciation		100,000		100,000		100,000		100,000
Difference between Implied and Book Value		200,000		200,000		200,000		200,000
Depreciation Expense	—0—		40,000		40,000		40,000	
Beginning Retained Earnings—Parent Company (Beginning Consolidated Retained Earnings)	—0—		—0—		36,000		72,000	
Noncontrolling Interest	—0—		—0—		4,000		8,000	
Accumulated Depreciation		—0—		40,000		80,000		120,000
<i>Complete Equity Method</i>								
Equipment (gross)	300,000		300,000		300,000		300,000	
Accumulated Depreciation		100,000		100,000		100,000		100,000
Difference between Implied and Book Value		200,000		200,000		200,000		200,000
Depreciation Expense	—0—		40,000		40,000		40,000	
Investment in S Company	—0—		—0—		36,000		72,000	
Noncontrolling Interest	—0—		—0—		4,000		8,000	
Accumulated Depreciation		—0—		40,000		80,000		120,000

the workpaper elimination entries must be modified as presented in Illustration 5-23. The amount debited to Equipment (gross) minus the amount credited to Accumulated Depreciation in each of the workpaper entries in Illustration 5-23 is the same as the amount debited to Equipment (net) in the workpaper entries in Illustration 5-22, where equipment is presented in the consolidated financial statements net of accumulated depreciation.

To allocate the \$200,000 difference assigned to Net Equipment between Equipment (gross) and Accumulated Depreciation, we need to know the replacement cost new and the sound (used) value of the equipment as shown in the appraisal report.

Disposal of Depreciable Assets by Subsidiary

Assume that on January 1, 2022, two years after its acquisition by P Company, S Company sells all the equipment referred to in Illustration 5-21 for \$480,000. On January 1, 2022 (the date of the sale), the carrying value of the equipment on the books of the subsidiary is \$300,000 but \$420,000 from the consolidated point of view. These values are presented in Illustration 5-24. S Company reports a gain of \$180,000 on the disposal of the equipment in its books.

IN
THE
NEWS

The Valuation Resource Group (VRG) provides support to FASB by

offering information to the staff about implementation issues related to fair value measurements. The VRG includes financial statement preparers, auditors, users, valuation experts, and industry representatives.¹⁴

¹⁴ "Challenges and Solutions," *Journal of Accountancy*, November 2011, p. 29.

ILLUSTRATION 5-24

Calculation of Recorded and Consolidated Gain or Loss Disposal of Equipment

	<i>S Company</i>	<i>Unamortized Difference</i>	<i>Consolidated</i>
Cost	\$ 900,000	\$ 300,000	\$1,200,000
Accumulated depreciation	<u>600,000</u>	<u>180,000*</u>	<u>780,000</u>
Undepreciated base	300,000	120,000	420,000
Proceeds	<u>(480,000)</u>	<u> </u>	<u>(480,000)</u>
(Gain) loss on sale	<u>\$ (180,000)</u>	<u>\$ 120,000</u>	<u>\$ (60,000)</u>

* \$180,000 equals \$100,000 allocated at acquisition plus \$40,000 from year 2018, plus \$40,000 from year 2019.

S Company's Books

Cash	480,000	
Accumulated depreciation	600,000	
Gain on sale		180,000
Equipment		900,000

From the point of view of the consolidated entity, however, there is a gain of \$60,000. Recall that the usual workpaper entry to allocate the difference between implied and book value includes:

Equipment	300,000	
Difference between implied and book value		200,000
Accumulated depreciation		100,000

The workpaper entry necessary to adjust the amounts in the December 31, 2022, consolidated financial statements is as follows (shown first for the cost or partial equity methods and second for the complete equity method):

Cost or Partial Equity Method		
Beginning Retained Earnings—Parent Company (90% × \$80,000)		
(depreciation expense adjustment for years 2020 and 2021)	72,000	
Noncontrolling Interest in Equity (10% × \$80,000)	8,000	
Gain on Disposal of Equipment	120,000	
Difference between Implied and Book Value		200,000

Complete Equity Method		
Investment in S Company (90% × \$80,000)		
(depreciation expense adjustment for years 2020 and 2021)	72,000	
Noncontrolling Interest in Equity (10% × \$80,000)	8,000	
Gain on Disposal of Equipment	120,000	
Difference between Implied and Book Value		200,000

In the year of sale, any gain or loss recognized by the subsidiary on the disposal of an asset to which any of the difference between implied and book value has been allocated must be adjusted in the consolidated statements workpaper.

The preceding entry serves to reduce the gain recorded by the subsidiary to the correct gain to the consolidated entity. It also debits beginning retained earnings—P Company (or Investment in S Company if the complete equity method is used) and Noncontrolling Interest to “catch up” the effects to the equity accounts of the consolidated entity of two prior years of depreciation expense.

Depreciable Assets Used in Manufacturing

When the difference between implied and book values is allocated to depreciable assets used in manufacturing, workpaper entries necessary to reflect additional depreciation may be more complex because the current and previous years’ additional depreciation may need to be allocated among work in process, finished goods on hand at the end of the year, and cost of goods sold. In practice, such refinements are often ignored on the basis of materiality, and all of current year’s additional depreciation is charged to cost of goods sold.

Push down accounting is discussed in detail at www.wiley.com/go/jeter/AdvancedAccounting7e.

SUMMARY

- 1 *Calculate the difference between implied and book values and allocate to the subsidiary’s assets and liabilities.* This difference is used first to adjust the individual assets and liabilities to their fair values on the date of acquisition. If implied value exceeds the aggregate fair values of identifiable net assets, the residual amount will be *positive* (a debit balance), providing evidence of an unspecified intangible to be accounted for as goodwill.
- 2 *Describe FASB’s position on accounting for bargain acquisitions.* When the value implied by the acquisition price is below the aggregate fair value of identifiable net assets, the residual amount will be negative (a credit balance), designating a bargain purchase. FASB’s current position is that no assets are reduced below fair value; instead, the credit balance should be shown as an ordinary gain in the year of acquisition.
- 3 *Explain how goodwill is measured at the time of the acquisition.* Goodwill is measured as the excess of the value implied by the acquisition price over the fair value of the subsidiary’s assets less liabilities.
- 4 *Describe how the allocation process differs if less than 100% of the subsidiary is acquired.* Under the economic entity concept adopted by FASB, the consolidated net assets are written up by the entire difference between the implied fair value and the book value of the subsidiary company’s net assets. The increase in the portion owned by the noncontrolling interest is reflected in an increase in the equity of the noncontrolling interest.
- 5 *Record the entries needed on the parent’s books to account for the investment under the three methods: the cost, the partial equity, and the complete equity methods.* The most important difference between the cost and equity methods pertains to the period in which the parent recognizes subsidiary income on its books. If the cost method is in use, the parent recognizes its share of subsidiary income only when dividends are declared by the subsidiary. If the partial equity method is in use, the investor recognizes its share of the subsidiary’s income when reported by the subsidiary. A debit to cash and a credit to the investment account record the receipt of dividends under the partial equity method. The complete equity method differs from the partial equity method in that the share of subsidiary income recognized by the parent may be adjusted from the amount reported by the subsidiary, e.g., for excess depreciation implied by the difference between market and book values of the underlying assets acquired.
- 6 *Prepare workpapers for the year of acquisition and the year(s) subsequent to the acquisition, assuming that the parent accounts for the investment using the cost, the partial equity, and the complete equity methods.* Under the cost method, dividends declared by the subsidiary are eliminated against dividend income recorded by the parent. The investment account is eliminated against the equity accounts of the subsidiary, with the difference between implied and book value recorded in a separate account. The difference is then allocated to adjust underlying assets and/or liabilities, and to record goodwill in some cases. Additional entries are made to record excess depreciation on assets written up (or to decrease depreciation if written down). Under the equity method, the dividends declared by the subsidiary are eliminated against the investment account, as is the equity in subsidiary income. The investment account is eliminated in the same way as under the cost method. In subsequent years, the cost method requires an initial entry to establish

reciprocity (convert to equity). This entry (cost method only) debits the investment account and credits retained earnings of the parent (for the change in retained earnings of the subsidiary from acquisition to beginning of current year multiplied by the parent's ownership percentage). Only under the complete equity method does the parent's beginning retained earnings exactly match the amount reported as consolidated retained earnings at the end of the previous year. See Illustrations 5-6 through 5-8 for a complete summary of the three methods.

- 7 *Understand the allocation of the difference between implied and book value to long-term debt components.* Notes payable, long-term debt, and other obligations of an acquired company should be valued for consolidation purposes at their fair values. Quoted market prices, if available, are the best evidence of the fair value of the debt. If quoted market prices are unavailable, then management's best estimate of the fair value may be based on fair values of debt with similar characteristics or on valuation techniques such as the present value of estimated future cash flows.
- 8 *Explain how to allocate the difference between implied and book value when some assets have fair values below book values.* In this case, the allocation of the parent company's

share of the difference between the fair value and the book value of the asset will result in a reduction of the asset. If the asset is depreciable, this difference will be amortized over the life of the asset as a reduction of depreciation expense.

- 9 *Distinguish between recording the subsidiary depreciable assets at net versus gross fair values.* When the assets are recorded net, no accumulated depreciation account is used initially. When they are recorded gross, an accumulated depreciation account is needed. To allocate the difference assigned to depreciable assets between the asset account (gross) and the accumulated depreciation account, we must know the replacement cost new and the sound (used) value of the asset as shown in the appraisal report. Alternatively, these amounts may be inferred.
- 10 *Understand the concept of push down accounting.* Push down accounting is the establishment of a new accounting and reporting basis for a subsidiary company in its separate financial statements based on the purchase price paid by the parent company to acquire a controlling interest in the outstanding voting stock of the subsidiary company. This accounting method is required for the subsidiary in some instances, usually when the ownership level is over 95% for publicly held companies.

TEST YOUR KNOWLEDGE SOLUTIONS

5.1 1. a 5.2 1. d 5.3 1. c

QUESTIONS

- LO 1 1. Distinguish among the following concepts:
 - LO 2 (a) Difference between book value and the value implied by the purchase price.
 - LO 3 (b) Excess of implied value over fair value.
 - (c) Excess of fair value over implied value.
 - (d) Excess of book value over fair value.
- LO 1 2. In what account is the difference between book value and the value implied by the purchase price recorded on the books of the investor? In what account is the "excess of implied over fair value" recorded?
 - LO 3
- LO 4 3. How do you determine the amount of "the difference between book value and the value implied by the purchase price" to be allocated to a specific asset of a less than wholly owned subsidiary?
- LO 2 4. The parent company's share of the fair value of the net assets of a subsidiary may exceed acquisition cost. How must this excess be treated in the preparation of consolidated financial statements?
- LO 2 5. What are the arguments for and against the alternatives for the handling of bargain acquisitions? Why are such acquisitions unlikely to occur with great frequency?
- LO 1 6. P Company acquired a 100% interest in S Company. On the date of acquisition the fair value of the assets and liabilities of S Company was equal to their book value except for land that had a fair value of \$1,500,000 and a book value of \$300,000. At what amount should the land of S Company be included in the consolidated balance sheet? At what amount should the land of S Company be included in the consolidated balance sheet if P Company acquired an 80% interest in S Company rather than a 100% interest?
- LO 2 7. Corporation A purchased the net assets of Corporation B for \$80,000. On the date of A's purchase, Corporation B had no long-term investments in marketable securities and \$10,000 (book and fair value) of liabilities. The fair values of Corporation B's assets, when acquired, were

Current assets	\$ 40,000
Noncurrent assets	60,000
Total	\$ 100,000

Under *FASB Statement No. 141R* and *No. 160* [Topics 805 and 810], how should the \$10,000 difference between

the fair value of the net assets acquired (\$90,000) and the value implied by the purchase price (\$80,000) be accounted for by Corporation A?

- The \$10,000 difference should be credited to retained earnings.
- The noncurrent assets should be recorded at \$50,000.
- The current assets should be recorded at \$36,000, and the noncurrent assets should be recorded at \$54,000.
- A current gain of \$10,000 should be recognized.

- LO 2** 8. Meredith Company and Kyle Company were combined in a purchase transaction. Meredith was able to acquire Kyle at a bargain price. The sum of the market or appraised values of identifiable assets acquired less the fair value of liabilities assumed exceeded the cost to Meredith. A determination was made that some of the appraised values were overstated and those assets were adjusted accordingly. After reducing the overstated assets downward, there was still a “negative balance.” Proper accounting treatment by Meredith is to report the amount as
- An extraordinary item.
 - Part of current income in the year of combination.
 - A deferred credit.
 - Paid in capital.

- LO 4** 9. What is the effect on the noncontrolling share of consolidated income that results from the recording in the consolidated statements workpaper of differences between book value and the value implied by the purchase price (and their allocation to depreciable property, goodwill, etc.)?

Business Ethics

What is insider trading anyway?

Consider the following:

*Many years ago, a student in a consolidated financial statements class came to me and said that Grand Central (a multistore grocery and variety chain in Salt Lake City and surrounding towns and cities) was going to be acquired and that I should try to buy the stock and make lots of money. I asked him how he knew and he told me that he worked part-time for Grand Central and heard that Fred Meyer was going to acquire it. I did not know whether the student worked in the accounting department at Grand Central or was a custodian at one of the stores. I thanked him for the information but did not buy the stock. Within a few weeks, the announcement was made that Fred Meyer was acquiring Grand Central and the stock price shot up, almost doubling. It was clear that I had missed an opportunity to make a lot of money . . . I don't know to this day whether or not that would have been insider trading. However, I have never gone home at night and asked my wife if the SEC called. From “Don't go to jail and other good advice for accountants,” by Ron Mano, *Accounting Today*, October 25, 1999.*

Question: Do you think this individual would have been guilty of insider trading if he had purchased the stock in Grand Central based on this advice? Why or why not? Are there ever instances where you think it would be wise to miss out on an opportunity to reap benefits simply because the behavior necessitated would have been in a gray ethical area, though not strictly illegal? Defend your position.

ANALYZING FINANCIAL STATEMENTS

AFS5-1 eBay acquires Rent.com **LO 1**

On February 23, 2005, eBay acquired Viva Group, Inc., which does business under the name Rent.com, for a cash purchase price of approximately \$435.365 million including net cash and investments of approximately \$18 million. Rent.com is an Internet listing website in the apartment and rental housing industry. The motivation for the acquisition was to help expand eBay's presence into the online real estate market. Also, \$2 million in estimated acquisition-related expenses were incurred. The acquisition was treated as a nontaxable purchase transaction and, accordingly, the purchase price has been allocated to the tangible and intangible assets acquired and liabilities assumed on the basis of their respective estimated fair values on the acquisition date, as follows:

Purchase price		\$435,365
Net tangible assets	18,050	
Identifiable intangible assets	61,800	
Deferred tax liabilities	(24,924)	54,926
Excess		380,439

Identifiable intangible assets included:

Customer lists	\$34,500
Trade name	18,000
Developed technology	8,200
User base	1,100
Total	61,800

The estimated useful economic lives of the identifiable intangible assets acquired in the Rent.com acquisition are six years for the customer list, five years for the trade name, three years for the developed technology, and one year for the user base.

Required:

- A. Record the acquisition of Rent.com on eBay's books (including the acquisition-related costs). (Assume that the net tangible assets of 18,050 equals the book value of Rent.com.)
- B. Prepare the journal entry to eliminate the investment account and allocate any difference between fair value and purchase price.
- C. Record any amortization of intangibles assuming that the cost basis is used by eBay (assume a full year of amortization for all intangibles). Where are these entries recorded? Would your answer change if the complete equity method were used?
- D. Is it likely in the first year that earnings per share will be dilutive or accretive?

AFS5-2

LoJack Corporation LO 1

LoJack is a leading global provider of technology products and services for the tracking and recovery of valuable mobile assets and people at risk of wandering. According to a recent Federal Bureau of Investigation Uniform Crime Report for 2009, a motor vehicle is stolen in the United States every 40 seconds. LoJack's business is sensitive to changing economic conditions and is substantially dependent on new vehicle sales levels in the United States.

LoJack acquired Boomerang, SCI, and Locator Systems (now known as LoJack SafetyNet) and recorded goodwill. LoJack adopted an annual measurement date of November 30 for SCI and LoJack SafetyNet for goodwill impairment testing. The tests for impairment are performed on an interim basis if there are triggering events identified. Triggering events are events or changes in circumstance that would more likely than not reduce the fair value of a reporting unit below its carrying amount. Examples of such events or circumstances include: (a) a significant adverse change in legal factors or in the business climate; (b) an adverse action or assessment by a regulator; (c) unanticipated competition; (d) a loss of key personnel; (e) a more-likely-than-not expectation that a reporting unit or a significant portion of a reporting unit will be sold or otherwise disposed of; (f) the testing for recoverability of a significant asset group within a reporting unit; or (g) recognition of a goodwill impairment loss in the financial statements of a subsidiary that is a component of a reporting unit.

In 2009, based upon a review of external economic factors and internal business performance, a triggering event in the Boomerang reporting unit was identified. As such, Boomerang's goodwill was tested for impairment utilizing a discounted cash flow (DCF) model. As a result of the impairment analysis, a goodwill impairment charge of \$13,627 was recognized at June 30, 2009, thus eliminating the goodwill balance attributable to the Boomerang reporting unit. The impairment is included in Impairment of goodwill and intangible assets on the consolidated statement of operations for the year ended December 31, 2009. In 2008, goodwill impairment of \$36,830 related to Boomerang was recorded.

(\$000)	12/31/2010	12/31/2009	12/31/2008
Revenue	\$146,635	\$135,013	\$198,679
Cost of goods sold	72,961	64,096	94,517
Gross profit	73,674	70,917	104,162
Costs and expenses:			
Product development	6,162	6,994	7,290
Sales and marketing	29,308	31,529	44,880
General and administrative	31,479	36,435	33,592
Legal settlement		18,250	
Depreciation and amortization	7,110	7,857	7,213
Impairment of intangible assets and goodwill		14,038	38,090
Total	74,059	115,103	131,065
Operating loss	(385)	(44,186)	(26,903)

- A. Discuss the current FASB position on goodwill impairment. Do you think this is a better or poorer way of addressing changes in goodwill valuation over time than amortization? Why? Include in your answer a discussion of how the two alternatives (impairment and amortization) affect current and future earnings of the consolidated entity.
- B. In the case of LoJack, discuss possible reasons why the company might have used its discretion either to delay or to expedite the recording of the impairment of goodwill for the Boomerang reporting unit. What effect did the impairment have on earnings for the years 2008 and 2009? What effect will it have on ROA for future years?
- C. How would you expect the stock market to respond to the news of the goodwill impairment? Why?

AFS5-3 Goodwill and Goodwill Impairment Checklist

The 'goodwill' footnote for American Oriental Bioengineering 2011 10K is shown below. When firms make acquisitions, the goodwill recorded in an acquisition must be assigned to a reportable segment. See Chapter 14 for a complete discussion of segmental reporting. Thus a reportable segment (such as the manufacturing segment in the footnote below) may include several different acquisitions that have been made over time but are aggregated for disclosure purposes. It can be very difficult to track an acquisition over time if several companies are aggregated. Use the goodwill checklist to assess whether the company is disclosing all required information about goodwill according to GAAP.

Note 11: Goodwill

The changes in the carrying amount of goodwill for the year ended December 31, 2011, are as follows.

	<i>Manufacturing Segment</i>	<i>Distribution Segment</i>	<i>Total</i>
Balance as of January 1, 2011	\$ 27,817,108	\$ 5,347,013	\$ 33,164,121
Impairment losses	(27,817,108)	(5,347,013)	(33,164,121)
Balance as of December 31, 2011	\$ —	\$ —	\$ —

The manufacturing and distribution segments were tested for impairment after the annual forecasting process. Due to an increase in competition in the generic drug market in China under the health care reform, and the governments' downward pressure on prices, the operating profits and cash flows for the manufacturing segment were lower than expected in the fourth quarter of 2011. Based on that trend, the earnings forecasts for the next five years were revised. For the year ended December 31, 2011, a goodwill impairment loss of \$27,817,108 and \$5,347,013 were recognized in the manufacturing reporting units and distribution reporting units respectively. No impairments occurred with respect to the carrying value of goodwill in 2010 and 2009. The fair value of those reporting units was estimated using the expected present value of future cash flows expected at that time.

Required:

Part A: Goodwill Disclosures

1. Does the company provide a schedule showing the changes in the gross amount and impairment losses at the beginning and end of the year?
2. Does the company show any additional goodwill during the period? How did the firm obtain the goodwill?
3. Does the company report the amount of impairment losses recognized during the period?
4. Are there other changes in the carrying amount of goodwill? Are there any unusual or questionable issues relating to goodwill disclosures? What are they?

Part B: Goodwill Impairments

1. Does the company provide a description of the facts and circumstances leading to the impairment, such as the reason for the impairment?
2. Can you determine which acquisition is associated with the goodwill impairment?
3. For the amount of the impairment loss, which method is used to determine the fair value of the associated reporting unit: (a) quoted market prices, (b) prices of comparable businesses, and/or (c) present value or other valuation technique.
4. Is the recognized impairment loss an estimate or a finalized amount)?
 - A. If the impairment loss is an estimate, why is the impairment loss not finalized?
 - B. What is the nature and amount of any significant adjustments made to the initial estimate of the impairment loss?

EXERCISES**EXERCISE 5-1 Allocation of Cost LO 1 LO 3**

On January 1, 2018, Pam Company purchased an 85% interest in Shaw Company for \$540,000. On this date, Shaw Company had common stock of \$400,000 and retained earnings of \$140,000.

An examination of Shaw Company's assets and liabilities revealed that their book value was equal to their fair value except for marketable securities and equipment:

	<i>Book Value</i>	<i>Fair Value</i>
Marketable securities	\$ 20,000	\$ 45,000
Equipment (net)	120,000	140,000

Required:

- A. Prepare a Computation and Allocation Schedule for the difference between book value of equity acquired and the value implied by the purchase price.
- B. Determine the amounts at which the above assets (plus goodwill, if any) will appear on the consolidated balance sheet on January 1, 2018.

EXERCISE 5-2 End of the Year of Acquisition Workpaper Entries LO 1 LO 9

On January 1, 2020, Payne Corporation purchased a 75% interest in Salmon Company for \$585,000. A summary of Salmon Company's balance sheet on that date revealed the following:

	<i>Book Value</i>	<i>Fair Value</i>
Equipment	\$525,000	\$705,000
Other assets	<u>150,000</u>	<u>150,000</u>
	<u>\$675,000</u>	<u>\$855,000</u>
Liabilities	\$ 75,000	\$ 75,000
Common stock	225,000	
Retained earnings	<u>375,000</u>	
	<u>\$675,000</u>	

The equipment had an original life of 15 years and has a remaining useful life of 10 years.

Required:

For the December 31, 2020, consolidated financial statements workpaper, prepare the workpaper entry to allocate and depreciate the difference between book value and the value implied by the purchase price assuming:

- A. Equipment is presented net of accumulated depreciation.
- B. Accumulated depreciation is presented on a separate row in the workpaper and in the consolidated statement of financial position.

EXERCISE 5-3 Allocation of Cost LO 2

Pace Company purchased 20,000 of the 25,000 shares of Saddler Corporation for \$525,000. On January 3, 2019, the acquisition date, Saddler Corporation's capital stock and retained earnings account balances were \$500,000 and \$100,000, respectively.

The following values were determined for Saddler Corporation on the date of purchase:

	<i>Book Value</i>	<i>Fair Value</i>
Inventory	\$ 50,000	\$ 70,000
Other current assets	200,000	200,000
Marketable securities	100,000	125,000
Plant and equipment	300,000	330,000

Required:

- A. Prepare the entry on the books of Pace Company to record its investment in Saddler Corporation.
- B. Prepare a Computation and Allocation Schedule for the difference between book value and the value implied by the purchase price in the consolidated statements workpaper.

EXERCISE 5-4 Allocation of Cost and Workpaper Entries at Date of Acquisition LO 2

On January 1, 2020, Porter Company purchased an 80% interest in Salem Company for \$260,000. On this date, Salem Company had common stock of \$207,000 and retained earnings of \$130,500.

An examination of Salem Company's balance sheet revealed the following comparisons between book and fair values:

	<i>Book Value</i>	<i>Fair Value</i>
Inventory	\$ 30,000	\$ 35,000
Other current assets	50,000	55,000
Equipment	300,000	350,000
Land	200,000	200,000

Required:

- A. Determine the amounts that should be allocated to Salem Company's assets on the consolidated financial statements workpaper on January 1, 2020.
- B. Prepare the January 1, 2020, consolidated financial statements workpaper entries to eliminate the investment account and to allocate the difference between book value and the value implied by the purchase price.

EXERCISE 5-5 T-Account Calculation of Controlling and Noncontrolling Interest in Consolidated Net Income LO 4

On January 1, 2019, P Company purchased an 80% interest in S Company for \$600,000, at which time S Company had retained earnings of \$300,000 and capital stock of \$350,000. Any difference between book value and the value implied by the purchase price was entirely attributable to a patent with a remaining useful life of 10 years.

Assume that P and S Companies reported net incomes from their independent operations of \$200,000 and \$100,000, respectively.

Required:

Prepare a t-account calculation of the controlling interest and noncontrolling interest in consolidated net income for the year ended December 31, 2019.

EXERCISE 5-6 Workpaper Entries LO 1

Park Company acquires an 85% interest in Sunland Company on January 2, 2020. The resulting difference between book value and the value implied by the purchase price in the amount of \$120,000 is entirely attributable to equipment with an original life of 15 years and a remaining useful life, on January 2, 2020, of 10 years.

Required:

Prepare the December 31 consolidated financial statements workpaper entries for 2020 and 2021 to allocate and depreciate the difference between book value and the value implied by the purchase price, recording accumulated depreciation as a separate balance.

EXERCISE 5-7**Workpaper Entries LO 1 LO 9**

On January 1, 2019, Packard Company purchased an 80% interest in Sage Company for \$600,000. On this date Sage Company had common stock of \$150,000 and retained earnings of \$400,000.

Sage Company's equipment on the date of Packard Company's purchase had a book value of \$400,000 and a fair value of \$600,000. All equipment had an estimated useful life of 10 years on January 2, 2009.

Required:

Prepare the December 31 consolidated financial statements workpaper entries for 2019 and 2020 to allocate and depreciate the difference between book value and the value implied by the purchase price, recording accumulated depreciation as a separate balance.

EXERCISE 5-8**Workpaper Entries and Gain on Sale of Land LO 1**

Padilla Company purchased 80% of the common stock of Sanoma Company in the open market on January 1, 2018, paying \$31,000 more than the book value of the interest acquired. The difference between book value and the value implied by the purchase price is attributable to land.

Required:

- A. What workpaper entry is required each year until the land is disposed of?
- B. Assume that the land is sold on 1/1/21 and that Sanoma Company recognizes a \$50,000 gain on its books. What amount of gain will be reflected in consolidated income on the 2021 consolidated income statement?
- C. In all years subsequent to the disposal of the land, what workpaper entry will be necessary? Show entry for all three methods (cost, partial equity, and complete equity).

EXERCISE 5-9**Allocation of Cost and Workpaper Entries LO 1 LO 3 LO 7**

On January 1, 2018, Point Corporation acquired an 80% interest in Sharp Company for \$2,000,000. At that time Sharp Company had capital stock of \$1,500,000 and retained earnings of \$700,000. The book values of Sharp Company's assets and liabilities were equal to their fair values except for land and bonds payable. The land had a fair value of \$100,000 and a book value of \$80,000. The outstanding bonds were issued at par value on January 1, 2008, pay 10% annually, and mature on January 1, 2023. The bond principal is \$500,000 and the current yield rate on similar bonds is 8%.

Required:

- A Prepare a Computation and Allocation Schedule for the difference between book value and the value implied by the purchase price in the consolidated statements workpaper on the acquisition date.
- B Prepare the workpaper entries necessary on December 31, 2018, to allocate and depreciate the difference between book value and the value implied by the purchase price.

EXERCISE 5-10**Allocation of Cost and Workpaper Entries LO 1 LO 3 LO 7**

On January 2, 2018, Page Corporation acquired a 90% interest in Salcedo Company for \$3,500,000. At that time Salcedo Company had capital stock of \$2,250,000 and retained earnings of \$1,250,000. The book values of Salcedo Company's assets and liabilities were equal to their fair values except for land and bonds payable. The land had a fair value of \$200,000 and a book value of \$120,000. The outstanding bonds were issued on January 1, 2008, at 9% and mature on January 1, 2023. The bonds' principal is \$500,000 and the current yield rate on similar bonds is 6%.

Required:

- A. Assuming interest is paid annually, prepare a Computation and Allocation Schedule for the difference between book value and the value implied by the purchase price in the consolidated statements workpaper on the acquisition date.
- B. Prepare the workpaper entries necessary on December 31, 2018, to allocate and depreciate the difference between book value and the value implied by the purchase price.

EXERCISE 5-11 Workpaper Entries for Three Years LO 6 LO 3

On January 1, 2018, Piper Company acquired an 80% interest in Sand Company for \$2,276,000. At that time the capital stock and retained earnings of Sand Company were \$1,800,000 and \$700,000, respectively. Differences between the fair value and the book value of the identifiable assets of Sand Company were as follows:

	<i>Fair Value in Excess of Book Value</i>
Inventory	\$45,000
Equipment (net)	50,000

The book values of all other assets and liabilities of Sand Company were equal to their fair values on January 1, 2018. The equipment had a remaining useful life of eight years. Inventory is accounted for on a FIFO basis. Sand Company's reported net income and declared dividends for 2018 through 2020 are shown here:

	2018	2019	2020
Net Income	\$100,000	\$150,000	\$80,000
Dividends	20,000	30,000	15,000

Required:

Prepare the eliminating/adjusting entries needed on the consolidated worksheet for the years ended 2018, 2019, and 2020. (It is not necessary to prepare the worksheet.)

1. Assume the use of the cost method.
2. Assume the use of the partial equity method.
3. Assume the use of the complete equity method.

EXERCISE 5-12 Workpaper Entries and Consolidated Retained Earnings, Cost Method LO 6 LO 2

A 90% interest in Saxton Corporation was purchased by Palm Incorporated on January 2, 2019. The capital stock balance of Saxton Corporation was \$3,000,000 on this date, and the balance in retained earnings was \$1,000,000. The cost of the investment to Palm Incorporated was \$3,750,000.

The balance sheet information available for Saxton Corporation on the acquisition date revealed these values:

	<i>Book Value</i>	<i>Fair Value</i>
Inventory (FIFO)	\$ 700,000	\$ 800,000
Equipment (net)	2,000,000	2,000,000
Land	1,600,000	2,000,000

The equipment was determined to have a 15-year useful life when purchased at the beginning of 2009. Saxton Corporation reported net income in 2019 of \$250,000 and \$300,000 in 2020. No dividends were declared in either of those years.

Required:

- A. Prepare the workpaper entries, assuming that the cost method is used to account for the investment, to establish reciprocity, to eliminate the investment account, and to allocate and depreciate the difference between book value and the value implied by the purchase price in the 2020 consolidated statements workpaper.
- B. Calculate the consolidated retained earnings for the year ended December 31, 2020, assuming that the balance in Palm Incorporated's ending retained earnings on that date was \$2,000,000.

EXERCISE 5-13 Push Down Accounting LO10

Pascal Corporation purchased 90% of the stock of Salzer Company for \$2,070,000 on January 1, 2020. On this date, the fair value of the assets and liabilities of Salzer Company was equal to their book value except for the inventory and equipment accounts. The inventory had a fair value of \$725,000 and a book value of \$600,000. The equipment had a book value of \$900,000 and a fair value of \$1,075,000.

The balances in Salzer Company's capital stock and retained earnings accounts on the date of acquisition were \$1,200,000 and \$600,000, respectively.

Required:

In general journal form, prepare the entries on Salzer Company's books to record the effect of the pushed down values implied by the purchase of its stock by Pascal Company assuming that values are allocated on the basis of the fair value of Salzer Company as a whole imputed from the transaction.

EXERCISE 5-14 Workpaper Entries and Consolidated Retained Earnings, Partial Equity LO 6

A 90% interest in Saxton Corporation was purchased by Palm Incorporated on January 2, 2019. The capital stock balance of Saxton Corporation was \$3,000,000 on this date, and the balance in retained earnings was \$1,000,000. The cost of the investment to Palm Incorporated was \$3,750,000.

The balance sheet information available for Saxton Corporation on the acquisition date revealed these values:

	<i>Book Value</i>	<i>Fair Value</i>
Inventory (FIFO)	\$ 700,000	\$ 800,000
Equipment (net)	2,000,000	2,000,000
Land	1,600,000	2,000,000

The equipment was determined to have a 15-year useful life when purchased at the beginning of 2009. Saxton Corporation reported net income in 2019 of \$250,000 and \$300,000 in 2020. No dividends were declared in either of those years.

- a. Prepare the worksheet entries, assuming that the partial equity method is used to account for the investment, to eliminate the investment account, and to allocate and depreciate the difference between book value and the value implied by the purchase price in the 2020 consolidated statements workpaper.
- b. Calculate the consolidated retained earnings for the year ended December 31, 2020, assuming that the balance in Palm Incorporated's ending retained earnings on that date was \$2,495,000.

EXERCISE 5-15 Workpaper Entries and Consolidated Retained Earnings, Complete Equity LO 6

A 90% interest in Saxton Corporation was purchased by Palm Incorporated on January 2, 2019. The capital stock balance of Saxton Corporation was \$3,000,000 on this date, and the balance in retained earnings was \$1,000,000. The cost of the investment to Palm Incorporated was \$3,750,000.

The balance sheet information available for Saxton Corporation on the acquisition date revealed these values:

	<i>Book Value</i>	<i>Fair Value</i>
Inventory (FIFO)	\$ 700,000	\$ 800,000
Equipment (net)	2,000,000	2,000,000
Land	1,600,000	2,000,000

The equipment was determined to have a 15-year useful life when purchased at the beginning of 2009. Saxton Corporation reported net income in 2019 of \$250,000 and \$300,000 in 2020. No dividends were declared in either of those years.

Required:

- A. Prepare the worksheet entries, assuming that the complete equity method is used to account for the investment, to eliminate the investment account, and to allocate and depreciate the difference between book value and the value implied by the purchase price in the 2020 consolidated statements workpaper.
- B. Calculate the consolidated retained earnings for the year ended December 31, 2020, assuming that the balance in Palm Incorporated's ending retained earnings on that date was \$2,705,000.

EXERCISE 5-16 Goodwill Impairment LO 3

On January 1, 2018, Porsche Company acquired 100% of Saab Company's stock for \$450,000 cash. The fair value of Saab's identifiable net assets was \$375,000 on this date. Porsche Company decided to measure goodwill impairment using comparable prices of similar businesses to estimate the fair value of the reporting unit (Saab). The information for these subsequent years is as follows:

<i>Year</i>	<i>Present Value of Future Cash Flows</i>	<i>Carrying Value of Saab's Identifiable Net Assets*</i>	<i>Fair Value of Saab's Identifiable Net Assets</i>
2019	\$400,000	\$330,000	\$340,000
2020	\$400,000	\$320,000	\$345,000
2021	\$350,000	\$300,000	\$325,000

* Identifiable net assets do not include goodwill.

Required:

- A. For each year determine the amount of goodwill impairment, if any. *Hint:* You may wish to refer back to the section entitled Goodwill Impairment Test in Chapter 2.
- B. Prepare the workpaper entries needed *each year* (2019 through 2021) on the consolidating worksheet to record any goodwill impairment assuming:
 1. The cost or partial equity method is used.
 2. The complete equity method is used.

PROBLEMS**PROBLEM 5-1 Workpaper Entries and Consolidated Net Income for Two Years, Cost Method LO 6 LO 3 LO 5**

On January 1, 2019, Palmero Company purchased an 80% interest in Santos Company for \$2,800,000, at which time Santos Company had retained earnings of \$1,000,000 and capital stock of \$500,000. On the date of acquisition, the fair value of the assets and liabilities of Santos Company was equal to their book value, except for property and equipment (net), which had a fair value of \$1,500,000 and a book value of \$600,000. The property and equipment had an estimated remaining life of 10 years. Palmero Company reported net income from independent operations of \$400,000 in 2019 and \$425,000 in 2020. Santos Company reported net income of \$300,000 in 2019 and \$400,000 in 2020. Neither company declared dividends in 2019 or 2020. Palmero uses the cost method to account for its investment in Santos.

Required:

- A. Prepare in general journal form the entries necessary in the consolidated statements workpapers for the years ended December 31, 2019 and 2020.
- B. Prepare a schedule or t-account showing the calculation of the controlling and noncontrolling interest in consolidated net income for the years ended December 31, 2019 and December 31, 2020.

PROBLEM 5-2 **Workpaper Entries (including Goodwill Impairment), Consolidated Net Income for Two Years, Partial Equity Method LO 6 LO 3 LO 4 LO 7**

On January 1, 2019, Paxton Company purchased a 70% interest in Sagon Company for \$1,300,000, at which time Sagon Company had retained earnings of \$500,000 and capital stock of \$1,000,000. On January 1, 2019, the fair value of the assets and liabilities of Sagon Company was equal to their book value except for bonds payable. Sagon Company had outstanding a \$1,000,000 issue of 6% bonds that were issued at par and that mature on January 1, 2024. Interest on the bonds is payable annually, and the yield rate on similar bonds on January 1, 2019, is 10%. Paxton Company reported net income from independent operations of \$300,000 in 2019 and \$250,000 in 2020. Sagon Company reported net income of \$100,000 in 2019 and \$120,000 in 2020. Neither company paid or declared dividends in 2019 or 2020. Paxton uses the partial equity method to account for its investment in Santos.

Despite two profitable years, changes in the market during 2020 for Sagon's product line have caused Paxton to be concerned about the future profitability of the unit. The following data are collected to test for goodwill impairment at 12/31/20. (No goodwill impairment has been recorded on the parent's books.)

Paxton chose to measure goodwill impairment using the present value of future cash flows to estimate the fair value of the reporting unit (Sagon).

<i>Year</i>	<i>Present Value of Future Cash Flows</i>	<i>Carrying Value of Sagon's Identifiable Net Assets*</i>	<i>Fair Value of Sagon's Identifiable Net Assets</i>
2020	\$1,500,000	\$1,409,000	\$1,320,000

* Identifiable Net Assets do not include goodwill.

Required:

- A. Prepare in general journal form the entries necessary in the consolidated statements workpapers for the years ended December 31, 2019, and December 31, 2020. *Hint:* You may wish to refer back to the section entitled Goodwill Impairment Test in Chapter 2.
- B. Prepare in good form a schedule or t-account showing the calculation of the controlling and noncontrolling interest in consolidated net income for the years ended December 31, 2019, and December 31, 2020.

PROBLEM 5-3 **Workpaper Entries and Consolidated Net Income, Complete Equity Method LO 5 LO 6 LO 3**

Perke Corporation purchased 80% of the stock of Superstition Company for \$1,970,000 on January 1, 2020. On this date, the fair value of the assets and liabilities of Superstition Company was equal to their book value except for the inventory and equipment accounts. The inventory had a fair value of \$725,000 and a book value of \$600,000. Sixty percent of Superstition Company's inventory was sold in 2020; the remainder was sold in 2021. The equipment had a book value of \$900,000 and a fair value of \$1,075,000. The remaining useful life of the equipment is seven years.

The balances in Superstition Company's capital stock and retained earnings accounts on the date of acquisition were \$1,200,000 and \$600,000, respectively. Perke uses the complete equity method to account for its investment in Superstition. The following financial data are from Superstition Company's records.

	<i>2020</i>	<i>2021</i>
Net income	\$750,000	\$900,000
Dividends declared	150,000	225,000

Required:

- A. In general journal form, prepare the entries on Perke Company's books to account for its investment in Superstition Company for 2020 and 2021.
- B. Prepare the eliminating entries necessary for the consolidated statements workpapers in 2020 and 2021.
- C. Assuming Perke Corporation's net income for 2020 was \$1,000,000, calculate the controlling interest in consolidated net income for 2021.

PROBLEM 5-4

COMPREHENSIVE

Eliminating Entries (including Goodwill Impairment) and Worksheets for Various Years LO 1 LO 6

On January 1, 2018, Porter Company purchased an 80% interest in the capital stock of Salem Company for \$850,000. At that time, Salem Company had capital stock of \$550,000 and retained earnings of \$80,000.

Differences between the fair value and the book value of the identifiable assets of Salem Company were as follows:

	<i>Fair Value in Excess of Book Value</i>
Equipment	\$130,000
Land	65,000
Inventory	40,000

The book values of all other assets and liabilities of Salem Company were equal to their fair values on January 1, 2018. The equipment had a remaining life of five years on January 1, 2018. The inventory was sold in 2018.

Salem Company's net income and dividends declared in 2018 and 2019 were as follows:

Year 2018 Net Income of \$100,000; Dividends Declared of \$25,000

Year 2019 Net Income of \$110,000; Dividends Declared of \$35,000

Required:

- A. Prepare a Computation and Allocation Schedule for the difference between book value of equity acquired and the value implied by the purchase price.
- B. Present the eliminating/adjusting entries needed on the consolidated worksheet for the year ended December 31, 2018. (It is not necessary to prepare the worksheet.)
 1. Assume the use of the cost method.
 2. Assume the use of the partial equity method.
 3. Assume the use of the complete equity method.
- C. Present the eliminating/adjusting entries needed on the consolidated worksheet for the year ended December 31, 2019. (It is not necessary to prepare the worksheet.)
 1. Assume the use of the cost method.
 2. Assume the use of the partial equity method.
 3. Assume the use of the complete equity method.

Use the following financial data for 2020 for requirements D through G.

	<i>Porter Company</i>	<i>Salem Company</i>
Sales	\$1,100,000	\$ 450,000
Dividend income	48,000	—
Total revenue	1,148,000	450,000
Cost of goods sold	900,000	200,000
Depreciation expense	40,000	30,000
Other expenses	60,000	50,000
Total cost and expense	1,000,000	280,000
Net income	\$ 148,000	\$ 170,000

	<i>Porter Company</i>	<i>Salem Company</i>
1/1 Retained earnings	\$ 500,000	\$ 230,000
Net income	148,000	170,000
Dividends declared	<u>(90,000)</u>	<u>(60,000)</u>
12/31 Retained earnings	<u>\$ 558,000</u>	<u>\$ 340,000</u>
Cash	\$ 70,000	\$ 65,000
Accounts receivable	260,000	190,000
Inventory	240,000	175,000
Investment in Salem Company	850,000	
Land	—0—	320,000
Plant and equipment	<u>360,000</u>	<u>280,000</u>
Total assets	<u>\$1,780,000</u>	<u>\$1,030,000</u>
Accounts payable	\$ 132,000	\$ 110,000
Notes payable	90,000	30,000
Capital stock	1,000,000	550,000
Retained earnings	<u>558,000</u>	<u>340,000</u>
Total liabilities and equity	<u>\$1,780,000</u>	<u>\$1,030,000</u>

Required:

- D.** Prepare a consolidated financial statements workpaper for the year ended December 31, 2020. Although no goodwill impairment was reflected at the end of 2018 or 2019, the goodwill impairment test conducted at December 31, 2020 revealed implied goodwill from Salem to be only \$150,000. The impairment has not been recorded in the books of the parent. (*Hint:* You can infer the method being used by the parent from the information in its trial balance.)
- E.** Prepare a consolidated statement of financial position and a consolidated income statement for the year ended December 31, 2020.
- F.** Describe the effect on the consolidated balances if Salem Company uses the LIFO cost flow assumption in pricing its inventory and there has been no decrease in ending inventory quantities since 2018.
- G.** Prepare an analytical calculation of consolidated retained earnings for the year ended December 31, 2020.

PROBLEM 5-5**Workpaper Entries and Consolidated Financial Statements LO 1 LO 6 LO 7 LO 9**

On January 1, 2019, Palmer Company acquired a 90% interest in Stevens Company at a cost of \$1,000,000. At the purchase date, Stevens Company's stockholders' equity consisted of the following:

Common stock	\$500,000
Retained earnings	190,000

An examination of Stevens Company's assets and liabilities revealed the following at the date of acquisition:

	<i>Book Value</i>	<i>Fair Value</i>
Cash	\$ 90,726	\$ 90,726
Accounts receivable	200,000	200,000
Inventories	160,000	210,000
Equipment	300,000	390,000
Accumulated depreciation—equipment	(100,000)	(130,000)
Land	190,000	290,000
Bonds payable	(205,556)	(150,000)
Other	<u>54,830</u>	<u>54,830</u>
Total	<u>\$690,000</u>	<u>\$955,556</u>

Additional Information—Date of Acquisition

Stevens Company's equipment had an original life of 15 years and a remaining useful life of 10 years. All the inventory was sold in 2019. Stevens Company purchased its bonds payable on the open market on January 10, 2019, for \$150,000 and recognized a gain of \$55,556.

Financial statement data for 2021 are presented here:

	<i>Palmer Company</i>	<i>Stevens Company</i>
Sales	\$620,000	\$340,000
Cost of sales	430,000	240,000
Gross margin	190,000	100,000
Depreciation expense	30,000	20,000
Other expenses	60,000	35,000
Income from operations	100,000	45,000
Dividend income	31,500	0
Net income	<u>\$131,500</u>	<u>\$ 45,000</u>
1/1 Retained earnings	\$ 297,600	\$210,000
Net income	<u>131,500</u>	<u>45,000</u>
	429,100	255,000
Dividends	<u>(120,000)</u>	<u>(35,000)</u>
12/31 Retained earnings	<u>\$ 309,100</u>	<u>\$220,000</u>
Cash	\$ 201,200	\$151,000
Accounts receivable	221,000	173,000
Inventories	100,400	81,000
Investment in Stevens Company	1,000,000	
Equipment	450,000	300,000
Accumulated depreciation—equipment	(300,000)	(140,000)
Land	<u>360,000</u>	<u>290,000</u>
Total assets	<u>\$2,032,600</u>	<u>\$855,000</u>
Accounts payable	\$ 323,500	\$135,000
Bonds payable	400,000	
Common stock	1,000,000	500,000
Retained earnings	<u>309,100</u>	<u>220,000</u>
Total liabilities and equity	<u>\$2,032,600</u>	<u>\$855,000</u>

Required:

- A. What method is Palmer using to account for its investment in Stevens? How can you tell?
- B. Prepare in general journal form the workpaper entry to allocate and depreciate the difference between book value and the value implied by the purchase price in the December 31, 2019, consolidated statements workpaper.
- C. Prepare a consolidated financial statements workpaper for the year ended December 31, 2021.
- D. Prepare in good form a schedule or t-account showing the calculation of the controlling and noncontrolling interest in consolidated net income for the year ended December 31, 2021.

PROBLEM 5-6**Workpaper Entries for Two Years and Sale of Equipment in Year Two LO 6 LO 9**

On January 1, 2019, Perini Company purchased an 85% interest in Silvas Company for \$400,000. On this date, Silvas Company had common stock of \$90,000 and retained earnings of \$210,000. An examination of Silvas Company's assets and liabilities revealed that their book value was equal to their fair value except for the equipment.

	<i>Book Value</i>	<i>Fair Value</i>
Equipment	\$360,000	
Accumulated depreciation	(120,000)	
	<u>\$240,000</u>	<u>\$300,000</u>

The equipment had an expected remaining life of six years and no salvage value. Straightline depreciation is used.

During 2019 and 2020, Perini Company reported net income from its own operations of \$80,000 and paid dividends of \$50,000 in each year. Silvas Company had income of \$40,000 each year and paid dividends of \$30,000 on each December 31.

Accumulated depreciation is presented on a separate row in the workpaper and in the consolidated financial statements.

Required:

- A. Prepare eliminating entries for consolidated financial statements workpaper for the year ended December 31, 2019, assuming:
 1. The cost method is used to account for the investment.
 2. The partial equity method is used to account for the investment.
- B. On January 1, 2019, Silvas Company sold all its equipment for \$220,000. Prepare the eliminating entries for the consolidated financial statements workpaper for the year ended December 31, 2019, assuming:
 1. The cost method is used to account for the investment.
 2. The partial equity method is used to account for the investment.

PROBLEM 5-7

Workpaper Entries and Sale of Equipment in Year Three, Complete Equity LO 6 LO 9

On January 1, 2019, Pueblo Corporation purchased a 75% interest in Sanchez Company for \$900,000. A summary of Sanchez Company's balance sheet at date of purchase follows:

	<i>Book Value</i>	<i>Fair Value</i>
Equipment	\$720,000	
Accumulated depreciation	(240,000)	
Equipment (net)	480,000	\$660,000
Other assets	<u>450,000</u>	450,000
	<u>\$930,000</u>	
Liabilities	\$255,000	\$255,000
Common stock	300,000	
Retained earnings	<u>375,000</u>	
	<u>\$930,000</u>	

The equipment had an original life of 15 years and remaining useful life of 10 years.

During 2019 Pueblo Corporation reported income of \$237,000 and paid dividends of \$150,000. Sanchez Company reported net income of \$123,000 and paid dividends of \$120,000. Pueblo uses the complete equity method to account for its investment in Sanchez.

Required:

- A. Prepare the elimination entries for the consolidated financial statements workpaper on December 31, 2019. Accumulated depreciation is presented on a separate row in the workpaper and in the consolidated financial statements.
- B. Assume that Sanchez Company disposed of all its equipment on January 1, 2021, for \$450,000.
 1. What amount of gain (loss) will Sanchez Company report?
 2. What is the consolidated gain (loss)?

3. Prepare the workpaper entry necessary to allocate the amount of the difference between book value and the value implied by the purchase price that was originally allocated to the equipment that has now been sold to outsiders.
4. What workpaper entry will be necessary to allocate this difference between book value and the value implied by the purchase price in future years?

PROBLEM 5-8**Eliminating Entries and Consolidated Net Income LO 1 LO 6 LO 2**

Patten Corporation acquired an 85% interest in Savage Company for \$3,100,000 on January 1, 2019. On this date, the balances in Savage Company's capital stock and retained earnings accounts were \$2,000,000 and \$700,000, respectively.

An examination of Savage Company's books on this date revealed the following:

	<i>Book Value</i>	<i>Fair Value</i>
Current assets	\$ 650,000	\$ 650,000
Inventory	560,000	610,000
Marketable securities	430,000	430,000
Plant and equipment	1,200,000	1,600,000
Land	400,000	900,000
Liabilities	540,000	540,000

The remaining useful life of the plant and equipment is 10 years, and all the inventory was sold in 2019. The net income from Patten Corporation's own operations was \$950,000 in 2019 and \$675,000 in 2020. Savage Company's net income for the respective years was \$110,000 and \$180,000. No dividends were declared.

Required:

- A. Prepare a Computation and Allocation Schedule for the difference between book value of equity and the value implied by the purchase price.
- B. Prepare the consolidated statements workpaper eliminating entries for 2019 and 2020 in general journal form, under each of the following assumptions:
 1. The cost method is used to account for the investment.
 2. The partial equity method is used to account for the investment.
 3. The complete equity method is used to account for the investment.
- C. Calculate the controlling interest in consolidated net income for 2019 and 2020.

PROBLEM 5-9**Workpaper Entries and Consolidated Net Income for Year of Acquisition LO 6**

On January 1, 2019, Pump Company acquired all the outstanding common stock of Sound Company for \$556,000 in cash. Financial data relating to Sound Company on January 1, 2019, are presented here:

	<i>Balance Sheet</i>	
	<i>Book Value</i>	<i>Fair Value</i>
Cash	\$ 104,550	\$ 104,550
Receivables	123,000	112,310
Inventories	220,000	268,000
Buildings	331,000	375,000
Accumulated depreciation—buildings	(264,800)	(300,000)
Equipment	145,000	130,000
Accumulated depreciation—equipment	(108,750)	(97,500)
Land	<u>150,000</u>	<u>420,000</u>
Total assets	<u>\$ 700,000</u>	<u>\$1,012,360</u>

	<i>Book Value</i>	<i>Fair Value</i>
Current liabilities	\$106,000	\$ 106,000
Bonds payable, 8% due 1/1/2028	300,000	
Interest payable on 6/30 and 12/31		
Common stock	200,000	
Premium on common stock	80,000	
Retained earnings	<u>14,000</u>	
Total liabilities and equities	<u>\$700,000</u>	

Sound Company would expect to pay 10% interest to borrow long-term funds on the date of acquisition. During 2019, Sound Company wrote its receivables down by \$10,690 and recorded a corresponding loss. Sound Company accounts for its inventories at lower of FIFO cost or market. Its buildings and equipment had a remaining estimated useful life on January 1, 2019, of 10 years and 2½ years, respectively. Sound Company reported net income of \$80,000 and declared no dividends in 2019.

Required:

- A. Prepare in general journal form the December 31, 2019, workpaper entries necessary to eliminate the investment account and to allocate and depreciate the difference between book value and the value implied by the purchase price.
- B. Assume that Pump Company's net income from independent operations in 2019 amounts to \$500,000. Calculate the controlling interest in consolidated net income for 2019.

PROBLEM 5-10 Workpaper Entries for Year of Acquisition LO 5 LO 6

Pearson Company purchased a 100% interest in Sanders Company and a 90% interest in Taylor Company on January 2, 2019, for \$800,000 and \$1,300,000, respectively. The account balances and fair values of the acquired companies on the acquisition date were as follows:

	<i>Sanders</i>		<i>Taylor</i>	
	<i>Book Value</i>	<i>Fair Value</i>	<i>Book Value</i>	<i>Fair Value</i>
Current assets	\$ 200,000	\$200,000	\$ 350,000	\$350,000
Inventory	400,000	400,000	500,000	575,000
Plant and equipment (net)	300,000	350,000	600,000	600,000
Land	<u>600,000</u>	600,000	<u>550,000</u>	625,000
Total	<u>\$1,500,000</u>		<u>\$2,000,000</u>	
Current liabilities	\$ 500,000	\$500,000	\$ 300,000	\$300,000
Bonds payable	300,000	300,000	600,000	600,000
Capital stock	500,000		800,000	
Retained earnings	<u>200,000</u>		<u>300,000</u>	
Total	<u>\$1,500,000</u>		<u>\$2,000,000</u>	

Sanders Company's equipment has a remaining useful life of 10 years. Two-thirds of Taylor Company's inventory was sold in 2019, and the rest was sold in the following year. In 2019, Sanders Company reported net income of \$500,000 and declared dividends of \$100,000. Taylor Company's net income and declared dividends for 2019 were \$800,000 and \$200,000, respectively.

Required:

- A. Prepare in general journal form the entries on the books of Pearson Corporation to account for its investments in 2019.
- B. Prepare the elimination entries necessary in the consolidated statements workpaper for the year ended December 31, 2019.

PROBLEM 5-11 Eliminating Entries (including Goodwill Impairment) and Worksheets for Various Years, Partial Equity Method LO 6

(Note that this is the same problem as Problem 5-4, but assuming the use of the partial equity method.)

On January 1, 2018, Porter Company purchased an 80% interest in the capital stock of Salem Company for \$850,000. At that time, Salem Company had capital stock of \$550,000 and retained earnings of \$80,000. Porter Company uses the partial equity method to record its investment in Salem Company. Differences between the fair value and the book value of the identifiable assets of Salem Company were as follows:

	<i>Fair Value in Excess of Book Value</i>
Equipment	\$130,000
Land	65,000
Inventory	40,000

The book values of all other assets and liabilities of Salem Company were equal to their fair values on January 1, 2018. The equipment had a remaining life of five years on January 1, 2018. The inventory was sold in 2018.

Salem Company's net income and dividends declared in 2018 and 2019 were as follows:

Year 2018 Net Income of \$100,000; Dividends Declared of \$25,000

Year 2019 Net Income of \$110,000; Dividends Declared of \$35,000

Required:

- A. Present the eliminating/adjusting entries needed on the consolidated worksheet for the year ended December 31, 2018. (It is not necessary to prepare the worksheet.)
- B. Present the eliminating/adjusting entries needed on the consolidated worksheet for the year ended December 31, 2019. (It is not necessary to prepare the worksheet.)

Use the following financial data for 2020 for requirements C through G.

	<i>Porter Company</i>	<i>Salem Company</i>
Sales	\$1,100,000	\$ 450,000
Equity in subsidiary income	136,000	—0—
Total revenue	<u>1,236,000</u>	<u>450,000</u>
Cost of goods sold	900,000	200,000
Depreciation expense	40,000	30,000
Other expenses	60,000	50,000
Total cost and expense	<u>1,000,000</u>	<u>280,000</u>
Net income	<u>\$ 236,000</u>	<u>\$ 170,000</u>
1/1 Retained earnings	\$ 620,000	\$ 230,000
Net income	236,000	170,000
Dividends declared	<u>(90,000)</u>	<u>(60,000)</u>
12/31 Retained earnings	<u>\$ 766,000</u>	<u>\$ 340,000</u>
Cash	\$ 70,000	\$ 65,000
Accounts receivable	260,000	190,000
Inventory	240,000	175,000
Investment in Salem Company	1,058,000	
Land	—0—	320,000
Plant and equipment	<u>360,000</u>	<u>280,000</u>

	<i>Porter Company</i>	<i>Salem Company</i>
Total assets	<u>\$1,988,000</u>	<u>\$1,030,000</u>
Accounts payable	\$ 132,000	\$ 110,000
Notes payable	90,000	30,000
Capital stock	1,000,000	550,000
Retained earnings	<u>766,000</u>	<u>340,000</u>
Total liabilities and equity	<u>\$1,988,000</u>	<u>\$1,030,000</u>

Required:

- C. Although no goodwill impairment was reflected at the end of 2018 or 2019, the goodwill impairment test conducted at December 31, 2020 revealed implied goodwill from Salem to be only \$150,000. The impairment has not been recorded in the books of the parent. Prepare a t-account calculation of the controlling and noncontrolling interests in consolidated income for the year ended December 31, 2020.
- D. Prepare a consolidated financial statements workpaper for the year ended December 31, 2020.
- E. Prepare a consolidated statement of financial position and a consolidated income statement for the year ended December 31, 2020.
- F. Describe the effect on the consolidated balances if Salem Company uses the LIFO cost flow assumption in pricing its inventory and there has been no decrease in ending inventory quantities since 2019.
- G. Prepare an analytical calculation of consolidated retained earnings for the year ended December 31, 2020.

Note: If you completed Problem 5-4, a comparison of the consolidated balances in this problem with those you obtained in Problem 5-4 will demonstrate that the method (cost or partial equity) used by the parent company to record its investment in a consolidated subsidiary has no effect on the consolidated balances.

PROBLEM 5-12 Workpaper Entries and Consolidated Financial Statements, Partial Equity Method LO 1**LO 6 LO 7 LO 9**

(Note that this is the same problem as Problem 5-5, but assuming the use of the partial equity method.)

On January 1, 2019, Palmer Company acquired a 90% interest in Stevens Company at a cost of \$1,000,000. At the purchase date, Stevens Company's stockholders' equity consisted of the following:

Common stock	\$500,000
Retained earnings	190,000

An examination of Stevens Company's assets and liabilities revealed the following at the date of acquisition:

	<i>Book Value</i>	<i>Fair Value</i>
Cash	\$ 90,726	\$ 90,726
Accounts receivable	200,000	200,000
Inventories	160,000	210,000
Equipment	300,000	390,000
Accumulated depreciation—equipment	(100,000)	(130,000)
Land	190,000	290,000
Bonds payable	(205,556)	(150,000)
Other	<u>54,830</u>	<u>54,830</u>
Total	<u>\$690,000</u>	<u>\$955,556</u>

Additional Information—Date of Acquisition

Stevens Company's equipment had an original life of 15 years and a remaining useful life of 10 years. All the inventory was sold in 2019. Stevens Company purchased its bonds payable on the open market on January 10, 2019, for \$150,000 and recognized a gain of \$55,556. Palmer Company uses the partial equity method to record its investment in Stevens Company. Financial statement data for 2021 are presented here:

	<i>Palmer Company</i>	<i>Stevens Company</i>
Sales	\$620,000	\$340,000
Cost of sales	430,000	240,000
Gross margin	190,000	100,000
Depreciation expense	30,000	20,000
Other expenses	60,000	35,000
Income from operations	100,000	45,000
Equity in subsidiary income	<u>40,500</u>	<u>0</u>
Net income	<u>\$140,500</u>	<u>\$ 45,000</u>
1/1 Retained earnings	\$315,600	\$210,000
Net income	140,500	45,000
	456,100	255,000
Dividends	<u>(120,000)</u>	<u>(35,000)</u>
12/31 Retained earnings	<u>\$336,100</u>	<u>\$220,000</u>
	<i>Palmer Company</i>	<i>Stevens Company</i>
Cash	\$ 201,200	\$151,000
Accounts receivable	221,000	173,000
Inventories	100,400	81,000
Investment in Stevens Company	1,027,000	
Equipment	450,000	300,000
Accumulated depreciation—equipment	(300,000)	(140,000)
Land	<u>360,000</u>	<u>290,000</u>
Total assets	<u>\$2,059,600</u>	<u>\$855,000</u>
Accounts payable	\$ 323,500	\$135,000
Bonds payable	400,000	
Common stock	1,000,000	500,000
Retained earnings	<u>336,100</u>	<u>220,000</u>
Total liabilities and equity	<u>\$2,059,600</u>	<u>\$855,000</u>

Required:

- A. Prepare in general journal form the workpaper entry to allocate and depreciate the difference between book value and the value implied by the purchase price in the December 31, 2019, consolidated statements workpaper.
- B. Prepare a consolidated financial statements workpaper for the year ended December 31, 2021.
- C. Prepare in good form a schedule or t-account showing the calculation of the controlling interest in consolidated net income for the year ended December 31, 2021.

If you completed Problem 5-5, a comparison of the consolidated balances in this problem with those you obtained in Problem 5-5 will demonstrate that the method (cost or partial equity) used by the parent company to record its investment in a consolidated subsidiary has no effect on the consolidated balances.

PROBLEM 5-13 Push Down Accounting LO 10

On January 2, 2019, Press Company purchased on the open market 90% of the outstanding common stock of Sensor Company for \$800,000 cash. Balance sheets for Press Company and Sensor Company on January 1, 2019, just before the stock acquisition by Press Company, were:

	<i>Press Company</i>	<i>Sensor Company</i>
Cash	\$1,065,000	\$ 38,000
Receivables	422,500	76,000
Inventory	216,500	124,000
Building (net)	465,000	322,000
Equipment (net)	229,000	185,000
Land	188,000	100,000
Patents	<u>167,500</u>	<u>88,000</u>
Total assets	<u>\$2,753,500</u>	<u>\$933,000</u>
Liabilities	\$ 667,000	\$249,000
Common stock	700,000	300,000
Other contributed capital	846,000	164,000
Retained earnings	<u>540,500</u>	<u>220,000</u>
Total equities	<u>\$2,753,500</u>	<u>\$933,000</u>

The full implied value of Sensor Company is to be “pushed down” and recorded in Sensor Company’s books. The excess of the implied fair value over the book value of net assets acquired is allocated as follows: To equipment, 30%; to land, 20%; to patents, 50%.

Required:

- A. Prepare the entry on Sensor Company’s books on January 2, 2019, to record the values implied by the 90% stock purchase by Press Company.
- B. Prepare a consolidated balance sheet workpaper on January 1, 2019.

PROBLEM 5-14 Push Down Accounting LO 3 LO 2

On January 1, 2012, Push Company purchased an 80% interest in the capital stock of Way-Down Company for \$820,000. At that time, WayDown Company had capital stock of \$500,000 and retained earnings of \$100,000. Differences between the fair value and the book value of identifiable assets of WayDown Company were as follows:

	<i>Fair Value in Excess of Book Value</i>
Equipment	\$125,000
Land	62,500
Inventory	37,500

The book values of all other assets and liabilities of WayDown Company were equal to their fair values on January 1, 2012. The equipment had a remaining life of five years on January 1, 2012. The inventory was sold in 2012. WayDown Company revalued its assets on January 2, 2012. New values were allocated on the basis of the fair value on WayDown Company as a whole imputed from the transaction.

Financial data for 2012 are presented here:

	<i>Push Company</i>	<i>WayDown Company</i>
Sales	\$1,050,000	\$ 400,000
Dividend income	<u>40,000</u>	<u>—0—</u>
Total revenue	<u>1,090,000</u>	<u>400,000</u>
Cost of goods sold	850,000	180,000
Depreciation expense	35,000	50,000

	<i>Push Company</i>	<i>WayDown Company</i>
Other expenses	65,000	50,000
Total cost and expense	<u>950,000</u>	<u>280,000</u>
Net income	<u>\$ 140,000</u>	<u>\$ 120,000</u>
1/1 Retained earnings	\$ 480,000	\$ 102,500
Net income	140,000	120,000
Dividends declared	<u>(100,000)</u>	<u>(50,000)</u>
12/31 Retained earnings	<u>\$ 520,000</u>	<u>\$ 172,500</u>
Cash	\$ 80,000	\$ 35,000
Accounts receivable	250,000	170,000
Inventory	230,000	150,000
Investment in WayDown	820,000	
Goodwill	—0—	200,000
Land	—0—	362,500
Plant and equipment	<u>350,000</u>	<u>300,000</u>
Total assets	<u>\$1,730,000</u>	<u>\$1,217,500</u>
Accounts payable	\$ 160,000	\$ 100,000
Notes payable	50,000	20,000
Capital stock	1,000,000	500,000
Revaluation capital		425,000
Retained earnings	<u>520,000</u>	<u>172,500</u>
Total liabilities and equity	<u>\$1,730,000</u>	<u>\$1,217,500</u>

Required:

- A. In general journal form, prepare the entry made by WayDown Company on January 2, 2012, to record the effect of the pushed down values implied by the purchase of its stock by Push Company assuming that values were allocated on the basis of the fair value of WayDown Company as a whole imputed from the transaction.
- B. Prepare a consolidated financial statements worksheet for the year ended December 31, 2012.
- C. What effect does the decision to apply the full push down approach have on the following items (compared to the case where push down accounting is not used):
 1. Consolidated net income?
 2. Consolidated retained earnings?
 3. Consolidated net assets?
 4. Noncontrolling interest in consolidated net assets?

PROBLEM 5-15 Eliminating Entries and Worksheets for Various Years (including Goodwill Impairment), Complete Equity Method LO 6

(Note that this is the same problem as Problem 5-4 and Problem 5-11, but assuming the use of the complete equity method.)

On January 1, 2018, Porter Company purchased an 80% interest in the capital stock of Salem Company for \$850,000. At that time, Salem Company had capital stock of \$550,000 and retained earnings of \$80,000. Porter Company uses the complete equity method to record its investment in Salem Company. Differences between the fair value and the book value of the identifiable assets of Salem Company were as follows:

	<i>Fair Value in Excess of Book Value</i>
Equipment	\$130,000
Land	65,000
Inventory	40,000

The book values of all other assets and liabilities of Salem Company were equal to their fair values on January 1, 2018. The equipment had a remaining life of five years on January 1, 2018. The inventory was sold in 2018.

Salem Company's net income and dividends declared in 2018 and 2019 were as follows:

Year 2018 Net Income of \$100,000; Dividends Declared of \$25,000

Year 2019 Net Income of \$110,000; Dividends Declared of \$35,000

Required:

- A. Present the eliminating/adjusting entries needed on the consolidated worksheet for the year ended December 31, 2018. (It is not necessary to prepare the worksheet.)
- B. Present the eliminating/adjusting entries needed on the consolidated worksheet for the year ended December 31, 2019. (It is not necessary to prepare the worksheet.)

Use the following financial data for 2020 for requirements C through G.

	<i>Porter Company</i>	<i>Salem Company</i>
Sales	\$1,100,000	\$ 450,000
Equity in subsidiary income	77,200	—
Total revenue	<u>1,177,200</u>	<u>450,000</u>
Cost of goods sold	900,000	200,000
Depreciation expense	40,000	30,000
Other expenses	60,000	50,000
Total cost and expense	<u>1,000,000</u>	<u>280,000</u>
Net income	\$ 177,200	\$ 170,000
1/1 Retained earnings	\$ 546,400	\$ 230,000
Net income	177,200	170,000
Dividends declared	(90,000)	(60,000)
12/31 Retained earnings	<u>\$ 633,600</u>	<u>\$ 340,000</u>
Cash	\$ 70,000	\$ 65,000
Accounts receivable	260,000	190,000
Inventory	240,000	175,000
Investment in Salem Company	925,600	
Land	—0—	320,000
Plant and equipment	360,000	280,000
Total assets	<u>\$1,855,600</u>	<u>\$1,030,000</u>
Accounts payable	\$ 132,000	\$ 110,000
Notes payable	90,000	30,000
Capital stock	1,000,000	550,000
Retained earnings	633,600	340,000
Total liabilities and equity	<u>\$1,855,600</u>	<u>\$1,030,000</u>

Required:

- C. Although no goodwill impairment was reflected at the end of 2018 or 2019, the goodwill impairment test conducted at December 31, 2020 revealed implied goodwill from Salem to be only \$150,000. The impairment was reflected in the books of the parent. Prepare a t-account calculation of the controlling and noncontrolling interests in consolidated income for the year ended December 31, 2020.
- D. Prepare a consolidated financial statements workpaper for the year ended December 31, 2020.
- E. Prepare a consolidated statement of financial position and a consolidated income statement for the year ended December 31, 2020.

- F.** Describe the effect on the consolidated balances if Salem Company uses the LIFO cost flow assumption in pricing its inventory and there has been no decrease in ending inventory quantities since 2018.
- G.** Prepare an analytical calculation of consolidated retained earnings for the year ended December 31, 2020.

Note: If you completed Problem 5-4 and Problem 5-11, a comparison of the consolidated balances in this problem with those you obtained in Problem 5-4 and Problem 5-11 will demonstrate that the method (cost or partial equity) used by the parent company to record its investment in a consolidated subsidiary has no effect on the consolidated balances.

PROBLEM 5-16 **Workpaper Entries and Consolidated Financial Statements, Complete Equity Method**
LO 1 LO 6 LO 7 LO 9

(Note that this is the same problem as Problem 5-5 or Problem 5-12, but assuming the use of the complete equity method.)

On January 1, 2019, Palmer Company acquired a 90% interest in Stevens Company at a cost of \$1,000,000. At the purchase date, Stevens Company's stockholders' equity consisted of the following:

Common stock	\$500,000
Retained earnings	190,000

An examination of Stevens Company's assets and liabilities revealed the following at the date of acquisition:



	<i>Book Value</i>	<i>Fair Value</i>
Cash	\$ 90,726	\$ 90,726
Accounts receivable	200,000	200,000
Inventories	160,000	210,000
Equipment	300,000	390,000
Accumulated depreciation—equipment	(100,000)	(130,000)
Land	190,000	290,000
Bonds payable	(205,556)	(150,000)
Other	54,830	54,830
Total	<u>\$690,000</u>	<u>\$955,556</u>

Additional Information—Date of Acquisition

Stevens Company's equipment had an original life of 15 years and a remaining useful life of 10 years. All the inventory was sold in 2019. Stevens Company purchased its bonds payable on the open market on January 10, 2019, for \$150,000 and recognized a gain of \$55,556. Palmer Company uses the complete equity method to record its investment in Stevens Company. Financial statement data for 2021 are presented on the next page.

	<i>Palmer Company</i>	<i>Stevens Company</i>
Sales	\$ 620,000	\$340,000
Cost of sales	<u>430,000</u>	<u>240,000</u>
Gross margin	190,000	100,000
Depreciation expense	30,000	20,000
Other expenses	<u>60,000</u>	<u>35,000</u>
Income from operations	100,000	45,000
Equity in subsidiary income	<u>35,100</u>	<u>0</u>
Net income	<u>135,100</u>	<u>\$ 45,000</u>

	<i>Palmer Company</i>	<i>Stevens Company</i>
1/1 Retained earnings	\$ 209,800	\$210,000
Net income	<u>135,100</u>	<u>45,000</u>
	344,900	255,000
Dividends	<u>(120,000)</u>	<u>(35,000)</u>
12/31 Retained earnings	<u>\$ 224,900</u>	<u>\$220,000</u>
	<i>Palmer Company</i>	<i>Stevens Company</i>
Cash	\$ 201,200	\$151,000
Accounts receivable	221,000	173,000
Inventories	100,400	81,000
Investment in Stevens Company	915,800	
Equipment	450,000	300,000
Accumulated depreciation—equipment	(300,000)	(140,000)
Land	<u>360,000</u>	<u>290,000</u>
Total assets	<u>\$1,948,400</u>	<u>\$855,000</u>
Accounts payable	\$ 323,500	\$135,000
Bonds payable	400,000	
Common stock	1,000,000	500,000
Retained earnings	<u>224,900</u>	<u>220,000</u>
Total liabilities and equity	<u>\$1,948,400</u>	<u>\$855,000</u>

Required:

- A. Prepare in general journal form the workpaper entry to allocate and depreciate the difference between book value and the value implied by the purchase price in the December 31, 2019, consolidated statements workpaper.
- B. Prepare a consolidated financial statements workpaper for the year ended December 31, 2021.
- C. Prepare in good form a schedule or t-account showing the calculation of the controlling interest in consolidated net income for the year ended December 31, 2021.

If you completed Problem 5-5 and Problem 5-12, a comparison of the consolidated balances in this problem with those you obtained in Problem 5-5 and Problem 5-12 will demonstrate that the method (cost, partial equity, or complete equity) used by the parent company to record its investment in a consolidated subsidiary has no effect on the consolidated balances.

PROBLEM 5-17 Impact on Future Profits and In-process R&D LO 1

The Mcquire Company is considering acquiring 100% of the Sosa Company. The management of Mcquire fears that the acquisition price may be too high. Condensed financial statements for Sosa Company for the current year are as follows:

<i>Income Statement</i>	<i>2020</i>
Revenues	\$100,000
Cost of Goods Sold	<u>40,000</u>
Gross Margin	60,000
Operating Expenses	<u>35,000</u>
Pretax Income	25,000
Income Tax Expense	<u>10,000</u>
Net Income	<u>15,000</u>

<i>Balance Sheet</i>	<i>Year Ended 12/31/19</i>	<i>Year Ended 12/31/20</i>
Cash	\$ 4,000	\$ 4,000
Receivables	10,000	14,000
Inventory	31,000	27,000
Fixed Assets (net)	<u>50,000</u>	<u>55,000</u>
Total Assets	<u>\$95,000</u>	<u>\$100,000</u>
Current Liabilities	\$15,000	\$ 17,000
Long-term Liabilities	25,000	18,000
Common Stock	20,000	20,000
Retained Earnings	<u>35,000</u>	<u>45,000</u>
Total Liabilities and Equity	<u>\$95,000</u>	<u>\$100,000</u>

You believe that Sosa might be currently acquired at a price resulting in a price to earnings (P/E) ratio of 8 to 12 times. Also, the fair market value of Sosa's net assets is approximately \$105,000, and the difference between book value and the value implied by the purchase price is due solely to depreciable assets with a remaining useful life of 10 years. Sosa Company is heavily involved in research and development of new baseball bats that enable the batter to hit the ball further. You estimate that \$30,000 of the acquisition price might be classified as in-process R&D. Sosa's net income is expected to grow an average of 10% per year for the next 10 years and remain constant thereafter.

Required:

- A. If the acquisition occurs on January 1, 2021, determine the amount of income from Sosa Company that would be included in consolidated income assuming the following P/E ratios are used to determine the acquisition price, based on earnings for the year 2020. Suppose that the FASB revoked its requirement that in-process R&D be capitalized and amortized, as the result of extensive lobbying. Instead, in-process R&D will be expensed in the year of acquisition.
1. P/E ratio = 10
 2. P/E ratio = 12
- B. Now assume that FASB does require (as is currently the case at this writing) that in process R&D be capitalized (assume an amortization period of 20 years). How would your answer to part A change?

PROBLEM 5-18 Deferred Tax Effects **LO 6** **LO 7**

On January 1, 2020, Pruitt Company issued 25,500 shares of its common stock (\$2 par) in exchange for 85% of the outstanding common stock of Shah Company. Pruitt's common stock had a fair value of \$28 per share at that time. Pruitt Company uses the cost method to account for its investment in Shah Company and files a consolidated income tax return. A schedule of the Shah Company assets acquired and liabilities assumed at book values (which are equal to their tax bases) and fair values follows.

<i>Item</i>	<i>Book Value/Tax Basis</i>	<i>Fair Value</i>	<i>Excess</i>
Receivables (net)	\$125,000	\$ 125,000	\$ —0—
Inventory	167,000	195,000	28,000
Land	86,500	120,000	33,500
Plant assets (net)	467,000	567,000	100,000
Patents	<u>95,000</u>	<u>200,000</u>	<u>105,000</u>
Total	<u>\$940,500</u>	<u>\$1,207,000</u>	<u>\$266,500</u>

<i>Item</i>	<i>Book Value/Tax Basis</i>	<i>Fair Value</i>	<i>Excess</i>
Current liabilities	\$ 89,500	\$ 89,500	\$ —0—
Bonds payable	300,000	360,000	60,000
Common stock	120,000		
Other contributed capital	164,000		
Retained earnings	<u>267,000</u>		
Total	<u>\$940,000</u>		

Additional Information:

1. Pruitt's income tax rate is 35%.
2. Shah's beginning inventory was all sold during 2020.
3. Useful lives for depreciation and amortization purposes are:

Plant assets	10 years
Patents	8 years
Bond premium	10 years

4. Pruitt uses the straight-line method for all depreciation and amortization purposes.

Required:

- A. Prepare the stock acquisition entry on Pruitt Company's books.
- B. Assuming Shah Company earned \$216,000 and declared a \$90,000 dividend during 2020, prepare the eliminating entries for a consolidated statements workpaper on December 31, 2020.
- C. Assuming Shah Company earned \$240,000 and declared a \$100,000 dividend during 2021, prepare the eliminating entries for a consolidated statements workpaper on December 31, 2021.

Additional interim acquisition problems (the continuation of Problem 4-20) can be found from your instructor.

PROBLEM 5-19 Interim Acquisition, Contingent Consideration, Cost Method **LO 5** **LO 6**

PROBLEM 5-20 Interim acquisition, contingent consideration, complete equity method **LO 5** **LO 6**

ELIMINATION OF UNREALIZED PROFIT ON INTERCOMPANY SALES OF INVENTORY

CHAPTER CONTENTS

- 6.1 EFFECTS OF INTERCOMPANY SALES OF MERCHANDISE ON THE DETERMINATION OF CONSOLIDATED BALANCES
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- 6.3 COST METHOD—ANALYSIS OF CONSOLIDATED NET INCOME AND CONSOLIDATED RETAINED EARNINGS
- 6.4 CONSOLIDATED STATEMENTS WORKPAPER—PARTIAL EQUITY METHOD
- 6.5 PARTIAL EQUITY METHOD—ANALYSIS OF CONSOLIDATED NET INCOME AND CONSOLIDATED RETAINED EARNINGS
- 6.6 CONSOLIDATED STATEMENTS WORKPAPER—COMPLETE EQUITY METHOD
- 6.7 COMPLETE EQUITY METHOD—ANALYSIS OF CONSOLIDATED NET INCOME AND CONSOLIDATED RETAINED EARNINGS
- 6.8 SUMMARY OF WORKPAPER ENTRIES RELATING TO INTERCOMPANY SALES OF INVENTORY
- 6.9 INTERCOMPANY PROFIT PRIOR TO PARENT-SUBSIDIARY AFFILIATION

LEARNING OBJECTIVES

- 1 Describe the financial reporting objectives for intercompany sales of inventory.
- 2 Determine the amount of intercompany profit, if any, to be eliminated from the consolidated statements.
- 3 Understand the concept of eliminating 100% of intercompany profit not realized in transactions with outsiders, and know the authoritative position.
- 4 Distinguish between upstream and downstream sales of inventory.
- 5 Compute the noncontrolling interest in consolidated net income for upstream and downstream sales, when not all the inventory has been sold to outsiders.
- 6 Prepare consolidated workpapers for firms with upstream and downstream sales using the cost, partial equity, and complete equity methods.
- 7 Discuss the treatment of intercompany profit earned prior to the parent-subsidary affiliation.

“What separates a good year in mergers-and-acquisitions from a bad one? By the Pavlovian measure of Wall Street, it is simple: The more deals, the better the year. But 2007 revealed the fallacy of this approach. Buyers gorged on cheap credit, overpaying along the way. Some raced to rip up transactions signed months earlier. More deals, more problems.”¹

¹ *Wall Street Journal*, “What to Look for as Deal Makers Revise Strategies,” by Dennis Berman, p. C1, January 15, 2008.

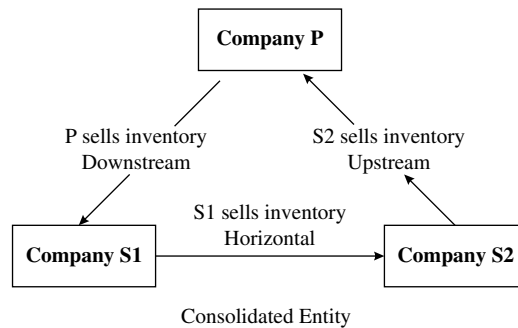
LO 4 Upstream and downstream sales.

Consistent with Warren Buffet claiming he's hunting for "elephants" (large companies to add to the Berkshire conglomerate), Buffet partnered with Brazil's 3G Capital to back a \$45 billion merger. The deal created the 5th largest food and beverage company in the world with nearly \$28B in annual sales. The rationale included leveraging Heinz's international brand to expand global appetite for Kraft, currently sold almost entirely domestically.² Affiliated companies may make intercompany sales of inventory or other assets. The term "affiliated group" is used to refer to a parent and all subsidiaries for which consolidated financial statements are prepared; alternatively, this group may be referred to as the economic entity or as the consolidated entity.³ Sales from a parent company to one or more of its subsidiaries are referred to as *downstream sales*. Sales from subsidiaries to the parent company are referred to as *upstream sales*. Sales from one subsidiary to another subsidiary are referred to as *horizontal sales*.



AOL Time Warner reported that intercompany advertising

revenue increased to \$97 million in the third quarter of 2001 (which represented 5% of the advertising revenue). The networks segment reported that advertising and commerce revenue fell by 6%. Later, a spokesperson for the company stated that these numbers included intercompany sales (a number that would be eliminated for consolidated statements).⁴



Ordinarily, the selling affiliate will record a profit or loss on such sales. From the point of view of the consolidated entity, however, such profit or loss should not be reported until the inventory or other assets acquired by the purchasing affiliate have been used during the course of operations or sold to parties outside the affiliated group (third parties). Profit (loss) that has not been realized from the point of view of the consolidated entity through subsequent sales to third parties is defined as *unrealized intercompany profit (loss)* and must be eliminated in the preparation of consolidated financial statements. The elimination of unrealized profit resulting from intercompany sales of inventory is examined in this chapter. The elimination of unrealized profit resulting from intercompany sales of property and equipment will be examined in the next chapter.

6.1 EFFECTS OF INTERCOMPANY SALES OF MERCHANDISE ON THE DETERMINATION OF CONSOLIDATED BALANCES

LO 1 Financial reporting objectives for intercompany sales.

The workpaper procedures illustrated in this chapter are designed to accomplish the following financial reporting objectives in the consolidated financial statements:

- Consolidated sales include only *sales to parties outside the affiliated group*.
- Consolidated cost of sales includes only *the cost to the affiliated group*, of goods that have been sold to parties outside the affiliated group.

² *NYTimes.com*, "Kraft and Heinz to Merge in Deal Backed by Buffet and 3G Capital," by David Gelles, March 25, 2015.

³ Note that this definition of an affiliated group is broader than the definition imposed by the Tax Code (Section 1504(a)). A parent must own at least 80% of the voting power of all stock classes and 80% of the fair value of its subsidiaries' outstanding stock to qualify as an affiliated group for tax purposes.

⁴ *TheStreet.com*, "Why You Can't Avoid Those AOL Ads," by George Mannes, 11/15/2001.

- Consolidated inventory on the balance sheet is recorded at a value equal its *cost to the affiliated group*.

Stated another way, the objective of eliminating the effects of intercompany sales of merchandise is to present consolidated balances for sales, cost of sales, and inventory as if the intercompany sale had *never* occurred. As a result, the recognition of income or loss on the intercompany transaction, including its allocation between the noncontrolling and controlling interests, is deferred until the profit or loss is confirmed by sale of the merchandise to nonaffiliates.

Thoughtful consideration of these financial reporting objectives will indicate that they are logical and noncontroversial. However, the workpaper procedures for accomplishing these objectives are not self-evident. Thus the workpaper procedures for accomplishing these objectives are the central topic of this chapter. These procedures include workpaper entries to adjust the recorded amounts of sales, cost of sales (or components thereof), and ending inventory to amounts based on the objectives stated above. In addition, the procedures are designed to equate beginning consolidated retained earnings and noncontrolling interest (NCI) in equity with the amounts reported as ending consolidated retained earnings and ending NCI, respectively, in the previous reporting period for firms using the cost or partial equity methods. These procedures also serve to allocate consolidated income properly between the noncontrolling and controlling interests.

In order to concentrate on intercompany profit eliminations and adjustments, reporting complications relating to accounting for the difference between implied and book values are avoided in the initial illustrations by assuming that all acquisitions are made at the book value of the acquired interest in net assets and that the book value of the subsidiary company's net assets equals their fair value on the date the parent company acquires interest. (This assumption is later relaxed.) It is also assumed that the affiliates file consolidated income tax returns. If the affiliates file separate tax returns, deferred tax issues arise. These are addressed in supplemental Appendix 6A, Deferred Tax and Intercompany Sales of Inventory available from your instructor.

Determination of Consolidated Sales, Cost of Sales, and Inventory Balances Assuming Downstream Sales

The basic workpaper eliminating entries required because of intercompany sales of merchandise are illustrated using the following simplifying assumptions:

1. P Company sells all goods it buys or manufactures to its wholly owned subsidiary, S Company, at 125% of cost.
2. During the first year of this arrangement, goods that cost P Company \$200,000 are sold to S Company for \$250,000 (*downstream sale*).
3. During the same year, S Company sold all the goods purchased by it from P Company to third parties for \$270,000.

Sales, cost of sales, and inventory balances reported by the affiliated companies are presented in Illustration 6-1. Recall that the cost of sales is computed as:

$$\begin{array}{r}
 \text{Beginning inventory} \\
 + \text{Net purchases}^5 \\
 \hline
 \text{Total available for sale} \\
 - \text{Ending inventory} \\
 \hline
 \text{Cost of sales}
 \end{array}$$

⁵ For a manufacturing concern, "purchases" is replaced by the total cost of goods manufactured, which includes labor and overhead in addition to the raw materials used. Nonetheless, when a company purchases manufactured items from an affiliate, the purchasing affiliate would record those items as "purchases" at the amount charged by the selling affiliate.

ILLUSTRATION 6-1**Partial Consolidated Statements Workpaper, Elimination of Intercompany Sale of Inventory, No Unrealized Profit (All Inventory Sold to Third Parties)**

<i>Income Statement</i>	<i>P Company</i>	<i>S Company</i>	<i>Eliminations</i>		<i>Consolidated Balances</i>	<i>%</i>
			<i>Dr.</i>	<i>Cr.</i>		
Sales	250,000	270,000	(1) 250,000		270,000	100.0%
Cost of Sales	<u>200,000</u>	<u>250,000</u>		(1) 250,000	<u>200,000</u>	<u>74.1%</u>
Gross Profit	50,000	20,000			70,000	25.9%
<i>Balance Sheet</i>						
Inventory	—0—	—0—			—0—	

(1) To eliminate intercompany sales.

Depending upon the accounting system used, a given company may have a single account in its general ledger entitled “cost of sales” or “cost of goods sold” and a single line on its workpaper or, alternatively, separate accounts for the various components. In this chapter, we assume that the trial balance lists each component separately, and we present the workpaper entries accordingly. Using this approach, the cost of sales line on the income statement is replaced with lines for Beginning Inventory—Income Statement; Purchases; Ending Inventory—Income Statement; and Cost of Sales. Note that under this assumption, Ending Inventory—Income Statement requires an entry distinct from that to the balance sheet account Inventory. The account “Ending Inventory—Income Statement” has a normal credit balance because it is subtracted in computing Cost of Sales. We indicate in parentheses those entries that might be replaced by the use of the single account “cost of sales.”

The workpaper entry in the year of the sale to eliminate intercompany sales of merchandise takes the following form:

LO 6 Consolidated workpapers for downstream sales.

(1)	Sales	250,000	
	Purchases (Cost of Sales)		250,000
	To eliminate intercompany sales.		

No unrealized intercompany profit exists, since all goods sold by P Company to S Company have been resold to third parties. After the elimination of intercompany sales, consolidated sales of \$270,000 equals the amount of sales by the affiliated group (S Company) to third parties, and consolidated cost of sales of \$200,000 equals the cost to the affiliated group (P Company) of purchasing/manufacturing the goods sold.

Failure to eliminate intercompany sales would result in an overstatement of sales and of cost of sales in the consolidated financial statements. If the intercompany sales were not eliminated, the gross profit would be calculated as shown in Illustration 6-2.

ILLUSTRATION 6-2**The Impact on Gross Profit Percentages if Intercompany Sales Are Not Eliminated**

<i>Account</i>	<i>Without Eliminating Intercompany Sales</i>			
	<i>P Company</i>	<i>S Company</i>	<i>Total</i>	<i>%</i>
Sales	\$250,000	\$270,000	\$520,000	100.0%
Cost of Sales	<u>200,000</u>	<u>250,000</u>	<u>450,000</u>	<u>86.5%</u>
Gross Profit	50,000	20,000	70,000	13.5%

Compare this to the gross profit computed in Illustration 6-1, with the proper eliminating entry. If the intercompany sales were not eliminated, the consolidated gross profit would be correct but the gross profit percentage would not. Whereas the gross profit percentage should be 25.9% ($\$70,000/\$270,000$), failure to eliminate the intercompany sales would show the gross percentage as only 13.5% ($\$70,000/\$520,000$). Since both sales and cost of sales would be overstated by the same amounts, consolidated net income is not affected by the failure to eliminate intercompany sales. However, a number of financial ratios based on sales revenues would be distorted if the elimination were not made.

RELATED CONCEPTS

The *historical cost principle* suggests that inventory and other assets should not be reported above their cost to the consolidated entity (\$80,000).

Assume now that S Company sells 60% of the goods purchased from P Company to third parties prior to the end of the current year. Sales, cost of sales, and inventory balances reported by each of the affiliated companies are presented in Illustration 6-3. Entry (1) to eliminate sales and purchases is the same as explained before. However, intercompany profit in the amount of \$20,000 [$\$50,000 \times 40\%$] resides in the ending inventory balance of S Company. This profit has not yet been realized by the consolidated entity through sales to outsiders (third parties). When, at the end of the accounting period, some of the merchandise remains in the inventory of the purchasing affiliate, the intercompany profit recognized thereon must be excluded from consolidated net income and from the inventory balance in the consolidated balance sheet. The workpaper entry to accomplish this elimination and to reduce Inventory on both the Income Statement and the Balance Sheet is as follows:

(2)	Ending Inventory—Income Statement (Cost of Sales)	20,000	
	Inventory—Balance Sheet		20,000
	To defer the unrealized gross profit in ending inventory until it is sold to outsiders.		

The form of the entry eliminating intercompany sales, entry (1), implicitly assumes that there is no unrealized intercompany profit. Accordingly, either entry (1) must be adjusted, or entry (2) must be made to remove the unrealized intercompany profit from the ending inventory and to reduce the excessive credit to cost of sales.

ILLUSTRATION 6-3

Partial Consolidated Statements Workpaper,* Elimination of Downstream Intercompany Sale of Inventory, Unrealized Profit in Ending Inventory (First Year of Intercompany Sales)

Income Statement	P Company	S Company	Eliminations		Consolidated Balances
			Dr.	Cr.	
Sales	<u>250,000</u>	<u>162,000</u>	(1) 250,000		<u>162,000</u>
Beginning Inventory	0	0			0
Purchases	<u>200,000</u>	<u>250,000</u>		(1) 250,000	<u>200,000</u>
	<u>200,000</u>	<u>250,000</u>			<u>200,000</u>
Ending Inventory	<u>0</u>	<u>100,000</u>	(2) 20,000		<u>80,000</u>
Cost of Sales	<u>200,000</u>	<u>150,000</u>			<u>120,000</u>
Gross Profit	50,000	12,000			42,000
<i>Balance Sheet</i>					
Inventory (40% remains)	—0—	100,000		(2) 20,000	80,000

* These entries are the same for firms using the cost, partial equity, and complete equity methods.

(1) To eliminate intercompany sales.

(2) To eliminate unrealized intercompany profit in ending inventory.

The first and second eliminating entries could be combined and one entry prepared as follows, if a single account is used for “cost of sales”:

Sales	250,000	
Cost of Sales		230,000
Inventory—Balance Sheet		20,000

As a practical matter, two entries are conventionally prepared as shown in Illustration 6-3. In either case, after adjustment, consolidated sales of \$162,000 equals the amount of sales of the affiliated group to third parties. Consolidated cost of sales of \$120,000 equals the cost to the affiliated group of the goods sold ($60\% \times \$200,000$), and the consolidated inventory balance of \$80,000 equals the cost to the affiliated group of the goods held by S Company at the end of the year ($40\% \times \$200,000$).

The above entries for intercompany sales and unrealized profit in ending inventory are the same regardless of whether the parent uses the cost, partial equity, or complete equity method. However, as shown next, the entries for intercompany profit in beginning inventory differ slightly.

Year Two Eliminating Entries—Downstream Sales

Assume now that in the next period P Company sells merchandise to S Company in the amount of \$500,000 (cost \$400,000) and that S Company sells all its beginning inventory (\$100,000 cost to S; \$80,000 cost to consolidated entity) and one-half of its current purchases from P Company (\$250,000 cost to S; \$200,000 cost to consolidated entity) to third parties for \$378,000. Sales, cost of sales, and inventory balances reported by the affiliated companies are presented in Illustration 6-4. This illustration assumes that either the cost or the partial equity method is used.

ILLUSTRATION 6-4

Partial Consolidated Statements Workpaper—Cost or Partial Equity Method, Elimination of Downstream Intercompany Sale of Inventory, Unrealized Profit in Ending Inventory (Second Year of Intercompany Sales)

<i>Income Statement</i>	<i>P Company</i>	<i>S Company</i>	<i>Eliminations</i>		<i>Consolidated Balances</i>
			<i>Dr.</i>	<i>Cr.</i>	
Sales	500,000	378,000	(1) 500,000		378,000
Beginning Inventory	0	100,000		(3) 20,000	80,000
Purchases	400,000	500,000		(1) 500,000	400,000
	400,000	600,000			480,000
Ending Inventory	0	250,000	(2) 50,000		200,000
Cost of Sales	400,000	350,000			280,000
Gross Profit	100,000	28,000	550,000	520,000	98,000
<i>Retained Earnings</i>					
Beginning Retained Earnings					
P Company	XXXX (a)		(3) 20,000		XXXX
<i>Balance Sheet</i>					
Inventory	—0—	250,000		(2) 50,000	200,000

(a) Includes \$20,000 of gross profit on intercompany sales from the previous year (not yet sold to third parties).

(1) To eliminate intercompany sales.

(2) To eliminate unrealized intercompany profit in ending inventory.

(3) To recognize intercompany profit in beginning inventory realized during the period.

Unrealized intercompany profit in the amount of \$50,000 [$\$250,000 - \$200,000$] or [$\$250,000 - (\$250,000/1.25)$] resides in the ending inventory of S Company. Workpaper eliminating entries (1) and (2) are similar to those discussed in the preceding example. Assuming a first-in, first-out (FIFO) inventory cost flow, intercompany profit in inventories excluded from consolidated net income in one period will be realized by sales to third parties in the next period. The form of the workpaper entry to recognize profit in the buying affiliate's beginning inventory that is realized during the current period depends on the method of accounting for the investment on the books of the parent.



COST

If the parent uses the *cost* or *partial equity* method of recording its investment in the subsidiary, the entry takes the following form (as shown in Illustration 6-4):

Cost or Partial Equity Method

(3)	Beginning Retained Earnings—P Company ⁶	20,000	
	Beginning Inventory—Income Statement (Cost of Sales)		20,000
	To realize the gross profit in beginning inventory deferred in the prior period.		



PARTIAL

The credit to beginning inventory (*Cost of Sales*) in entry (3) is necessary in order to recognize in consolidated income the amount of profit in the beginning inventory that has been confirmed by sales to third parties during the current period. S Company charged cost of sales for its cost of \$100,000, whereas the cost to the affiliated group of the beginning inventory of S Company is only \$80,000. Accordingly, cost of sales must be decreased by \$20,000, which increases consolidated net income by \$20,000. The adjustment to Beginning Inventory this period is in the same amount as that to Ending Inventory last period.

For firms using the cost or partial equity method to account for its investment in the subsidiary, the rationale for the debit of \$20,000 to beginning retained earnings of P Company is as follows. In the previous year, P Company recorded \$50,000 in profit on intercompany sales and transferred it to its Retained Earnings account as part of the normal accounting process. Since, at the beginning of the year, 40% of that amount has not been realized by sales to third parties, it must be eliminated from the beginning retained earnings of P Company to correctly reflect the beginning consolidated retained earnings.

The debit to beginning retained earnings may also be viewed in the following manner. In determining consolidated net income in the prior year, \$20,000 was deducted from the reported income and thus from the retained earnings of the affiliated group by a workpaper entry (which, like all workpaper entries, was not posted to the ledger accounts). In order for beginning retained earnings to match the prior year's ending retained earnings (to the consolidated entity), this \$20,000 adjustment must be made to beginning retained earnings.

For firms using the *complete equity* method, the debit to beginning retained earnings is not needed, assuming the parent correctly adjusted for all intercompany profits/losses in its "revenue from subsidiary" account in the preceding year. Under the complete equity method, consolidated retained earnings is identical to the parent's reported retained earnings and thus no adjustment is needed. The debit to retained earnings is replaced by a debit to Investment in Subsidiary, which

⁶ If the parent firm uses the complete equity method, this debit is replaced by a debit to the Investment in Subsidiary account (see below).

ILLUSTRATION 6-5

Partial Consolidated Statements Workpaper—Complete Equity Method, Elimination of Downstream Intercompany Sale of Inventory, Unrealized Profit in Ending Inventory (Second Year of Intercompany Sales)

<i>Income Statement</i>	<i>P Company</i>	<i>S Company</i>	<i>Eliminations</i>		<i>Consolidated Balances</i>
			<i>Dr.</i>	<i>Cr.</i>	
Sales	<u>500,000</u>	<u>378,000</u>	(1) 500,000		<u>378,000</u>
Beginning Inventory	0	100,000		(3) 20,000	80,000
Purchases	<u>400,000</u>	<u>500,000</u>		(1) 500,000	<u>400,000</u>
	400,000	600,000			480,000
Ending Inventory	0	<u>250,000</u>	(2) 50,000		<u>200,000</u>
Cost of Sales	<u>400,000</u>	<u>350,000</u>			<u>280,000</u>
Gross Profit	100,000	28,000	550,000	520,000	98,000
<i>Balance Sheet</i>					
Inventory	—0—	250,000		(2) 50,000	200,000
Investment in Subsidiary	XXX		(3) 20,000	XXX	—0—

(1) To eliminate intercompany sales.

(2) To eliminate unrealized intercompany profit in ending inventory.

(3) To recognize intercompany profit in beginning inventory realized during the period.

serves simply to facilitate the elimination of this account on the workpaper (as shown in Illustration 6-5):



COMPLETE

Complete Equity Method

(3) Investment in Subsidiary	\$20,000	
Beginning Inventory—Income Statement (Cost of Sales)		\$20,000
To realize the gross profit in beginning inventory deferred in the prior period.		

Consolidated sales of \$378,000 are equal to the amount of sales of the affiliated group to third parties. Consolidated cost of sales of \$280,000 equals the cost to the affiliated group of the goods sold and is calculated as follows:

Cost of goods transferred to	
S Company in prior year and sold this year ($40\% \times \$200,000$)	\$80,000
Cost of goods transferred to	
S Company in current year and sold this year ($50\% \times \$400,000$)	<u>200,000</u>
Cost of sales to third parties during current year	<u>\$280,000</u>

Consolidated inventory of \$200,000 equals the cost to the affiliated group (P Company) of the goods on hand at the end of the year ($50\% \times \$400,000$).

Over two consecutive periods, assuming a FIFO flow of inventory costs and no new deferrals, differences between the summed net income recorded on the books of the individual affiliates and consolidated net income offset each other, as do the effects of the differences on beginning retained earnings.

If an inventory cost flow assumption other than FIFO is used, unrealized intercompany profit in beginning inventory balances may continue to be included in the ending inventory. In that case, to the extent that unrealized intercompany profit from the beginning of the year remains unrealized, the effects on consolidated net income

from the credit to Beginning Inventory—Income Statement (Cost of Sales) in entry (3) and the debit to Ending Inventory—Income Statement (Cost of Sales) in entry (2) offset each other. Thus, as a matter of workpaper procedure, there is no need to be concerned in formulating entry (3) as to whether FIFO or LIFO is used, as long as any unrealized gross profit in ending inventory is appropriately deferred.

Determination of Amount of Intercompany Profit

In the preceding examples, the amount of intercompany profit subject to elimination was calculated on the basis of the selling affiliate's *gross profit rate* stated as a percentage of cost. Recall that gross profit may be stated either as a percentage of sales or as a percentage of cost. When it is stated as a percentage of cost, it is often referred to as "markup." To calculate the amount of intercompany gross profit to be eliminated from ending inventory, be careful to distinguish between percentages stated in terms of sales versus cost of sales. For example, if ending inventory (obtained from an affiliate) of \$12,000 reflects a markup of 20% of cost of sales, the gross profit to be eliminated would be calculated as:

Sales	\$12,000
Cost of Sales (\$12,000/120%)	<u>10,000</u>
Gross Profit (20% × \$10,000)	\$ 2,000

In contrast, if ending inventory of \$12,000 reflects a gross profit of 20% of sales, the gross profit to be eliminated would be \$2,400, or 20% of \$12,000.

Inventory Pricing Adjustments

When inventory adjustments (write-downs) have been made on the books of one of the affiliated firms due to market fluctuations, the workpaper entries are modified accordingly. To illustrate, assume the following:

1. P Company sells S Company goods costing \$200,000 for \$250,000 (*downstream sale*);
2. At the end of the year, all these goods remain in the ending inventory of S Company and are written down from \$250,000 to \$215,000 on that company's books;
3. The write-down on the books of S Company results from the application of the lower-of-cost-or-market rule in pricing its ending inventory; and
4. The related loss is included in the cost of sales of S Company, or may be disclosed separately if considered material.

What amount of intercompany profit is subject to elimination in the preparation of consolidated financial statements? Since the gross profit of \$50,000 recognized by P Company is offset by the reduction of gross profit of \$35,000 recognized by S Company, only the remaining \$15,000 is still subject to elimination in the preparation of consolidated financial statements. The deduction of the amount of the current year's write-down of intercompany inventory from the amount of intercompany profit otherwise subject to elimination also results in the presentation of intercompany inventory at cost to the affiliated group (\$215,000 – \$15,000 = \$200,000). In summary, the

⁷ *Forbes*, "Bunge Says It Overstated 2007 Sales, Cost of Goods Sold by Around \$7 Billion," by M. Cotton, 3/3/08.

IN THE NEWS

Bunge Ltd., a leading agribusiness and food company, overstated its

2007 sales and cost of goods sold by \$7 billion. The correction was the result of a review of its accounting processes, financial statements, and certain transactions related to its agribusiness. It said certain intercompany sales were classified as third-party transactions in both net sales and cost of goods sold and were not eliminated in the consolidation process.⁷

LO 2 Determining the amount of intercompany profit.

amount of intercompany profit subject to elimination should be reduced to the extent that the related goods have been written down by the purchasing affiliate.

Determination of Proportion of Intercompany Profit to Be Eliminated

LO 3 Eliminating 100% of intercompany profit.

It is clear that unrealized intercompany profit should not be included in consolidated net income or assets. However, two alternative views of the amount of intercompany profit that should be considered as “unrealized” exist. The elimination methods associated with these two points of view are generally referred to as **100% (total) elimination** and **partial elimination**. Both current and past GAAP **require** 100% elimination of intercompany profit **in the preparation of consolidated financial statements**. Because past and current GAAP agree in this regard, and because IFRS are silent in this regard we do not elaborate on the alternative of partial elimination. Under 100% elimination, the entire amount of unconfirmed intercompany profit is eliminated from consolidated net income and the related asset balance. This approach is particularly logical under the current view of consolidated financial statements, based on the “entity” rather than “parent” concept, and may be summarized as follows:

The amount of intercompany profit or loss to be eliminated ... is not affected by the existence of a minority [noncontrolling] interest. The complete elimination of the intercompany profit or loss is consistent with the underlying assumption that consolidated statements represent the financial position and operating results of a single business enterprise. [FASB ASC paragraph 810–10–45–18]

Determination of the Noncontrolling Interest in Consolidated Income—Upstream or Horizontal Sales

LO 5 Noncontrolling interest (NCI) for upstream sales.

Subsidiary as Intercompany Seller In the preceding examples, the selling affiliate was the parent company (downstream sale). Accordingly, even though 100% of the unrealized intercompany profit was eliminated, no modification in the calculation of the noncontrolling interest in consolidated net income or consolidated net assets was necessary. Had the selling affiliate been a less than wholly owned subsidiary (upstream sale), however, the controlling and the noncontrolling interests would have needed to be adjusted to reflect their interest in the amount of unrealized intercompany profit eliminated.

Intercompany sales of inventory necessitate adjustments to the calculation of the distribution of income to the controlling and noncontrolling interests. Whether the adjustments directly affect the noncontrolling interest (or only the controlling interest) depends on **who is the intercompany seller (selling affiliate)**. If the intercompany seller is the subsidiary, it is the subsidiary’s income that needs adjustment, therefore directly affecting the noncontrolling interest, as shown in Illustration 6-6.

In essence, the amount of the noncontrolling interest in consolidated net income that is deducted to arrive at the controlling interest is based on the amount of subsidiary income (loss) that has been realized in transactions with third parties. This deduction is, as usual, made on the consolidated statements workpaper (final column) to be presented later in this chapter.

The general and succinct formats for the calculation of the noncontrolling interest in consolidated net income in the case of an *upstream sale* are presented in Illustration 6-6.

The reader is reminded, however, that this modification of the calculation of the noncontrolling interest is applicable only when the subsidiary is the **selling affiliate** (upstream or horizontal sales). Where the parent company is the selling affiliate

ILLUSTRATION 6-6

Calculation of Noncontrolling Interest in Consolidated Income—Upstream Sales

General Format:

Noncontrolling Interest in Consolidated Income with Upstream Sales			
Amortization of the difference between implied and book value	\$XXXX	Net income reported by subsidiary	\$XXXXX
Unrealized intercompany profit recorded by the subsidiary in the current period	XXXX	Intercompany profit recognized by the subsidiary in the prior period(s) that is realized by sales to third parties during the current period	XXXX
		Subsidiary income included in consolidated income	\$ XXXX
		Noncontrolling ownership percentage interest	_____ %
		Noncontrolling interest in consolidated income	<u>\$ XXXX</u>

Succinct Format:

Noncontrolling Interest in Consolidated Income with Upstream Sales			
Amortization of the difference between implied and book value	\$ XXX	Net income reported by subsidiary	\$XXXXX
Unrealized profit in ending inventory	XXXX	Realized profit from beginning inventory	XXXX
		Subsidiary income included in consolidated income	\$ XXXX
		NCI %	_____ %
		NCI in consolidated income	<u>\$ XXXX</u>

(*downstream sale*), the amount of subsidiary income included in consolidated net income is not affected by the elimination of unrealized intercompany profit and no adjustment is necessary in the calculation of the noncontrolling interest in consolidated net income. (See Illustration 6-11 for the effects of both upstream and downstream sales on income distribution.)

TEST YOUR KNOWLEDGE 6.1

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

Multiple Choice

- Pristine Corporation owns 80% of Serendipity Inc.'s common stock. During 2016, Pristine sold Serendipity \$250,000 of inventory on the same terms as sales made to third parties. Serendipity sold all the inventory purchased from Pristine in 2016. The following data pertain to sales by each company for the year:

	Pristine	Serendipity
Sales	\$1,000,000	\$700,000
Cost of goods sold	400,000	350,000

How much should be reported as cost of goods sold in the consolidated income statement for 2016?

a. \$400,000 b. \$500,000 c. \$680,000 d. \$750,000
- Polychromasia Company sold inventory costing \$30,000 to its subsidiary, Simply Colorful, for double its cost in 2017. Polychromasia owns 80% of Simply Colorful. Simply resold \$50,000 of this inventory for \$60,000 to outsiders in 2017. How much unrealized profit exists at the end of the year?

a. \$10,000 b. \$8,000 c. \$5,000 d. \$20,000
- Skipper Company owns all the outstanding common stock of Anchorage Inc. During 2018, Skipper sells merchandise to Anchorage that is in turn sold to outsiders. None of the intercompany merchandise remains in Anchorage's year-end inventory, but some of the intercompany purchases from Skipper have not yet been paid. Identify the accounts that will reflect incorrect balances in the consolidated financial statements if no adjustments are made:

a. Accounts Receivable and Accounts Payable
b. Sales, Cost of Goods Sold, Inventory, Accounts Receivable
c. Sales, Cost of Goods Sold, Accounts Receivable, and Accounts Payable
d. Accounts Payable, Inventory, and Net Income

6.2 COST METHOD: CONSOLIDATED STATEMENTS WORKPAPER—UPSTREAM SALES



Dell Inc. warned investors on March 8, 2006, that it would not achieve its sales and earnings goals for the fiscal period ending May 5. Eleven days later, Dell announced that it intended to start using AMD chips in some high-end servers. Analysts speculated that the move was in response to competitors.⁸



To illustrate consolidation procedures when the parent company records its investment using the cost method, assume the following:

LO 6 Consolidated workpapers for upstream Sales-Cost Method.

1. P Company acquired an 80% interest in S Company on January 1, 2019, for \$1,360,000, at which time S Company had capital stock of \$1,000,000 and retained earnings of \$700,000.
2. In 2019, S Company reported net income of \$125,000 and declared dividends of \$20,000.
3. In 2020, S Company reported net income of \$140,000 and declared dividends of \$60,000.
4. P Company uses the cost method to account for its investment in S Company.
5. The purchase price equals 80% of both the book values and fair values of S Company's net assets on the date of acquisition. Thus, the implied value equals the total book value equals fair value.
6. S Company sells merchandise to P Company as follows (upstream sales):

Year	Total Sales of S Company to P Company	Intercompany Merchandise in 12/31 Inventory of P Company	Unrealized Intercompany Profit (25% of Selling Price)
2019	\$ 700,000	\$400,000	\$100,000
2020	1,000,000	500,000	125,000



Consolidated statements workpapers for the years ended December 31, 2019, and December 31, 2020, are presented in Illustrations 6-7 and 6-8, respectively. Entries **on the books** of P Company as well as **workpaper entries** necessary in the consolidated statements workpapers for the years ended December 31, 2019, and December 31, 2020, are summarized in general journal form below. The workpaper entries and the determination of the noncontrolling interest are explained in more detail as needed.

Entries on Books of P Company—Cost Method 2019—Year of Acquisition

(1)	Investment in S Company	1,360,000	
	Cash		1,360,000
	To record purchase of S Company stock.		
(2)	Cash	16,000	
	Dividend Income		16,000
	To record receipt of dividends from S Company (.8 × \$20,000).		

⁸ WJSJ, "Dell to Use AMD Chips in Some Servers," by Don Clark and Christopher Lawton, 5/19/06, p. A3.

ILLUSTRATION 6-7**Cost Method**

80% Owned Subsidiary

Consolidated Statements Workpaper

Upstream Sale of Inventory

P Company and Subsidiary

Year of Acquisition

for the Year Ended December 31, 2019

	<i>P</i> <i>Company</i>	<i>S</i> <i>Company</i>	<i>Eliminations</i>		<i>Noncontrolling</i> <i>Interest</i>	<i>Consolidated</i> <i>Balances</i>
			<i>Dr.</i>	<i>Cr.</i>		
<i>Income Statement</i>						
Sales	3,104,000	2,200,000	(1) 700,000			4,604,000
Dividend Income	16,000		(3) 16,000			
Total Revenue	<u>3,120,000</u>	<u>2,200,000</u>				<u>4,604,000</u>
Inventory 1/1	500,000	300,000				800,000
Purchases	1,680,000	1,370,000		(1) 700,000		2,350,000
	2,180,000	1,670,000				3,150,000
Inventory 12/31	480,000	310,000	(2) 100,000			690,000
Cost of Goods Sold	1,700,000	1,360,000				2,460,000
Other Expenses	1,124,000	715,000				1,839,000
Total Expense	<u>2,824,000</u>	<u>2,075,000</u>				<u>4,299,000</u>
Net/Consolidated Income	296,000	125,000				305,000
Noncontrolling Interest in Income					5,000*	5,000
Net Income to Retained Earnings	<u>296,000</u>	<u>125,000</u>	<u>816,000</u>	<u>700,000</u>	<u>5,000</u>	<u>300,000</u>
<i>Retained Earnings Statement</i>						
1/1 Retained Earnings						
P Company	1,650,000					1,650,000
S Company		700,000	(4) 700,000			
Net Income from above	296,000	125,000	816,000	700,000	5,000	300,000
Dividends Declared						
P Company	(150,000)					(150,000)
S Company		(20,000)		(3) 16,000	(4,000)	
12/31 Retained Earnings to Balance Sheet	<u>1,796,000</u>	<u>805,000</u>	<u>1,516,000</u>	<u>716,000</u>	<u>1,000</u>	<u>1,800,000</u>
<i>Balance Sheet</i>						
Inventory	480,000	310,000		(2) 100,000		690,000
Investment in S Company	1,360,000			(4) 1,360,000		
Other Assets (net)	5,090,000	2,310,000				7,400,000
Total	<u>6,930,000</u>	<u>2,620,000</u>				<u>8,090,000</u>
Liabilities	2,134,000	815,000				2,949,000
Capital Stock						
P Company	3,000,000					3,000,000
S Company		1,000,000	(4) 1,000,000			
Retained Earnings from above	1,796,000	805,000	1,516,000	716,000	1,000	1,800,000
1/1 Noncontrolling Interest in Net Assets				(4) 340,000	340,000	
12/31 Noncontrolling Interest in Net Assets					<u>341,000</u>	<u>341,000</u>
Total Liabilities and Equity	<u>6,930,000</u>	<u>2,620,000</u>	<u>2,516,000</u>	<u>2,516,000</u>		<u>8,090,000</u>

* $.2(\$125,000 - \$100,000) = \$5,000$.

(1) To eliminate intercompany sales.

(2) To eliminate unrealized intercompany profit in ending inventory.

(3) To eliminate intercompany dividends.

(4) To eliminate the investment account and create noncontrolling interest account.

ILLUSTRATION 6-8

Cost Method

80% Owned Subsidiary		Consolidated Statements Workpaper					
Upstream Sale of Inventory		P Company and Subsidiary					
Year Subsequent to Acquisition		for the Year Ended December 31, 2020					
Income Statement	P	S	Eliminations		Noncontrolling Interest	Consolidated Balances	
	Company	Company	Dr.	Cr.			
Sales	3,546,000	2,020,000	(2)	1,000,000		4,566,000	
Dividend Income	48,000		(5)	48,000			
Total Revenue	<u>3,594,000</u>	<u>2,020,000</u>				<u>4,566,000</u>	
Inventory 1/1	480,000	310,000		(4)	100,000	690,000	
Purchases	2,070,000	1,250,000		(2)	1,000,000	2,320,000	
	<u>2,550,000</u>	<u>1,560,000</u>				<u>3,010,000</u>	
Inventory 12/31	510,000	360,000	(3)	125,000		745,000	
Cost of Goods Sold	2,040,000	1,200,000				2,265,000	
Other Expenses	1,100,000	680,000				1,780,000	
Total Expense	<u>3,140,000</u>	<u>1,880,000</u>				<u>4,045,000</u>	
Net/Consolidated Income	454,000	140,000				521,000	
Noncontrolling Interest in Income						23,000*	
Net Income to Retained Earnings						23,000	
Earnings	<u>454,000</u>	<u>140,000</u>	<u>1,173,000</u>	<u>1,100,000</u>		<u>498,000</u>	
Retained Earnings Statement							
1/1 Retained Earnings							
P Company	1,796,000		(4)	80,000	(1)	84,000	1,800,000
S Company		805,000	(6)	805,000			
Net Income from above	454,000	140,000	1,173,000	1,100,000		23,000	498,000
Dividends Declared							
P Company	(150,000)						(150,000)
S Company		(60,000)		(5)	48,000	(12,000)	
12/31 Retained Earnings to Balance Sheet	<u>2,100,000</u>	<u>885,000</u>	<u>2,058,000</u>	<u>1,232,000</u>		<u>11,000</u>	<u>2,148,000</u>
Balance Sheet							
Inventory	510,000	360,000		(3)	125,000		745,000
Investment in S Company	1,360,000		(1)	84,000	(6)	1,444,000	
Other Assets (net)	5,450,000	2,330,000					7,780,000
Total	<u>7,320,000</u>	<u>2,690,000</u>					<u>8,525,000</u>
Liabilities	2,220,000	805,000					3,025,000
Capital Stock							
P Company	3,000,000						3,000,000
S Company		1,000,000	(6)	1,000,000			
Retained Earnings from above	2,100,000	885,000	2,058,000	1,232,000		11,000	2,148,000
1/1 Noncontrolling Interest in Net Assets			(4)	20,000	(6)	361,000**	341,000
12/31 Noncontrolling Interest in Net Assets							352,000
Total Liabilities and Equity	<u>7,320,000</u>	<u>2,690,000</u>	<u>3,162,000</u>	<u>3,162,000</u>			<u>8,525,000</u>

* .2(\$140,000 – \$125,000 + \$100,000) = \$23,000.

** \$340,000 + .2(\$805,000 – \$700,000) = \$361,000.

(1) To convert to equity/establish reciprocity as of 1/1/20 [.8 × (\$805,000 – \$700,000)].

(2) To eliminate intercompany sales.

(3) To eliminate unrealized intercompany profit in ending inventory.

(4) To recognize profit realized during year and to reduce the controlling and noncontrolling interests for their shares of unrealized intercompany profit at beginning of year.

(5) To eliminate intercompany dividends.

(6) To eliminate investment account and create noncontrolling interest account.

Consolidated Statements Workpaper Entries—December 31, 2019 (Year of Acquisition)

(1)	Sales	700,000	
	Purchases		700,000
	To eliminate intercompany sales.		
(2)	12/31 Inventory—Income Statement (Cost of Sales)	100,000	
	Inventory—Balance Sheet		100,000
	To defer (eliminate) unrealized intercompany profit in ending inventory.		
(3)	Dividend Income	16,000	
	Dividends Declared		16,000
	To eliminate intercompany dividends.		
(4)	Beginning Retained Earnings—S Company	700,000	
	Capital Stock—S Company	1,000,000	
	Investment in S Company		1,360,000
	NCI in Equity		340,000
	To eliminate investment account and create NCI account.		

Since the selling affiliate is a partially owned subsidiary, unrealized intercompany profit is subtracted from reported subsidiary income when calculating the noncontrolling interest in consolidated net income as follows:

$$.20 \times (\$125,000 - \$100,000) = \$5,000$$

If the sale of merchandise had been *downstream* rather than *upstream*, the amount of subsidiary income included in consolidated income would not be affected by the elimination of unrealized intercompany profit and no adjustment would be necessary in the calculation of the noncontrolling interest in consolidated income.

Entry on Books of P Company—Cost Method 2020— Year Subsequent to Acquisition

Cash	48,000	
Dividend Income		48,000
To record receipt of dividends from S Company (.80 × \$60,000).		

Consolidated Statements Workpaper Entries—December 31, 2020 (Year Subsequent to Acquisition)—Cost Method

(1)	Investment in S Company	84,000	
	Beginning Retained Earnings—P Company		84,000
	To convert to the equity method or to establish reciprocity [.80 × (\$805,000 – \$700,000)].		

(2)	Sales	1,000,000	
	Purchases (Cost of Sales)		1,000,000
	To eliminate intercompany sales.		
(3)	12/31 Inventory—Income Statement (Cost of Sales)	125,000	
	Inventory—Balance Sheet		125,000
	To eliminate unrealized intercompany profit in ending inventory.		
(4)	Beginning Retained Earnings—P Company	80,000	
	(.80 × \$100,000)		
	NCI	20,000	
	(.20 × \$100,000)		
	1/1 Inventory—Income Statement (Cost of Sales)		100,000
	To recognize intercompany profit in beginning inventory realized during the year and to reduce the controlling and noncontrolling interests for their shares of unrealized intercompany profit at beginning of year.		
(5)	Dividend Income	48,000	
	Dividends Declared—S Company		48,000
	To eliminate intercompany dividends (.80 × \$60,000).		
(6)	Beginning Retained Earnings—S Company	805,000	
	Capital Stock—S Company	1,000,000	
	Investment in S Company (\$1,360,000 + \$84,000)		1,444,000
	NCI (\$340,000 + .2(\$805,000 – \$700,000))		361,000
	To eliminate investment account, and create NCI.		



The unrealized profit in the current year’s beginning inventory is the same as the unrealized profit in the prior year’s ending inventory. Since the sale is *upstream*, the unrealized profit at the end of the prior year was apportioned between the controlling and noncontrolling interests by reducing the noncontrolling interest in consolidated income in the consolidated statements workpaper in the previous year. Thus, the retained earnings effects in entry (4) are split between P Company’s (80%) beginning retained earnings accounts and the NCI (20%).

As a matter of workpaper procedure, adjustments to the controlling interest (consolidated retained earnings) are made by debiting (decreasing) or crediting (increasing) the *beginning* retained earnings row of the parent company. Adjustments to the noncontrolling interest are made by debiting (decreasing) or crediting (increasing) the *beginning* NCI in Net Assets (or Equity).

The net effect of the adjustments to the noncontrolling interest in the income statement and retained earnings statement sections of the consolidated statements workpaper that are necessary in the case of *upstream sales* is to adjust the amount of the noncontrolling interest in consolidated net assets. The amount of the noncontrolling interest reported in the consolidated balance sheet is based on the net assets of the subsidiary that have been realized in transactions with third parties. Workpaper entry (6) creates the beginning balance in the noncontrolling interest account reflective of the sum of the 20% interest at acquisition plus the noncontrolling share of changes in Retained Earnings of S since acquisition to the beginning

ILLUSTRATION 6-9**Calculation of Realized Assets of Company S December 31, 2020**

	12/31/20	<i>Unrealized Intercompany Profits in Ending Inventory</i>	<i>Realized 12/31/20</i>
Total Assets—S Company	<u>\$2,690,000</u>	125,000	<u>\$2,565,000</u>
Total Liabilities—S Company	805,000		805,000
Capital Stock—S Company	1,000,000		1,000,000
Retained Earnings	<u>885,000</u>	125,000	<u>760,000</u>
Total Liabilities and Equity	<u>\$2,690,000</u>		<u>\$2,565,000</u>

ILLUSTRATION 6-10**Calculation of the Noncontrolling Interest in Consolidated Net Assets December 31, 2020****Method One:**

Total Realized Assets—S Company (see Illustration 6-9)	\$2,565,000
Less: Total Liabilities—S Company	<u>(805,000)</u>
Realized Net Assets—S Company	1,760,000
Noncontrolling percentage	20%
Noncontrolling interest in consolidated net assets	<u>\$ 352,000</u>

Method Two:

Capital Stock—S Company	\$1,000,000
Realized Retained Earnings—S Company (see Illustration 6-9)	<u>760,000</u>
Realized Net Assets—S Company	\$1,760,000
Noncontrolling percentage	20%
Noncontrolling interest in consolidated net assets	<u>\$ 352,000</u>

of the current year. This entry could just as easily be numbered as entry (1) or (2), as there is no particular sequence for workpaper entries. Workpaper entry (4) debits the noncontrolling interest, thus adjusting the balance as needed for prior year unrealized profit in inventory (that is to be realized through the current share of consolidated income).

In Illustration 6-8, for example, the noncontrolling interest in consolidated net assets on December 31, 2020, may be calculated as follows. First, as shown in Illustration 6-9, the reported assets are adjusted for the unrealized intercompany profit at the end of the year on upstream sales. Then the noncontrolling interest in realized net assets can be computed either of two ways as shown in Illustration 6-10.

6.3 COST METHOD—ANALYSIS OF CONSOLIDATED NET INCOME AND CONSOLIDATED RETAINED EARNINGS

In Chapter 5, the calculations of consolidated net income and consolidated retained earnings were refined to accommodate the effect of the amortization, depreciation, and impairment of differences between implied and book values. These analyses must now be further refined to accommodate the effect of unrealized intercompany profit.

The noncontrolling interest in consolidated net income is calculated after subtracting end-of-year unrealized intercompany profit and adding intercompany profit realized during the current year to the net income reported by the subsidiary, as

presented in Illustration 6-11. If the sale of merchandise had been downstream rather than upstream, the amount of subsidiary income included in consolidated net income would not be affected by the workpaper entries related to unrealized intercompany profit, and no adjustment would be necessary in the calculation of the noncontrolling interest in consolidated income.

Consolidated Net Income

Consolidated net income is the parent company’s income from its independent operations that has been realized in transactions with third parties plus (minus) subsidiary income (loss) that has been realized in transactions with third parties plus or minus adjustments for the period relating to the depreciation, amortization, and impairment of differences between implied and book values.

Using the data from Illustration 6-8, the calculation of the controlling and noncontrolling interests in consolidated net income for the year ended December 31, 2020, is presented in t-account form in Illustration 6-11.

Consolidated Retained Earnings

Consolidated retained earnings is the parent company’s cost basis retained earnings that has been realized in transactions with third parties plus (minus) the parent company’s share of the increase (decrease) in subsidiary retained earnings that has been realized in transactions with third parties from the date of acquisition to the current date plus or minus the cumulative effect of adjustments to date relating to the amortization, depreciation, and impairment of differences between implied and book values.

On the basis of Illustration 6-8, a t-account calculation of consolidated retained earnings on December 31, 2020, is shown in Illustration 6-12. Notice that the retained earnings calculation reflects cumulative rather than only current-year data, in contrast to the distribution of current income (Illustration 6-11). There is no need, however, to include the realized profit in beginning inventory from January 1, 2020, or the

ILLUSTRATION 6-11

Calculation of the Controlling and Noncontrolling Interest in Consolidated Income—Cost Method for the Year Ended December 31, 2020

		Noncontrolling Interest in Consolidated Income	
Unrealized profit on upstream sales in ending inventory	\$125,000	Net income reported by S Company	\$140,000
Amortization of the difference between implied and book value	0	Realized profit (upstream sales) from beginning inventory	100,000
		Subsidiary income included in consolidated income	\$115,000
		Noncontrolling ownership percentage interest	20%
		Noncontrolling interest in consolidated income	<u>\$ 23,000</u>
		Controlling Interest in Consolidated Income	
Unrealized profit on downstream sales to S Company (ending inventory)	\$0	Net income internally generated by P Company (\$454,000 less \$48,000 dividend income)	\$406,000
		Realized profit (downstream sales) from begin. inventory	0
		P Company’s percentage of S Company’s income realized from third parties, .80(\$115,000)	92,000
		Controlling Interest in Consolidated Income	\$498,000

80%

ILLUSTRATION 6-12

Calculation of Consolidated Retained Earnings for the Year Ended December 31, 2020

Consolidated Retained Earnings			
P Company's share of unrealized profit on upstream sales from S Company (in P's ending inventory), .8(\$125,000)	100,000	P Company's Retained Earnings on 12/31/20	\$2,100,000
		Increase in S Company's Retained Earnings since acquisition (\$885,000 – \$700,000)	185,000
Unrealized profit on downstream sales to S Company (in S's ending Inventory)	0	Less: Cumulative amount of depreciation of the differences between implied and book values	0
		Adjusted increase	185,000
		P Company's share thereof	.80
			148,000
		Consolidated Retained Earnings	\$2,148,000

unrealized profit in ending inventory at December 31, 2019, in the retained earnings calculation as they would cancel out.

Comprehensive Example: Upstream and Downstream Sales—Cost Method



COST

To illustrate all aspects of the t-account calculations of consolidated net income and consolidated retained earnings, assume that:

1. Pepper Company acquired 80% of the voting stock of Salt Company on January 1, 2019, when Salt Company's retained earnings amounted to \$150,000.
2. The difference between implied and book value on the date of acquisition was allocated as follows:

Land	\$50,000
Equipment (10-year life)	20,000
Goodwill	40,000

3. Salt Company reported retained earnings of \$260,000 on January 1, 2022, and \$320,000 on December 31, 2022.
4. Salt Company reported net income of \$90,000 and declared dividends of \$30,000 in 2022.
5. Pepper Company reported net income in 2022 in the amount of \$724,000 and retained earnings on December 31, 2022, of \$3,500,000.
6. There were no intercompany sales prior to 2021, and unrealized profits on January 1 and on December 31, 2022, resulting from intercompany sales, are as summarized below:

Resulting From	Unrealized Intercompany Profit on	
	1/1/22	12/31/22
Sales by Salt Company to Pepper Company	\$10,000	\$ 5,000
Sales by Pepper Company to Salt Company	15,000	20,000

T-account calculations of the controlling and noncontrolling interests in consolidated net income for the year ended December 31, 2022, and consolidated retained earnings on December 31, 2022, are presented in Illustrations 6-13 and 6-14 respectively.

ILLUSTRATION 6-13**Calculation of the Controlling and Noncontrolling Interest in Consolidated Income for the Year Ended December 31, 2022**

Noncontrolling Interest in Combined Income			
Unrealized profit on <i>upstream</i> sales in ending inventory	5,000	Net income reported by Salt Company	\$ 90,000
Depreciation (\$20,000/10)	2,000	Realized profit (<i>upstream</i> sales) from beginning inventory	10,000
		Subsidiary income included in consolidated income	\$ 93,000
		Noncontrolling ownership percentage interest	20%
		Noncontrolling interest in consolidated income	<u>\$ 18,600</u>
			80%
Controlling Interest in Income			
Unrealized profit on <i>downstream</i> sales to Salt Company (ending inventory)	20,000	Net income internally generated by Pepper Company (\$724,000 less \$24,000 dividends from Salt)	\$ 700,000
		Realized profit (<i>downstream</i> sales) from begin. inventory	15,000
		Pepper Company's percentage of Salt Company's income realized from third parties, .80(\$93,000)	\$ 74,400
		Controlling Interest in Consolidated Income	\$769,400

ILLUSTRATION 6-14**Calculation of Consolidated Retained Earnings—Cost Method for the Year Ended December 31, 2022**

Consolidated Retained Earnings			
Pepper Company's share of unrealized profit on <i>upstream</i> sales from S Company (in Pepper's ending inventory), .8(\$5,000)	4,000	Pepper Company's Retained Earnings on 12/31/22	\$3,500,000
Unrealized profit on <i>downstream</i> sales to Salt Company (in Salt's ending inventory)	20,000	Increase in Salt Company's Retained Earnings since acquisition (\$320,000 – \$150,000)	170,000
		Less: Cumulative amount of depreciation of the differences between implied and book values	(10,000)
		Adjusted increase	160,000
		Pepper Company's share thereof	<u>80%</u> 128,000
		Consolidated Retained Earnings	\$3,604,000

6.4 CONSOLIDATED STATEMENTS WORKPAPER—PARTIAL EQUITY METHOD**LO 6** Consolidated workpapers—partial equity method.

The balances reported by the parent company in income, retained earnings, and the investment account differ depending on the method used by the parent company to record its investment. As demonstrated in Chapters 4 and 5, however, the method used by the parent company to record its investment has no effect on the consolidated balances. To illustrate consolidation procedures when the parent company records its investment using the partial equity method, assume the following:



PARTIAL

1. P Company acquired an 80% interest in S Company on January 1, 2019, for \$1,360,000, at which time S Company had capital stock of \$1,000,000 and retained earnings of \$700,000.
2. In 2019, S Company reported net income of \$125,000 and declared dividends of \$20,000.

3. In 2020, S Company reported net income of \$140,000 and declared dividends of \$60,000.
4. P Company uses the partial equity method to account for its investment in S Company.
5. The purchase price equals 80% of both the book values and fair values of S Company's net assets on the date of acquisition. Thus, implied value equals total book value equals fair value of S company net assets.
6. S Company sells merchandise to P Company as follows (upstream sales):

	<i>Total Sales of S Company to P Company</i>	<i>Intercompany Merchandise in 12/31 Inventory of P Company</i>	<i>Unrealized Intercompany Profit (25% of Selling Price)</i>
2019	\$ 700,000	\$400,000	\$100,000
2020	1,000,000	500,000	125,000

Entries on Books of P Company—Partial Equity Method

Entries recorded on the books of P Company under the partial equity method are as follows:

2019—Year of Acquisition—Partial Equity			
(1)	Investment in S Company	1,360,000	
	Cash		1,360,000
	To record purchase of 80% interest in S Company.		
(2)	Cash	16,000	
	Investment in S Company		16,000
	To record dividends received (.80 × \$20,000).		
(3)	Investment in S Company	100,000	
	Equity in Subsidiary Income		100,000
	To record equity in subsidiary income (.80 × \$125,000).		

2020—Year Subsequent to Acquisition—Partial Equity			
(4)	Cash	48,000	
	Investment in S Company		48,000
	To record dividends received (.80 × \$60,000).		
(5)	Investment in S Company	112,000	
	Equity in Subsidiary Income		112,000
	To record equity in subsidiary income (.80 × \$140,000).		

After these entries are posted, the investment account will appear as follows:

Investment in S Company			
(1) Cost	1,360,000	(2) Dividends	16,000
(3) Subsidiary Income	100,000		
12/31/19 Balance	1,444,000		
(5) Subsidiary Income	112,000	(4) Dividends	48,000
12/31/20 Balance	1,508,000		

Workpaper Entries—2020—Partial Equity Consolidated workpapers under the partial equity method for the years ended December 31, 2019 and 2020, are presented in Illustrations 6-15 and 6-16. Workpaper entries in Illustration 6-16 (the year subsequent to acquisition) are presented in general journal form as follows:



(1)	Equity in Subsidiary Income	112,000	
	Dividends Declared		48,000
	Investment in S Company		64,000
	To reverse the effect of parent company entries during the year for subsidiary dividends and income.		

(2)	Sales	1,000,000	
	Purchases (Cost of Sales)		1,000,000
	To eliminate intercompany sales.		

(3)	12/31 Inventory—Income Statement (Cost of Sales)	125,000	
	Inventory—Balance Sheet		125,000
	To eliminate unrealized intercompany profit in ending inventory.		

(4)	Beginning Retained Earnings—P Company	80,000	
	(.80 × \$100,000)		
	NCI in Equity	20,000	
	(.20 × \$100,000)		
	1/1 Inventory—Income Statement (Cost of Sales)		100,000
	To recognize intercompany profit in beginning inventory realized during the year and to reduce controlling and noncontrolling interest for their share of unrealized intercompany profit at beginning of year.		

Entries (2), (3), and (4) are the same as the corresponding entries in Illustration 6-8 (investment recorded using cost method).

(5)	Beginning Retained Earnings—S Company	805,000	
	Capital Stock—S Company	1,000,000	
	Investment in S Company (\$1,508,000 – \$64,000)		1,444,000
	NCI in Equity (\$340,000 + .20(\$805,000 – \$700,000))		361,000
	To eliminate investment account.		

This entry is the same as entry (6) in Illustration 6-8 (investment recorded using cost method). Workpaper entry (5) creates the balance in the noncontrolling interest account reflective of the sum of the 20% interest at acquisition plus the noncontrolling share of changes in Retained Earnings of S since acquisition. This entry could just as easily be numbered as entry (1) or (2), as there is no particular sequence for workpaper entries. Workpaper entry (4) debits the noncontrolling interest, thus adjusting the balance as needed for prior year unrealized profit in inventory.

Observe that the consolidated balances in Illustration 6-16 are the same as those in Illustration 6-8 (cost method workpaper). However, when the parent company records its investment using the partial equity method, entry (1) in Illustration 6-16 replaces

ILLUSTRATION 6-15**Partial Equity Method**

80% Owned Subsidiary		Consolidated Statements Workpaper				
Upstream Sale of Inventory		P Company and Subsidiary				
Year of Acquisition		for the Year Ended December 31, 2019				
<i>Income Statement</i>	<i>P</i>	<i>S</i>	<i>Eliminations</i>		<i>Noncontrolling Interest</i>	<i>Consolidated Balances</i>
	<i>Company</i>	<i>Company</i>	<i>Dr.</i>	<i>Cr.</i>		
Sales	3,104,000	2,200,000	(2)	700,000		4,604,000
Equity in Subsidiary Income	100,000		(1)	100,000		
Total Revenue	<u>3,204,000</u>	<u>2,200,000</u>				<u>4,604,000</u>
Inventory 1/1	500,000	300,000				800,000
Purchases	<u>1,680,000</u>	<u>1,370,000</u>		(2)	700,000	<u>2,350,000</u>
	2,180,000	1,670,000				3,150,000
Inventory 12/31	480,000	310,000	(3)	100,000		690,000
Cost of Goods Sold	<u>1,700,000</u>	<u>1,360,000</u>				<u>2,460,000</u>
Other Expenses	<u>1,124,000</u>	<u>715,000</u>				<u>1,839,000</u>
Total Cost and Expense	<u>2,824,000</u>	<u>2,075,000</u>				<u>4,299,000</u>
Net/Combined Income	380,000	125,000				305,000
Noncontrolling Interest in Income						5,000*
Net Income to Retained Earnings	<u>380,000</u>	<u>125,000</u>	<u>900,000</u>	<u>700,000</u>	<u>5,000</u>	<u>300,000</u>
<i>Retained Earnings Statement</i>						
1/1 Retained Earnings						
P Company	1,650,000					1,650,000
S Company		700,000	(4)	700,000		
Net Income from above	380,000	125,000	900,000	700,000	5,000	300,000
Dividends Declared						
P Company	(150,000)					(150,000)
S Company		(20,000)		(1)	16,000	(4,000)
12/31 Retained Earnings to Balance Sheet	<u>1,880,000</u>	<u>805,000</u>	<u>1,600,000</u>	<u>716,000</u>	<u>1,000</u>	<u>1,800,000</u>
<i>Balance Sheet</i>						
Inventory	480,000	310,000		(3)	100,000	690,000
Investment in S Company	1,444,000			(1)	84,000	
				(4)	1,360,000	
Other Assets (net)	<u>5,090,000</u>	<u>2,310,000</u>				<u>7,400,000</u>
Total	<u>7,014,000</u>	<u>2,620,000</u>				<u>8,090,000</u>
Liabilities	<u>2,134,000</u>	<u>815,000</u>				<u>2,949,000</u>
Capital Stock						
P Company	3,000,000					3,000,000
S Company		1,000,000	(4)	1,000,000		
Retained Earnings from above	1,880,000	805,000	1,600,000	716,000	1,000	1,800,000
1/1 Noncontrolling Interest in Net Assets				(4)	340,000	340,000
12/31 Noncontrolling Interest in Net Assets						341,000
Total Liabilities and Equity	<u>7,014,000</u>	<u>2,620,000</u>	<u>2,600,000</u>	<u>2,600,000</u>		<u>8,090,000</u>

* .20(\$125,000 - \$100,000) = \$5,000.

(1) To reverse the effect of parent company entries during the year for subsidiary dividends and income.

(2) To eliminate intercompany sales.

(3) To eliminate unrealized intercompany profit in ending inventory.

(4) To recognize profit realized during year and to reduce the controlling and noncontrolling interests for their shares of unrealized intercompany profit at beginning of year.

(5) To eliminate investment account and create noncontrolling interest account.

ILLUSTRATION 6-16**Partial Equity Method**

80% Owned Subsidiary		Consolidated Statements Workpaper				
Upstream Sale of Inventory		P Company and Subsidiary				
Year Subsequent to Acquisition		for the Year Ended December 31, 2020				
<i>Income Statement</i>	<i>P</i>	<i>S</i>	<i>Eliminations</i>		<i>Noncontrolling Interest</i>	<i>Consolidated Balances</i>
	<i>Company</i>	<i>Company</i>	<i>Dr.</i>	<i>Cr.</i>		
Sales	3,546,000	2,020,000	(2)	1,000,000		4,566,000
Equity in Subsidiary Income	112,000		(1)	112,000		
Total Revenue	<u>3,658,000</u>	<u>2,020,000</u>				<u>4,566,000</u>
Inventory 1/1	480,000	310,000		(4)	100,000	690,000
Purchases	<u>2,070,000</u>	<u>1,250,000</u>		(2)	1,000,000	<u>2,320,000</u>
	2,550,000	1,560,000				3,010,000
Inventory 12/31	<u>510,000</u>	<u>360,000</u>	(3)	125,000		<u>745,000</u>
Cost of Goods Sold	2,040,000	1,200,000				2,265,000
Other Expenses	<u>1,100,000</u>	<u>680,000</u>				<u>1,780,000</u>
Total Cost and Expense	<u>3,140,000</u>	<u>1,880,000</u>				<u>4,045,000</u>
Net/Consolidated Income	518,000	140,000				521,000
Noncontrolling Interest in Income						23,000*
Net Income to Retained Earnings	<u>518,000</u>	<u>140,000</u>	<u>1,237,000</u>	<u>1,100,000</u>	<u>23,000</u>	<u>498,000</u>
<i>Retained Earnings Statement</i>						
1/1 Retained Earnings						
P Company	1,880,000		(4)	80,000		1,800,000
S Company		805,000	(5)	805,000		
Net Income from above	518,000	140,000	1,237,000	1,100,000	23,000	498,000
Dividends Declared						
P Company	(150,000)					(150,000)
S Company		(60,000)		(1)	48,000	(12,000)
12/31 Retained Earnings to Balance Sheet	<u>2,248,000</u>	<u>885,000</u>	<u>2,122,000</u>	<u>1,148,000</u>	<u>11,000</u>	<u>2,148,000</u>
<i>Balance Sheet</i>						
Inventory	510,000	360,000		(3)	125,000	745,000
Investment in S Company	1,508,000			(1)	64,000	
				(5)	1,444,000	
Other Assets (net)	<u>5,450,000</u>	<u>2,330,000</u>				<u>7,780,000</u>
Total	<u>7,468,000</u>	<u>2,690,000</u>				<u>8,525,000</u>
Liabilities	<u>2,220,000</u>	<u>805,000</u>				<u>3,025,000</u>
Capital Stock						
P Company	3,000,000					3,000,000
S Company		1,000,000	(5)	1,000,000		
Retained Earnings from above	2,248,000	885,000	2,122,000	1,148,000	11,000	2,148,000
1/1 Noncontrolling Interest in Net Assets			(4)	20,000	(5)	361,000**
12/31 Noncontrolling Interest in Net Assets						<u>352,000</u>
Total Liabilities and Equity	<u>7,468,000</u>	<u>2,690,000</u>	<u>3,142,000</u>	<u>3,142,000</u>		<u>8,525,000</u>

* .20(\$140,000 - \$125,000 + \$100,000) = \$23,000.

** \$340,000 + .2(\$805,000 - \$700,000) = \$361,000.

(1) To reverse the effect of parent company entries during the year for subsidiary dividends and income.

(2) To eliminate intercompany sales.

(3) To eliminate unrealized intercompany profit in ending inventory.

(4) To recognize profit realized during year and to reduce the controlling and noncontrolling interests for their shares of unrealized intercompany profit at beginning of year.

(5) To eliminate investment account and create noncontrolling interest account.

the cost method entries to establish reciprocity and to eliminate dividend income [entries (1) and (5) in Illustration 6-8]. Most importantly, a comparison of entries (2), (3), and (4) in Illustration 6-16 with entries (2), (3), and (4) in Illustration 6-8 demonstrates that the workpaper entries to eliminate intercompany sales and unrealized intercompany profit are the same regardless of whether the investment is recorded using the cost method or the partial equity method.

6.5 PARTIAL EQUITY METHOD—ANALYSIS OF CONSOLIDATED NET INCOME AND CONSOLIDATED RETAINED EARNINGS

The t-account calculation of the controlling and noncontrolling interests in consolidated net income is independent of the method used by the parent company to record its investment. As stated earlier, *consolidated net income is the parent company's income from its independent operations that has been realized in transactions with third parties plus (minus) reported subsidiary income (loss) that has been realized in transactions with third parties plus or minus adjustments for the period relating to the depreciation, amortization, and impairment differences between implied and book values.*



On the basis of Illustration 6-16, the t-account calculation of consolidated net income for the year ended December 31, 2020, is demonstrated in Illustration 6-17.

When the parent company uses the partial equity method to record its investment, the parent company's share of subsidiary income since acquisition is already included in the parent company's reported retained earnings. Consequently, *consolidated retained earnings is calculated as the parent company's recorded partial equity basis retained earnings that has been realized in transactions with third parties plus or minus the cumulative effect of the adjustments to date relating to the depreciation, amortization, and impairment of differences between implied and book values.*

ILLUSTRATION 6-17

Calculation of the Controlling and Noncontrolling Interest in Consolidated Income—Partial Equity Method for the Year Ended December 31, 2020

Noncontrolling Interest in Consolidated Income			
Unrealized profit on <i>upstream</i> sales in ending inventory	125,000	Net income reported by S Company	\$140,000
Depreciation of differences between implied and book values	0	Realized profit (<i>upstream</i> sales) from beginning inventory	100,000
		Subsidiary income included in consolidated income	\$115,000
		Noncontrolling ownership percentage interest	20%
		Noncontrolling interest in consolidated income	<u>\$ 23,000</u>
Controlling Interest in Income			
Unrealized profit on <i>downstream</i> sales to S Company (ending inventory)	0	Net income internally generated by P Company (\$518,000 less \$112,000 equity income)	\$406,000
		Realized profit (<i>downstream</i> sales) from begin. inventory	0
		P Company's percentage of S Company's income realized from third parties, .80(\$115,000)	92,000
		Controlling Interest in Consolidated Income	\$498,000

80%

ILLUSTRATION 6-18

Calculation of Consolidated Retained Earnings—Partial Equity Method for the Year Ended December 31, 2020

Consolidated Retained Earnings		
P Company’s share of unrealized profit on <i>upstream</i> sales from S Company (in P’s ending inventory), .8(\$125,000)	100,000	P Company’s Retained Earnings on 12/31/20 \$2,248,000
Unrealized profit on <i>downstream</i> sales to S Company (in S’s ending inventory)	0	
		Consolidated Retained Earnings \$2,148,000

On the basis of Illustration 6-16, the t-account calculation of consolidated retained earnings on December 31, 2020, is shown in Illustration 6-18. There is no need to include adjustments for 12/31/19 ending inventory or 1/1/20 beginning inventory as they cancel out.

TEST YOUR KNOWLEDGE 6.2

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

Multiple Choice

1. Peller owns 80% of Sando Company common stock. During the fourth quarter of 2017, Sando sold inventory to Peller for \$200,000. At the end of December 2017, half this inventory remained in Peller’s ending inventory. For the year 2017, Peller’s gross profit percentage was 30% while Sando’s was 40%. How much unrealized profit should be eliminated from ending inventory on December 31, 2017?
 - a. \$80,000
 - b. \$40,000
 - c. \$32,000
 - d. \$30,000
2. Pony owns 80% of Shetland. During 2018, Shetland sold \$100,000 of merchandise at a 25% gross profit to its parent. One-tenth of the goods remain unsold by Pony at the end of 2018. How much gross profit will the noncontrolling interest receive as a result of these sales?
 - a. \$22,500
 - b. \$4,500
 - c. \$5,000
 - d. \$25,000

6.6 CONSOLIDATED STATEMENTS WORKPAPER—COMPLETE EQUITY METHOD

LO 6 Consolidated workpapers—complete equity method.



The balances reported by the parent company in income, in retained earnings, and in the investment account differ depending on the method used by the parent company to record its investment. As illustrated in Chapters 4 and 5, however, the method used by the parent company to record its investment has no effect on the consolidated balances. To illustrate consolidation procedures when the parent company records its investment using the complete equity method, assume the following:

1. P Company acquired an 80% interest in S Company on January 1, 2019, for \$1,360,000, at which time S Company had capital stock of \$1,000,000 and retained earnings of \$700,000.
2. In 2019, S Company reported net income of \$125,000 and declared dividends of \$20,000.
3. In 2020, S Company reported net income of \$140,000 and declared dividends of \$60,000.

4. P Company uses the complete equity method to account for its investment in S Company.
5. The purchase price equals 80% of both the book values and fair values of S Company's net assets on the date of acquisition. Thus, implied value of S equals the book value and the fair value of S net assets.
6. S Company sells merchandise to P Company as follows (upstream sales):



	<i>Total Sales of S Company to P Company</i>	<i>Intercompany Merchandise in 12/31 Inventory of P Company</i>	<i>Unrealized Intercompany Profit (25% of Selling Price)</i>
2019	\$ 700,000	\$400,000	\$100,000
2020	1,000,000	500,000	125,000

Entries on Books of P Company—Complete Equity Method

Entries recorded on the books of P Company under the complete equity method are as follows:

2019—Year of Acquisition—Complete Equity Method		
(1)	Investment in S Company	1,360,000
	Cash	1,360,000
	To record purchase of 80% interest in S Company.	
(2)	Cash	16,000
	Investment in S Company	16,000
	To record dividends received (.80 × \$20,000).	
(3)	Investment in S Company	100,000
	Equity in Subsidiary Income	100,000
	To record equity in subsidiary income (.80 × \$125,000).	
(4)	Equity in Subsidiary Income	80,000
	Investment in S Company	80,000
	To adjust equity in subsidiary income for P Company's share of unrealized intercompany profit (.80 × \$100,000) in ending inventory.	

Entries (3) and (4) can be collapsed into one entry.

2020—Year Subsequent to Acquisition—Complete Equity Method		
(5)	Cash	48,000
	Investment in S Company	48,000
	To record dividends received (.80 × \$60,000).	
(6)	Investment in S Company	112,000
	Equity in Subsidiary Income	112,000
	To record equity in subsidiary income (.80 × \$140,000).	
(7)	Investment in S Company	80,000
	Equity in Subsidiary Income	80,000
	To adjust equity in subsidiary income for realized intercompany profit in beginning inventory (.80 × \$100,000).	
(8)	Equity in Subsidiary Income	100,000
	Investment in S Company	100,000
	To adjust equity in subsidiary income for unrealized intercompany profit in ending inventory (.80 × \$125,000).	

After these entries are posted, the investment account will appear as follows:



Investment in S Company			
(1) Cost	1,360,000	(2) Dividends	16,000
(3) Subsidiary Income	100,000	(4) Profit in Ending Inventory (80%)	80,000
<hr/>		<hr/>	
12/31/19 Balance	1,364,000	(5) Dividends	48,000
(6) Subsidiary Income	112,000	(8) Profit in Ending Inventory (80%)(125,000) =	100,000
(7) Profit in Beginning Inventory (80%)	80,000		
<hr/>		<hr/>	
12/31/20 Balance	1,408,000		

Workpaper Entries—2020—Complete Equity Method Consolidated workpapers under the complete equity method for the years ended December 31, 2019 and 2020, are presented in Illustrations 6-19 and 6-20. Workpaper entries in Illustration 6-20 (the year subsequent to acquisition) are presented in general journal form as follows:

(1) Equity in Subsidiary Income (\$112,000 + \$80,000 – \$100,000)	92,000		
Dividends Declared		48,000	
Investment in S Company		44,000	
To reverse the effect of parent company entries during the year for subsidiary dividends and income (adjusted for parent’s share of gross profit realized/unrealized as needed).			
(2) Sales	1,000,000		
Purchases (Cost of Sales)		1,000,000	
To eliminate intercompany sales.			
(3) 12/31 Inventory—Income Statement (Cost of Sales)	125,000		
Inventory—Balance Sheet		125,000	
To eliminate unrealized intercompany profit in ending inventory.			
(4) Investment in S Company (.80 × \$100,000)	80,000		
NCI in Equity (.20 × \$100,000)	20,000		
1/1 Inventory—Income Statement (Cost of Sales)		100,000	
To recognize intercompany profit in beginning inventory realized during the year in the proper accounts for presentation on the consolidated financial statements; that is, even though the parent has adjusted its equity in subsidiary income, the effect must be shown in the cost of sales account (as the equity in subsidiary income is eliminated).			

Entries (2), (3), and (4) are the same as the corresponding entries in Illustration 6-8 (investment recorded using cost method) with one exception, shown in bold in entry (4). The exception is that the debit to Investment in S Company in entry (4) above replaces the debit to Beginning Retained Earnings—P Company under the cost or partial equity methods. The difference is that under the complete equity method, P

ILLUSTRATION 6-19**Complete Equity Method**

80% Owned Subsidiary		Consolidated Statements Workpaper				
Upstream Sale of Inventory		P Company and Subsidiary				
Year of Acquisition		for the Year Ended December 31, 2019				
<i>Income Statement</i>	<i>P</i>	<i>S</i>	<i>Eliminations</i>		<i>Noncontrolling Interest</i>	<i>Consolidated Balances</i>
	<i>Company</i>	<i>Company</i>	<i>Dr.</i>	<i>Cr.</i>		
Sales	3,104,000	2,200,000	(2)	700,000		4,604,000
Equity in Subsidiary Income	20,000		(1)	20,000		
Total Revenue	<u>3,124,000</u>	<u>2,200,000</u>				<u>4,604,000</u>
Inventory 1/1	500,000	300,000				800,000
Purchases	1,680,000	1,370,000		(2)	700,000	2,350,000
	2,180,000	1,670,000				3,150,000
Inventory 12/31	480,000	310,000	(3)	100,000		690,000
Cost of Goods Sold	1,700,000	1,360,000				2,460,000
Other Expenses	1,124,000	715,000				1,839,000
Total Cost and Expense	<u>2,824,000</u>	<u>2,075,000</u>				<u>4,299,000</u>
Net/Consolidated Income	300,000	125,000				305,000
Noncontrolling Interest in Income						5,000*
Net Income to Retained Earnings	<u>300,000</u>	<u>125,000</u>	<u>820,000</u>	<u>700,000</u>	<u>5,000</u>	<u>300,000</u>
<i>Retained Earnings Statement</i>						
1/1 Retained Earnings						
P Company	1,650,000					1,650,000
S Company		700,000	(4)	700,000		
Net Income from above	300,000	125,000	820,000	700,000	5,000	300,000
Dividends Declared						
P Company	(150,000)					(150,000)
S Company		(20,000)		(1)	16,000	(4,000)
12/31 Retained Earnings to Balance Sheet	<u>1,800,000</u>	<u>805,000</u>	<u>1,520,000</u>	<u>716,000</u>	<u>1,000</u>	<u>1,800,000</u>
<i>Balance Sheet</i>						
Inventory	480,000	310,000		(3)	100,000	690,000
Investment in S Company	1,364,000			(1)	4,000	
				(4)	1,360,000	
Other Assets (net)	5,090,000	2,310,000				7,400,000
Total	<u>6,934,000</u>	<u>2,620,000</u>				<u>8,090,000</u>
Liabilities	2,134,000	815,000				2,949,000
Capital Stock						
P Company	3,000,000					3,000,000
S Company		1,000,000	(4)	1,000,000		
Retained Earnings from above	1,800,000	805,000	1,520,000	716,000	1,000	1,800,000
1/1 Noncontrolling Interest in Net Assets				(4)	340,000	340,000
12/31 Noncontrolling Interest in Net Assets						341,000
Total Liabilities and Equity	<u>6,934,000</u>	<u>2,620,000</u>	<u>2,520,000</u>	<u>2,520,000</u>		<u>8,090,000</u>

* .20(\$125,000 – \$100,000) = \$5,000.

(1) To reverse the effect of parent company entries during the year for subsidiary dividends and income.

(2) To eliminate intercompany sales.

(3) To eliminate unrealized intercompany profit in ending inventory.

(4) To recognize profit realized during year and to reduce the controlling and noncontrolling interests for their shares of unrealized intercompany profit at beginning of year.

(5) To eliminate investment account and create noncontrolling interest account.

ILLUSTRATION 6-20**Complete Equity Method**

80% Owned Subsidiary		Consolidated Statements Workpaper					
Upstream Sale of Inventory		P Company and Subsidiary					
Year Subsequent to Acquisition		for the Year Ended December 31, 2020					
	P	S	Eliminations		Noncontrolling	Consolidated	
	Company	Company	Dr.	Cr.	Interest	Balances	
<i>Income Statement</i>							
Sales	3,546,000	2,020,000	(2)	1,000,000		4,566,000	
Equity in Subsidiary Income	92,000		(1)	92,000			
Total Revenue	<u>3,638,000</u>	<u>2,020,000</u>				<u>4,566,000</u>	
Inventory 1/1	480,000	310,000		(4) 100,000		690,000	
Purchases	<u>2,070,000</u>	<u>1,250,000</u>		(2) 1,000,000		<u>2,320,000</u>	
	2,550,000	1,560,000				3,010,000	
Inventory 12/31	510,000	360,000	(3)	125,000		745,000	
Cost of Goods Sold	2,040,000	1,200,000				2,265,000	
Other Expenses	<u>1,100,000</u>	<u>680,000</u>				<u>1,780,000</u>	
Total Cost and Expense	<u>3,140,000</u>	<u>1,880,000</u>				<u>4,045,000</u>	
Net/Consolidated Income	498,000	140,000				521,000	
Noncontrolling Interest in Income					23,000*	23,000	
Net Income to Retained Earnings	<u>498,000</u>	<u>140,000</u>	<u>1,217,000</u>	<u>1,100,000</u>	<u>23,000</u>	<u>498,000</u>	
<i>Retained Earnings Statement</i>							
1/1 Retained Earnings							
P Company	1,800,000					1,800,000	
S Company		805,000	(5)	805,000			
Net Income from above	498,000	140,000	1,217,000	1,100,000	23,000	498,000	
Dividends Declared							
P Company	(150,000)					(150,000)	
S Company		(60,000)		(1) 48,000	(12,000)		
12/31 Retained Earnings to Balance Sheet	<u>2,148,000</u>	<u>885,000</u>	<u>2,022,000</u>	<u>1,148,000</u>	<u>11,000</u>	<u>2,148,000</u>	
<i>Balance Sheet</i>							
Inventory	510,000	360,000		(3) 125,000		745,000	
Investment in S Company	1,408,000		(4) 80,000	(1) 44,000			
				(5) 1,444,000			
Other Assets (net)	<u>5,450,000</u>	<u>2,330,000</u>				<u>7,780,000</u>	
Total	<u>7,368,000</u>	<u>2,690,000</u>				<u>8,525,000</u>	
Liabilities	2,220,000	805,000				3,025,000	
Capital Stock							
P Company	3,000,000					3,000,000	
S Company		1,000,000	(5) 1,000,000				
Retained Earnings from above	2,148,000	885,000	2,022,000	1,148,000	11,000	2,148,000	
1/1 Noncontrolling Interest in Net Assets**			(4) 20,000	(5) 361,000	341,000		
12/31 Noncontrolling Interest in Net Assets					<u>352,000</u>	<u>352,000</u>	
Total Liabilities and Equity	<u>7,368,000</u>	<u>2,690,000</u>	<u>3,122,000</u>	<u>3,122,000</u>		<u>8,525,000</u>	

* .20(\$140,000 – \$125,000 + \$100,000) = \$23,000.

** \$340,000 + .2(\$805,000 – \$700,000) = \$361,000.

(1) To reverse the effect of parent company entries during the year for subsidiary dividends and income.

(2) To eliminate intercompany sales.

(3) To eliminate unrealized intercompany profit in ending inventory.

(4) To recognize profit realized during year and to reduce the controlling and noncontrolling interests for their shares of unrealized intercompany profit at beginning of year.

(5) To eliminate investment account and create noncontrolling interest account.

Company had appropriately adjusted the investment account for its share of unrealized gross profit in inventory at the end of 2019. But now the entire investment account must be eliminated.



(5)	Beginning Retained Earnings—S Company	805,000	
	Capital Stock—S Company	1,000,000	
	Investment in S Company		1,444,000
	NCI in Equity (\$340,000 + .2(\$805,000 – \$700,000))		361,000
	To eliminate the investment account.		

This entry is the same as entry (5) in Illustration 6-16 (partial equity method) or entry (6) in Illustration 6-8 (cost method). Workpaper entry (5) creates the balance in the noncontrolling interest account reflective of the sum of the 20% interest at acquisition plus the noncontrolling share of changes in Retained Earnings of S since acquisition. This entry could just as easily be numbered as entry (1) or (2), as there is no particular sequence for workpaper entries. Workpaper entry (4) debits the noncontrolling interest, thus adjusting the balance as needed for prior year unrealized profit in inventory.

Observe that the consolidated balances in Illustration 6-20 are also the same as those in Illustration 6-8 (cost method workpaper) or in Illustration 6-16 (partial equity workpaper). However, when the parent company records its investment using the complete equity method, entry (1) in Illustration 6-20 replaces the cost method entries to establish reciprocity and to eliminate dividend income [entries (1) and (5) in Illustration 6-8]. Most importantly, a comparison of entries (2), (3), and (4) in Illustration 6-20 with entries (2), (3), and (4) in Illustration 6-8 or in Illustration 6-16 demonstrates that the workpaper entries to eliminate intercompany sales and unrealized intercompany profit differ in only one respect. That is, the parent company's retained earnings account needs no adjustment under the complete equity method. Any adjusting/eliminating entries made to that account under the other two methods are replaced by an entry to the Investment account under the complete equity method.

6.7 COMPLETE EQUITY METHOD—ANALYSIS OF CONSOLIDATED NET INCOME AND CONSOLIDATED RETAINED EARNINGS

Consolidated net income is the sum of the following components: *the parent company's net income from its independent operations that has been realized in transactions with third parties plus (minus) reported subsidiary income (loss) that has been realized in transactions with third parties plus or minus adjustments for the period relating to the depreciation, amortization, and impairment of differences between implied and book values.* See Illustration 6-17.

Under the complete equity method, no formal calculation of the controlling interest in consolidated net income is needed. The parent company has already made adjustments for realized/unrealized gross profit depending upon whether or not such profit has been confirmed through transactions with outsiders. Thus, the controlling interest in *consolidated net income equals the parent company's recorded income.*

When the parent company uses the complete equity method to record its investment, the parent company's share of subsidiary income (including any needed adjustments

for intercompany profits) since acquisition is already included in the parent company’s reported retained earnings. Consequently, *consolidated retained earnings is equal to the parent company’s recorded complete equity basis retained earnings.*

6.8 SUMMARY OF WORKPAPER ENTRIES RELATING TO INTERCOMPANY SALES OF INVENTORY

Consolidated statement workpaper eliminating entries for intercompany sales of inventory are summarized in Illustration 6-21. The entries are the same whether the parent company uses the cost method or the partial equity method to record its investment. However, the form of the workpaper entry for unrealized profit in beginning inventories differs between upstream and downstream sales and between the complete equity method and the other two.

6.9 INTERCOMPANY PROFIT PRIOR TO PARENT-SUBSIDIARY AFFILIATION

LO 7 Intercompany profit prior to affiliation.

Generally accepted accounting standards are silent as to the appropriate treatment of unrealized profit on assets that result from sales between companies prior to affiliation (preaffiliation profit). The question is whether preaffiliation profit should be eliminated in consolidation. In our opinion, workpaper entries eliminating preaffiliation profit are inappropriate.

If the selling company is the new subsidiary, the profit recognized by it prior to its acquisition is implicitly considered in determining the book value of the interest acquired by the parent company. Accordingly, such profit is automatically eliminated from consolidated retained earnings in the investment elimination entry. A second elimination would therefore result in a double reduction of the amount of preaffiliation

ILLUSTRATION 6-21

Intercompany Profit—Inventories Summary of Workpaper Elimination Entries

	Selling Affiliate Is the Parent (Downstream Sales)		Selling Affiliate Is a Subsidiary (Upstream Sales)	
<i>To eliminate intercompany sales:</i>				
All Methods	Sales	X	Sales	X
	Purchases (Cost of Sales)	X	Purchases (Cost of Sales)	X
<i>To eliminate intercompany profit in ending inventory:</i>				
All Methods	Ending Inventory (Cost of Sales)	X	Ending Inventory (Cost of Sales)	X
	Inventory (Balance Sheet)	X	Inventory (Balance Sheet)	X
<i>To recognize intercompany profit in beginning inventory realized during the year:</i>				
Cost or Partial Equity Methods	Beginning Retained Earnings—P	X	Beginning Retained Earnings—P	X
	Beginning Inventory— <i>Income Statement (Cost of Sales)</i>	X	NCI in Equity	X
			Beginning Inventory— <i>Income Statement (Cost of Sales)</i>	X
Complete Equity Method	Investment in S Company	X	Investment in S Company	X
	Beginning Inventory— <i>Income Statement (Cost of Sales)</i>	X	NCI in Equity	X
			Beginning Inventory— <i>Income Statement (Cost of Sales)</i>	X

profit from consolidated retained earnings on the date of acquisition. When the assets are sold to third parties in subsequent years, consolidated net income would be increased by a corresponding amount, thus restoring the amount of the second reduction to consolidated retained earnings. The net result is to make an unwarranted reduction of consolidated retained earnings on the date of acquisition in order to report preacquisition profit in consolidated net income in years subsequent to affiliation that has already been reported by the subsidiary prior to affiliation. In our opinion such effects lack both conceptual and practical merit.

If the selling company is the parent, the preaffiliation profit will ultimately be included in consolidated retained earnings in any case. However, a reduction of such profit from consolidated retained earnings on the date of affiliation simply results in the inclusion of the profit in the consolidated net income of subsequent years. Again, the effect of the elimination would be to report the profit twice, once before affiliation and once after affiliation. Support for the elimination of preaffiliation profit is based primarily on the application of conservatism to the valuation of consolidated assets on the date of acquisition.

SUMMARY

- 1 *Describe the financial reporting objectives for intercompany sales of inventory.* Intercompany sales of inventory are eliminated, and adjustments made, to report sales revenue, cost of sales, and inventory balances as if the intercompany sale had not occurred. Thus, consolidated sales reflects only sales with “outsiders,” consolidated cost of sales reflects the cost to the consolidated entity, and consolidated inventory is reported at its cost to the consolidated entity (affiliated group).
- 2 *Determine the amount of intercompany profit, if any, to be eliminated from the consolidated statements.* Intercompany sales (and selling prices) do affect the allocation of profits to the controlling and noncontrolling interests, once the profit is realized through sales to outsiders. Thus, intercompany profit needs to be eliminated *only if* assets are still on the books of the consolidated entity (one of the members of the affiliated group). In such cases, the amount of profit to be eliminated may be calculated using the selling affiliate’s gross profit rate, which may be stated as a percentage of either sales or costs. (The amount of profit to be eliminated is the same, regardless of how the percentage is stated.)
- 3 *Understand the concept of eliminating 100% of intercompany profit not realized in transactions with outsiders, and know the authoritative position.* Proponents of 100% elimination regard *all* the intercompany profit associated with assets remaining in the affiliated group to be unrealized. Proponents of partial elimination regard only the parent company’s share of the profit recognized by the selling affiliate to be unrealized. Both current and past GAAP require 100% elimination of intercompany profit in the preparation of consolidated financial statements.
- 4 *Distinguish between upstream and downstream sales of inventory.* Sales from a parent company to one or more of its subsidiaries are referred to as **downstream sales**. Sales from subsidiaries to the parent company are referred to as **upstream sales**.
- 5 *Compute the noncontrolling interest in consolidated net income for upstream and downstream sales, when not all the inventory has been sold to outsiders.* For downstream sales, no modification to the calculation of the noncontrolling interest in consolidated income is needed. For upstream or horizontal sales, however, the noncontrolling interest in income must be adjusted. The reported income of the subsidiary (the selling affiliate) is *reduced* by the amount of gross profit remaining in ending inventory of the purchasing affiliate before multiplying by the noncontrolling percentage interest; *it is increased for gross profit realized from beginning inventory*.
- 6 *Prepare consolidated workpapers for firms with upstream and downstream sales using the cost, partial equity, and complete equity methods.* In the consolidated workpapers, eliminating and adjusting entries serve to eliminate intercompany sales and adjust both beginning and ending inventories for the effects of any gross profit included from intercompany sales. The noncontrolling interest in consolidated income reflects the adjustment described in the preceding learning objective for upstream (or horizontal) sales. The final column of the workpapers is identical, regardless of whether the parent uses the cost, partial equity, or complete equity method for consolidated investments.
- 7 *Discuss the treatment of intercompany profit earned prior to the parent-subsidiary affiliation.* Generally accepted accounting standards are silent as to the appropriate treatment of unrealized profit on assets that result from sales between companies prior to affiliation (preaffiliation profit). The question is whether preaffiliation profit should be eliminated in consolidation. In our opinion, workpaper entries eliminating preaffiliation profit are inappropriate.

Supplemental Appendix 6A, “Deferred Taxes and Intercompany Sales of Inventory,” is available from your instructor.

TEST YOUR KNOWLEDGE SOLUTIONS

6.1 1. b 2. c 3. c 6.2 1. b 2. b

QUESTIONS

(The letter A indicated for a question, exercise, or problem refers to the appendix.)

- LO 2** 1. Does the elimination of the effects of intercompany sales of merchandise always affect the amount of reported consolidated net income? Explain.
- LO 2** 2. Why is the gross profit on intercompany sales, rather than profit after deducting selling and administrative expenses, ordinarily eliminated from consolidated inventory balances?
- LO 2** 3. P Company sells inventory costing \$100,000 to its subsidiary, S Company, for \$150,000. At the end of the current year, one-half of the goods remains in S Company’s inventory. Applying the lower of cost or market rule, S Company writes down this inventory to \$60,000. What amount of intercompany profit should be eliminated on the consolidated statements workpaper?
- LO 5** 4. Are the adjustments to the noncontrolling interest for the effects of intercompany profit eliminations illustrated in this text necessary for fair presentation in accordance with generally accepted accounting principles? Explain.
- LO 5** 5. Why are adjustments made to the calculation of the noncontrolling interest for the effects of intercompany profit in upstream but not in downstream sales?
- LO 5** 6. What procedure is used in the consolidated statements workpaper to adjust the noncontrolling interest in consolidated net assets at the beginning of the year for the effects of intercompany profits?
- LO 5** 7. What is the essential procedural difference between workpaper eliminating entries for unrealized intercompany profit made when the selling affiliate is a less than wholly owned subsidiary and those made when the selling affiliate is the parent company or a wholly owned subsidiary?
- LO 1** 8. Define the controlling interest in consolidated net income using the t-account or analytical approach.
- LO 4** 9. Why is it important to distinguish between upstream and downstream sales in the analysis of intercompany profit eliminations?
- LO 1** 10. In what period and in what manner should profits relating to the intercompany sale of merchandise be recognized in the consolidated financial statements?

Business Ethics

One issue concerning Enron’s collapse centered on the amount of nonaudit fees paid by Enron to its external auditor, Arthur Andersen. For each of the following items, discuss the potential ethical issues between the firm and its auditor. For each item, list at least one reason why the statement might be viewed as a threat to the auditor’s independence, and at least one reason why it might not be viewed as such a threat.

1. The firm’s auditor is heavily involved in nonaudit services.
2. The audit partner’s compensation depends on both audit and nonaudit fees from the same client.
3. In 1995, Congress passed the Private Securities Litigation Reform Act. This act reduced plaintiffs’ ability to sue auditors.

ANALYZING FINANCIAL STATEMENTS

AFS6-1 Medianet Intercompany Eliminations **LO 2** **LO 3**

On December 16, 2010, Medianet Group’s CFO and Company’s Board of Directors concluded that the previously issued financial statements contained in the Company’s Quarterly Reports on Form 10-Q for each of the three quarters during the year ended September 30, 2010, should not be relied upon because of the following errors that require a restatement of such financial statements:

Intercompany eliminations. Certain intercompany eliminations were not made during each of the quarters during the year ended September 30, 2010, and for the fiscal year ended September 30, 2009. In this connection, Medianet determined that during the periods referred to above, insufficient personnel resources were available to perform review and monitoring controls within the accounting function.

Enrollment fees. The Company determined that revenue from the sale of its eBiz kits was erroneously recorded for each of the quarters during the year ended September 30, 2010, and for the fiscal year ended September 30, 2009. The Company's nonrefundable eBiz kits fee revenue was previously recognized when collected. Based on a review of Staff Accounting Bulletin ("SAB") 104, the Company revised its revenue recognition of nonrefundable eBiz kits to recognize them on a straight-line basis over the term of the renewal period (12 months).

Balance Sheet (12/30/2009)
(as reported)

<i>Assets</i>		<i>Liabilities</i>	
<i>Current Assets:</i>		<i>Current Liabilities:</i>	
Cash and cash equivalents	2,499,237	Accounts payable	121,461
Restricted cash	722,230	Accrued and other liabilities	585,715
Accounts receivable	72,998	Accrued incentive	644,292
Inventories	401,141	Loyalty points payable	209,025
Prepaid customer acquisition costs		Commissions payable	1,876,605
Prepaid expenses	127,209	Income taxes payable	287,838
Deposits	<u>94,070</u>	Customer deposits	18,348
Total Current Assets	3,916,885	Deferred revenue	2,626,835
		Note payable—related party	<u>191,355</u>
		Total Current Liabilities	<u>6,561,474</u>
Property and equipment, net	94,139	Common stock	27,304
Other Assets	<u>32,222</u>	Additional paid-in capital	(768,528)
Total Assets	<u>4,043,246</u>	Other comprehensive (loss)	(14,176)
		Retained earnings (deficit)	<u>(1,762,828)</u>
		Total Stockholders' Equity	<u>(2,518,228)</u>
		Total Liabilities and	
		Stockholders' Equity	<u>4,043,246</u>

Income Statement
(as reported)

<i>For the Year Ended</i>	<u>12/30/2009</u>
Revenues	16,974,449
Direct cost of revenues	<u>11,804,157</u>
Gross profit	5,170,292
Selling, general and administrative	<u>5,905,788</u>
Income (loss) from operations	(735,496)
Interest income (expense)—net	<u>(3,245)</u>
Income (loss) from continuing operations before income taxes	(738,741)
Income taxes—benefit (expense)	<u>(287,838)</u>
Income (loss) from continuing operations	(1,026,579)
(Loss) from discontinued segment	(1,980,285)
Gain from sale of subsidiary	<u>74,990</u>
Net Income (loss)	<u>(2,931,874)</u>

Required:

- A. Intercompany sales of inventory of \$862,677 were not eliminated from the consolidated income statement. What impact did this have on net income and on revenues? Why are intercompany sales eliminated during consolidation?
- B. The error for the enrollment fees meant that unearned revenues were understated by \$2,934,794. What impact did this error have on revenue? Does this error have an impact on cash flows? What impact did this error have on the Company's working capital, current ratio, and total liabilities-to-equity ratio?

AFS6-2 Green Mountain Coffee Roasters LO 2

Assessing whether an accounting error is material is addressed in FASB ASC paragraph 250-10-S55-1 (also paragraph 250-10-S99-1) and in FASB Concepts Statement No. 2. In concept 2, FASB states:

The omission or misstatement of an item in a financial report is material if, in the light of surrounding circumstances, the magnitude of the item is such that it is probable that the judgment of a reasonable person relying upon the report would have been changed or influenced by the inclusion or correction of the item.

In the Codification, FASB states that materiality cannot be reduced to a numerical formula. The SEC argues that evaluation of materiality requires a registrant and its auditor to consider all relevant circumstances and believes that qualitative factors may cause misstatements of relatively small amounts to be material. The SEC lists several considerations that may cause a small misstatement to be material. Some of these include whether the misstatement hides a failure to meet analysts' consensus expectations or whether the misstatement changes a loss into income. Furthermore, the SEC states that in determining whether multiple misstatements cause the financial statements to be materially misstated, registrants and its auditors should consider each misstatement separately and in the aggregate.

Green Mountain Coffee Roasters announced in an 8-K that the SEC was conducting an informal investigation of its financial statements. Initially, Green Mountain determined that the errors (primarily from failure to eliminate intercompany inventory correctly) were immaterial, but later decided to restate prior statements. The first error resulted in an overstatement of ending inventory in the first three quarters of 2010 of \$5.792 million. A second error resulted in over-eliminating intercompany sales of \$15.200 million.

Also, included in the second-quarter earnings ending on March 28, 2010, were acquisition-related expenses of \$5 million, or \$3,070 after tax. Earnings for the second quarter as reported were \$24.702 million and the number of shares used for diluted earnings per share were 45.943 million. Diluted EPS is \$0.54 per share. Second-quarter earnings, after the restatement, were \$24.108 million.

Required:

- A. Prepare journal entries to correct the two errors.
- B. Generally, analysts forecast earnings excluding certain expenses. In the second quarter, the analysts' forecast of earnings, excluding the acquisition-related expenses, was \$0.60 per share. Did Green Mountain beat the analysts' expectations of earnings before and after the restatement?

EXERCISES**EXERCISE 6-1 Downstream Sales LO 2**

P Company owns 80% of the outstanding stock of S Company. During 2019, S Company reported net income of \$525,000 and declared no dividends. At the end of the year, S Company's inventory included \$487,500 in unrealized profit on purchases from P Company. Intercompany sales for 2019 totaled \$2,700,000.

Required:

Prepare in general journal form all consolidated financial statement worksheet entries necessary at the end of the year to eliminate the effects of the 2019 intercompany sales.

EXERCISE 6-2 Noncontrolling Interest, Downstream Sales LO 5

Refer to Exercise 6-1. Calculate the amount of the noncontrolling interest to be deducted from consolidated income in arriving at 2019 controlling interest in consolidated net income.

EXERCISE 6-3 Noncontrolling Interest, Upstream Sales LO 5

Peabody Company owns 90% of the outstanding capital stock of Sloane Company. During 2019 and 2020 Sloane Company sold merchandise to Peabody Company at a markup of 25% of selling price. The selling price of the merchandise sold during the two years was \$20,800 and \$25,000, respectively. At the end of each year, Peabody Company had in its inventory one-fourth of the goods purchased that year from Sloane Company. Sloane Company reported net income of \$30,000 in 2019 and \$35,000 in 2020.

Required:

Determine the amount of the noncontrolling interest in consolidated income to be reported for 2019 and 2020.

EXERCISE 6-4 Controlling Interest, Downstream Sales LO 2

On January 1, 2019, Pearce Company purchased an 80% interest in the capital stock of Searl Company for \$2,460,000. At that time, Searl Company had capital stock of \$1,500,000 and retained earnings of \$300,000. The difference between book of value Searl equity and the value implied by the purchase price was attributed to specific assets of Searl Company as follows:

375,000	to equipment of Searl Company with a five-year remaining life.
187,500	to land held by Searl Company.
112,500	to inventory of Searl Company. Searl uses the FIFO assumption in pricing its inventory, and
<u>600,000</u>	that could not be assigned to specific assets or liabilities of Searl Company.
<u>\$1,275,000</u>	Total

At year-end 2019 and 2020, Searl had in its inventory merchandise that it had purchased from Pearce at a 25% markup on cost during each year in the following amounts:

2019	\$ 90,000
2020	\$105,000

During 2019, Pearce reported net income from independent operations (including sales to affiliates) of \$1,500,000, while Searle reported net income of \$600,000. In 2020, Pearce's net income from independent operations (including sales to affiliates) was \$1,800,000 and Searl's was \$750,000.

Required:

Calculate the controlling interest in consolidated net income for 2019 and 2020.

EXERCISE 6-5 Controlling Interest, Upstream Sales LO 2

Refer to Exercise 6-4. Using the same figures, assume that the merchandise mentioned was included in Pearce's inventory, having been purchased from Searl.

Required:

Calculate the controlling interest in consolidated net income for 2019 and 2020.

EXERCISE 6-6 Controlling Interest, Upstream Sales LO 2

Payne Company owns all the outstanding common stock of Sierra Company and 80% of the outstanding common stock of Santa Fe Company. The amount of intercompany profit included

in the inventories of Payne Company on December 31, 2019, and December 31, 2020, is indicated here:

	<i>Intercompany Profit on Goods Purchased From</i>		
	<i>Sierra Company</i>	<i>Santa Fe Company</i>	<i>Total</i>
Inventory, 12/31/19	\$3,800	\$4,600	\$8,400
Inventory, 12/31/20	4,800	2,300	7,100

The three companies reported net income from their independent operations (including sales to affiliates) for the year ended December 31, 2020, as follows:

Payne Company	\$280,000
Sierra Company	172,000
Santa Fe Company	120,000

Required:

Calculate the controlling interest in consolidated net income for the year ended December 31, 2020.

EXERCISE 6-7 Workpaper Entries, Downstream Sales LO 2

Perkins Company owns 85% of Sheraton Company. Perkins Company sells merchandise to Sheraton Company at 20% above cost. During 2019 and 2020, such sales amounted to \$450,000 and \$486,000, respectively. At the end of each year, Sheraton Company had in its inventory one-third of the amount of goods purchased from Perkins during that year.

Required:

Prepare the workpaper entries necessary to eliminate the effects of the intercompany sales for 2019 and 2020.

EXERCISE 6-8 Workpaper Entries, Upstream Sales LO 2

Refer to Exercise 6-7. Using the same figures, assume that the sales were upstream instead of downstream.

Required:

Prepare the workpaper entries necessary to eliminate the effects of the intercompany sales for 2019 and 2020.

EXERCISE 6-9 Upstream and Downstream Sales LO 2

Peat Company owns a 90% interest in Seaton Company. The consolidated income statement drafted by the controller of Peat Company appeared as follows:

**Peat Company and Subsidiary
Consolidated Income Statement
for Year Ended December 31, 2020**

Sales		\$14,000,000
Cost of Sales	\$9,200,000	
Operating Expense	<u>1,800,000</u>	<u>11,000,000</u>
Consolidated Income		3,000,000
Less Noncontrolling Interest in Consolidated Income		<u>200,000</u>
Controlling Interest in Consolidated Net Income		<u>\$ 2,800,000</u>

During your audit you discover that intercompany sales transactions were not reflected in the controller's draft of the consolidated income statement. Information relating to intercompany sales and unrealized intercompany profit is as follows:

	<i>Cost</i>	<i>Selling Price</i>	<i>Unsold at Year-End</i>
2019 Sales—Seaton to Peat	\$1,500,000	\$1,800,000	1/3
2020 Sales—Peat to Seaton	900,000	1,400,000	2/5

Required:

Prepare a corrected consolidated income statement for Peat Company and Seaton Company for the year ended December 31, 2020.

ASC EXERCISES: For all ASC exercises indicate as part of your answer: the Codification topic, subtopic, section, and/or paragraph upon which your answer is based (unless otherwise specified). All ASC questions require access to the FASB Codification.

-
- ASC6-1** **Presentation** If a firm uses the LIFO method to account for inventories, is the firm required to disclose the excess of replacement or current cost over the stated LIFO value?
- ASC6-2** **Presentation** Suppose that a firm would like to adopt the LIFO method to account for its inventories, but it is not practical to determine the amounts assigned to major classes of inventories. Can the firm use the LIFO method? If so, what option is available?
- ASC6-3** **Glossary** Define an extraordinary item.
- ASC6-4** **SEC** A company that manufactures and sells a product excludes depreciation expense from the computation of cost of goods sold. The company computes the gross margin by subtracting this cost-of-goods-sold number from sales. Is this a violation of current GAAP?
- ASC6-5** **SEC** There are 21 required line items to be reported on the income statement as determined by the SEC. Is a firm required to report its *gross margin* on the income statement?

PROBLEMS**PROBLEM 6-1****Upstream Sales LO 2 LO 5**

Peel Company owns 90% of the common stock of Seacore Company. Seacore Company sells merchandise to Peel Company at 20% above cost. During 2019 and 2020, such sales amounted to \$436,000 and \$532,000, respectively. At the end of each year, Peel Company had in its inventory one-fourth of the goods purchased from Seacore Company during that year.

Peel Company reported \$300,000 in net income from its independent operations in 2019 and 2020. Seacore Company reported net income of \$130,000 in each year and did not declare any dividends in any year. There were no intercompany sales prior to 2019.

Required:

- A.** Prepare in general journal form all entries necessary on the consolidated financial statements workpaper to eliminate the effects of the intercompany sales for each of the years 2019 and 2020.
- B.** Calculate the amount of noncontrolling interest to be deducted from consolidated income in the consolidated income statement for 2020.
- C.** Calculate controlling interest in consolidated income for 2020.

PROBLEM 6-2**Upstream Sales LO 2 LO 5**

Shell Company, an 85% owned subsidiary of Plaster Company, sells merchandise to Plaster Company at a markup of 20% of selling price. During 2019 and 2020, intercompany sales amounted to \$442,500 and \$386,250, respectively. At the end of 2019, Plaster had one-half of the goods that it purchased that year from Shell in its ending inventory. Plaster's 2020 ending inventory contained one-fifth of that year's purchases from Shell. There were no intercompany sales prior to 2019.

Plaster had net income in 2019 of \$750,000 from its own operations and in 2020 its independent income was \$780,000. Shell reported net income of \$322,500 and \$335,400 for 2019 and 2020, respectively.

Required:

- A. Prepare in general journal form all entries necessary on the consolidated financial statement workpapers to eliminate the effects of the intercompany sales for each of the years 2019 and 2020.
- B. Calculate the amount of noncontrolling interest to be deducted from consolidated income in the consolidated income statement for 2020.
- C. Calculate controlling interest in consolidated income for 2020.

PROBLEM 6-3**Downstream Sales LO 2 LO 5**

Peer Company owns 80% of the common stock of Seacrest Company. Peer Company sells merchandise to Seacrest Company at 25% above its cost. During 2019 and 2020 such sales amounted to \$265,000 and \$475,000, respectively. The 2019 and 2020 ending inventories of Seacrest Company included goods purchased from Peer Company for \$125,000 and \$170,000, respectively.

Peer Company reported net income from its independent operations (including intercompany profit on inventory sales to affiliates) of \$450,000 in 2019 and \$480,000 in 2020. Seacrest reported net income of \$225,000 in 2019 and \$275,000 in 2020 and did not declare dividends in either year. There were no intercompany sales prior to 2019.

Required:

- A. Prepare in general journal form all entries necessary in the consolidated financial statements workpapers to eliminate the effects of the intercompany sales for each of the years 2019 and 2020.
- B. Calculate the amount of noncontrolling interest to be deducted from consolidated income in the consolidated income statements for 2019 and 2020.
- C. Calculate controlling interest in consolidated income for 2020.

PROBLEM 6-4**Upstream and Downstream Sales LO 2 LO 5**

Pace Company owns 85% of the outstanding common stock of Sand Company and all the outstanding common stock of Star Company. During 2020, the affiliates engaged in intercompany sales as follows:

<i>Sales of Merchandise</i>	
Pace to Sand	\$ 40,000
Sand to Pace	60,000
Sand to Star	75,000
Star to Pace	<u>50,000</u>
	<u>\$225,000</u>

The following amounts of intercompany profits were included in the December 31, 2019, and December 31, 2020, inventories of the individual companies:

<i>Selling Company</i>	<i>Intercompany Profit in December 31, 2019, Inventory of</i>			
	<i>Pace</i>	<i>Sand</i>	<i>Star</i>	<i>Total</i>
Pace Company		\$7,000		\$ 7,000
Sand Company	\$ 5,000		\$3,000	8,000
Star Company	<u>8,000</u>			<u>8,000</u>
Total	<u>\$13,000</u>	<u>\$7,000</u>	<u>\$3,000</u>	<u>\$23,000</u>

<i>Selling Company</i>	<i>Intercompany Profit in December 31, 2020, Inventory of</i>			
	<i>Pace</i>	<i>Sand</i>	<i>Star</i>	<i>Total</i>
Pace Company		\$2,000		\$ 2,000
Sand Company	\$ 6,000		\$9,000	15,000
Star Company	<u>4,000</u>			<u>4,000</u>
Total	<u>\$10,000</u>	<u>\$2,000</u>	<u>\$9,000</u>	<u>\$21,000</u>

Income from each company's independent operations (including sales to affiliates) for the year ended December 31, 2020, is presented here:

Pace Company	\$200,000
Sand Company	150,000
Star Company	125,000

Required:

- A. Prepare in general journal form the workpaper entries necessary to eliminate intercompany sales and intercompany profit in the December 31, 2020, consolidated financial statements workpaper.
- B. Calculate the balance to be reported in the consolidated income statement for the following line items:
 - Consolidated income
 - Noncontrolling interest in consolidated income
 - Controlling interest in consolidated income

PROBLEM 6-5

Intercompany Downstream Sales, Cost Method LO 6

Pruitt Corporation owns 90% of the common stock of Sedbrook Company. The stock was purchased for \$625,500 on January 1, 2017, when Sedbrook Company's retained earnings were \$95,000. Preclosing trial balances for the two companies at December 31, 2021, are presented here:

	<i>Pruitt Corporation</i>	<i>Sedbrook Company</i>
Cash	\$ 90,800	\$ 96,000
Accounts Receivable (net)	243,300	135,000
Inventory 1/1	165,000	132,000
Investment in Sedbrook Co.	625,500	
Other Assets	550,000	480,000
Dividends Declared	110,000	35,000
Purchases	935,000	420,000
Other Expenses	<u>198,000</u>	<u>165,000</u>
Total	<u>\$2,917,600</u>	<u>\$1,463,000</u>
Accounts Payable	\$ 77,000	\$ 36,000
Other Liabilities	120,700	47,000
Common Stock	880,000	600,000
Retained Earnings (1/1)	598,400	144,000
Sales	1,210,000	636,000
Dividend Income	<u>31,500</u>	<u>—</u>
Total	<u>\$2,917,600</u>	<u>\$1,463,000</u>
Ending Inventory	<u>\$ 220,000</u>	<u>\$ 144,000</u>

The January 1, 2021, inventory of Sedbrook Company includes \$25,000 of profit recorded by Pruitt Corporation on 2020 sales. During 2021, Pruitt Corporation made intercompany sales of \$250,000 with a markup of 20% on cost. The ending inventory of Sedbrook Company includes goods purchased in 2021 from Pruitt for \$60,000.

Required:

- A. Prepare the consolidated statements workpaper for the year ended December 31, 2021.
- B. Calculate consolidated retained earnings on December 31, 2021, using the analytical or t-account approach.

PROBLEM 6-6

Trial Balance Workpaper—Cost Method LO 6

Using the information in Problem 6-5, prepare a consolidated statements workpaper using the trial balance format.

PROBLEM 6-7

Upstream Workpaper—Cost Method LO 6

Paque Corporation owns 90% of the common stock of Segal Company. The stock was purchased for \$810,000 on January 1, 2017, when Segal Company's retained earnings were \$150,000.

Financial data for 2021 are presented here:

	<i>Paque Corporation</i>	<i>Segal Company</i>
Sales	\$1,650,000	\$ 795,000
Dividend Income	<u>54,000</u>	<u> </u>
Total Revenue	<u>1,704,000</u>	<u>795,000</u>
Cost of Goods Sold:		
Beginning Inventory	225,000	165,000
Purchases	<u>1,275,000</u>	<u>525,000</u>
Cost of Goods Available	1,500,000	690,000
Less: Ending Inventory	<u>210,000</u>	<u>172,500</u>
Cost of Goods Sold	1,290,000	517,500
Other Expenses	<u>310,500</u>	<u>206,250</u>
Total Cost and Expense	<u>1,600,500</u>	<u>723,750</u>
Net Income	<u>\$ 103,500</u>	<u>\$ 71,250</u>
1/1 Retained Earnings	811,500	180,000
Net Income	103,500	71,250
Dividends Declared	<u>(150,000)</u>	<u>(60,000)</u>
12/31 Retained Earnings	<u>\$ 765,000</u>	<u>\$ 191,250</u>
Cash	\$ 93,000	\$ 75,000
Accounts Receivable	319,500	168,750
Inventory	210,000	172,500
Investment in Segal Company	810,000	
Other Assets	<u>750,000</u>	<u>630,000</u>
Total Assets	<u>\$2,182,500</u>	<u>\$1,046,250</u>
Accounts Payable	\$ 105,000	\$ 45,000
Other Current Liabilities	112,500	60,000
Capital Stock	1,200,000	750,000
Retained Earnings	<u>765,000</u>	<u>191,250</u>
Total Liabilities and Equity	<u>\$2,182,500</u>	<u>\$1,046,250</u>

The January 1, 2021, inventory of Paque Corporation includes \$45,000 of profit recorded by Segal Company on 2020 sales. During 2021, Segal Company made intercompany sales of \$300,000 with a markup of 20% of selling price. The ending inventory of Paque Corporation includes goods purchased in 2021 from Segal Company for \$75,000.

Required:

- A. Prepare the consolidated statements workpaper for the year ended December 31, 2021.
- B. Prepare a t-account calculation of controlling interest in consolidated net income for the year ended December 31, 2021.

PROBLEM 6-8

COMPREHENSIVE

Upstream Eliminating Entries and Consolidated Net Income, Comprehensive Problem LO 6

On January 2, 2019, Patten Company purchased a 90% interest in Sterling Company for \$1,400,000. At that time Sterling Company had capital stock outstanding of \$800,000 and retained earnings of \$425,000. The difference between book value of equity acquired and the value implied by the purchase price was allocated to the following assets:

Inventory	\$ 41,667
Plant and Equipment (net)	200,000
Goodwill	88,889

The inventory was sold in 2019. The plant and equipment had a remaining useful life of 10 years on January 2, 2019.

During 2019 Sterling sold merchandise with a cost of \$950,000 to Patten at a 20% markup above cost. At December 31, 2019, Patten still had merchandise in its inventory that it purchased from Sterling for \$576,000.

In 2019, Sterling Company reported net income of \$410,000 and declared no dividends.

Required:

- A. Prepare in general journal form all entries necessary on the consolidated financial statements workpaper to eliminate the effects of the intercompany sales, to eliminate the investment account, and allocate the difference between book value of equity acquired and the value implied by the purchase price.
- B. Assume that Patten Company reports net income of \$2,000,000 from its independent operations. Calculate controlling interest in consolidated net income.
- C. Calculate noncontrolling interest in consolidated income.

PROBLEM 6-9

COMPREHENSIVE

Upstream and Downstream Workpaper, Comprehensive Problem, Cost Method LO 6

On January 1, 2017, Perry Company purchased 80% of Selby Company for \$990,000. At that time Selby had capital stock outstanding of \$350,000 and retained earnings of \$375,000.

The fair value of Selby Company's assets and liabilities is equal to their book value except for the following:

	<i>Fair Value</i>	<i>Book Value</i>
Inventory	\$210,000	\$160,000
Plant and Equipment (10-year life)	780,000	630,000

One-half of the inventory was sold in 2017, the remainder was sold in 2018.

At the end of 2017, Perry Company had in its ending inventory \$60,000 of merchandise it had purchased from Selby Company during the year. Selby Company sold the merchandise at 25% above cost. During 2018, Perry Company sold merchandise to Selby Company for \$310,000 at a markup of 20% of the selling price. At December 31, 2018, Selby still had merchandise that it purchased from Perry Company for \$82,000 in its inventory.

Financial data for 2018 are presented here:

	<i>Perry Company</i>	<i>Selby Company</i>
Sales	\$1,400,000	\$ 800,000
Dividend Income	<u>20,000</u>	<u>—</u>
Total Revenue	<u>1,420,000</u>	<u>800,000</u>
Cost of Goods Sold:		
Beginning Inventory	230,000	145,000
Purchases	<u>900,000</u>	<u>380,000</u>
Cost of Goods Available	1,130,000	525,000
Less: Ending Inventory	<u>450,000</u>	<u>200,000</u>
Cost of Goods Sold	680,000	325,000
Other Expenses	<u>250,000</u>	<u>195,000</u>
Total Cost and Expense	<u>930,000</u>	<u>520,000</u>
Net Income	<u>\$ 490,000</u>	<u>\$ 280,000</u>
1/1 Retained Earnings	\$1,500,000	\$ 480,000
Net Income	490,000	280,000
Dividends Declared	<u>(50,000)</u>	<u>(25,000)</u>
12/31 Retained Earnings	<u>\$1,940,000</u>	<u>\$ 735,000</u>
Cash	\$ 95,000	\$ 70,000
Accounts Receivable (net)	302,000	90,000
Inventory	450,000	200,000
Investment in Selby Company	990,000	
Plant and Equipment (net)	850,000	585,000
Other Assets (net)	<u>390,000</u>	<u>230,000</u>
Total Assets	<u>\$3,077,000</u>	<u>\$1,175,000</u>
Accounts Payable	\$ 75,000	\$ 30,000
Other Liabilities	102,000	60,000
Common Stock	960,000	350,000
Retained Earnings	<u>1,940,000</u>	<u>735,000</u>
Total Liabilities and Equity	<u>\$3,077,000</u>	<u>\$1,175,000</u>

Required:

- A. Prepare the consolidated statements workpaper for the year ended December 31, 2018.
- B. Calculate consolidated retained earnings on December 31, 2018, using the analytical or t-account approach.

PROBLEM 6-10

Controlling and Noncontrolling Interest LO 2 LO 5

Penn Company owns a 90% interest in Salvador Company and an 80% interest in Sencal Company. Profit remaining in ending inventories from intercompany sales for 2019 and 2020 is indicated below.

<i>Selling Company</i>	<i>Intercompany Profit in Ending Inventory of</i>			
	<i>2019</i>		<i>2020</i>	
	<i>Salvador</i>	<i>Sencal</i>	<i>Salvador</i>	<i>Sencal</i>
Penn	\$8,000	\$4,000	\$5,000	\$ 9,000
Salvador		6,000		10,000
Sencal	5,000		2,000	

Salvador Company reported net income of \$50,000 in 2019 and \$45,000 in 2020, whereas Sencal Company's net income was \$60,000 and \$75,000 in 2019 and 2020, respectively.

Penn Company's net income from its own operations (including sales to affiliates) for 2019 and 2020 was \$600,000 and \$400,000, respectively.

Required:

- A. Determine noncontrolling interest in consolidated income for 2019 and 2020.
- B. Calculate the controlling interest in consolidated income for 2019 and 2020.

PROBLEM 6-11

Downstream Workpaper—Partial Equity Method LO 6

Pruitt Corporation owns 90% of the common stock of Sedbrook Company. The stock was purchased for \$540,000 on January 1, 2017, when Sedbrook Company's retained earnings were \$100,000. Preclosing trial balances for the two companies at December 31, 2021, are presented here:

	<i>Pruitt Corporation</i>	<i>Sedbrook Company</i>
Cash	\$ 83,000	\$ 80,000
Accounts Receivable (net)	213,000	112,500
Inventory 1/1	150,000	110,000
Investment in Sedbrook Co.	578,250	
Other Assets	500,000	400,000
Dividends Declared	100,000	30,000
Purchases	850,000	350,000
Other Expenses	<u>180,000</u>	<u>137,500</u>
	<u>\$2,654,250</u>	<u>\$1,220,000</u>
Accounts Payable	\$ 70,000	\$ 30,000
Other Liabilities	75,000	40,000
Common Stock	800,000	500,000
Retained Earnings	562,000	120,000
Sales	1,100,000	530,000
Equity in Subsidiary Income	<u>47,250</u>	
	<u>\$2,654,250</u>	<u>\$1,220,000</u>
Ending Inventory	<u>\$ 200,000</u>	<u>\$ 120,000</u>

The January 1, 2021, inventory of Sedbrook Company includes \$30,000 of profit recorded by Pruitt Corporation on 2020 sales. During 2021, Pruitt Corporation made intercompany sales of \$200,000 with a markup of 25% on cost. The ending inventory of Sedbrook Company includes goods purchased in 2021 from Pruitt for \$50,000. Pruitt Corporation uses the partial equity method to record its investment in Sedbrook Company.

Required:

- A. Prepare the consolidated statements workpaper for the year ended December 31, 2021.
- B. Calculate consolidated retained earnings on December 31, 2021, using the analytical or t-account approach.

PROBLEM 6-12

Downstream Trial Balance Workpaper LO 6

Using the information in Problem 6-11, prepare a consolidated statements workpaper using the trial balance format.

PROBLEM 6-13 Upstream Workpaper—Partial Equity Method LO 6

(Note: This is the same problem as Problem 6-7, but assuming the use of the partial equity method.)

Paque Corporation owns 90% of the common stock of Segal Company. The stock was purchased for \$810,000 on January 1, 2017, when Segal Company's retained earnings were \$150,000.

Financial data for 2021 are presented here:

	<i>Paque Corporation</i>	<i>Segal Company</i>
Sales	\$1,650,000	\$ 795,000
Equity in Subsidiary Income	64,125	
Total Revenue	<u>1,714,125</u>	<u>795,000</u>
Cost of Goods Sold:		
Beginning Inventory	225,000	165,000
Purchases	1,275,000	525,000
Cost of Goods Available	1,500,000	690,000
Less: Ending Inventory	210,000	172,500
Cost of Goods Sold	1,290,000	517,500
Other Expenses	310,500	206,250
Total Cost and Expense	<u>1,600,500</u>	<u>723,750</u>
Net Income	<u>\$ 113,625</u>	<u>\$ 71,250</u>
1/1 Retained Earnings	838,500	180,000
Net Income	113,625	71,250
Dividends Declared	<u>(150,000)</u>	<u>(60,000)</u>
12/31 Retained Earnings	<u>\$ 802,125</u>	<u>\$ 191,250</u>
Cash	\$ 93,000	\$ 75,000
Accounts Receivable	319,500	168,750
Inventory	210,000	172,500
Investment in Segal Company	847,125	
Other Assets	750,000	630,000
Total Assets	<u>\$2,219,625</u>	<u>\$1,046,250</u>
Accounts Payable	\$ 105,000	\$ 45,000
Other Current Liabilities	112,500	60,000
Capital Stock	1,200,000	750,000
Retained Earnings	<u>802,125</u>	<u>191,250</u>
Total Liabilities and Equity	<u>\$2,219,625</u>	<u>\$1,046,250</u>

The January 1, 2021, inventory of Paque Corporation includes \$45,000 of profit recorded by Segal Company on 2020 sales. During 2021, Segal Company made intercompany sales of \$300,000 with a markup of 20% of selling price. The ending inventory of Paque Corporation includes goods purchased in 2021 from Segal Company for \$75,000. Paque Corporation uses the complete equity method to record its investment in Segal Company.

Required:

- A. Prepare the consolidated statements workpaper for the year ended December 31, 2021.
- B. Calculate consolidated retained earnings on December 31, 2021, using the analytical or t-account approach.
- C. If you completed Problem 6-7, compare the consolidated balances obtained in requirement A with those obtained in Problem 6-7.

PROBLEM 6-14**Upstream and Downstream Workpaper—Partial Equity Method LO 6**

On January 1, 2018, Perry Company purchased 80% of Selby Company for \$960,000. At that time Selby had capital stock outstanding of \$400,000 and retained earnings of \$400,000.

The fair value of Selby Company's assets and liabilities is equal to their book value except for the following:

	<i>Fair Value</i>	<i>Book Value</i>
Inventory	\$230,000	\$155,000
Plant and Equipment (10-year life)	800,000	600,000

One-half of the inventory was sold in 2018; the remainder was sold in 2019.

At the end of 2018, Perry Company had in its ending inventory \$54,000 of merchandise it had purchased from Selby Company during the year. Selby Company sold the merchandise at 20% above cost. During 2019, Perry Company sold merchandise to Selby Company for \$300,000 at a markup of 20% of the selling price. At December 31, 2019, Selby still had merchandise that it purchased from Perry Company for \$78,000 in its inventory.

Financial data for 2019 are presented here:

	<i>Perry Company</i>	<i>Selby Company</i>
Sales	\$1,385,000	\$ 720,000
Equity in Subsidiary Income	<u>208,000</u>	
Total Revenue	<u>1,593,000</u>	<u>720,000</u>
Cost of Goods Sold:		
Beginning Inventory	210,000	155,000
Purchases	<u>875,000</u>	<u>360,000</u>
Cost of Goods Available	1,085,000	515,000
Less: Ending Inventory	<u>400,000</u>	<u>225,000</u>
Cost of Goods Sold	685,000	290,000
Other Expenses	<u>225,000</u>	<u>170,000</u>
Total Cost and Expense	<u>910,000</u>	<u>460,000</u>
Net Income	<u>\$ 683,000</u>	<u>\$ 260,000</u>
1/1 Retained Earnings	\$1,472,700	\$ 450,000
Net Income	683,000	260,000
Dividends Declared	<u>(40,000)</u>	<u>(30,000)</u>
12/31 Retained Earnings	<u>\$2,115,700</u>	<u>\$ 680,000</u>
Cash	\$ 90,000	\$ 65,000
Accounts Receivable (net)	297,000	85,000
Inventory	400,000	225,000
Investment in Selby Company	1,184,000	
Plant and Equipment (net)	880,000	540,000
Other Assets (net)	<u>384,000</u>	<u>230,000</u>
Total Assets	<u>\$3,235,000</u>	<u>\$1,145,000</u>
Accounts Payable	\$ 24,300	\$ 25,000
Other Liabilities	95,000	40,000
Common Stock	1,000,000	400,000
Retained Earnings	<u>2,115,700</u>	<u>680,000</u>
Total Liabilities and Equity	<u>\$3,235,000</u>	<u>\$1,145,000</u>

Required:

- A. Prepare the consolidated statements workpaper for the year ended December 31, 2019.
- B. Calculate consolidated retained earnings on December 31, 2019, using the analytical or t-account approach.



COMPREHENSIVE

PROBLEM 6-15 Upstream and Downstream Sales, Journal Entries, and Controlling and Noncontrolling Interests LO 2 LO 5

On January 1, 2017, Paul Company purchased 80% of the voting stock of Simon Company for \$1,360,000 when Simon Company had retained earnings and capital stock in the amounts of \$450,000 and \$1,000,000, respectively. The difference between implied and book value is allocated to a franchise and is amortized over 25 years. Simon Company's retained earnings amount to \$780,000 on January 1, 2020, and \$960,000 on December 31, 2020. In 2020, Simon Company reported net income of \$270,000 and declared dividends of \$90,000. Paul Company reported net income from independent operations in 2020 in the amount of \$700,000 and retained earnings on December 31, 2020, of \$1,500,000. During 2020, intercompany sales of merchandise from Paul to Simon amounted to \$70,000 and from Simon to Paul were \$50,000. Unrealized profits on January 1 and on December 31, 2020, resulting from intercompany sales are as summarized here:

<i>Resulting From</i>	<i>Unrealized Intercompany Profit on</i>	
	<i>1/1/20</i>	<i>12/31/20</i>
Sales by Simon Company to Paul Company	\$20,000	\$10,000
Sales by Paul Company to Simon Company	30,000	5,000

There were no intercompany sales prior to 2019.

Required:

- Prepare in general journal form the entries necessary in the December 31, 2020, consolidated statements worksheet to eliminate the effects of the intercompany sales.
- Calculate controlling interest in consolidated net income for the year ended December 31, 2020.
- Calculate consolidated retained earnings on December 31, 2020.
- Calculate noncontrolling interest in consolidated income for the year ended December 31, 2020.

PROBLEM 6-16 Complete Equity with Downstream Sales LO 6

(Note: This is the same problem as Problem 6-11, but assuming the use of the complete equity method.)

Pruitt Corporation owns 90% of the common stock of Sedbrook Company. The stock was purchased for \$540,000 on January 1, 2017, when Sedbrook Company's retained earnings were \$100,000. Preclosing trial balances for the two companies at December 31, 2021, are presented here:

	<i>Pruitt Corporation</i>	<i>Sedbrook Company</i>
Cash	\$ 83,000	\$ 80,000
Accounts Receivable (net)	213,000	112,500
Inventory 1/1	150,000	110,000
Investment in Sedbrook Co.	568,250	
Other Assets	500,000	400,000
Dividends Declared	100,000	30,000
Purchases	850,000	350,000
Other Expenses	180,000	137,500
	<u>\$2,644,250</u>	<u>\$1,220,000</u>

	<i>Pruitt Corporation</i>	<i>Sedbrook Company</i>
Accounts Payable	\$ 70,000	\$ 30,000
Other Liabilities	75,000	40,000
Common Stock	800,000	500,000
Retained Earnings, 1/1	532,000	120,000
Sales	1,100,000	530,000
Equity in Subsidiary Income	<u>67,250</u>	
	<u>\$2,644,250</u>	<u>\$1,220,000</u>
Ending Inventory	<u>\$ 200,000</u>	<u>\$ 120,000</u>

The January 1, 2021, inventory of Sedbrook Company includes \$30,000 of profit recorded by Pruitt Corporation on 2020 sales. During 2021, Pruitt Corporation made intercompany sales of \$200,000 with a markup of 25% on cost. The ending inventory of Sedbrook Company includes goods purchased in 2021 from Pruitt for \$50,000. Pruitt Corporation uses the complete equity method to record its investment in Sedbrook Company.

Required:

- A. Prepare the consolidated statements workpaper for the year ended December 31, 2021.
- B. Calculate consolidated retained earnings on December 31, 2021, using the analytical or t-account approach.
- C. If you completed Problem 6-11, compare the consolidated balances obtained in requirement A with those obtained in that problem.

PROBLEM 6-17

Complete Equity with Upstream Sales LO 6

(Note: This is the same problem as Problem 6-7 and Problem 6-13, but assuming the use of the complete equity method.)

Paque Corporation owns 90% of the common stock of Segal Company. The stock was purchased for \$810,000 on January 1, 2017, when Segal Company's retained earnings were \$150,000.

Financial data for 2021 are presented here:

	<i>Paque Corporation</i>	<i>Segal Company</i>
Sales	\$1,650,000	\$ 795,000
Equity in Subsidiary Income	<u>91,125</u>	
Total Revenue	<u>1,741,125</u>	<u>795,000</u>
Cost of Goods Sold:		
Beginning Inventory	225,000	165,000
Purchases	<u>1,275,000</u>	<u>525,000</u>
Cost of Goods Available	1,500,000	690,000
Less: Ending Inventory	<u>210,000</u>	<u>172,500</u>
Cost of Goods Sold	1,290,000	517,500
Other Expenses	<u>310,500</u>	<u>206,250</u>
Total Cost and Expense	<u>1,600,500</u>	<u>723,750</u>
Net Income	<u>\$ 140,625</u>	<u>\$ 71,250</u>
1/1 Retained Earnings	798,000	180,000
Net Income	140,625	71,250
Dividends Declared	<u>(150,000)</u>	<u>(60,000)</u>
12/31 Retained Earnings	<u>\$ 788,625</u>	<u>\$ 191,250</u>

	<i>Paque Corporation</i>	<i>Segal Company</i>
Cash	\$ 93,000	\$ 75,000
Accounts Receivable	319,500	168,750
Inventory	210,000	172,500
Investment in Segal Company	833,625	
Other Assets	<u>750,000</u>	<u>630,000</u>
Total Assets	<u>\$2,206,125</u>	<u>\$1,046,250</u>
Accounts Payable	105,000	45,000
Other Current Liabilities	112,500	60,000
Capital Stock	1,200,000	750,000
Retained Earnings	<u>788,625</u>	<u>191,250</u>
Total Liabilities and Equity	<u>\$2,206,125</u>	<u>\$1,046,250</u>

The January 1, 2021, inventory of Paque Corporation includes \$45,000 of profit recorded by Segal Company on 2020 sales. During 2021, Segal Company made intercompany sales of \$300,000 with a markup of 20% of selling price. The ending inventory of Paque Corporation includes goods purchased in 2021 from Segal Company for \$75,000. Paque Corporation uses the partial equity method to record its investment in Segal Company.

Required:

- A. Prepare the consolidated statements worksheet for the year ended December 31, 2021.
- B. Calculate consolidated retained earnings on December 31, 2021, using the analytical or t-account approach.
- C. If you completed Problem 6-7 or Problem 6-13, compare the consolidated balances obtained in requirement A with those obtained in those problems.

PROBLEM 6-18

Comprehensive Complete Equity Problem, Cost Greater Than Fair Value with Intercompany Sales of Inventory LO 6

(Note: This is the same problem as Problem 6-14, but assuming the use of the complete equity method.)

On January 1, 2018, Perry Company purchased 80% of Selby Company for \$960,000. At that time Selby had capital stock outstanding of \$400,000 and retained earnings of \$400,000.

The fair value of Selby Company's assets and liabilities is equal to their book value except for the following:

	<i>Fair Value</i>	<i>Book Value</i>
Inventory	\$230,000	\$155,000
Plant and Equipment (10-year life)	800,000	600,000

One-half of the inventory was sold in 2018; the remainder was sold in 2019.

At the end of 2018, Perry Company had in its ending inventory \$54,000 of merchandise it had purchased from Selby Company during the year. Selby Company sold the merchandise at 20% above cost. During 2019, Perry Company sold merchandise to Selby Company for \$300,000 at a markup of 20% of the selling price. At December 31, 2019, Selby still had merchandise that it purchased from Perry Company for \$78,000 in its inventory.



COMPREHENSIVE

Financial data for 2019 are presented here:

	<i>Perry Company</i>	<i>Selby Company</i>
Sales	\$1,385,000	\$ 720,000
Equity in Subsidiary Income	<u>153,600</u>	<u> </u>
Total Revenue	<u>1,538,600</u>	<u>720,000</u>
Cost of Goods Sold:		
Beginning Inventory	210,000	155,000
Purchases	<u>875,000</u>	<u>360,000</u>
Cost of Goods Available	1,085,000	515,000
Less: Ending Inventory	<u>400,000</u>	<u>225,000</u>
Cost of Goods Sold	685,000	290,000
Other Expenses	<u>225,000</u>	<u>170,000</u>
Total Cost and Expense	<u>910,000</u>	<u>460,000</u>
Net Income	<u>\$ 628,600</u>	<u>\$ 260,000</u>
1/1 Retained Earnings	1,419,500	450,000
Net Income	628,600	260,000
Dividends Declared	<u>(40,000)</u>	<u>(30,000)</u>
12/31 Retained Earnings	<u>\$2,008,100</u>	<u>\$ 680,000</u>
Cash	\$ 90,000	\$ 65,000
Accounts Receivable	297,000	85,000
Inventory	400,000	225,000
Investment in Selby Company	1,076,400	
Plant and Equipment (net)	880,000	540,000
Other Assets	<u>384,000</u>	<u>230,000</u>
Total Assets	<u>\$3,127,400</u>	<u>\$1,145,000</u>
Accounts Payable	24,300	25,000
Other Current Liabilities	95,000	40,000
Common Stock	1,000,000	400,000
Retained Earnings	<u>2,008,100</u>	<u>680,000</u>
Total Liabilities and Equity	<u>\$3,127,400</u>	<u>\$1,145,000</u>

Required:

- A. Prepare the consolidated statements workpaper for the year ended December 31, 2019.
- B. Calculate consolidated retained earnings on December 31, 2014, using the analytical or t-account approach.
- C. If you completed Problem 6-14, compare the consolidated balances obtained in requirement A with those obtained in those problems.

PROBLEM 6-19A Deferred Taxes and Intercompany Sales of Inventory (See supplemental Appendix 6A, available from your instructor.)

PROBLEM 6-20A Deferred Taxes, Intercompany Sales of Inventory, Cost Method (See supplemental Appendix 6A, available from your instructor.)

PROBLEM 6-21A Deferred Taxes, Intercompany Sales of Inventory, Partial Equity Method (supplemental Appendix 6A, available from your instructor.)

ELIMINATION OF UNREALIZED GAINS OR LOSSES ON INTERCOMPANY SALES OF PROPERTY AND EQUIPMENT

CHAPTER CONTENTS

- 7.1 INTERCOMPANY SALES OF LAND (NONDEPRECIABLE PROPERTY)
- 7.2 INTERCOMPANY SALES OF DEPRECIABLE PROPERTY (MACHINERY, EQUIPMENT, AND BUILDINGS)
- 7.3 CONSOLIDATED STATEMENTS WORKPAPER—COST AND PARTIAL EQUITY METHODS
- 7.4 CALCULATION OF CONSOLIDATED NET INCOME AND CONSOLIDATED RETAINED EARNINGS
- 7.5 CONSOLIDATED STATEMENTS WORKPAPER—COMPLETE EQUITY METHOD
- 7.6 CALCULATION AND ALLOCATION OF CONSOLIDATED NET INCOME; CONSOLIDATED RETAINED EARNINGS: COMPLETE EQUITY METHOD
- 7.7 SUMMARY OF WORKPAPER ENTRIES RELATING TO INTERCOMPANY SALES OF EQUIPMENT
- 7.8 INTERCOMPANY INTEREST, RENTS, AND SERVICE FEES

LEARNING OBJECTIVES

- 1 Understand the financial reporting objectives in accounting for intercompany sales of *nondepreciable* assets on the consolidated financial statements.
- 2 State the additional financial reporting objectives in accounting for intercompany sales of *depreciable* assets on the consolidated financial statements.
- 3 Explain when gains or losses on intercompany sales of depreciable assets should be recognized on a consolidated basis.
- 4 Explain the term “realized through usage.”
- 5 Describe the differences between upstream and downstream sales in determining consolidated net income and the controlling and noncontrolling interests in consolidated income.
- 6 Compare the eliminating entries when the selling affiliate is a subsidiary (less than wholly owned) versus when the selling affiliate is the parent company.
- 7 Compute the noncontrolling interest in consolidated net income when the selling affiliate is a subsidiary.
- 8 Compute consolidated net income considering the effects of intercompany sales of depreciable assets.
- 9 Describe the eliminating entry needed to adjust the consolidated financial statements when the purchasing affiliate sells a depreciable asset that was acquired from another affiliate.
- 10 Explain the basic principles used to record or eliminate intercompany interest, rent, and service fees.


 IN
THE
NEWS

Verizon Communications expanded beyond a maturing wireless and landline business into mobile media and advertising by acquiring Yahoo for \$4.48B. Verizon received a \$350 million discount after Yahoo revealed two separate security breaches affecting a total of 1.5 billion customers, at the time representing the largest corporate attacks in history.¹

The Irish arm of Symantec, the Internet security company, returned to profit in 2010 after a pretax loss of 6.6 million euro in 2009. It recorded profits of 73 million euro in spite of a decline in revenue. The U.S.-owned company's revenues last year declined by 125 million euro. The chief factor behind the increase in pretax profits was a foreign currency gain of 50 million euro on intercompany transactions in 2010.²

Affiliated companies often recognize gains or losses on intercompany sales of property or equipment. They also may recognize revenue or expense in connection with intercompany loans, intercompany service fees, and so on. As with intercompany sales of inventory discussed in Chapter 6, workpaper entries are also necessary in these situations in order to present related balances in the consolidated financial statements as if the intercompany transactions had never occurred.

In this chapter, the effects on the preparation of consolidated financial statements of intercompany transactions involving property and equipment, loans, and services are described and illustrated.

Certain complications (specifically, those related to accounting for the difference between the value implied by the acquisition cost and book value) are avoided in all illustrations by assuming: (1) all acquisitions are made at the book value of the acquired interest in net assets, and (2) the book value of the subsidiary net assets equals their fair value on the date the parent company's interest is acquired. It is further assumed that the affiliates file consolidated income tax returns.

7.1 INTERCOMPANY SALES OF LAND (NONDEPRECIABLE PROPERTY)

RELATED CONCEPTS

To recognize gains or losses on PPE sales before the assets are sold to outside parties would violate the *revenue recognition* principle from the perspective of the consolidated economic entity.

LO 1 Financial reporting objectives—nondepreciable property.

When there have been intercompany sales of *nondepreciable* property, workpaper entries are necessary to accomplish the following financial reporting objectives in the consolidated financial statements:

- To include gains or losses on the sale of nondepreciable property in consolidated net income only at the time such property is *sold to parties outside the affiliated group* and in an amount equal to the difference between the cost of the property to the affiliated group and the proceeds received from outsiders.
- To present nondepreciable property in the consolidated balance sheet at *its cost to the affiliated group*.

Workpaper procedures to accomplish these objectives are presented here. In addition, for firms using the cost or partial equity methods to account for the investments in subsidiaries, the workpaper entries serve to equate beginning consolidated retained earnings with the amount of consolidated retained earnings reported at the end of the prior reporting period. For all firms, the entries (in the case of upstream sales) also serve to equate beginning NCI (in equity) with ending NCI (in equity) at the end of the prior period.

¹ *TIME*, "Why the Latest Yahoo Hack is So Much Worse than you Think," by Kevin Kelleher, December 15, 2016.

² *IrishTimes.com*, "Symantec's Irish Division Reports 73 Million Euro Pretax Profit," by G. Deegan, 10/1/11.

Assume that S Company (an 80% owned subsidiary) sells land to P Company for \$500,000 that cost S Company \$300,000 (an upstream sale of land). Entries made on the books of each affiliate to record this intercompany sale are presented below.

<i>Entry on Books of S Company</i>		<i>Entry on Books of P Company</i>	
Cash	500,000	Land	500,000
Land	300,000	Cash	500,000
Gain on Sale of Land	200,000	<i>Additional Entry for Complete Equity Method Only: P Company Books</i>	
		Equity in Subsidiary	160,000
		Income	
		Investment in S Company	160,000

If P Company uses the complete equity method to account for its investment in S Company, the additional entry shown above is needed on the books of P Company to reduce its income from subsidiary by its share (80%) of the intercompany gain. Under this method, the amount of income reported on the books of the parent is its share of the subsidiary's reported income that has been realized in transactions with third parties.

In the year of the intercompany sale, a workpaper entry is necessary to eliminate the \$200,000 gain reported by S Company and to reduce the land balance from the \$500,000 recorded on the books of P Company to its \$300,000 cost to the affiliated group. Both objectives are accomplished in one workpaper entry as follows:

Workpaper Entry in Year of Intercompany Sale		
Gain on Sale of Land	200,000	
Land		200,000

If S Company reported \$900,000 in income, the noncontrolling interest in consolidated net income is \$140,000 [$.20 \times (\$900,000 - \$200,000) = \$140,000$]. The noncontrolling interest in consolidated income is based on the amount of income of S Company that was realized in transactions with third parties (\$900,000 in reported income less \$200,000 unrealized gain on sale of land). Stated another way, the noncontrolling interest in consolidated income is based on the amount of income from the subsidiary included in consolidated net income (after all workpaper adjustments). Since \$200,000 of subsidiary income is excluded from consolidated net income, the noncontrolling interest in consolidated income is reduced by \$40,000 ($.2 \times \$200,000$).

In subsequent years, so long as P Company owns the land, it will be reported in the *statements of P Company* at the intercompany selling price of \$500,000. However, in the *consolidated balance sheet*, the land should continue to be reported at its cost to the affiliated group of \$300,000. Since in the year of the sale consolidated income was reduced by \$200,000, the controlling interest in net income and consolidated retained earnings were reduced by \$160,000 ($.8 \times \$200,000$) in that year. The workpaper entry necessary in all subsequent years, until the land is disposed of by P Company, is as follows:

Workpaper Entry in Subsequent Years			
Cost or Partial Equity		Complete Equity	
Beginning Retained Earnings—P Company	160,000	Investment in S Company	160,000
Beginning NCI	40,000	Beginning NCI	40,000
Land	200,000	Land	200,000

Because the subsidiary is the intercompany seller, the \$200,000 of unrealized profit is allocated between the controlling interest ($\$160,000 = .8 \times \$200,000$) and the noncontrolling interest ($\$40,000 = .2 \times \$200,000$) based on their percentage interests in the selling affiliate. As in Chapter 6, the workpaper procedure to adjust the controlling interest (consolidated retained earnings) is to debit the beginning retained earnings of the parent company (or investment account, if P Company uses the complete equity method). The workpaper procedure to adjust the noncontrolling interest is to debit the beginning NCI in equity. *If the intercompany seller had been the parent (downstream sale), the entire \$200,000 would go to the controlling interest, resulting in a \$200,000 debit to the beginning retained earnings of the parent company under the cost or partial equity method.*

If and when the land is sold by P Company to a nonaffiliate, P company will use the \$500,000 carrying value of the land on its books to calculate any gain or loss. For example, if P Company sells the land it purchased for \$500,000 from S Company to an outside party for \$550,000, P company will record a gain on the sale of \$50,000 ($\$550,000 - \$500,000$). However, the cost of the land to the affiliated group is \$300,000, and the gain to the affiliated group confirmed by its sale for \$550,000 to a nonaffiliate is \$250,000 ($\$550,000 - \$300,000$). The workpaper entry to adjust the \$50,000 gain reported by P Company to the \$250,000 gain realized on the sale by the affiliated group is as follows:

Cost or Partial Equity		Complete Equity	
Beginning Retained Earnings—P Company	160,000	Investment in S Company	160,000
Beginning NCI	40,000	Beginning NCI	40,000
Gain on Sale of Land	200,000	Gain on Sale of Land	200,000

The debits are the same as if the sale to outsiders had not occurred. In the year of the sale of the land to outsiders, it is still necessary to adjust **beginning** consolidated retained earnings (or the investment account, under the complete equity method) and beginning NCI. This entry under the cost and partial equity methods serves to equate **beginning** consolidated retained earnings in the year of sale with the consolidated retained earnings reported at the end of the prior year. Under the complete equity method, as previously stated, the retained earnings of the parent company always equals the correct consolidated retained earnings; thus no adjustment is needed. Instead a debit to the investment account facilitates the elimination of the investment account.³

In the year of the sale of the land to outsiders, consolidated net income is increased by \$200,000, and consolidated net income, consolidated retained earnings, and noncontrolling interest in consolidated income are increased accordingly.

To the consolidated entity, the sales price (to third parties) of \$550,000 exceeds the cost (to the consolidated entity) of \$300,000, resulting in a gain of \$250,000 to be included in consolidated income in the year of the sale to a third party.

At the end of the year of the sale to outsiders, the amount of *cumulative* profit on the sale of the land recorded on the books of the affiliates and the amount of profit on

³ The investment account is reduced on the parent's books at the same time that the unrealized income is deducted from the parent's income under the complete equity method. Thus, the usual workpaper entry to eliminate the investment account against the underlying subsidiary equity accounts eliminates an amount greater than the actual beginning investment account balance. That entry, combined with the entry above, however, will eliminate the investment to exactly zero.

the sale of the land recognized in the consolidated financial statements are equal, as shown below.

Cumulative Profit Recorded on the Individual Books of Affiliates

S Company on sale to P Company	\$200,000	(year sold to affiliate)
P Company on sale to nonaffiliate	<u>50,000</u>	(year sold to third party)
Total	<u>\$250,000</u>	

Profit Reported in Consolidated Income Statement in Year of Sale

Reported by P Company	\$ 50,000	(year sold to third party)
Workpaper adjustment	<u>200,000</u>	(year sold to third party)
Reported in consolidated net income	<u>\$250,000</u>	

Retained earnings is thus correct in future years without adjustment, and no further workpaper entries relating to the intercompany sale of land are necessary in subsequent periods.

7.2 INTERCOMPANY SALES OF DEPRECIABLE PROPERTY (MACHINERY, EQUIPMENT, AND BUILDINGS)

Realization through Usage

LO 4 Intercompany gain realized through usage.

A firm may sell property or equipment to an affiliate for a price that differs from its book value. In the year of the sale, the amount of intercompany gain (loss) recorded by the selling affiliate must be eliminated in consolidation. After the sale, the purchasing affiliate will calculate depreciation on the basis of its cost, which is the intercompany selling price. The depreciation recorded by the purchasing affiliate will, therefore, be excessive (deficient) from a consolidated point of view and will also require adjustment.

From the view of the consolidated entity, the intercompany gain (loss) is considered to be realized from the use of the property or equipment in the generation of revenue. Because such use is measured by depreciation, the recognition of the realization of intercompany profit (loss) is accomplished through depreciation adjustments.

LO 3 Recognition of gains (losses) through depreciation adjustments.

To contrast the intercompany sale of a depreciable asset to the intercompany sale of land, consider the following. Parental Guidance Company sells property with a book value of \$2,000 to its fully owned subsidiary, Subservient Recipient Company, for \$5,000. Assume first that the property is nondepreciable land. When will the \$3,000 gain be recognized in the consolidated financial statements?

The answer is: not until it is sold to outsiders. If the property is sold immediately by Subservient Recipient Company for \$5,000, the \$3,000 gain will be recognized immediately by the consolidated entity. If, on the other hand, it isn't sold until year 4, the gain will not be realized to the consolidated entity until year 4. Now suppose instead that the property (with a book value of \$2,000) is depreciable equipment, with a remaining life of three years. Again it is sold to Subservient Recipient Company for \$5,000. When will the \$3,000 gain be recognized in the consolidated financial statements?

The answer might at first seem to be: not until it is sold to outsiders. But consider the combined effect on consolidated income of the intercompany sale and the depreciation adjustments needed on the consolidated workpaper. On the books of Subservient Recipient Company, depreciation expense is based on a purchase price of \$5,000 (straight-line depreciation over three years). But to the consolidated entity,

depreciation expense should be based on the book value of \$2,000 (also over three years). The difference is \$1,000 per year (equal to the \$3,000 gain on the intercompany sale spread over three years). Thus, as the depreciation expense is adjusted downward, consolidated income is increased to realize a portion of the gain each year. The depreciation adjustment in such a case is often referred to as gain or revenue *realization through usage*.

When there have been intercompany sales of depreciable property, workpaper entries are necessary to accomplish the following financial reporting objectives in the consolidated financial statements:

LO 2 Financial reporting objectives—depreciable property.

- To report as gains or losses in the consolidated income statement only those that result from the sale of depreciable property *to parties outside the affiliated group*.
- To present property in the consolidated balance sheet at *its cost to the affiliated group*.
- To present accumulated depreciation in the consolidated balance sheet based on the *cost to the affiliated group* of the related assets.
- To present depreciation expense in the consolidated income statement based on the *cost to the affiliated group* of the related assets.

Workpaper procedures to accomplish these objectives are presented next. For firms using the cost or partial equity method, an additional objective is to equate beginning consolidated retained earnings with the amount of consolidated retained earnings reported at the end of the prior reporting. For firms using the complete equity method, this final objective is not necessary because the parent's retained earnings already reflects all adjustments accurately. For upstream sales, the entries also serve to equate current period beginning NCI and prior period ending NCI.

Illustration of Basic Workpaper Elimination Entries—Downstream Sales

The basic workpaper eliminating entries required because of intercompany sales of depreciable property are illustrated using the following simplifying assumptions. We first illustrate a downstream sale of depreciable property; the parent is the intercompany seller. Upstream sales are illustrated later in the chapter.

1. On January 1, 2019, P Company sells to S Company, a 90% owned subsidiary, equipment with a book value of \$750,000 (original cost \$1,350,000 and accumulated depreciation of \$600,000) for \$900,000.
2. On the date of the sale, the equipment has an estimated remaining useful life of three years, has no residual value, and is depreciated using the straight-line method.
3. No other equipment is owned by S Company or P Company.

The entries on the books of P Company and S Company to record the intercompany sale are summarized in general journal form shown on the next page.

P Company Books

Cash	900,000	
Accumulated Depreciation	600,000	
Equipment		1,350,000
Gain on Sale of Equipment		150,000

S Company Books		
Equipment	900,000	
Cash		900,000
Depreciation Expense	300,000	
Accumulated Depreciation		300,000

Workpaper Entries—Year of the Intercompany Sale

Balances on December 31, 2019, of the accounts of the affiliated companies affected by these transactions are presented in Illustration 7-1. Workpaper entries in the year of the sale are presented below in general journal form.

(1)	Equipment (\$1,350,000 – \$900,000)	450,000	
	Gain on Sale of Equipment	150,000	
	Accumulated Depreciation		600,000
	To eliminate the intercompany gain and restore equipment to its original cost to the consolidated entity (along with its accumulated depreciation at the point of the intercompany sale).		

P Company recorded a gain of \$150,000 on the intercompany sale and S Company recorded the equipment at \$900,000. From the point of view of the consolidated entity, however, no gain should be reported on the intercompany sale, and equipment should be reported at cost to the affiliated group. The effect of this entry is to decrease consolidated net income by \$150,000. It also restores equipment and accumulated depreciation to their amounts prior to the intercompany sale. Without this entry, equipment would be reported in the consolidated balance sheet at its intercompany selling price of \$900,000 instead of its historical cost of \$1,350,000. Further, without the entry, accumulated depreciation on the equipment would commence from the point of the intercompany sale instead of from the original acquisition by the consolidated entity.

(2)	Accumulated Depreciation	50,000	
	Depreciation Expense		50,000
	To adjust depreciation expense to the correct amount to the consolidated entity, thus realizing a portion of the gain through usage.		

The purchasing affiliate (S Company) will record depreciation in the amount of \$300,000 (\$900,000/3 years) each year. From the point of view of the consolidated entity, only \$250,000 (\$750,000/3 years) in depreciation on the equipment should be

ILLUSTRATION 7-1

Partial Consolidated Statements Workpaper, Elimination of Intercompany Sale of Equipment, Year of Intercompany Sale, December 31, 2019

<i>Income Statement</i>	<i>P Company</i>	<i>S Company</i>	<i>Eliminations</i>		<i>Consolidated Balances</i>
			<i>Dr.</i>	<i>Cr.</i>	
Gain on Sale of Equipment	(150,000)		(1) 150,000		
Depreciation Expense		300,000		(2) 50,000	250,000
Balance Sheet					
Equipment		900,000	(1) 450,000		1,350,000
Accumulated Depreciation		(300,000)	(2) 50,000	(1) 600,000	(850,000)

(1) To eliminate the intercompany gain and restore equipment to its original cost to the consolidated entity.

(2) To adjust depreciation expense to the correct amount to the consolidated entity.

recognized. The effect of entry (2) is to increase consolidated net income by \$50,000 and thus treat an equivalent amount of intercompany profit as realized through the use of the equipment.

The net effect of entries (1) and (2) is to reduce consolidated income by \$100,000 (the original \$150,000 of intercompany gain recorded by P Company for the sale less the \$50,000 of intercompany gain that is considered realized during the year through the utilization of the equipment by S Company).

Workpaper Entries—Years Subsequent to the Year of the Intercompany Sale



Balances of the affected accounts of the affiliated companies on December 31, 2020, are presented in Illustration 7-2. In years subsequent to the year of the intercompany sale, the basic workpaper elimination entries related to the intercompany sale are presented below. As indicated, some entries differ slightly depending on whether the firm accounts for its investment using the cost, partial equity, or complete equity method. In the context of this chapter, the cost and partial equity entries are the same, while the complete equity entries differ with one respect; that is, entries to Beginning Retained Earnings—P Company are replaced by entries to Investment in S Company under the complete equity method.

2020 Workpaper Entries

Cost or Partial Equity		Complete Equity	
(1) Equipment	450,000	Equipment	450,000
Beginning Retained Earnings—P Company	150,000	Investment in S	150,000
Accumulated Depreciation	600,000	Accumulated Depreciation	600,000

To eliminate the prior period intercompany gain and restore equipment to its original cost to the consolidated entity (along with its accumulated depreciation at the point of the intercompany sale).

In entry (1), the first entry from the prior year (2019) is repeated, with the debit to gain now replaced by a debit to the beginning retained earnings of the parent under the cost or partial equity methods. The debit to the equipment account and the credit to the accumulated depreciation account are for the same amount each year. This entry is necessary again (with any income statement accounts, e.g., gain, replaced by beginning retained earnings in subsequent years) because workpaper entries are

ILLUSTRATION 7-2

Partial Consolidated Statements Workpaper, Elimination of Unrealized Profit on Intercompany Sale of Equipment, Year Subsequent to Intercompany Sale, December 31, 2020

Income Statement	P Company	S Company	Eliminations		Consolidated Balances
			Dr.	Cr.	
Depreciation Expense		300,000		(2) 50,000	250,000
Retained Earnings Statement					
1/1 Retained Earnings—P Company (Consolidated)	2,000,000		(1) 150,000	(2) 50,000	1,900,000
Balance Sheet					
Equipment		900,000	(1) 450,000		1,350,000
Accumulated Depreciation		(600,000)	(2) 100,000	(1) 600,000	(1,100,000)

(1) To eliminate the intercompany gain and restore equipment to its original cost to the consolidated entity.

(2) To adjust depreciation expense to the correct amount to the consolidated entity.

not posted. If P Company uses the complete equity method, the debit to Beginning Retained Earnings—P Company is not needed, as the prior year income was adjusted for all unrealized amounts. The debit in this workpaper entry is replaced by a debit to the investment account to facilitate its elimination. Later in this chapter, both methods are illustrated in their entirety.

2020 Workpaper Entries

Cost or Partial Equity		Complete Equity	
(2) Accumulated Depreciation	100,000	Accumulated Depreciation	100,000
Depreciation Expense (current year)	50,000	Depreciation Expense (current year)	50,000
Beginning Retained Earnings—P Company (prior year)	50,000	Investment in S	50,000
To adjust depreciation for the current and prior year on equipment sold to affiliate.			

The explanation for entry (2) is the same as the preceding year with two modifications. Accumulated depreciation is adjusted for two years now, and the income statement account “depreciation expense” from the first year is now replaced by a credit to beginning retained earnings of P Company (or by a credit to Investment, for firms using the complete equity method).

As a result of these entries, consolidated depreciation expense (\$250,000), consolidated equipment (\$1,350,000), and consolidated accumulated depreciation (\$1,100,000) are all based on the cost of the equipment to the affiliated companies. The net effect of these workpaper entries is to increase consolidated income by \$50,000, which is the amount of gain recorded on the intercompany sale that is considered realized from a consolidated point of view through the utilization of the equipment during the current year.

The entries in the December 31, 2021, consolidated statements workpaper to eliminate the effects of the intercompany sale are as follows:

2021 Workpaper Entries

Cost or Partial Equity		Complete Equity	
(1) Equipment	450,000	Equipment	450,000
Beginning Retained Earnings—P Company	150,000	Investment in S	150,000
Accumulated Depreciation	600,000	Accumulated Depreciation	600,000
To reduce consolidated retained earnings for gain on intercompany sale and to restore equipment to its original cost to the consolidated entity (along with its accumulated depreciation at the point of the intercompany sale).			
(2) Accumulated Depreciation (\$50,000 × 3 year)	150,000	Accumulated Depreciation	150,000
Depreciation Expense (current year)	50,000	Depreciation Expense (current year)	50,000
Beginning Retained Earnings—P Company (prior years)	100,000	Investment in S (prior years)	100,000
To reverse amount of excess depreciation recorded during current year and to recognize amounts of intercompany gain realized in current and prior periods through usage (two prior years of depreciation expense since sale).			

Over the life of the equipment, the amount of gain recognized in the consolidated income statement will be the same as the amount of gain recorded by the selling affiliate, and no further adjustments will be necessary in the consolidated statements workpaper. The recognition of the gain on the sale of the equipment on the books of the selling affiliate and in the consolidated income statement may be compared as follows:

	<i>On Books of Selling Affiliate</i>	<i>In Consolidated Income Statement</i>
Gain on Sale of Equipment—2019	\$150,000	
Reduction of Depreciation Expense:		
2019		\$ 50,000
2020		50,000
2021		50,000
	<u>\$150,000</u>	<u>\$150,000</u>

Determination of Noncontrolling Interest

Subsidiary as Intercompany Seller (Upstream Sale) In the preceding example, the selling affiliate was the parent company (downstream sale). Accordingly, even though 100% of the unrealized intercompany gain was eliminated, no modification in the calculation of the noncontrolling interest in consolidated income or consolidated net assets was necessary. Had the selling affiliate been a less than wholly owned subsidiary (upstream sale), however, workpaper modifications in the determination of the noncontrolling interest would have been necessary if the controlling and noncontrolling interests were to be adjusted in proportion to their interest in the amount of unrealized intercompany profit eliminated.

Intercompany sales of property, plant, and equipment, as in the case of intercompany inventory sales, necessitate adjustments to the calculation of the distribution of income to the controlling and noncontrolling interests. Whether the adjustments directly affect the noncontrolling interest (or only the controlling interest) depends on **who is the intercompany seller**. If the intercompany seller is the subsidiary, it is the subsidiary's income that needs adjustment, hence directly affecting the noncontrolling interest, as shown in Illustration 7-3.

Procedurally, the steps needed differ slightly between the year of the intercompany sale and subsequent years. To calculate the noncontrolling interest in consolidated income, begin as always with the subsidiary's reported income. As always, subtract any excess depreciation, amortization, or impairment charges related to differences between implied and book values. In the year of the intercompany upstream sale (subsidiary is the intercompany seller), adjust the subsidiary's reported income by subtracting the unrealized gain on the intercompany sale (or adding an unrealized loss, as appropriate). Next, subtract (add) the portion of the intercompany gain (loss) that is considered *realized through usage* (i.e., the depreciation adjustment for the year of the sale). This is shown in Illustration 7-3 for the year 2019 in t-account form.

For example, assume that S Company is 90% owned, was the selling affiliate in the previous illustration, and reports \$300,000 in income (including the \$150,000 intercompany gain) in the year 2019, \$175,000 of income in 2020, and \$200,000 in 2021. The calculation of the noncontrolling interest in consolidated income in each of the respective years is presented in Illustration 7-3.

The calculations are the same in subsequent years except that the intercompany gain (or loss) does not need to be subtracted (or added) since it is not included in the subsidiary's reported income in those years. Realization through usage, however,

LO 6 Subsidiary vs. parent as the seller.

LO 7 Computing the noncontrolling interest.

ILLUSTRATION 7-3**Calculation of the Noncontrolling Interest in Consolidated Income, Upstream Sales of Equipment**

Noncontrolling Interest in Consolidated Income—Year of Sale—2019			
Unrealized gain on upstream sales of equipment	150,000	Net income reported by S Company	\$300,000
Amortization and depreciation of difference between implied and book value	0	Depreciation adjustment (gain realized through usage)	50,000
		Subsidiary Income included in Consolidated Income	\$200,000
		Noncontrolling Ownership percentage interest	<u>10%</u>
		Noncontrolling Interest in Consolidated Income	\$ 20,000
Noncontrolling Interest in Consolidated Income—Year Subsequent to Sale—2020			
Amortization and depreciation of difference between implied and book value	0	Net income reported by S Company	\$175,000
		Depreciation adjustment (gain realized through usage)	50,000
		Subsidiary Income included in Consolidated Income	\$225,000
		Noncontrolling Ownership percentage interest	<u>10%</u>
		Noncontrolling Interest in Consolidated Income	\$ 22,500
Noncontrolling Interest in Consolidated Income—Year Subsequent to Sale—2021			
Amortization and depreciation of difference between implied and book value	0	Net income reported by S Company	\$200,000
		Depreciation adjustment (gain realized through usage)	50,000
		Subsidiary Income included in Consolidated Income	\$250,000
		Noncontrolling Ownership percentage interest	<u>10%</u>
		Noncontrolling Interest in Consolidated Income	\$ 25,000

occurs as long as the property is being used by the intercompany buyer (the parent, in the case of an upstream sale). Note, however, that the *adjustment for realization through usage* appears on the t-account to compute the *noncontrolling interest* in the case of upstream sales.

The adjustments shown in Illustration 7-3 are needed only if we assume the subsidiary is the intercompany seller. With this assumption, adjustments are also needed to the workpaper eliminating/adjusting entries presented in the previous section of this chapter. Specifically, the workpaper entries to Beginning Retained Earnings—P Company in the preceding example for firms using the cost or partial equity method are replaced by entries to *both* Beginning Retained Earnings—P Company (controlling interest percentage) and Beginning NCI in equity (noncontrolling interest percentage). No other changes are needed. If P Company uses the complete equity method, any debits or credits to Beginning Retained Earnings—P Company are not needed, as prior years' income is adjusted on the books of the parent for unrealized gains and for any amount realized through usage. Thus any debits or credits to beginning retained earnings of the parent in workpaper entries are replaced by debits or credits to the investment account, once more facilitating its elimination.

If S Company were the selling affiliate, entry (1) in Illustration 7-2 for 2020 would be modified as follows in order to adjust the controlling and the noncontrolling interests in net assets at the beginning of the year:

Upstream Sale				
Cost or Partial Equity		Complete Equity		
(1)	Equipment	450,000	Equipment	450,000
	Beginning Retained Earnings—P Company	135,000	Investment in S Company	135,000
	Beginning NCI	15,000	Beginning NCI	15,000
	(.10 × \$150,000)		(.10 × \$150,000)	
	Accumulated Depreciation	600,000	Accumulated Depreciation	600,000
To reduce the controlling and noncontrolling interests for their respective shares of the unrealized intercompany gain at the date of the intercompany sale, and restore equipment and accumulated depreciation to original amounts to the consolidated entity.				

IN
THE
NEWS

For the fiscal year 2005, Fleetwood Enterprises, Inc. eliminated \$128

million of intercompany sales from consolidated revenues. Moreover, it was difficult to compare the performance of the Housing Group because the company made \$27 million of sales to its own retail stores in the fourth quarter last year in which a majority of these stores were closed.⁴

As explained in the discussion of unrealized intercompany profit in inventory, as a matter of workpaper procedure, the noncontrolling interest in net assets (or equity) is adjusted for intercompany gains (losses) by debiting (decrease in noncontrolling interest) or crediting (increase in noncontrolling interest) the beginning NCI balance.

To reduce repetition and conserve space, we do not present the three methods (cost, partial equity, and complete equity) in standalone sections in Chapters 7 through 10 to the same extent as in earlier chapters. In Chapters 7 and 10, the cost and partial equity methods are quite similar (under the assumptions in our presentation), while the complete equity method is different. In Chapters 8 and 9, in contrast, the partial and complete equity methods are similar, while the cost method is different. Thus, in the following section, we combine the presentation of the cost and partial equity methods. Worksheets are presented separately.

7.3 CONSOLIDATED STATEMENTS WORKPAPER—COST AND PARTIAL EQUITY METHODS



COST



PARTIAL

Subsidiary Is Intercompany Seller (Upstream Sale)

Assume that P Company acquires an 85% interest in S Company for \$1,190,000 in 2017, when the retained earnings and capital stock of S Company amount to \$400,000 and \$1,000,000, respectively. The retained earnings of S Company on January 1, 2019, are \$666,000. On January 1, 2019, S Company sells P Company equipment with a book value of \$500,000 (original cost of \$800,000 and accumulated depreciation of \$300,000) for \$600,000. On January 1, 2019, the equipment has an estimated remaining useful life of five years and is depreciated using the straight-line method. S Company will record a gain of \$100,000 on the sale of the equipment, and each year P Company will record depreciation that is \$20,000 $[(\$600,000 - \$500,000)/5 \text{ years}]$ greater than depreciation based on the cost of the equipment to the consolidated group. Consolidated statements

⁴ PRNewswire—FirstCall via COMTEX News Network, Riverside, California, 5/4/06.

LO 6 Workpaper entries—upstream sales.

workpapers for the years ended December 31, 2019, and December 31, 2020, are presented in Illustrations 7-4A and 7-5A, respectively, assuming the use of the *cost* method by P Company to account for its investment in S Company. Consolidated statements workpapers for the years ended December 31, 2019, and December 31, 2020, are presented in Illustrations 7-4B and 7-5B, respectively, assuming the use of the *partial equity* method by P Company to account for its investment in S Company.

The balances reported by the parent company in income, in retained earnings, and in the investment account differ depending on the method used by the parent company to record its investment. As illustrated in prior chapters, however, the method used by the parent company to record its investment has no effect on the *consolidated* balances.

Also as illustrated in earlier chapters, when the parent company records its investment using the partial equity method, a workpaper entry to reverse the effect of parent company entries during the year for subsidiary dividends and income replaces the cost method entries to establish reciprocity (convert to equity) and to eliminate dividend income. However, as demonstrated in Chapters 5 and 6, the workpaper entries to allocate the difference between implied and book value, to record additional amortization, depreciation, and/or impairment on differences between market and book values, to eliminate intercompany sales, and to eliminate unrealized intercompany profit are the same regardless of whether the investment is recorded using the cost method or the partial equity method. The workpapers entries to eliminate the effects of intercompany sales of equipment are also the same when the parent uses the partial equity or the cost method. Therefore, to conserve space and avoid excessive repetition, we discuss the workpaper entries for the cost and partial equity methods together in the following section. When the investment is recorded using the complete equity method, however, the workpaper entries differ slightly, as illustrated in the next section.

Consolidated Statements Workpaper Entries—December 31, 2019 (Year of Intercompany Sale)

Workpaper entries in Illustrations 7-4A and 7-4B are presented in general journal form as follows:



COST



PARTIAL

(1)	Investment in S Company	226,100	
	Beginning Retained Earnings—P Company		226,100
	To convert to equity/establish reciprocity [$.85 \times (\$666,000 - \$400,000) = \$226,100$].		

Entry (1) above is needed only for firms using the cost method to account for their investments in the subsidiary. This distinction is particularly easy to remember if the entry is thought of as the entry to convert to equity. If the parent is already using the equity method, there is no need to convert to equity. Thus, in Illustration 7-4B, entry (1) above is replaced with an entry eliminating the equity in subsidiary income of \$122,400 ($85\% \times \$144,000$) against the investment account. Unless noted, the following workpaper entries are the same whether the parent uses the cost method or the partial equity method.

(2)	Gain on Sale of Equipment	100,000	
	Property and Equipment ($\$800,000 - 600,000$)	200,000	
	Accumulated Depreciation		300,000
	To eliminate the unrealized gain recorded on intercompany sale of equipment (\$100,000) and restore equipment to its original cost (and accumulated depreciation to its balance at the date of the intercompany sale).		

(3)	Accumulated Depreciation	20,000	
	Depreciation Expense		20,000
	To adjust depreciation on equipment sold to affiliate, thus realizing a portion of the gain through usage (\$100,000/5 years = \$20,000).		

(4)	Beginning Retained Earnings—S Company	666,000	
	Capital Stock—S Company	1,000,000	
	Investment in S Company (\$1,190,000 + \$226,100)		1,416,100
	NCI in Equity [\$210,000 + .15 (\$666,000 – \$400,000)]		249,000
	To eliminate investment account against underlying equity accounts of S Company, and recognize NCI.		

Since the selling affiliate is a partially owned subsidiary (upstream sale), the calculation of the noncontrolling interest in consolidated net income is modified by subtracting the amount of the gain recognized by the subsidiary and adding the amount of the gain considered to be realized (through depreciation) to the reported net income of the subsidiary [$.15 \times (\$144,000 - \$100,000 + \$20,000) = \$9,600$].

Noncontrolling Interest in Consolidated Net Income



COST



PARTIAL

Unrealized gain on intercompany (upstream) sale	100,000	Internally generated income of S Company	\$ 144,000
		Gain realized through usage (depreciation adjustment)	<u>20,000</u>
		Adjusted income of subsidiary	\$ 64,000
		Noncontrolling percentage	<u>× 15%</u>
		Noncontrolling interest in income	<u>\$ 9,600</u>

Note that the \$9,600 appears in Illustration 7-4A as the noncontrolling interest in income.

If the sale of the equipment had been *downstream* rather than *upstream*, the amount of subsidiary income included in consolidated net income would not be affected by the work-paper entries related to unrealized intercompany gain and no adjustment would be necessary in the calculation of the noncontrolling interest in consolidated net income. Instead the *controlling* interest would be affected as indicated in bold type in the following t-account:

Controlling Interest in Consolidated Net Income

Unrealized gain on intercompany (downstream) sale	XX	Internally generated income of P Company	\$300,000
		Realization of gain through usage (depreciation adjustment)	XX
		Other needed adjustments (see Chapters 5–6)	XX
		Percentage of Subsidiary adjusted income or (ownership percentage) × (subsidiary income) .85(\$64,000)	<u>\$ 54,400</u>
		Controlling interest in income	<u>\$354,400</u>

(85%)
(64,000)

ILLUSTRATION 7-4A**Cost Method**

85% Owned Subsidiary

Consolidated Statements Workpaper

Upstream Sale of Equipment

P Company and Subsidiary

Year of Sale

for the Year Ended December 31, 2019

<i>Income Statement</i>	<i>P Company</i>	<i>S Company</i>	<i>Eliminations</i>		<i>Noncontrolling Interest</i>	<i>Consolidated Balances</i>
			<i>Dr.</i>	<i>Cr.</i>		
Sales	3,500,000	2,000,000				5,500,000
Gain on Sale of Equipment		100,000	(2)	100,000		
Total Revenue	<u>3,500,000</u>	<u>2,100,000</u>				<u>5,500,000</u>
Cost of Sales	1,800,000	1,130,000				2,930,000
Depreciation Expense	380,000	330,000		(3)	20,000	690,000
Income Tax Expense	200,000	96,000				296,000
Other Expense	820,000	400,000				1,220,000
Total Cost and Expense	<u>3,200,000</u>	<u>1,956,000</u>				<u>5,136,000</u>
Net/Consolidated Income	300,000	144,000				364,000
Noncontrolling Interest in Income					9,600*	9,600
Net Income to Retained Earnings	<u>300,000</u>	<u>144,000</u>	<u>100,000</u>	<u>20,000</u>	<u>9,600</u>	<u>354,400</u>
<i>Retained Earnings Statement</i>						
1/1 Retained Earnings						
P Company	1,500,000			(1)	226,100	1,726,100
S Company		666,000	(4)	666,000		
Net Income from above	300,000	144,000	100,000	20,000	9,600	354,400
12/31 Retained Earnings to Balance Sheet	<u>1,800,000</u>	<u>810,000</u>	<u>766,000</u>	<u>246,100</u>	<u>9,600</u>	<u>2,080,500</u>
<i>Balance Sheet</i>						
Current Assets	1,000,000	570,000				1,570,000
Investment in S Company	1,190,000		(1)	226,100	(4)	1,416,100
Land	1,000,000	200,000				1,200,000
Property and Equipment	3,800,000	2,700,000	(2)	200,000		6,700,000
(Accumulated Depreciation)	(1,520,000)	(960,000)	(3)	20,000	(2)	300,000
Total Assets	<u>5,470,000</u>	<u>2,510,000</u>				<u>6,710,000</u>
Liabilities	670,000	700,000				1,370,000
Capital Stock						
P Company	3,000,000					3,000,000
S Company		1,000,000	(4)	1,000,000		
Retained Earnings from above	1,800,000	810,000	766,000	246,100	9,600	2,080,500
1/1 Noncontrolling Interest in Net Assets**				(4)	249,900	249,900
12/31 Noncontrolling Interest					<u>259,500</u>	<u>259,500</u>
Total Liabilities and Equity	<u>5,470,000</u>	<u>2,510,000</u>	<u>2,212,100</u>	<u>2,212,100</u>		<u>6,710,000</u>

* $.15 \times (\$144,000 - \$100,000 + \$20,000) = \$9,600$.** $\$210,000 + .15 \times (\$666,000 - \$400,000) = \$249,900$.(1) To convert to equity/establish reciprocity [$.85 \times (\$666,000 - \$400,000) = \$226,100$].

(2) To eliminate the unrealized gain recorded on intercompany sale of equipment (\$100,000) and restore equipment to its original cost (and accumulated depreciation to its balance at the date of the intercompany sale).

(3) To adjust depreciation on equipment sold to affiliate, thus realizing a portion of the gain through usage ($\$100,000/5 \text{ years} = \$20,000$).

(4) To eliminate investment account against underlying equity accounts of S Company and create noncontrolling interest account.

ILLUSTRATION 7-4B**Partial Equity Method**

85% Owned Subsidiary						
Consolidated Statements Workpaper						
Upstream Sale of Equipment						
P Company and Subsidiary						
Year of Sale						
for Year Ended December 31, 2019						
	P	S	Eliminations		Noncontrolling	Consolidated
	Company	Company	Dr.	Cr.	Interest	Balances
<i>Income Statement</i>						
Sales	3,500,000	2,000,000				5,500,000
Equity in Subsidiary Income	122,400		(1)	122,400		
Gain on Sale of Equipment		100,000	(2)	100,000		
Total Revenue	<u>3,622,400</u>	<u>2,100,000</u>				<u>5,500,000</u>
Cost of Sales	1,800,000	1,130,000				2,930,000
Depreciation Expense	380,000	330,000		(3) 20,000		690,000
Income Tax Expense	200,000	96,000				296,000
Other Expense	820,000	400,000				1,220,000
Total Cost and Expense	<u>3,200,000</u>	<u>1,956,000</u>				<u>5,136,000</u>
Net/Consolidated Income	422,400	144,000				364,000
Noncontrolling Interest in Income					9,600*	9,600
Net Income to Retained Earnings	<u>422,400</u>	<u>144,000</u>	<u>222,400</u>	<u>20,000</u>	<u>9,600</u>	<u>354,400</u>
<i>Retained Earnings Statement</i>						
1/1 Retained Earnings						
P Company	1,726,100					1,726,100
S Company		666,000	(4)	666,000		
Net Income from above	<u>422,400</u>	<u>144,000</u>	<u>222,400</u>	<u>20,000</u>	<u>9,600</u>	<u>354,400</u>
12/31 Retained Earnings to Balance Sheet	<u>2,148,500</u>	<u>810,000</u>	<u>888,400</u>	<u>20,000</u>	<u>9,600</u>	<u>2,080,500</u>
<i>Balance Sheet</i>						
Current Assets	1,000,000	570,000				1,570,000
Investment in S Company**	1,538,500			(1) 122,400 (4) 1,416,100		
Land	1,000,000	200,000				1,200,000
Property and Equipment	3,800,000	2,700,000	(2)	200,000		6,700,000
(Accumulated Depreciation)	(1,520,000)	(960,000)	(3)	20,000	(2) 300,000	(2,760,000)
Total Assets	<u>5,818,500</u>	<u>2,510,000</u>				<u>6,710,000</u>
Liabilities	670,000	700,000				1,370,000
Capital Stock						
P Company	3,000,000					3,000,000
S Company		1,000,000	(4)	1,000,000		
Retained Earnings from above	<u>2,148,500</u>	<u>810,000</u>	<u>888,400</u>	<u>20,000</u>	<u>9,600</u>	<u>2,080,500</u>
1/1 Noncontrolling Interest in Net Assets**				(4) 249,900	249,900	
12/31 Noncontrolling Interest					<u>259,500</u>	<u>259,500</u>
Total Liabilities and Equity	<u>5,818,500</u>	<u>2,510,000</u>	<u>2,108,400</u>	<u>2,108,400</u>		<u>6,710,000</u>

* $.15 \times (\$144,000 - \$100,000 + \$20,000) = \$9,600$.

** The investment account equals $\$1,190,000 + 85\%$ of the increase in S Company's Retained Earnings from the date of acquisition to the beginning of the year $(\$666,000 - 400,000)$ plus the current period's equity in subsidiary income $(\$122,400)$.

*** $\$210,000 + .15 \times (\$666,000 - \$400,000) = \$249,900$.

(1) To eliminate equity in subsidiary income and intercompany dividends, if any.

(2) To eliminate the unrealized gain recorded on intercompany sale of equipment and restore equipment to its original cost (and accumulated depreciation to its balance at the date of the intercompany sale).

(3) To adjust depreciation on equipment sold to affiliate, thus realizing a portion of gain through usage $(\$100,000/5 \text{ years} = \$20,000)$.

(4) To eliminate investment account against the underlying equity accounts of S Company and create noncontrolling interest account.

Consolidated Statements Workpaper Entries—December 31, 2020 (Year Subsequent to Intercompany Sale)

Workpaper entries in Illustrations 7-5A and 7-5B are presented in general journal form for the year subsequent to the intercompany sale as follows:

(1)	Investment in S Company	348,500	
	Beginning Retained Earnings—P Company		348,500
	To convert to equity/establish reciprocity [$.85 \times (\$810,000 - \$400,000)$].		

As in the previous year, entry (1) above is needed only for firms using the cost method to account for their investments in the subsidiary. If the parent is already using the equity method, there is no need to convert to equity. In Illustration 7-5B, entry (1) is replaced by an entry once again eliminating equity in subsidiary income against the investment account.

(2)	Beginning Retained Earnings—P Company	85,000	
	($100,000 \times .85$)		
	Beginning NCI	15,000	
	($100,000 \times .15$)		
	Property and Equipment ($800,000 - 600,000$)	200,000	
	Accumulated Depreciation		300,000
	To reduce the controlling and noncontrolling interests for their shares of unrealized intercompany gain (\$100,000), and to restore equipment and accumulated depreciation to their original balances at the date of the intercompany sale.		



COST



PARTIAL

(3)	Accumulated Depreciation	40,000	
	Depreciation Expense (current year)		20,000
	Beginning Retained Earnings—P Company		17,000
	($20,000 \times .85$)		
	Beginning NCI		3,000
	($20,000 \times .15$)		
	To reverse amount of excess depreciation recorded during current year and prior year and to recognize intercompany gain realized through usage.		

(4)	Beginning Retained Earnings—S Company	810,000	
	Capital Stock—S Company	1,000,000	
	Investment in S Company		1,538,500
	($\$1,190,000 + \$348,500$)		
	NCI ($210,000 + .15 (810,000 - 400,000)$)		271,500
	To eliminate investment account against the underlying equity accounts of S Company.		

The noncontrolling interest recognized in entry (4) above is calculated as the sum of the NCI at acquisition plus 15% of the increase in subsidiary retained earnings from acquisition to the beginning of the current year. The noncontrolling

ILLUSTRATION 7-5A**Cost Method**

85% Owned Subsidiary

Consolidated Statements Workpaper

Upstream Sale of Equipment

P Company and Subsidiary

Year Subsequent to Sale

for the Year Ended December 31, 2020

<i>Income Statement</i>	<i>P Company</i>	<i>S Company</i>	<i>Eliminations</i>		<i>Noncontrolling Interest</i>	<i>Consolidated Balances</i>
			<i>Dr.</i>	<i>Cr.</i>		
Sales	4,000,000	2,200,000				6,200,000
Cost of Sales	2,100,000	1,180,000				3,280,000
Depreciation Expense	380,000	330,000		(3) 20,000		690,000
Income Tax Expense	272,000	108,000				380,000
Other Expense	840,000	420,000				1,260,000
Total Cost and Expense	3,592,000	2,038,000				5,610,000
Net/Consolidated Income	408,000	162,000				590,000
Noncontrolling Interest in Income					27,300*	27,300
Net Income to Retained Earnings	408,000	162,000	—0—	20,000	27,300	562,700
<i>Retained Earnings Statement</i>						
1/1 Retained Earnings						
P Company	1,800,000		(2) 85,000	(1) 348,500		2,080,500
S Company		810,000	(4) 810,000	(3) 17,000		
Net Income from above	408,000	162,000	—0—	20,000	27,300	562,700
12/31 Retained Earnings to Balance Sheet	2,208,000	972,000	895,000	385,500	27,300	2,643,200
<i>Balance Sheet</i>						
Current Assets	1,190,000	790,000				1,980,000
Investment in S Company	1,190,000		(1) 348,500	(4) 1,538,500		
Land	1,600,000	200,000				1,800,000
Property and Equipment	3,800,000	2,700,000	(2) 200,000			6,700,000
(Accumulated Depreciation)	(1,900,000)	(1,290,000)	(3) 40,000	(2) 300,000		(3,450,000)
Total Assets	5,880,000	2,400,000				7,030,000
Liabilities	672,000	428,000				1,100,000
Capital Stock						
P Company	3,000,000					3,000,000
S Company		1,000,000	(4) 1,000,000			
Retained Earnings from above	2,208,000	972,000	895,000	385,500	27,300	2,643,200
1/1 Noncontrolling Interest in Net Assets**			(2) 15,000	(4) 271,500		
				(3) 3,000	259,500	
12/31 Noncontrolling Interest in Net Assets					286,800	286,800
Total Liabilities and Equity	5,880,000	2,400,000	2,498,500	2,498,500		7,030,000

* $.15 \times (\$162,000 + \$20,000) = \$27,300$.** $\$210,000 + .15 \times (\$810,000 - \$400,000) = \$271,500$.(1) To convert to equity/establish reciprocity as of 1/1/20 [$.85 \times (\$810,000 - \$400,000)$].

(2) To reduce controlling and noncontrolling interests for their shares of unrealized intercompany gain and to restore equipment and accumulated depreciation to their original balances.

(3) To reverse amount of excess depreciation recorded during current year and prior year and to recognize intercompany gain realized through usage.

(4) To eliminate investment account and create noncontrolling interest account.

ILLUSTRATION 7-5B**Partial Equity Method**

85% Owned Subsidiary

Consolidated Statements Workpaper

Upstream Sale of Equipment

P Company and Subsidiary

Year Subsequent to Sale

for the Year Ended December 31, 2020

	<i>P</i> <i>Company</i>	<i>S</i> <i>Company</i>	<i>Eliminations</i>		<i>Noncontrolling</i> <i>Interest</i>	<i>Consolidated</i> <i>Balances</i>	
			<i>Dr.</i>	<i>Cr.</i>			
<i>Income Statement</i>							
Sales	4,000,000	2,200,000				6,200,000	
Equity Income	137,700		(1)	137,700			
Total Revenue	<u>4,137,700</u>	<u>2,200,000</u>				<u>6,200,000</u>	
Cost of Sales	2,100,000	1,180,000				3,280,000	
Depreciation Expense	380,000	330,000		(3)	20,000	690,000	
Income Tax Expense	272,000	108,000				380,000	
Other Expense	840,000	420,000				1,260,000	
Total Cost and Expense	<u>3,592,000</u>	<u>2,038,000</u>				<u>5,610,000</u>	
Net/Consolidated Income	545,700	162,000				590,000	
Noncontrolling Interest in Income					27,300*	27,300	
Net Income to Retained Earnings	<u>545,700</u>	<u>162,000</u>	<u>137,700</u>	<u>20,000</u>	<u>27,300</u>	<u>562,700</u>	
<i>Retained Earnings Statement</i>							
1/1 Retained Earnings							
P Company	2,148,500		(2)	85,000	(3)	17,000	2,080,500
S Company		810,000	(4)	810,000			
Net Income from above	<u>545,700</u>	<u>162,000</u>	<u>137,700</u>	<u>20,000</u>	<u>27,300</u>	<u>562,700</u>	
12/31 Retained Earnings to Balance Sheet	<u>2,694,200</u>	<u>972,000</u>	<u>1,032,700</u>	<u>37,000</u>	<u>27,300</u>	<u>2,643,200</u>	
<i>Balance Sheet</i>							
Current Assets	1,190,000	790,000				1,980,000	
Investment in S Company	1,676,200			(1)	137,700		
				(4)	1,538,500		
Land	1,600,000	200,000				1,800,000	
Property and Equipment	3,800,000	2,700,000	(2)	200,000		6,700,000	
(Accumulated Depreciation)	<u>(1,900,000)</u>	<u>(1,290,000)</u>	(3)	40,000	(2)	300,000	<u>(3,450,000)</u>
Total Assets	<u>6,366,200</u>	<u>2,400,000</u>				<u>7,030,000</u>	
Liabilities	672,000	428,000				1,100,000	
Capital Stock							
P Company	3,000,000					3,000,000	
S Company		1,000,000	(4)	1,000,000			
Retained Earnings from above	2,694,200	972,000	1,032,700	37,000	27,300	2,643,200	
1/1 Noncontrolling Interest in Net Assets**			(2)	15,000	(4)	271,500	
					(3)	3,000	259,500
12/31 Noncontrolling Interest in Net Assets						<u>286,800</u>	<u>286,800</u>
Total Liabilities and Equity	<u>6,366,200</u>	<u>2,400,000</u>	<u>2,287,700</u>	<u>2,287,700</u>		<u>7,030,000</u>	

* $.15 \times (\$162,000 + \$20,000) = \$27,300$.** $\$210,000 + .15 \times (\$810,000 - \$400,000) = \$271,500$.

(1) To eliminate equity in subsidiary income and intercompany dividends, if any.

(2) To reduce controlling and noncontrolling interests for their shares of unrealized intercompany gain and to restore equipment and accumulated depreciation to their original balances.

(3) To reverse amount of excess depreciation recorded during current and prior year and to recognize intercompany gain realized through usage.

(4) To eliminate investment account and create noncontrolling interest account.

ILLUSTRATION 7-6**Calculation of the Noncontrolling Interest in Consolidated Net Assets**

Capital Stock—S Company		\$1,000,000
Realized Retained Earnings—S Company		
Reported Retained Earnings	\$972,000	
Unrealized Intercompany Profit on 12/31/20		
(\$100,000 – \$20,000 – \$20,000)	<u>(60,000)</u>	<u>912,000</u>
Realized Net Assets—S Company		\$1,912,000
Noncontrolling Ownership Percentage		<u>15%</u>
Noncontrolling Interest in Consolidated Net Assets (.15 × \$1,912,000)		\$ 286,800

interest in consolidated income is calculated after adding the portion of the gain considered realized during the year to the net income reported by the subsidiary [$.15 \times (\$162,000 + \$20,000) = \$27,300$].

Noncontrolling Interest in Income (year subsequent to sale)

Internally generated income of S Company	\$162,000
Gain realized through usage (depreciation adjustment)	<u>20,000</u>
Adjusted income of subsidiary	\$182,000
Noncontrolling percentage	<u>× 15%</u>
Noncontrolling interest in income	\$ 27,300

The net effect of the adjustments to the noncontrolling interest in the income statement and retained earnings sections of the consolidated statements workpaper for upstream sales also serves to adjust the noncontrolling interest in consolidated net assets. The amount of the noncontrolling interest reported in the consolidated balance sheet is based on the net assets of the subsidiary that have been realized in transactions with third parties. For example, the amount of the noncontrolling interest in consolidated net assets shown in Illustrations 7-5A and 7-5B is calculated in Illustration 7-6.

Disposal of Property and Equipment by Purchasing Affiliate

LO 9 Disposal of Property and Equipment by purchaser.

Assume that on January 1, 2021, P Company sells the equipment it purchased from S Company to a party outside the affiliated group for \$400,000. The recorded and consolidated book values of the equipment on January 1, 2021, are calculated in Illustration 7-7. P Company will record a \$40,000 gain on the sale of the equipment to the party outside the affiliated group, calculated as:



COST



PARTIAL

Selling price	\$400,000
Book value (on P Company's books)	<u>360,000</u>
Gain on sale (recorded by P Company)	40,000

The following entry is made on the books of P Company to record the sale:

P Company Books (Cost or Partial Equity Method)

Cash	400,000
Accumulated Depreciation	240,000
Property and Equipment	600,000
Gain on Sale of Equipment	40,000

ILLUSTRATION 7-7

Calculation of Book Value of Equipment on January 1, 2021

<i>On Books of P Company</i>	
Cost (to P Company)	\$600,000
Accumulated Depreciation $[(\$600,000/5) \times 2]$	<u>240,000</u>
Recorded Book Value—January 1, 2021	<u>\$360,000</u>
<i>Consolidated</i>	
Cost (original cost to S Company)	\$800,000
Accumulated Depreciation $[\$300,000 + (\$800,000 - \$300,000)/5] \times 2]$	<u>500,000</u>
Consolidated Book Value—January 1, 2021	<u>\$300,000</u>

However, the consolidated book value of the equipment on the date of the sale by P Company is only \$300,000, and from the point of view of the consolidated entity a \$100,000 gain on the sale (selling price of \$400,000 minus book value to consolidated entity of \$300,000) should be recognized. The entry on the December 31, 2021, consolidated statements workpaper necessary to achieve this result follows:



COST



PARTIAL

Beginning Retained Earnings—P Company (.85 × \$60,000)	51,000	
Beginning NCI (.15 × \$60,000)	9,000	
Gain on Sale of Equipment		60,000
To adjust reported gain on the sale of equipment by P Company to third party from \$40,000 recorded by P Company to \$100,000 to be reported on the consolidated statement.		

The above entry also serves to adjust the controlling and noncontrolling interests for their share of unrealized intercompany gain at beginning of year (\$100,000 original gain minus \$40,000 realized through usage [$\$20,000$ in 2019 and $\$20,000$ in 2020] = \$60,000).

Note that the entry does not include any adjustment to equipment or accumulated depreciation after the disposal, as these accounts are accurately reflected at zero. Also, it is not necessary to calculate the \$60,000 adjustment to the controlling and noncontrolling interests directly in the above entry as it will always equal the gain adjustment. From a consolidated point of view, the amount of gain recorded by the selling affiliate will always be understated (or the amount of loss recorded will always be overstated) by an amount that is equal to the unrealized intercompany gain associated with the equipment on the date of its premature disposal.

After December 31, 2021, no more book or workpaper entries relating to this equipment will be required, because by that date the amount of gain recorded by the affiliates is equal to the amount of gain considered realized in the consolidated financial statements. The equality of the recorded and consolidated amounts is confirmed in Illustration 7-8.

ILLUSTRATION 7-8**Reconciliation of Income Recorded on Books with Income Reported on Consolidated Financial Statements**

Amount of profit recorded by affiliates	
2019—Gain on sale from S Company to P Company	\$100,000
2021—Gain on sale by P Company to nonaffiliate	40,000
Additional depreciation expense recorded by affiliates:	
2019	(20,000)
2020	<u>(20,000)</u>
Net amount of profit recorded by affiliates	<u>\$100,000</u>
Amount of profit realized in the consolidated income statement	
Selling price to the consolidated entity	\$400,000
Book value to the consolidated entity	<u>300,000</u>
Net amount of profit to the consolidated entity	<u>\$100,000</u>

7.4 CALCULATION OF CONSOLIDATED NET INCOME AND CONSOLIDATED RETAINED EARNINGS

In Chapter 6, the t-account calculation of the controlling and noncontrolling interests in consolidated net income was refined to accommodate the effect of unrealized intercompany profit in inventory. We now refine it further to include unrealized gain or loss on intercompany sales of equipment.

Consolidated Net Income

After modification for the effects of unrealized intercompany profit, consolidated net income was calculated in Chapter 6 as the parent company's income from its independent operations that has been realized in transactions with third parties plus (minus) subsidiary income (loss) that has been realized in transactions with third parties plus or minus adjustments for the period relating to the depreciation, amortization, or impairment of differences between implied and book values.

On the basis of Illustration 7-4A, the t-account calculations of the noncontrolling and controlling interests in consolidated net income for the year ended December 31, 2019, are demonstrated in Illustration 7-9. The amount of controlling interest in consolidated net income calculated in Illustration 7-9 is the same as that shown in the consolidated statements workpaper in Illustration 7-4A.

On the basis of Illustration 7-5A, the t-account allocation of consolidated net income for the year ended December 31, 2020, is presented in Illustration 7-10. The sum of the controlling and noncontrolling interests in consolidated net income calculated in Illustration 7-10 is, of course, the same as that shown as consolidated net income in the consolidated statements workpaper in Illustration 7-5A.

Consolidated Retained Earnings

Consolidated retained earnings were calculated in Chapter 6 as the parent company's cost method retained earnings that have been realized in transactions with third parties plus (minus) the parent company's share of the increase (decrease) in subsidiary retained earnings that has been realized in transactions with third parties from the date of acquisition to the current date plus or minus the cumulative effect of adjustments to date relating

LO 8 Consolidated net income—computation and allocation.

ILLUSTRATION 7-9**Calculation of Controlling and Noncontrolling Interests in Net Income for Year Ended December 31, 2019
Year of Intercompany Sale of Equipment**

Noncontrolling Interest in Consolidated Income—Year 2019		
Unrealized profit on upstream sales in ending inventory	0	Internally generated income of S Company Gain realized through usage (depreciation adjustment)
		\$144,000 20,000
Unrealized gain on 2019 intercompany sale of equipment (upstream sales)	100,000	Realized profit (upstream sales) from beginning inventory
Amortization of excess depreciation	0	
		0
Subsidiary Income included in Consolidated Income		
		\$ 64,000
		Noncontrolling Ownership percentage interest
		15%
		Noncontrolling Interest in Consolidated Income
		<u>\$ 9,600</u>
Controlling Interest in Consolidated Income—Year 2019		
Unrealized gain on intercompany sale (downstream sales)	0	Net income internally generated by P Company
		\$300,000
		Gain realized through usage (depreciation adjustment)
		0
Unrealized profit on downstream sales to S Company (ending inventory)	0	Realized profit (downstream sales) from beginning inventory
		0
		P Company's percentage of S Company's income realized from third parties, .85(\$64,000)
		54,400
		Controlling Interest in Consolidated Income
		\$354,400

(85%)
(64,000)**ILLUSTRATION 7-10****Calculation of Controlling and Noncontrolling Interests in Net Income for Year Ended December 31, 2020
Year Subsequent to the Year of Intercompany Sale of Equipment**

Noncontrolling Interest in Consolidated Income—Year 2020		
Unrealized profit on upstream sales in ending inventory	0	Internally generated income of S Company Gain realized through usage (depreciation adjustment)
		\$162,000 20,000
Unrealized gain on 2020 intercompany sale of equipment (upstream sales)	0	Realized profit (upstream sales) from beginning inventory
Amortization of excess depreciation	0	
		0
Subsidiary Income included in Consolidated Income		
		\$182,000
		Noncontrolling Ownership percentage interest
		15%
		Noncontrolling Interest in Consolidated Income
		<u>\$ 27,300</u>
Controlling Interest in Consolidated Income—Year 2020		
Unrealized gain on 2020 intercompany sales of equipment (downstream sales)	0	Net income internally generated by P Company
		\$408,000
		Gain realized through usage (depreciation adjustment)
		0
Unrealized profit on downstream sales to S Company (ending inventory)	0	Realized profit (downstream sales) from beginning inventory
		0
		P Company's percentage of S Company's income realized from third parties, .85(\$182,000)
		154,700
		Controlling Interest in Consolidated Income
		\$562,700

(85%)
(\$182,000)

to the depreciation, amortization, and impairment of differences between implied and book values.

On the basis of Illustration 7-5A, the t-account calculation of consolidated retained earnings on December 31, 2020, is demonstrated in Illustration 7-11.

As mentioned earlier, the workpaper entries to eliminate the effects of intercompany sales of equipment are the same when the parent uses the partial equity or the cost method, but differ slightly when the investment is recorded using the complete equity method. Therefore, we illustrate the complete equity method next.

ILLUSTRATION 7-11

Calculation of Consolidated Retained Earnings, December 31, 2020

Consolidated Retained Earnings				
	P Company's Share of unrealized profit on upstream sales from S Company (in P's ending inventory)	0	P Company's Retained Earnings on 12/31/20	\$2,208,000
Inventory	Unrealized profit on downstream sales to S Company (in S's ending inventory)	0	Increase in S Company's Retained Earnings since acquisition (\$972,000 – \$400,000)	572,000
Equipment	P Company's share of unrealized gain on upstream sales of equipment from S Company (100,000 – 20,000 – 20,000).85	51,000	Less: cumulative amount of depreciation of the differences between implied and book values	0
	Unrealized gain on downstream sales of equipment to S Company	0	Adjusted Increase	572,000
			P Company's share thereof	.85
				486,200
			Consolidated Retained Earnings	\$2,643,200

TEST YOUR KNOWLEDGE 7.1

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

Multiple Choice

- Parting Ways owns all of the common stock of Smarts Inc. On January 1, 2016, Parting sold to Smarts for a \$5,000 gain a fixed asset that Smarts will use over the next five years. How should this gain be reflected in the consolidated financial statements?
 - Not be recorded
 - Be recognized over five years
 - Be recognized in its entirety in the year of sale
 - Be recognized only when the fixed asset is resold to outsiders after Smarts has finished using it
- Punn Corporation owns all the common stock of Prey Inc. On January 2, 2017, Punn sells a machine with a book value of \$30,000 to Prey for \$40,000. Prey uses straight-line depreciation and intends to use the machine for five years. The adjustments (net) needed to compute the consolidated net income (before tax) for the years 2017 and 2018 are:
 - \$(10,000), 2017; \$0, 2018
 - \$(10,000), 2017; \$2,000, 2018
 - \$(8,000), 2017; \$0, 2018
 - \$(8,000), 2017; \$2,000, 2018
- Price Corp. owns 80% of the common stock of Stairways to Heaven. Stairways sold an asset with a carrying value of \$10,000 to its parent for \$15,000 on January 1, 2016. Price intended to use the asset for five years but actually sold it on December 31, 2017, to a third party for \$17,000. If no adjustments were made for this intercompany transaction in the consolidating process, identify the amounts (and direction) of balance sheet misstatements at the end of 2017.
 - No misstatements occur.
 - The noncontrolling interest is overstated by \$600.
 - The noncontrolling interest is overstated by \$2,000.
 - Retained earnings and controlling interest are both overstated by \$2,400.

7.5 CONSOLIDATED STATEMENTS WORKPAPER—COMPLETE EQUITY METHOD

Subsidiary Is Intercompany Seller (Upstream Sale)

LO 6 Upstream sales—complete equity method.



COMPLETE

Assume that P Company acquires an 85% interest in S Company for \$1,190,000 in 2017, when the retained earnings and capital stock of S Company amount to \$400,000 and \$1,000,000, respectively. The retained earnings of S Company on January 1, 2019, are \$666,000. On January 1, 2019, S Company sells P Company equipment with a book value of \$500,000 (original cost of \$800,000 and accumulated depreciation of \$300,000) for \$600,000. On January 1, 2019, the equipment has an estimated remaining useful life of five years and is depreciated using the straight-line method. S Company will record a gain of \$100,000 on the sale of the equipment, and each year P Company will record depreciation that is \$20,000 $[(\$600,000 - \$500,000)/5 \text{ years}]$ greater than depreciation based on the cost of the equipment to the consolidated group.

Under the complete equity method, P Company makes additional entries to adjust its equity in subsidiary income for amounts unrealized (and subsequently realized) in intercompany transactions. In this example, in 2019, P Company would make the following entries:

P Company Books (Complete Equity)

Investment in S Company	122,400	
Equity in Subsidiary Income		122,400
To record the parent's 85% share of subsidiary reported net income in 2019.		
Equity in Subsidiary Income	85,000	
Investment in S Company		85,000
To adjust subsidiary income downward for the unrealized gain on the intercompany sale of equipment $(100,000 \times 85\%)$.		
Investment in S Company	17,000	
Equity in Subsidiary Income		17,000
To adjust subsidiary income upward for the portion of the gain realized through usage $(20,000 \times 85\%, \text{ or } 85,000/5 \text{ years})$.		

Consolidated statements workpapers for the years ended December 31, 2019, and December 31, 2020, are presented in Illustrations 7-12 and 7-13, respectively.

Consolidated Statements Workpaper Entries—December 31, 2019

Workpaper entries in Illustration 7-12 are presented in general journal form as follows:

(1)	Equity in Subsidiary Income $(\$122,400 - \$85,000 + \$17,000)$	54,400	
	Dividends Declared—S Company		0
	Investment in S Company		54,400
To eliminate equity in subsidiary income and intercompany dividends, if any.			

(2)	Gain on Sale of Equipment	100,000	
	Property and Equipment	200,000	
	Accumulated Depreciation		300,000
To eliminate the unrealized gain recorded on intercompany sale of equipment and restore equipment to its original cost (and accumulated depreciation to its balance at the date of the intercompany sale).			

ILLUSTRATION 7-12**Complete Equity Method**

85% Owned Subsidiary		Consolidated Statements Workpaper				
Upstream Sale of Equipment		P Company and Subsidiary				
Year of Sale		for the Year Ended December 31, 2019				
	P	S	Eliminations		Noncontrolling	Consolidated
	Company	Company	Dr.	Cr.	Interest	Balances
<i>Income Statement</i>						
Sales	3,500,000	2,000,000				5,500,000
Equity in Subsidiary Income	54,400		(1)	54,400		
Gain on Sale of Equipment		100,000	(2)	100,000		
Total Revenue	<u>3,554,400</u>	<u>2,100,000</u>				<u>5,500,000</u>
Cost of Sales	1,800,000	1,130,000				2,930,000
Depreciation Expense	380,000	330,000		(3) 20,000		690,000
Income Tax Expense	200,000	96,000				296,000
Other Expense	820,000	400,000				1,220,000
Total Cost and Expense	<u>3,200,000</u>	<u>1,956,000</u>				<u>5,136,000</u>
Net/Consolidated Income	354,400	144,000				364,000
Noncontrolling Interest in Income					9,600*	9,600
Net Income to Retained Earnings	<u>354,400</u>	<u>144,000</u>	<u>154,400</u>	<u>20,000</u>	<u>9,600</u>	<u>354,400</u>
<i>Retained Earnings Statement</i>						
1/1 Retained Earnings						
P Company	1,726,100					1,726,100
S Company		666,000	(4)	666,000		
Net Income from above	<u>354,400</u>	<u>144,000</u>	<u>154,400</u>	<u>20,000</u>	<u>9,600</u>	<u>354,400</u>
12/31 Retained Earnings to						
Balance Sheet	<u>2,080,500</u>	<u>810,000</u>	<u>820,400</u>	<u>20,000</u>	<u>9,600</u>	<u>2,080,500</u>
<i>Balance Sheet</i>						
Current Assets	1,000,000	570,000				1,570,000
Investment in S Company**	1,470,500			(1) 54,400 (4) 1,416,100		
Land	1,000,000	200,000				1,200,000
Property and Equipment (Accumulated Depreciation)	3,800,000	2,700,000	(2)	200,000		6,700,000
Depreciation	(1,520,000)	(960,000)	(3)	20,000	(2) 300,000	(2,760,000)
Total Assets	<u>5,750,500</u>	<u>2,510,000</u>				<u>6,710,000</u>
Liabilities	670,000	700,000				1,370,000
Capital Stock						
P Company	3,000,000					3,000,000
S Company		1,000,000	(4)	1,000,000		
Retained Earnings from above	2,080,500	810,000	820,400	20,000	9,600	2,080,500
1/1 Noncontrolling Interest in Net Assets				(4) 249,900	249,900	
12/31 Noncontrolling Interest					<u>259,500</u>	<u>259,500</u>
Total Liabilities and Equity	<u>5,750,500</u>	<u>2,510,000</u>	<u>2,040,400</u>	<u>2,040,400</u>		<u>6,710,000</u>

* $.15 \times (\$144,000 - \$100,000 + \$20,000) = \$9,600$.

** The investment account equals $\$1,190,000 + 85\%$ of the increase in S Company's Retained Earnings from the date of acquisition to the beginning of the year $(\$666,000 - 400,000)$ plus the current period's equity in subsidiary income $(\$54,400)$.

(1) To eliminate equity in subsidiary income and intercompany dividends, if any.

(2) To eliminate the unrealized gain recorded on intercompany sale of equipment and restore equipment to its original cost (and accumulated depreciation to its balance at the date of the intercompany sale).

(3) To adjust depreciation on equipment sold to affiliate, thus realizing a portion of the gain through usage $(\$100,000/5 \text{ years} = \$20,000)$.

(4) To eliminate investment account against the underlying equity accounts of S Company and create noncontrolling interest account.

ILLUSTRATION 7-13

Complete Equity Method

		Consolidated Statements Workpaper				
85% Owned Subsidiary		P Company and Subsidiary				
Upstream Sale of Equipment		for the Year Ended December 31, 2020				
Year Subsequent of Sale						
	P	S	Eliminations		Noncontrolling	Consolidated
	Company	Company	Dr.	Cr.	Interest	Balances
<i>Income Statement</i>						
Sales	4,000,000	2,200,000				6,200,000
Equity Income	154,700		(1)	154,700		
Total Revenue	<u>4,154,700</u>	<u>2,200,000</u>				6,200,000
Cost of Sales	2,100,000	1,180,000				3,280,000
Depreciation Expense	380,000	330,000		(3) 20,000		690,000
Income Tax						
Expense	272,000	108,000				380,000
Other Expense	840,000	420,000				1,260,000
Total Cost and Expense	<u>3,592,000</u>	<u>2,038,000</u>				<u>5,610,000</u>
Net/Consolidated Income	562,700	162,000				590,000
Noncontrolling						
Interest in Income					27,300*	27,300
Net Income to						
Retained Earnings	<u>562,700</u>	<u>162,000</u>	<u>154,700</u>	<u>20,000</u>	<u>27,300</u>	<u>562,700</u>
<i>Retained Earnings Statement</i>						
1/1 Retained Earnings						
P Company	2,080,500					2,080,500
S Company		810,000	(4)	810,000		
Net Income from above	562,700	162,000	154,700	20,000	27,300	562,700
12/31 Retained Earnings to						
Balance Sheet	<u>2,643,200</u>	<u>972,000</u>	<u>964,700</u>	<u>20,000</u>	<u>27,300</u>	<u>2,643,200</u>
<i>Balance Sheet</i>						
Current Assets	1,190,000	790,000				1,980,000
Investment in S Company	1,625,200		(2)	85,000	(1) 154,700 (3) 17,000 (4) 1,538,500	
Land	1,600,000	200,000				1,800,000
Property and Equipment	3,800,000	2,700,000	(2)	200,000		6,700,000
(Accumulated Depreciation)	(1,900,000)	(1,290,000)	(3)	40,000	(2) 300,000	(3,450,000)
Total Assets	<u>6,315,200</u>	<u>2,400,000</u>				<u>7,030,000</u>
Liabilities	672,000	428,000				1,100,000
Capital Stock						
P Company	3,000,000					3,000,000
S Company		1,000,000	(4)	1,000,000		
Retained Earnings from above	2,643,200	972,000	964,700	20,000	27,300	2,643,200
1/1 Noncontrolling						
Interest in Net Assets			(2)	15,000	(4) 271,500 (3) 3,000	259,500
12/31 Noncontrolling						
Interest in Net Assets**					286,800	286,800
Total Liabilities and Equity	<u>6,315,200</u>	<u>2,400,000</u>	<u>2,304,700</u>	<u>2,304,700</u>		<u>7,030,000</u>

*.15 × (\$162,000 + \$20,000) = \$27,300.

**\$210,000 + .15 × (\$810,000 – \$400,000) = \$271,500.

(1) To eliminate equity in subsidiary income and intercompany dividends, if any.

(2) To reduce controlling and noncontrolling interests for their shares of unrealized intercompany gain and to restore equipment and accumulated depreciation to their original balances.

(3) To reverse amount of excess depreciation recorded during current and prior year and to recognize intercompany gain realized through usage.

(4) To eliminate investment account and create noncontrolling interest account.

(3) Accumulated Depreciation	20,000	
Depreciation Expense		20,000
To adjust depreciation on equipment sold to affiliate, thus realizing a portion of gain through usage ($\$100,000/5$ years = $\$20,000$).		

(4) Beginning Retained Earnings—S Company	666,000	
Capital Stock—S Company	1,000,000	
Investment in S Company ($\$1,190,000 + \$226,100$)		1,416,100
NCI in Equity ($\$210,000 + .15 (\$666,000 - \$400,000)$)		249,900
To eliminate investment account against underlying equity accounts of S Company, and recognize NCI.		

Since the selling affiliate is a partially owned subsidiary (upstream sale), the calculation of the noncontrolling interest in consolidated net income is modified by subtracting the amount of the gain recognized by the subsidiary and adding the amount of the gain considered to be realized (through depreciation) to the reported net income of the subsidiary [$.15 \times (\$144,000 - \$100,000 + \$20,000) = \$9,600$].

Noncontrolling Interest in Income

Unrealized gain on intercompany sale	\$100,000	Internally generated income of S Company	\$144,000
		Gain realized through usage (depreciation adjustment)	20,000
		Adjusted income of subsidiary	\$ 64,000
		Noncontrolling percentage	<u>× 15%</u>
		Noncontrolling interest in income	<u>\$ 9,600</u>



If the sale of the equipment had been downstream rather than upstream, the amount of subsidiary income included in consolidated income would not be affected by the workpaper entries related to unrealized intercompany gain and no adjustment would be necessary in calculating the *noncontrolling interest* in consolidated income.

Consolidated Statements Workpaper Entries—December 31, 2020

In the year 2020, P Company would again make an entry to adjust its equity in subsidiary income for the portion of the gain on the intercompany sale that is realized through usage. This entry may be recorded separately from the one to record P's share of subsidiary *reported* income, as shown below, or the two could be collapsed into one entry for \$154,700 ($\$137,700 + \$17,000$).

P Company Books (Complete Equity Method)

Investment in S Company	137,700	
Equity in Subsidiary Income		137,700
To record the parent's 85% share of subsidiary reported net income in 2020.		
Investment in S Company	17,000	
Equity in Subsidiary Income		17,000
To adjust subsidiary income upward for the portion of the gain realized through usage ($20,000 \times 85%$, or $85,000/5$ years).		

Workpaper entries in Illustration 7-13 are presented in general journal form as follows:

(1)	Equity in Subsidiary Income	154,700	
	Dividends Declared—S Company		0
	Investment in S Company		154,700
	To eliminate equity in subsidiary income and intercompany dividends, if any.		
(2)	Investment in S Company (100,000 × .85)	85,000	
	Beginning NCI (100,000 × .15)		15,000
	Property and Equipment	200,000	
	Accumulated Depreciation		300,000
	To reduce the noncontrolling interest for its share of unrealized intercompany gain, to restore equipment and accumulated depreciation to their original balances at the date of the intercompany sale, and to facilitate the elimination of the investment account.		



Consider the debit to the investment account in entry (2), recalling that the investment account is reduced on the parent’s books when the unrealized income is deducted from the parent’s equity in subsidiary income under the complete equity method. Thus, the usual workpaper entry to eliminate the investment account against the underlying subsidiary equity accounts [entry (4) below] eliminates an amount greater than the actual beginning investment account balance. That entry, combined with entries (2) and (3), however, will eliminate the investment to exactly zero.

(3)	Accumulated Depreciation	40,000	
	Depreciation Expense		20,000
	Investment in S Company (20,000 × .85)		17,000
	Beginning Retained Earnings—S Company (20,000 × .15)		3,000
	To adjust depreciation recorded in current year and prior year, thus recognizing intercompany gain realized through usage (prior year adjustment for controlling interest to Investment account).		

(4)	Beginning Retained Earnings—S Company	810,000	
	Capital Stock—S Company	1,000,000	
	Investment in S Company		1,538,500
	NCI (210,000 + .15 (810,000 – 400,000))		271,500
	To eliminate investment account against underlying equity accounts of S Company and recognize NCI.		

The noncontrolling interest in consolidated net income is calculated after adding the portion of the gain considered realized during the year to the net income reported by the subsidiary [$.15 \times (\$162,000 + \$20,000) = \$27,300$].

Noncontrolling Interest in Income

Internally generated income of S Company	\$162,000
Gain realized through usage (depreciation adjustment)	<u>20,000</u>
Adjusted income of subsidiary	\$182,000
Noncontrolling percentage	<u>× 15%</u>
Noncontrolling interest in income	<u>\$ 27,300</u>

Disposal of Property and Equipment by Purchasing Affiliate

LO 9 Disposal of property by purchaser—complete equity.

Assume that on January 1, 2021, P Company sells the equipment it purchased from S Company to a party outside the affiliated group for \$400,000. The recorded and consolidated book values of the equipment on January 1, 2021, are calculated in Illustration 7-14. P Company will record a \$40,000 gain on the sale of the equipment to the party outside the affiliated group, calculated as:

Selling price	\$400,000
Book value (on P Company's books)	<u>360,000</u>
Gain on sale (recorded by P Company)	40,000

The following entry is made on the books of P Company to record the sale:

**P Company Books—Complete Equity Method**

Cash	400,000	
Accumulated Depreciation	240,000	
Property and Equipment		600,000
Gain on Sale of Equipment		40,000

In addition, P Company would make an entry to adjust its equity in subsidiary income for the amount of the intercompany gain realized in the current period (85% of: the original \$100,000 gain minus the depreciation adjustments of \$40,000 for 2019–2020; or \$51,000). This entry is made for 85% of the realized gain as the original intercompany transaction was an upstream sale, and thus the controlling interest in the realized gain is 85% of \$60,000, or \$51,000.

Investment in S Company	51,000	
Equity in Subsidiary Income		51,000

ILLUSTRATION 7-14**Calculation of Book Value of Equipment on January 1, 2021**

<i>On Books of P Company</i>	
Cost (to P Company)	\$600,000
Accumulated Depreciation $[(\$600,000/5) \times 2]$	<u>240,000</u>
Recorded Book Value—January 1, 2021	<u>\$360,000</u>
<i>Consolidated</i>	
Cost (original cost to S Company)	\$800,000
Accumulated Depreciation $[\$300,000 + ((\$800,000 - \$300,000)/5) \times 2]$	<u>500,000</u>
Consolidated Book Value—January 1, 2021	<u>\$300,000</u>

However, the consolidated book value of the equipment on the date of the sale by P Company is only \$300,000, and from the point of view of the consolidated entity a \$100,000 gain on the sale (selling price of \$400,000 minus book value to consolidated entity of \$300,000) should be recognized. The entry on the December 31, 2021, consolidated statements worksheet necessary to achieve this result follows:

Investment in S Company (.85 × \$60,000)	51,000	
Beginning NCI (.15 × \$60,000)	9,000	
Gain on Sale of Equipment		60,000
To adjust reported gain on the sale of equipment by P Company to third party from \$40,000 gain recorded by P Company to \$100,000 gain to the consolidated equity.		

The above entry also serves to adjust the noncontrolling interest for its share of unrealized intercompany gain at the beginning of year (\$100,000 original gain minus \$40,000 realized through usage [\$20,000 in 2019 and \$20,000 in 2020] = \$60,000 × 15%), and to facilitate the elimination of the investment account (by debiting it for the controlling share \$60,000 × 85%).



Note that the entry does not include any adjustment to equipment or accumulated depreciation after the disposal, as these accounts are accurately reflected at zero. Also, it is not necessary to calculate the \$60,000 adjustment to the controlling and noncontrolling interests directly in the above entry as it will always equal the gain adjustment. From a consolidated point of view, the amount of gain recorded by the selling affiliate will always be understated (or the amount of loss recorded will always be overstated) by an amount that is equal to the unrealized intercompany profit associated with the equipment on the date of its premature disposal.

After December 31, 2021, no more book or worksheet entries relating to this equipment will be required. Under the complete equity method, entries are needed up through December 31, 2021, even though profit is accurately reflected in the books of P Company. Because the adjustments are reflected in P's books in the account Equity in Subsidiary Income and that account is eliminated in the consolidating process, it is still necessary to adjust the underlying accounts (gain, depreciation expense, etc.) until the asset is sold to outsiders and appropriately removed from the books entirely.

7.6 CALCULATION AND ALLOCATION OF CONSOLIDATED NET INCOME; CONSOLIDATED RETAINED EARNINGS: COMPLETE EQUITY METHOD

LO 8 Consolidated net income—complete equity method.

For firms using the complete equity method, the controlling interest in consolidated net income will always equal the net income reported by the parent. Thus it is not necessary to reconcile the two. It is, nonetheless, useful to know how to check the amount of the controlling and noncontrolling interests in consolidated income using the t-account approach presented in Illustrations 7-9 and 7-10. Similarly, consolidated retained earnings will equal the retained earnings reported by the parent at any point, assuming the parent has correctly adjusted for any and all unrealized (and subsequently realized) intercompany profit. This amount may be verified using the t-account approach presented in Illustration 7-11.

7.7 SUMMARY OF WORKPAPER ENTRIES RELATING TO INTERCOMPANY SALES OF EQUIPMENT

Consolidated statements workpaper eliminating entries for intercompany sales of equipment are summarized in Illustration 7-15. The entries are the same whether the parent company uses the cost method or the partial equity method to record its investment. However, the form of the workpaper entry to adjust for unrealized intercompany profit at the beginning of the year differs as between upstream and downstream sales and between the complete equity method and the other two.

7.8 INTERCOMPANY INTEREST, RENTS, AND SERVICE FEES

Lo10 Intercompany interest, rents, service fees.

Income and expenses relating to interest, fees, and rents should be reported in the consolidated income statement only when they arise from transactions with parties outside the affiliated group. In addition, as discussed in Chapter 3, only receivables and payables that are receivable from or payable to parties outside the affiliated group should be reported in the consolidated balance sheet.

Intercompany Interest

When interest is charged on intercompany loans, the intercompany interest income on the lending affiliate's books is equal to the intercompany interest expense on the borrowing affiliate's books. The workpaper entry to eliminate intercompany interest is:

Interest Income	XXX	
Interest Expense		XXX

Since equal amounts of revenue and expense are removed from combined income, the net amount of consolidated net income is not affected by this entry. When intercompany loans or interest remain unpaid on the balance sheet date, additional entries are necessary to eliminate related intercompany payables and receivables as follows:

Notes Payable	XXX	
Notes Receivable		XXX
Interest Payable	XXX	
Interest Receivable		XXX

Intercompany Rents

When there is an intercompany operating lease, intercompany rent income on the books of the lessor will equal intercompany rent expense on the books of the lessee. The workpaper entry to eliminate intercompany rent is:

Rent Income	XXX	
Rent Expense		XXX

ILLUSTRATION 7-15

**Intercompany Gain on Sale of Equipment
Summary of Workpaper Elimination Entries**

<i>Selling Affiliate Is the Parent (or Wholly Owned Subsidiary) (Downstream Sales)</i>				<i>Selling Affiliate Is a Subsidiary (Less than Wholly Owned Subsidiary) (Upstream Sales)</i>			
<i>Entries in Year of Intercompany Sale (Cost, Partial Equity, and Complete Equity):</i>							
Gain on Sale	xx			Gain on Sale		xx	
Equipment		xx		Equipment		xx	
Accumulated Depreciation			xx	Accumulated Depreciation			xx
To eliminate unrealized gain on intercompany sale in year of sale and to restore equipment to its original cost and accumulated depreciation to its balance at the date of the intercompany sale.				To eliminate unrealized gain on intercompany sale in year of sale and to restore equipment to its original cost and accumulated depreciation to its balance at the date of the intercompany sale.			
Accumulated Depreciation		xx		Accumulated Depreciation		xx	
Depreciation Expense			xx	Depreciation Expense			xx
To reverse amount (if any) of excess depreciation recorded during current year, thus recognizing an equivalent amount of intercompany profit as realized.				To reverse amount (if any) of excess depreciation recorded during current year, thus recognizing an equivalent amount of intercompany profit as realized.			
<i>Entries in Years Subsequent to the Year of Intercompany Sale (Downstream):</i>				<i>(Upstream):</i>			
<i>Cost and Partial Equity</i>		<i>Complete Equity</i>		<i>Cost and Partial Equity</i>		<i>Complete Equity</i>	
Beginning Retained Earnings—P Company	xx	Investment in S Company	xx	Beginning Retained Earnings—P	xx	Investment in S Company	xx
		Equipment	xx	NCI in Equity	xx	NCI in Equity	xx
Equipment	xx	Accumulated Depreciation	xx	Equipment	xx	Equipment	xx
Accumulated Depreciation	xx			Accumulated Depreciation	xx	Accumulated Depreciation	xx
To reduce consolidated retained earnings for the intercompany gain, to restore accumulated depreciation and equipment to their original balances at the date of intercompany sale.		To facilitate elimination of the investment account and to restore accumulated depreciation and equipment to their original balances at the date of the intercompany sale.		To reduce the controlling and noncontrolling interests for their respective shares of the intercompany gain, to restore accumulated depreciation and equipment to their original balances at the date of the intercompany sale.		To reduce the noncontrolling interest for its share of the intercompany gain, to facilitate the elimination of the investment account and restore accumulated depreciation and equipment to their original balances at the date of the intercompany sale.	
Accumulated Depreciation	xx	Accumulated Depreciation	xx	Accumulated Depreciation	xx	Accumulated Depreciation	xx
Depreciation Expense	xx	Depreciation Expense	xx	Depreciation Expense	xx	Depreciation Expense	xx
Beginning Retained Earnings—P Company	xx	Investment in S Company	xx	Beginning Retained Earnings—P Company	xx	Investment in S Company	xx
				NCI in Equity	xx	NCI in Equity	xx
To reverse amount of excess depreciation recorded during current year and prior year, thus recognizing intercompany gain realized through usage.				To reverse amount of excess depreciation recorded during current year and prior year, thus recognizing intercompany gain realized through usage.			

Since equal amounts of revenue and expense are removed from consolidated income, the net amount of consolidated net income is not affected by this entry.

Intercompany Service Fees

When one affiliate charges fees to another, the form of the eliminating entry is determined by how the transaction is recorded by the affiliates. If the affiliate that provides the service treats the fee as revenue and the affiliate that receives the service treats the fee as an expense, the necessary workpaper entry is simply a debit to service fee revenue and a credit to service fee expense. On the other hand, the affiliate that receives the service may treat the amount it is charged for the service as a capital addition. For example, fees for architectural services to an affiliate may be treated by the purchasing affiliate as part of the cost of a building. In this case, architectural fees should be debited for the amount recorded as revenue on the intercompany transaction, appropriate expense accounts (as recorded on the selling affiliates books) should be credited for the cost to the selling affiliate of providing the services, and the building should be credited for the difference between the revenue recorded and the cost of providing the service. Additional workpaper entries will also be necessary in subsequent years to report balances for the building, accumulated depreciation, and depreciation expense at amounts based on the cost of the building to the affiliated group.

For example, assume that P Company bills its subsidiary, S Company, \$400,000 for architectural services. The cost to P Company of providing the services is \$250,000. S Company charges the services to the cost of a building that it opens at the beginning of the next year with an estimated useful life of 15 years. Workpaper entries to eliminate the effects of the intercompany service fee are as follows:

In the Year the Services Are Rendered

Cost and Partial Equity		Complete Equity	
Architectural Fees	400,000	Architectural Fees	400,000
Salary Expense	200,000	Salary Expense	200,000
Travel Expense	15,000	Travel Expense	15,000
Other Expense	35,000	Other Expense	35,000
Building	150,000	Building	150,000

In the Year the Building Is Opened

Cost and Partial Equity		Complete Equity	
Beginning Retained		Investment in S Company	150,000
Earnings—P Company	150,000	Building	150,000
Building	150,000		
Accumulated Depreciation	10,000	Accumulated Depreciation	10,000
Depreciation Expense	10,000	Depreciation Expense	10,000

In the Fifth Year After the Building Is Opened

Cost and Partial Equity		Complete Equity	
Beginning Retained		Investment in S Company	110,000
Earnings—P Company	110,000	Accumulated Depreciation	40,000
Accumulated Depreciation	40,000	Building	150,000
Building	150,000		
Accumulated Depreciation	10,000	Accumulated Depreciation	10,000
Depreciation Expense	10,000	Depreciation Expense	10,000

Thus eliminating entries relating to intercompany transactions depend on how these transactions are recorded on the books of the affiliates. In all cases, however, the financial reporting objectives identified in previous sections of this chapter and in Chapter 6 apply. In the preceding example, the reporting objectives were:

- To include in revenue only the amounts that result from *transactions with parties outside the affiliated group*.
- To present property in the consolidated balance sheet at *its cost to the affiliated group*.
- To present accumulated depreciation in the consolidated balance sheet based on the *cost to the affiliated group* of the related assets.
- To present depreciation expense in the consolidated income statement based on the *cost to the affiliated group* of the related assets.

In order to apply the objectives identified in this chapter and in Chapter 6 to a situation that is not illustrated in this text, the student may wish to work out the work-paper entries necessary in a situation like the following. S Company is in the business of selling equipment that it manufactures. S Company treats equipment manufactured as finished goods inventory. S Company sells some equipment that it manufactured to its parent company at a profit. The equipment is capitalized and depreciated on the books of the parent company.

SUMMARY

- 1 *Understand the financial reporting objectives in accounting for intercompany sales of nondepreciable assets on the consolidated financial statements.* The consolidated financial statements should include gains or losses only when the property is sold to outsiders (parties outside the affiliated group) for the difference between the cost to the consolidated entity and the proceeds from outsiders. Until it is sold to outsiders, the property should be presented in the consolidated balance sheet at its cost to the affiliated group.
- 2 *State the additional financial reporting objectives in accounting for intercompany sales of depreciable assets on the consolidated financial statements.* Accumulated depreciation should be presented in the consolidated balance sheet based on the cost of the asset to the affiliated group, and depreciation expense should be presented in the consolidated income statement also based on the cost to the affiliated group.
- 3 *Explain when gains or losses on intercompany sales of depreciable assets should be recognized on a consolidated basis.* Gains or losses on intercompany sales of depreciable assets are recognized either when the asset is sold to outsiders, or gradually over time as it is depreciated.
- 4 *Explain the term “realized through usage.”* After an intercompany sale, the purchasing affiliate will calculate depreciation on the basis of its cost, which is the intercompany selling price. The depreciation recorded by the purchasing affiliate will, therefore, be excessive (deficient) from a consolidated point of view and will also require adjustment. From the view of the consolidated entity, the intercompany gain (loss) is considered to be realized from the use of the property or equipment in the generation of revenue.
- 5 *Describe the differences between upstream and downstream sales in determining consolidated net income and the controlling and noncontrolling interests in consolidated income.* There is no difference between upstream and downstream sales in determining consolidated income. However, the controlling and noncontrolling interests are affected differently. For downstream sales, the elimination of intercompany gains as well as the subsequent depreciation adjustments affect only the controlling interest. For upstream sales, the adjustments are made to the subsidiary income, and thus affect both the noncontrolling and controlling interests in the proportion of subsidiary ownership.
- 6 *Compare the eliminating entries when the selling affiliate is a subsidiary (less than wholly owned) versus when the selling affiliate is the parent company.* Because of the differences explained in the preceding item (#5), the eliminating entries are similarly affected. Specifically, the entries in subsequent years for downstream sales that reflect prior years' income or expense adjustments [entries to Retained Earnings—Parent (under the cost or partial equity method) or Investment in Subsidiary (under the complete equity method)] are replaced by eliminating entries for upstream sales to both Retained Earnings—Parent and to NCI in Equity under the cost or

partial equity method or to both Investment in Subsidiary and NCI under the complete equity method.

- 7** *Compute the noncontrolling interest in consolidated net income when the selling affiliate is a subsidiary.* The noncontrolling interest in consolidated income is computed as the noncontrolling interest percentage of the internally generated income of the subsidiary minus the unrealized gain on upstream sales (year of sale only) plus the amount of the gain realized through usage (depreciation adjustment).
- 8** *Compute consolidated net income considering the effects of intercompany sales of depreciable assets.* Consolidated net income is computed as the internally generated income of the parent minus the unrealized gain on downstream sales (year of sale only) plus the amount of the gain realized through usage (depreciation adjustment) plus the subsidiary income adjusted for upstream sales minus any other adjustments needed (such as excess depreciation, described in earlier chapters).
- 9** *Describe the eliminating entry needed to adjust the consolidated financial statements when the purchasing*

affiliate sells a depreciable asset that was acquired from another affiliate. The entry does not include any adjustment to equipment or accumulated depreciation after the disposal, as these accounts are accurately reflected at zero. The entry merely adjusts the gain or loss reported by the purchasing affiliate from the amount it recorded to the correct amount from the perspective of the consolidated entity (based on original cost and depreciation), and adjusts the controlling and noncontrolling interests for the unrealized intercompany profit associated with the equipment on the date of its premature disposal (which equals the over- or understatement of the gain or loss).

- 10** *Explain the basic principles used to record or eliminate intercompany interest, rent, and service fees.* Income and expenses relating to interest, fees, and rents should be reported in the consolidated income statement only when they arise from transactions with parties outside the affiliated group. In addition, only receivables and payables that are receivable from or payable to parties outside the affiliated group should be reported in the consolidated balance sheet.

Supplemental Appendix 7A, “Deferred Taxes Consequences Related to Intercompany Sales of Equipment,” is available from your instructor.

TEST YOUR KNOWLEDGE SOLUTIONS

7.1 1. b **7.2** 1. d **7.3** 1. a

QUESTIONS

(The letter A or B indicated for a question, exercise, or problem refers to a related appendix.)

- LO1 LO3** 1. From a consolidated point of view, when should profit be recognized on intercompany sales of depreciable assets? Nondepreciable assets?
- LO3** 2. In what circumstances might a consolidated gain be recognized on the sale of assets to a nonaffiliate when the selling affiliate recognizes a loss?
- LO6** 3. What is the essential procedural difference between workpaper eliminating entries for unrealized intercompany profit when the selling affiliate is a less than wholly owned subsidiary and such entries when the selling affiliate is the parent company or a wholly owned subsidiary?
- LO8** 4. Define the controlling interest in consolidated net income using the t-account approach.
- LO5** 5. Why is it important to distinguish between upstream and downstream sales in the analysis of intercompany profit eliminations?
- LO3** 6. In what period and in what manner should profits relating to the intercompany sale of depreciable property and equipment be recognized in the consolidated financial statements?
7. Define consolidated retained earnings using the analytical approach. **LO8**

Business Ethics

Some people believe that the use of executive stock options is directly related to the increased number of earnings restatements. For each of the following items, discuss the potential ethical issues that might be related to earnings management within the firm.

1. Should stock options be expensed on the Income Statement?
2. Should the CEO or CFO be a past employee of the firm's audit firm?
3. Should the firm's audit committee be composed entirely of outside members and be solely responsible for hiring the firm's auditors?⁵

⁵ *The CPA Journal*, “Proposals to Improve the Image of the Public Accounting Profession,” by Franklin Strier, 3/06, p. 67.

ANALYZING FINANCIAL STATEMENTS

AFS7-1 Green Mountain Coffee Roasters Acquisition of Timothy's Coffee of the World

Green Mountain Coffee Roasters reported net income for the year ended September 26, 2009 of \$54.439 million. There were 120,370,659 common shares outstanding. On November 13, 2009, Green Mountain acquired all the outstanding shares of Timothy's Coffee of the World for \$155.74 million cash. The purchase price was allocated as follows (\$ in thousands):

Purchase price		\$155,740
Allocated to:		
Accounts receivable	8,732	
Inventory	6,911	
Other current assets	83	
Fixed assets	7,827	
Identifiable intangibles	98,300	
Accounts payable	(6,852)	
Accrued expenses	(1,284)	
Deferred taxes	<u>(27,274)</u>	
Total		<u>86,443</u>
Excess		69,297

The identifiable intangible assets included \$83.2 million for customer relationships with an estimated life of 16 years, \$8.9 million for Timothy's trade name with an estimated life of 11 years, and \$6.2 million for supply agreements with an estimated life of 11 years. The valuation of fixed assets to fair value was not significant.

Required:

- Prepare the consolidation worksheet entry(ies) to eliminate the investment account.
- If Timothy's Coffee generated \$15 million of income (not considering the acquisition) in 2010, will the acquisition of Timothy's Coffee be accretive or dilutive to the earnings per share of Green Mountain?

EXERCISES

EXERCISE 7-1 Controlling Interest in Income LO 8

On January 1, 2019, Sherwood Company, an 80% owned subsidiary of Paradise Company, sold to Paradise Company equipment with a book value of \$600,000 for \$840,000. The equipment had an estimated remaining useful life of eight years on the date of the intercompany sale.

Paradise Company reported net income from its independent operations of \$550,000, and Sherwood Company reported net income of \$300,000 in the years of 2019 and 2020.

Required:

Calculate the controlling interest in combined net income for the years ended December 31, 2019, and December 31, 2020.

EXERCISE 7-2 Controlling Interest in Income LO 8

On January 1, 2019, Polar Company, which owns an 80% interest in Superior Company, sold Superior Company equipment with a book value of \$400,000 for \$560,000. The equipment had an estimated remaining useful life of eight years on the date of the intercompany sale.

Polar Company reported net income from its independent operations (including sales to affiliates) of \$400,000, and Superior Company reported net income of \$200,000 from its independent operations in 2019 and 2020.

Required:

Calculate the controlling interest in consolidated net income for the years ended December 31, 2019, and December 31, 2020.

EXERCISE 7-3**Workpaper Entries—Intercompany Sale of Equipment LO 6 LO 8**

Pearson Company owns 90% of the outstanding common stock of Spring Company. On January 1, 2019, Spring Company sold equipment to Pearson Company for \$200,000. Spring Company had purchased the equipment for \$300,000 on January 1, 2009, and had depreciated it using a 10% straight-line rate. The management of Pearson Company estimated that the equipment had a remaining useful life of five years on January 1, 2019. In 2020, Pearson Company reported \$150,000 and Spring Company reported \$100,000 in net income from their independent operations (including sales to affiliates).

Required:

- A. Prepare in general journal form the workpaper entries relating to the intercompany sale of equipment that are necessary in the December 31, 2019, and December 31, 2020, consolidated financial statements workpapers.
- B. Calculate controlling interest in consolidated income for 2020.

EXERCISE 7-4**Entries—Intercompany Sale of Land LO 6**

Procter Company owns 90% of the outstanding stock of Silex Company. On January 1, 2019, Silex Company sold land to Procter Company for \$350,000. Silex had originally purchased the land on June 30, 2010, for \$200,000.

Procter Company plans to construct a building on the land bought from Silex in which it will house new production machinery. The estimated useful life of the building and the new machinery is 15 years.

Required:

- A. Prepare the entries on the books of Procter related to the intercompany sale of land for the years ended December 31, 2019, and December 31, 2020.
- B. Prepare in general journal form the workpaper entries necessary because of the intercompany sale of land in:
 - (1) The consolidated financial statements workpaper for the year ended December 31, 2019.
 - (2) The consolidated financial statements workpaper for the year ended December 31, 2020.

EXERCISE 7-5**Upstream and Downstream Sale LO 6**

Patterson Company owns 80% of the outstanding common stock of Stevens Company. On June 30, 2018, land costing \$500,000 is sold by one affiliate to the other for \$800,000.

Required:

Prepare in general journal form the workpaper entries necessary because of the intercompany sale of land in the consolidated financial statements workpaper for the year ended December 31, 2019, assuming that:

- A. Patterson Company purchased the land from Stevens Company.
- B. Stevens Company purchased the land from Patterson Company.

EXERCISE 7-6**Calculating Gain on Sale LO 9**

P Company owns 90% of the outstanding common stock of S Company. On January 1, 2020, S Company sold land to P Company for \$600,000. S Company originally purchased the land for \$400,000.

On January 1, 2021, P Company sold the land purchased from S Company to a company outside the affiliated group for \$700,000.

Required:

- A. Calculate the amount of gain on the sale of the land that is recognized on the books of P Company in 2021.
- B. Calculate the amount of gain on the sale of the land that should be recognized in the consolidated financial statements in 2021.
- C. Prepare in general journal form the workpaper entries necessary because of the intercompany sale of land in the consolidated financial statements workpaper for the year ended December 31, 2021.

EXERCISE 7-7

Entries—Intercompany Sale of Inventory and Equipment LO 7 LO 9

On January 1, 2018, Price Company acquired an 80% interest in the common stock of Smith Company on the open market for \$750,000, the book value at that date.

On January 1, 2019, Price Company purchased new equipment for \$14,500 from Smith Company. The equipment cost \$9,000 and had an estimated life of five years as of January 1, 2019.

During 2020, Price Company had merchandise sales to Smith Company of \$100,000; the merchandise was priced at 25% above Price Company's cost. Smith Company still owes Price Company \$17,500 on open account and has 20% of this merchandise in inventory at December 31, 2020. At the beginning of 2020, Smith Company had in inventory \$25,000 of merchandise purchased in the previous period from Price Company.

Required:

- A. Prepare all workpaper entries necessary to eliminate the effects of the intercompany sales on the consolidated financial statements for the year ended December 31, 2020.
- B. Assume that Smith Company reports net income of \$40,000 for the year ended December 31, 2020. Calculate the amount of noncontrolling interest to be deducted from consolidated income in the consolidated income statement for the year ended December 31, 2020.

EXERCISE 7-8

Controlling Interest in Income LO 8

On January 1, 2020, P Company acquired a 90% interest in S Company. During 2021, S Company sold merchandise to P Company at 25% above cost in the amount (selling price) of \$225,000. At the end of the year, P Company had in its inventory one-third of the amount of goods purchased from S Company.

On January 1, 2021, P Company sold equipment that had a book value of \$80,000 to S Company for \$120,000. The equipment had an estimated remaining life of four years.

S Company reported net income of \$120,000, and P Company reported net income of \$300,000 from their independent operations (including sales to affiliates) for the year ended December 31, 2021.

Required:

Calculate controlling interest in consolidated net income for the year ended December 31, 2021.

EXERCISE 7-9

Workpaper Entries—Sales of Services LO 10

P Company owns 80% of the outstanding stock of S Company. The 2020 sales of S Company included revenue of \$390,000 consisting of consulting services billed to P Company at cost plus 30%. P Company was billed the full \$390,000; of this amount, \$260,000 was charged to selling expenses and \$130,000 was charged to administrative expense.

Required:

Prepare in general journal form the workpaper entry necessary to eliminate the effects of intercompany sales of services in the consolidated financial statements workpaper for the year ended December 31, 2020.

EXERCISE 7-10 Workpaper Entries—Intercompany Fees LO 10

During 2018, Pier One Company billed its 80% owned subsidiary, Scale Company, \$700,000 for architectural services. The cost to Pier One Company of providing the services was \$400,000 for salaries and \$150,000 for other operating expenses. Scale Company charged the architecture fees to the cost of a building that it opened on January 1, 2019. The building had an estimated useful life of 30 years.

Required:

Prepare in general journal form the workpaper entries relating to the intercompany fees that are necessary in the consolidated statements workpapers for the years ended December 31, 2018, 2019, and 2020.

EXERCISE 7-11 Workpaper Entries—Upstream and Downstream Sales LO 6 LO 8

Pinta Company, a forklift manufacturer, owns 80% of the voting stock of Standard Company. On January 1, 2019, Pinta Company sold forklifts to Standard Company for \$400,000. The forklifts, which represented inventory to Pinta Company, had a cost to Pinta Company of \$310,000. The management of Standard Company estimated that the forklifts had a useful life of nine years from the date of purchase. Standard Company uses the straight-line method to depreciate its capital assets.

In 2019, Pinta Company reported \$700,000 in net income from its independent operations (including sales to affiliates), and Standard Company reported \$250,000 in net income from its operations.

Required:

- A. Prepare in general journal form the workpaper entries necessary because of the intercompany sales in:
 - (1) The consolidated financial statements workpaper for the year ended December 31, 2019.
 - (2) The consolidated financial statements workpaper for the year ended December 31, 2020.
- B. Calculate controlling interest in consolidated net income for the year ended December 31, 2019.

EXERCISE 7-12 Workpaper Entries—Sale of Equipment LO 6

Pomeroy Corporation owns an 80% interest in Sherer Company and a 90% interest in Tampa Company. On January 2, 2019, Tampa Company sold equipment with a book value of \$600,000 to Sherer Company for \$780,000. This equipment has a remaining useful life of three years. Sherer Company reported \$100,000 and Tampa Company reported \$150,000 in net income (including sales to affiliates) in 2019.

Required:

Prepare the 2019 and 2020 consolidated statements workpaper entries to eliminate the effects of this sale of equipment.

PROBLEMS**PROBLEM 7-1 Workpaper Journal Entries and Income Statement Balances LO 6 LO 7 LO 8**

Powell Company owns 80% of the outstanding common stock of Sullivan Company. On June 30, 2019, Sullivan Company sold equipment to Powell Company for \$500,000. The equipment cost Sullivan Company \$780,000 and had accumulated depreciation of \$400,000 on the date of the sale. The management of Powell Company estimated that the equipment had a remaining useful life of four years from June 30, 2019. In 2020, Powell Company reported \$300,000 and Sullivan Company reported \$200,000 in net income from their independent operations (including sales to affiliates but excluding dividend or equity income from subsidiary).

Required:

- A. Prepare in general journal form the workpaper entries necessary because of the intercompany sale of equipment in:
 - (1) The consolidated financial statements workpaper for the year ended December 31, 2019.
 - (2) The consolidated financial statements workpaper for the year ended December 31, 2020.
- B. Calculate the balances to be reported in the consolidated income statement for the year ended December 31, 2020, for the following items:
 - (1) Consolidated income.
 - (2) Noncontrolling interest in consolidated income.
 - (3) Controlling interest in consolidated income.

PROBLEM 7-2**Workpaper Journal Entries LO 6 LO 8**

Pico Company, a truck manufacturer, owns 90% of the voting stock of Seward Company. On January 1, 2019, Pico Company sold trucks to Seward Company for \$350,000. The trucks, which represented inventory to Pico Company, had a cost to Pico Company of \$260,000. The management of Seward Company estimated that the trucks had a useful life of six years from the date of purchase. Seward Company uses the straight-line method to depreciate its capital assets.

In 2019, Pico Company reported \$600,000 in net income from its independent operations (including sales to affiliates but excluding dividend or equity income from subsidiary), and Seward Company reported \$200,000 in net income from its operations.

Required:

- A. Prepare in general journal form the workpaper entries necessary because of the intercompany sales in:
 - (1) The consolidated financial statements workpaper for the year ended December 31, 2019.
 - (2) The consolidated financial statements workpaper for the year ended December 31, 2020.
- B. Calculate controlling interest in consolidated net income for the year ended December 31, 2019.

PROBLEM 7-3**P Company Entries and Determining Gain or Loss on Sale LO 6 LO 9**

On January 1, 2020, P Company purchased equipment from its 80% owned subsidiary for \$600,000. The carrying value of the equipment on the books of S Company was \$450,000. The equipment had a remaining useful life of six years on January 1, 2020. On January 1, 2021, P Company sold the equipment to an outside party for \$550,000.

Required:

- A. Prepare in general journal form the entries necessary in 2020 and 2021 on the books of P Company to account for the purchase and sale of the equipment.
- B. Determine the consolidated gain or loss on the sale of the equipment and prepare in general journal form the entry necessary on the December 31, 2021, consolidated statements workpaper to properly reflect this gain or loss.

PROBLEM 7-4**Workpaper—Cost Method LO 6 LO 9**

Prout Company owns 80% of the common stock of Sexton Company. The stock was purchased for \$1,600,000 on January 1, 2017, when Sexton Company's retained earnings were \$800,000. On January 1, 2019, Prout Company sold fixed assets to Sexton Company for \$360,000. These assets were originally purchased by Prout Company for \$400,000 on January 1, 2009, at which time their estimated depreciable life was 25 years. The straight-line method of depreciation is used.

On December 31, 2020, the trial balances of the two companies were as shown here:

	<i>Prout Company</i>	<i>Sexton Company</i>
Current Assets	\$ 568,000	\$ 271,000
Fixed Assets	1,972,000	830,000
Other Assets	1,000,800	1,600,000
Investment in Sexton Company	1,600,000	
Dividends Declared	120,000	100,000
Cost of Goods Sold	942,000	795,000
Other Expenses (including depreciation)	145,000	90,000
Income Tax Expense	187,200	90,000
Total	<u>\$6,535,000</u>	<u>\$3,776,000</u>
Liabilities	\$ 305,000	\$ 136,000
Accumulated Depreciation	375,000	290,000
Sales	1,475,000	1,110,000
Dividend Income	80,000	
Common Stock	3,000,000	1,200,000
Retained Earnings 1/1	1,300,000	1,040,000
Total	<u>\$6,535,000</u>	<u>\$3,776,000</u>

Required:

- A. Prepare a consolidated statements workpaper for the year ended December 31, 2020.
- B. Assuming that on January 1, 2021, Sexton Company sells the fixed assets purchased from Prout Company to a party outside the affiliated group for \$300,000:
 - (1) Prepare the entry that would have been entered on the books of Sexton Company to record the sale.
 - (2) Prepare entries for the December 31, 2021, consolidated statements workpaper necessitated by the sale of the assets.
 - (3) Prepare any workpaper entries that will be needed in the December 31, 2022, consolidated statements workpaper in regard to these fixed assets.

PROBLEM 7-5

Trial Balance Workpaper—Cost Method LO 6 LO 9

Using the information presented in Problem 7-4, prepare a consolidated financial statements workpaper for the year ended December 31, 2020, using the trial balance format.

PROBLEM 7-6

Workpaper—Cost Method LO 6 LO 8

Pitts Company owns 80% of the common stock of Shannon Company. The stock was purchased for \$960,000 on January 1, 2017, when Shannon Company's retained earnings were \$675,000. On January 1, 2019, Shannon Company sold fixed assets to Pitts Company for \$960,000; Shannon Company had purchased these assets for \$1,350,000 on January 1, 2009, at which time their estimated useful life was 25 years. The estimated remaining useful life to Pitts Company on 1/1/19 is 10 years. Both companies employ the straight-line method of depreciation.

The financial data for 2020 are presented here:

	<i>Pitts Company</i>	<i>Shannon Company</i>
Sales	\$1,950,000	\$1,350,000
Dividend Income	60,000	
Total Revenue	<u>2,010,000</u>	<u>1,350,000</u>
Cost of Goods Sold	1,350,000	900,000
Other Expenses	225,000	150,000
Total Cost and Expense	<u>1,575,000</u>	<u>1,050,000</u>
Net Income	<u>\$ 435,000</u>	<u>\$ 300,000</u>

	<i>Pitts Company</i>	<i>Shannon Company</i>
1/1 Retained Earnings	\$1,215,000	\$1,038,000
Net Income	435,000	300,000
Dividends Declared	(150,000)	(75,000)
12/31 Retained Earnings	<u>\$1,500,000</u>	<u>\$1,263,000</u>
Inventory	\$ 498,000	\$ 225,000
Investment in Shannon Company	960,000	
Fixed Assets	2,168,100	2,625,000
Accumulated Depreciation—Fixed Assets	(900,000)	(612,000)
Total Assets	<u>\$2,726,100</u>	<u>\$2,238,000</u>
Liabilities	\$ 465,600	\$ 450,000
Common Stock	760,500	525,000
Retained Earnings	<u>1,500,000</u>	<u>1,263,000</u>
Total Liabilities and Equity	<u>\$2,726,100</u>	<u>\$2,238,000</u>

Required:

- A.** Prepare a consolidated statements workpaper for the year ended December 31, 2020.
- B.** Calculate consolidated retained earnings on December 31, 2020, using an analytical or t-account approach.

PROBLEM 7-7**Workpaper, Cost Method, Comprehensive Problem LO 6 LO 8**

Parsons Company acquired 90% of the outstanding common stock of Shea Company on June 30, 2019, for \$426,000. On that date, Shea Company had retained earnings in the amount of \$60,000, and the fair value of its recorded assets and liabilities was equal to their book value. The excess of implied over the fair value of the recorded net assets was attributed to an unrecorded manufacturing formula held by Shea Company, which had an expected remaining useful life of five years from June 30, 2019. Financial data for 2021 are presented here:



	<i>Parsons Company</i>	<i>Shea Company</i>
Sales	\$2,555,500	\$1,120,000
Dividend Income	54,000	
Total Revenue	<u>2,609,500</u>	<u>1,120,000</u>
Cost of Goods Sold	1,730,000	690,500
Expenses	654,500	251,000
Total Cost and Expense	<u>2,384,500</u>	<u>941,500</u>
Net Income	\$ 225,000	\$ 178,500
1/1 Retained Earnings	\$ 595,000	\$ 139,500
Net Income	225,000	178,500
Dividends Declared	(100,000)	(60,000)
12/31 Retained Earnings	<u>\$ 720,000</u>	<u>\$ 258,000</u>
Cash	\$ 119,500	\$ 132,500
Accounts Receivable	342,000	125,000
Inventory	362,000	201,000
Other Current Assets	40,500	13,000
Land	150,000	
Investment in Shea Company	426,000	
Property and Equipment	825,000	241,000
Accumulated Depreciation	(207,000)	(53,500)
Total Assets	<u>\$2,058,000</u>	<u>\$ 659,000</u>

	<i>Parsons Company</i>	<i>Shea Company</i>
Accounts Payable	\$ 295,000	\$ 32,000
Other Liabilities	43,000	19,000
Capital Stock	1,000,000	300,000
Additional Paid-in Capital		50,000
Retained Earnings	<u>720,000</u>	<u>258,000</u>
Total Liabilities and Equity	<u>\$2,058,000</u>	<u>\$ 659,000</u>

On December 31, 2019, Parsons Company sold equipment (with an original cost of \$100,000 and accumulated depreciation of \$50,000) to Shea Company for \$97,500. This equipment has since been depreciated at an annual rate of 20% of the purchase price. During 2020 Shea Company sold land to Parsons Company at a profit of \$15,000.

The inventory of Parsons Company on December 31, 2020, included goods purchased from Shea Company on which Shea Company recognized a profit of \$7,500. During 2021, Shea Company sold goods to Parsons Company for \$375,000, of which \$60,000 was unpaid on December 31, 2021. The December 31, 2021, inventory of Parsons Company included goods acquired from Shea Company on which Shea Company recognized a profit of \$10,500.

Required:

- A. Prepare a consolidated financial statements workpaper for the year ended December 31, 2021.
- B. Prepare a schedule to calculate consolidated retained earnings on December 31, 2021, using an analytical or t-account approach. (*Hint:* Due to rounding, you may be out of balance by \$1. To avoid this, you should carry decimals until the final calculation.)

PROBLEM 7-8

Workpaper—Cost Method, Comprehensive Problem LO 6

On January 1, 2018, Phelps Company purchased an 85% interest in Sloane Company for \$955,000 when the retained earnings of Sloane Company were \$150,000. The difference between implied and book value was assigned as follows:

Inventory	\$48,000
Land	36,000
Discount on Bonds Payable	48,000
Goodwill	91,529

One-half of the inventory was sold in 2018 and the remaining inventory was sold in 2019. The bonds mature in eight years.

On December 31, 2018, Phelps Company's inventory contained \$10,000 in unrealized intercompany profit. During 2019 Phelps Company sold merchandise with a cost of \$200,000 to Sloane Company at a 30% markup on cost. Only \$65,000 (selling price) of this merchandise remains in Sloane Company's 2019 ending inventory. As of December 31, 2019, Sloane Company owes Phelps Company \$40,000 for merchandise purchased during 2019.

Equipment with a book value of \$500,000 was sold by Sloane Company on January 2, 2019, to Phelps Company for \$640,000. This equipment had an estimated useful life when purchased by Sloane Company on July 1, 2016, of 10 years.

Financial data for 2019 are presented here:

	<i>Phelps Company</i>	<i>Sloane Company</i>
Sales	\$1,291,500	\$ 560,000
Other Income		140,000
Dividend Income	<u>42,500</u>	
Total Revenue	<u>1,334,000</u>	<u>700,000</u>



COMPREHENSIVE

	<i>Phelps Company</i>	<i>Sloane Company</i>
Cost of Goods Sold	660,000	300,000
Depreciation Expense	138,000	20,000
Interest Expense	8,000	10,000
Other Expenses	174,000	140,000
Total Cost and Expense	<u>980,000</u>	<u>470,000</u>
Net Income	<u>\$ 354,000</u>	<u>\$ 230,000</u>
1/1 Retained Earnings	\$ 350,500	\$ 250,000
Net Income	354,000	230,000
Dividends Declared	<u>(100,000)</u>	<u>(50,000)</u>
12/31 Retained Earnings	<u>\$ 604,500</u>	<u>\$ 430,000</u>
Cash	\$ 127,000	\$ 70,000
Accounts Receivable	300,000	210,000
Inventory	270,000	175,000
Investment in Sloane Company	955,000	
Land	100,000	290,000
Plant and Equipment	800,000	800,000
Accumulated Depreciation	<u>(200,000)</u>	<u>(200,000)</u>
Total Assets	<u>\$2,352,000</u>	<u>\$1,345,000</u>
Accounts Payable	\$ 167,500	\$ 65,000
Bonds Payable	80,000	100,000
Capital Stock	1,500,000	750,000
Retained Earnings	<u>604,500</u>	<u>430,000</u>
Total Liabilities and Equity	<u>\$2,352,000</u>	<u>\$1,345,000</u>

Required:

Prepare a consolidated financial statements workpaper for the year ended December 31, 2019.

PROBLEM 7-9**Workpaper with Intercompany Sales of Inventory and Land, Cost Method LO 6**

Pierce Company acquired a 90% interest in Sanders Company on January 1, 2019, for \$1,480,000. At this time, Sanders Company's common stock and retained earnings balances were \$1,000,000 and \$500,000, respectively. An examination of the books of Sanders on the date of purchase revealed the following:

	<i>Book Value</i>	<i>Fair Value</i>
Current Assets	\$300,000	\$300,000
Marketable Securities	200,000	200,000
Inventory	175,000	225,000
Plant and Equipment (net)	650,000	800,000
Land	500,000	600,000

Sanders Company's equipment has a remaining life of 10 years. Eighty percent of the inventory was sold in 2019, the remainder in 2020.

During 2019, Pierce Company sold merchandise costing \$400,000 to Sanders at a 25% markup on cost, and Sanders sold merchandise to Pierce Company for \$100,000 (this price included \$25,000 in profit). In 2020, Pierce Company sold merchandise to Sanders Company for \$350,000, while Sanders Company sold merchandise to Pierce Company for \$80,000. The 2019 markup percentages were also used on the 2020 sales.



The selling price of intercompany merchandise remaining in ending inventories for both years is summarized here:

<i>Merchandise from Intercompany Sales in Ending Inventory of</i>	<i>2019</i>	<i>2020</i>
Pierce Company	\$40,000	\$20,000
Sanders Company	50,000	30,000

In 2020, Sanders Company also sold a piece of land that had a book value of \$250,000 to Pierce Company for \$300,000. On December 31, 2020, Pierce Company holds a \$60,000 receivable on the merchandise it sold to Sanders Company.

Adjusted trial balances for the year ended December 31, 2020 are shown here:

	<i>Pierce</i>	<i>Sanders</i>
Cash	\$ 200,000	\$ 150,000
Accounts Receivable	300,000	250,000
Marketable Securities	100,000	200,000
Inventory 12/31	300,000	250,000
Investment in Sanders Company	1,480,000	
Land	400,000	350,000
Plant and Equipment (net)	1,000,000	800,000
Cost of Goods Sold	600,000	400,000
Depreciation Expense	60,000	40,000
Other Expenses	400,000	260,000
Dividends Declared	120,000	70,000
Total	<u>\$4,960,000</u>	<u>\$2,770,000</u>
Accounts Payable	\$ 241,000	\$ 140,000
Notes Payable	350,000	100,000
Common Stock	1,900,000	1,000,000
1/1 Retained Earnings	706,000	580,000
Sales	1,700,000	900,000
Gain on Sale of Land		50,000
Dividend Income	63,000	
Total	<u>\$4,960,000</u>	<u>\$2,770,000</u>

Required:

Prepare a consolidated statements workpaper for the year ended December 31, 2020.

PROBLEM 7-10 Workpaper—Partial Equity Method LO 6 LO 9

(Note: This is the same Problem as Problem 7-4, but assuming the use of the partial equity method.)

Prout Company owns 80% of the common stock of Sexton Company. The stock was purchased for \$1,600,000 on January 1, 2017, when Sexton Company's retained earnings were \$800,000. On January 1, 2019, Prout Company sold fixed assets to Sexton Company for \$360,000. These assets were originally purchased by Prout Company for \$400,000 on January 1, 2004, at which time their estimated depreciable life was 25 years. The straight-line method of depreciation is used.

On December 31, 2020, the trial balances of the two companies were as shown here:

	<i>Prout Company</i>	<i>Sexton Company</i>
Current Assets	\$ 568,000	\$ 271,000
Fixed Assets	1,972,000	830,000
Other Assets	1,000,800	1,600,000
Investment in Sexton Company	1,820,000	
Dividends Declared	120,000	100,000
Cost of Goods Sold	942,000	795,000
Other Expenses (including depreciation)	145,000	90,000
Income Tax Expense	<u>187,200</u>	<u>90,000</u>
Total	<u>\$6,755,000</u>	<u>\$3,776,000</u>
Liabilities	\$ 305,000	\$ 136,000
Accumulated Depreciation	375,000	290,000
Sales	1,475,000	1,110,000
Equity in Subsidiary Income	108,000	
Common Stock	3,000,000	1,200,000
Retained Earnings 1/1	<u>1,492,000</u>	<u>1,040,000</u>
Total	<u>\$6,755,000</u>	<u>\$3,776,000</u>

Required:

- A. Prepare a consolidated statements workpaper for the year ended December 31, 2020.
- B. Assuming that on January 1, 2021, Sexton Company sells the fixed assets purchased from Prout Company to a party outside the affiliated group for \$300,000:
 - (1) Prepare the entry that would have been entered on the books of Sexton Company to record the sale.
 - (2) Prepare entries for the December 31, 2021, consolidated statements workpaper necessitated by the sale of the assets.
 - (3) Prepare any workpaper entries that will be needed in the December 31, 2022, consolidated statements workpaper in regard to these fixed assets.

PROBLEM 7-11 Trial Balance format—Workpaper—Partial Equity Method LO 6 LO 9

Using the information presented in Problem 7-10 prepare a consolidated financial statements workpaper for the year ended December 31, 2020, using the trial balance format.

PROBLEM 7-12 Workpaper—Partial Equity Method LO 6 LO 8

Prather Company owns 80% of the common stock of Stone Company. The stock was purchased for \$960,000 on January 1, 2017, when Stone Company's retained earnings were \$675,000. On January 1, 2019, Stone Company sold fixed assets to Prather Company for \$960,000; Stone Company had purchased these assets for \$1,350,000 on January 1, 2004, at which time their estimated useful life was 25 years. The estimated remaining useful life to Prather Company on 1/1/19 is 10 years. Both companies employ the straight-line method of depreciation.

The financial data for 2020 are presented here:

	<i>Prather Company</i>	<i>Stone Company</i>
Sales	\$1,950,000	\$1,350,000
Equity in Subsidiary Income	<u>240,000</u>	<u> </u>
Total Revenue	<u>2,190,000</u>	<u>1,350,000</u>

	<i>Prather Company</i>	<i>Stone Company</i>
Cost of Goods Sold	1,350,000	900,000
Other Expenses	225,000	150,000
Total Cost and Expense	<u>1,575,000</u>	<u>1,050,000</u>
Net Income	<u>\$ 615,000</u>	<u>\$ 300,000</u>
1/1 Retained Earnings	\$1,505,400	\$1,038,000
Net Income	615,000	300,000
Dividends Declared	<u>(150,000)</u>	<u>(75,000)</u>
12/31 Retained Earnings	<u>\$1,970,400</u>	<u>\$1,263,000</u>
Inventory	\$ 498,000	\$ 225,000
Investment in Stone Company	1,430,400	
Fixed Assets	2,168,100	2,625,000
Accumulated Depreciation—Fixed Assets	<u>(900,000)</u>	<u>(612,000)</u>
Total Assets	<u>\$3,196,500</u>	<u>\$2,238,000</u>
Liabilities	\$ 465,600	\$ 450,000
Common Stock	760,500	525,000
Retained Earnings	<u>1,970,400</u>	<u>1,263,000</u>
Total Liabilities and Equity	<u>\$3,196,500</u>	<u>\$2,238,000</u>

Required:

- Prepare a consolidated statements workpaper for the year ended December 31, 2020.
- Calculate consolidated retained earnings on December 31, 2020, using an analytical or t-account approach.

PROBLEM 7-13

COMPREHENSIVE

Workpaper—Partial Equity Method, Comprehensive Problem LO 6 LO 8

Padilla Company acquired 90% of the outstanding common stock of Sanchez Company on June 30, 2019, for \$426,000. On that date, Sanchez Company had retained earnings in the amount of \$60,000, and the fair value of its recorded assets and liabilities was equal to their book value. The excess of implied over fair value of the recorded net assets was attributed to an unrecorded manufacturing formula held by Sanchez Company, which had an expected remaining useful life of five years from June 30, 2019.

Financial data for 2021 are presented here:

	<i>Padilla Company</i>	<i>Sanchez Company</i>
Sales	\$2,555,500	\$1,120,000
Equity in Subsidiary Income	<u>160,650</u>	
Total Revenue	<u>2,716,150</u>	<u>1,120,000</u>
Cost of Goods Sold	1,730,000	690,500
Expenses	<u>654,500</u>	<u>251,000</u>
Total Cost and Expense	<u>2,384,500</u>	<u>941,500</u>
Net Income	<u>\$ 331,650</u>	<u>\$ 178,500</u>
1/1 Retained Earnings	666,550	139,500
Net Income	331,650	178,500
Dividends Declared	<u>(100,000)</u>	<u>(60,000)</u>
12/31 Retained Earnings	<u>\$ 898,200</u>	<u>\$ 258,000</u>
Cash	\$ 119,500	\$ 132,500
Accounts Receivable	342,000	125,000
Inventory	362,000	201,000

	<i>Padilla Company</i>	<i>Sanchez Company</i>
Other Current Assets	40,500	13,000
Land	150,000	
Investment in Sanchez Company	604,200	
Property and Equipment	825,000	241,000
Accumulated Depreciation	<u>(207,000)</u>	<u>(53,500)</u>
Total Assets	<u>\$2,236,200</u>	<u>\$ 659,000</u>
Accounts Payable	\$ 295,000	\$ 32,000
Other Liabilities	43,000	19,000
Capital Stock	1,000,000	300,000
Additional Paid-in Capital		50,000
Retained Earnings	<u>898,200</u>	<u>258,000</u>
Total Liabilities and Equity	<u>\$2,236,200</u>	<u>\$ 659,000</u>

On December 31, 2019, Padilla Company sold equipment (with an original cost of \$100,000 and accumulated depreciation of \$50,000) to Sanchez Company for \$97,500. This equipment had been depreciated at an annual rate of 20% of the purchase price. During 2020, Sanchez Company sold land to Padilla Company at a profit of \$15,000.

The inventory of Padilla Company on December 31, 2020, included goods purchased from Sanchez Company on which Sanchez Company recognized a profit of \$7,500. During 2021, Sanchez Company sold goods to Padilla Company for \$375,000, of which \$60,000 was unpaid on December 31, 2021. The December 31, 2021, inventory of Padilla Company included goods acquired from Sanchez Company on which Sanchez Company recognized a profit of \$10,500.

Required:

- A. Prepare a consolidated financial statements workpaper for the year ended December 31, 2021.
- B. Prepare a schedule to calculate consolidated retained earnings on December 31, 2021, using an analytical or t-account approach.

PROBLEM 7-14 **Entries and Computation of Income and Retained Earnings LO 6 LO 7 LO 8**

Platt Company acquired an 80% interest in Sloane Company when the retained earnings of Sloane Company were \$300,000. On January 1, 2019, Sloane Company recorded a \$250,000 gain on the sale to Platt Company of equipment with a remaining life of five years. On January 1, 2020, Platt Company recorded a \$180,000 gain on the sale to Sloane Company of equipment with a remaining life of six years. Sloane Company reported net income of \$180,000 and declared dividends of 60,000 in 2020. It reported retained earnings of \$520,000 on January 1, 2020, and \$640,000 on December 31, 2020. Platt Company reported net income from independent operations of \$400,000 in 2020 and retained earnings of \$1,800,000 on December 31, 2020.

Required:

- A. Prepare in general journal form the entries necessary in the December 31, 2020, consolidated statements workpaper to eliminate the effects of the intercompany sales.
- B. Calculate controlling interest in consolidated net income for the year ended December 31, 2020.
- C. Calculate consolidated retained earnings on December 31, 2020.
- D. Calculate noncontrolling interest in consolidated income for the year ended December 31, 2020.

PROBLEM 7-15 Workpaper—Complete Equity Method **LO 6** **LO 9**

(Note: This is the same Problem as Problems 7-4 and 7-10, but assuming the use of the complete equity method.)

Prout Company owns 80% of the common stock of Sexton Company. The stock was purchased for \$1,600,000 on January 1, 2017, when Sexton Company's retained earnings were \$800,000. On January 1, 2019, Prout Company sold fixed assets to Sexton Company for \$360,000. These assets were originally purchased by Prout Company for \$400,000 on January 1, 2004, at which time their estimated depreciable life was 25 years. The straight-line method of depreciation is used.

On December 31, 2020, the trial balances of the two companies were as shown here:

	<i>Prout Company</i>	<i>Sexton Company</i>
Current Assets	\$ 568,000	\$ 271,000
Fixed Assets	1,972,000	830,000
Other Assets	1,000,800	1,600,000
Investment in Sexton Company	1,716,000	
Dividends Declared	120,000	100,000
Cost of Goods Sold	942,000	795,000
Other Expenses (including depreciation)	145,000	90,000
Income Tax Expense	187,200	90,000
Total	<u>\$6,651,000</u>	<u>\$3,776,000</u>
Liabilities	\$ 305,000	\$ 136,000
Accumulated Depreciation	375,000	290,000
Sales	1,475,000	1,110,000
Equity in Subsidiary Income	116,000	
Common Stock	3,000,000	1,200,000
Retained Earnings 1/1	<u>1,380,000</u>	<u>1,040,000</u>
Total	<u>\$6,651,000</u>	<u>\$3,776,000</u>

Required:

- A. Prepare a consolidated statements workpaper for the year ended December 31, 2020.
- B. Assuming that on January 1, 2021, Sexton Company sells the fixed assets purchased from Prout Company to a party outside the affiliated group for \$300,000:
 - (1) Prepare the entry that would have been entered on the books of Sexton Company to record the sale.
 - (2) Prepare entries for the December 31, 2021, consolidated statements workpaper necessitated by the sale of the assets.
 - (3) Prepare any workpaper entries that will be needed in the December 31, 2022, consolidated statements workpaper in regard to these fixed assets.
- C. If you completed Problem 7-4, compare the consolidated balance obtained in requirement A to those obtained in Problem 7-4.

PROBLEM 7-16 Workpaper—Complete Equity Method **LO 6** **LO 8**

(This is the same problem as Problem 7-12, but assuming the complete equity method.)

Prather Company owns 80% of the common stock of Stone Company. The stock was purchased for \$960,000 on January 1, 2017, when Stone Company's retained earnings were \$675,000. On January 1, 2019, Stone Company sold fixed assets to Prather Company for \$960,000; Stone Company had purchased these assets for \$1,350,000 on January 1, 2004, at which time their estimated useful life was 25 years. The estimated remaining useful life to Prather Company on 1/1/19 is 10 years. Both companies employ the straight-line method of depreciation.

The financial data for 2020 are presented here:

	<i>Prather Company</i>	<i>Stone Company</i>
Sales	\$1,950,000	\$1,350,000
Equity in Subsidiary Income	<u>252,000</u>	<u> </u>
Total Revenue	<u>2,202,000</u>	<u>1,350,000</u>
Cost of Goods Sold	1,350,000	900,000
Other Expenses	<u>225,000</u>	<u>150,000</u>
Total Cost and Expense	<u>1,575,000</u>	<u>1,050,000</u>
Net Income	<u>\$ 627,000</u>	<u>\$ 300,000</u>
1/1 Retained Earnings	\$1,397,400	\$1,038,000
Net Income	627,000	300,000
Dividends Declared	<u>(150,000)</u>	<u>(75,000)</u>
12/31 Retained Earnings	<u>\$1,874,400</u>	<u>\$1,263,000</u>
Inventory	\$ 498,000	\$ 225,000
Investment in Stone Company	1,334,400	
Fixed Assets	2,168,100	2,625,000
Accumulated Depreciation—Fixed Assets	<u>(900,000)</u>	<u>(612,000)</u>
Total Assets	<u>\$3,100,500</u>	<u>\$2,238,000</u>
Liabilities	\$ 465,600	\$ 450,000
Common Stock	760,500	525,000
Retained Earnings	<u>1,874,400</u>	<u>1,263,000</u>
Total Liabilities and Equity	<u>\$3,100,500</u>	<u>\$2,238,000</u>

Required:

- A. Prepare a consolidated statements workpaper for the year ended December 31, 2020.
- B. Calculate consolidated retained earnings on December 31, 2020, using a t-account or analytical approach.

CHANGES IN OWNERSHIP INTEREST

CHAPTER CONTENTS

- 8.1 CHANGES IN OWNERSHIP
- 8.2 PARENT ACQUIRES SUBSIDIARY STOCK THROUGH SEVERAL OPEN-MARKET PURCHASES—COST METHOD
- 8.3 PARENT SELLS SUBSIDIARY STOCK INVESTMENT ON THE OPEN MARKET—COST METHOD
- 8.4 EQUITY METHOD—PURCHASES AND SALES OF SUBSIDIARY STOCK BY THE PARENT
- 8.5 PARENT SELLS SUBSIDIARY STOCK INVESTMENT ON THE OPEN MARKET
- 8.6 SUBSIDIARY ISSUES STOCK

LEARNING OBJECTIVES

- 1 Identify the types of transactions that change the parent company's ownership interest in a subsidiary.
- 2 Describe the process needed when the parent acquires subsidiary shares through multiple open-market purchases (step acquisition).
- 3 Explain how the parent reports the difference between selling price and book value when shares are sold subsequent to acquisition.
- 4 Compute the controlling interest in income after the parent sells some shares of the subsidiary company.
- 5 Describe the effect on the eliminating process when the subsidiary issues new shares entirely to the parent.
- 6 Describe the impact on the parent's investment account when the subsidiary issues new shares and either the new shares are purchased ratably by the parent and noncontrolling shareholders or entirely by the noncontrolling shareholders.

8.1 CHANGES IN OWNERSHIP

LO 1 Changes in ownership.

In prior chapters, we assumed that the subsidiary was acquired through a single open-market transaction and that in subsequent years, the parent's ownership percentage never changed (i.e., the parent never bought or sold additional shares of the subsidiary and/or the subsidiary never issued or repurchased any shares of its own stock).

Clearly, these assumptions are not always valid. For example, it might take two or more stock purchases before the parent obtains control of a purchased subsidiary. Similarly, the percentage of ownership may change over time for several reasons, such as (1) additional shares of the subsidiary may be purchased on the open market; (2) some of the shares held by the parent company may be sold; and (3) the subsidiary may engage in capital transactions with the parent company and/or outside parties that change the parent company's percentage of ownership. In this chapter, we focus

on changes in the ownership interest with only two principal companies involved, one parent and one subsidiary. A summary of the accounting treatment for each follows:

<i>Topic</i>	<i>FASB ASC Topics 805 and 810</i>
<i>Parent Transactions with Third Parties</i>	
Parent acquires control	
Control achieved in the first purchase.	Investment recorded at fair value (see Chapters 1 through 7).
Control achieved beginning with a second purchase (or a third purchase, or a fourth purchase etc.). Step acquisition	When control is achieved, revalue investments obtained prior to control to fair value. Gain or loss reported on the Income Statement.
Parent sells or buys shares after obtaining control	
Parent sells all shares owned.	Gain/loss on difference between selling price and book value.
Loss of control, but maintains some ownership.	The entire interest must be adjusted to fair value, and a gain or loss recorded on all shares owned prior to sale.
Sold some shares, but maintains control.	Adjustment to contributed capital of controlling interest, no gain or loss reported on the Income Statement. No revaluation required.
<i>Subsidiary Transactions with and without the Parent</i>	
Issues additional shares	
Parent's ownership decreases (no participation by the controlling interest). No loss of control.	Adjustment to contributed capital of controlling interest. No revaluation required.
Parent's ownership increases (no participation by the noncontrolling interest). No loss of control.	Adjustment to contributed capital of controlling interest. No revaluation required.

Justification for the accounting treatments is based on the concept of economic substance over form. That is, a parent company can effectively increase its ownership interest in a subsidiary by either (1) buying additional subsidiary shares directly from third parties or (2) having a subsidiary purchase its (subsidiary's) shares from third parties. Similarly, the parent can effectively decrease its ownership interest by either (1) selling some of its subsidiary shares directly to third parties or (2) having a subsidiary sell additional shares (including treasury shares) to third parties. Since the economic substance is essentially the same from the parent company's point of view, the transactions should be accounted for in a consistent manner. Accounting for these changes in the parent company's percentage of ownership is discussed and illustrated in this chapter.

Recall that the current rules focus on the economic entity rather than on the parent's perspective. Thus, this is a significant change from earlier standards. Prior GAAP required acquisitions of additional shares in an investee be accounted for in a step-by-step manner, with Computation and Allocation Schedules prepared for each portion purchased. Sales of shares were handled in much the same manner as any sale of an asset: the

RELATED CONCEPTS

The date when control is achieved is the *acquisition date* because it reflects the point at which the two firms become one economic entity.

difference between the selling price and the basis of the shares sold is shown as a gain or loss in income. Shares retained are not adjusted. In contrast, current GAAP requires the following for acquisitions that take place in stages and for partial sales:

- a.** Measure and recognize the acquiree's identifiable assets and liabilities at 100% of their fair values on the date the acquirer obtains *control*
- b.** Recognize all the acquiree's goodwill (not just the parent's share), measured as the difference between the fair value of the acquiree on the acquisition date and the fair value of the identifiable net assets.
- c.** Any previously held noncontrolling equity interests held by the acquirer should be remeasured to fair value, with the resulting adjustment recognized in income.
- d.** After control is achieved, subsequent adjustments due to increased ownership are shown as Additional Contributed Capital, not as income.
- e.** If a parent loses control, the retained investment should be remeasured to fair value and the adjustments recognized in net income.

Supplemental materials are available from your instructor including illustrative problems, and exercises and problems that may be assigned.

INTERCOMPANY BOND HOLDINGS AND MISCELLANEOUS TOPICS— CONSOLIDATED FINANCIAL STATEMENTS

CHAPTER CONTENTS

- 9.1 INTERCOMPANY BOND HOLDINGS
- 9.2 ACCOUNTING FOR BONDS—A REVIEW
- 9.3 CONSTRUCTIVE GAIN OR LOSS ON INTERCOMPANY BOND HOLDINGS
- 9.4 ACCOUNTING FOR INTERCOMPANY BONDS ILLUSTRATED
- 9.5 BOOK ENTRY RELATED TO BOND INVESTMENT 9
- 9.6 INTERIM PURCHASE OF INTERCOMPANY BONDS
- 9.7 NOTES RECEIVABLE DISCOUNTED
- 9.8 STOCK DIVIDENDS ISSUED BY A SUBSIDIARY COMPANY
- 9.9 DIVIDENDS FROM PREACQUISITION EARNINGS
- 9.10 SUBSIDIARY WITH BOTH PREFERRED AND COMMON STOCK OUTSTANDING
- 9.11 CONSOLIDATING A SUBSIDIARY WITH PREFERRED STOCK OUTSTANDING

LEARNING OBJECTIVES

- 1 Describe the term “constructive retirement of debt.”
- 2 Describe how the gain or loss on constructive retirement of intercompany bond holdings is allocated between the purchasing and issuing companies.
- 3 Explain the impact on the consolidated financial statements when a company issues a note to an affiliated company, which then discounts the note with an outside company.
- 4 Determine the effect on the consolidated financial statements when a subsidiary issues a stock dividend.
- 5 Understand the difference in how stock dividends and cash dividends issued by a subsidiary company affect the consolidated financial statements.
- 6 Determine the impact on the investment account when a subsidiary issues a stock dividend from preacquisition earnings and from postacquisition earnings.
- 7 Explain how the purchase price is allocated when the subsidiary has both common and preferred stock outstanding.
- 8 Determine the controlling interest in income when the parent company owns both common and preferred stock of the subsidiary.

IN THE NEWS

In a deal that came together in 6 weeks, Amazon acquired Whole Foods in a \$13.7B all cash deal funded by the issuance of \$16B in bonds at a time of favorable borrowing conditions. Excluding lease obligations, Amazon reported \$7.68B of long-term debt. Relative to other companies with similar credit ratings, Amazon had less debt, making it a good opportunity for debt investors. The deal represented Amazon’s first major move into brick and mortar retail as Amazon acquires 460 stores likely reshaping the grocery industry as we know it.¹

¹ WSJ, “Amazon Sells \$16B of Bonds to Finance Whole Foods Deal,” by Sam Goldfarb, August 15, 2017.

In this chapter, we discuss several areas related to the preparation of consolidated financial statements, including:

1. Intercompany bond holdings.
2. Intercompany notes receivable discounted.
3. Stock dividends issued by a subsidiary company.
4. Cash dividends from preacquisition earnings.
5. Preferred stock of a subsidiary.

All new aspects of consolidations introduced in this chapter are the same whether the parent uses the cost or partial equity method. As in prior chapters, the complete equity method differs from the other two in that the beginning retained earnings of the parent always equals the beginning consolidated retained earnings under the complete equity method.² Hence no entries are needed to the beginning retained earnings of the parent in the consolidating workpaper. There is, of course, no entry under this method (nor under the partial equity method) to establish reciprocity/convert to equity.

Reporting complications relating to accounting for the difference between the implied value of a subsidiary (based on acquisition cost) and the book value are avoided by assuming that all acquisitions of common stock are made at the book value of the acquired interest in net assets, and that the book values of the subsidiary's assets and liabilities are equal to their fair values on the date of acquisition. Also, deferred tax consequences are avoided by assuming the affiliates file consolidated tax returns. To conserve space, we present the entries for the cost and the complete equity methods only. The workpaper entries for the partial equity method would be identical to those for the cost method with one exception. As in previous chapters, a workpaper entry to reverse the effect of the parent company entries during the year for subsidiary income and dividends replaces the cost method entries to establish reciprocity/convert to equity and eliminate dividend income, if any.



IN
THE
NEWS

Avaya managed to grow revenue by 22% thanks to the assets it acquired from Nortel Networks at the end of 2009. Although the acquisition bumped up revenues, it has been costly. Avaya spent millions consolidating operations, paying severance, and closing facilities.

Private-equity firms Silver Lake Partners and TPG took Avaya private in 2007 for \$8.3 billion. That buyout, along with the acquisition of the Nortel assets, led to more than \$500 million in charges and saddled the company with almost \$6 billion in debt as of the end of its fiscal year. As a result, the company was required to pay several million dollars in interest during the year.³

9.1 INTERCOMPANY BOND HOLDINGS

LO 1 Constructive retirement of debt.

An affiliate company may purchase bonds issued by another affiliate directly from the issuing company or from outsiders after the original issue. In either case, because the bonds are held within the affiliated group, the intercompany bond investment (a receivable) and the bonds payable (a liability), along with any related intercompany interest

² An exception occurs under the complete equity method when the treasury stock method is used for reciprocal holdings.

³ CNN.com, 5/13/2011.

expense and interest revenue, must be eliminated. In other words, because the bonds are not held by external parties, they are viewed as being *constructively retired* in the consolidated financial statements. Constructively retired means that the bonds are considered retired from a consolidated entity point of view, but legally the bonds are still outstanding as far as the issuing company is concerned. Since this is viewed as an early retirement of debt, a gain or loss on the constructive retirement is computed and allocated to the affiliated companies.

A brief review of accounting for bond transactions is presented in the supplemental materials from your instructor, along with the preparation of a consolidated statements workpaper involving intercompany bond holdings. Other topics (intercompany notes receivable discounted, stock dividends issued by a subsidiary, cash dividends from pre-acquisition earnings, subsidiary preferred stock) follow.

Supplemental materials are available from your instructor including illustrative problems, and exercises and problems that may be assigned.

INSOLVENCY—LIQUIDATION AND REORGANIZATION

CHAPTER CONTENTS

- 10.1 CONTRACTUAL AGREEMENTS
- 10.2 BANKRUPTCY
- 10.3 LIQUIDATION (CHAPTER 7)
- 10.4 REORGANIZATION UNDER THE REFORM ACT (CHAPTER 11)
- 10.5 TRUSTEE ACCOUNTING AND REPORTING
- 10.6 BANKRUPTCY PREDICTION MODELS

LEARNING OBJECTIVES

- 1 Distinguish between a Chapter 7 and a Chapter 11 bankruptcy.
- 2 Describe the five priority categories of unsecured claims and list the order in which they are settled.
- 3 Distinguish between a voluntary and involuntary bankruptcy petition.
- 4 Distinguish among fully secured, partially secured, and unsecured claims of creditors.
- 5 Describe contractual agreements that the debtor and its creditors may enter into outside of formal bankruptcy proceedings to resolve the debtor's insolvent position.
- 6 Describe the ways debt may be restructured in a reorganization.

During November 2008, the CEOs of General Motors (GM), Ford, and Chrysler flew in separate corporate jets to Washington, D.C., to request \$25 billion in federal bailout loans. This event turned into a public relations nightmare for the auto companies seeking relief from poor economic times. For the third quarter of 2008, GM posted a \$2.5 billion loss. General Motors stated in its quarterly report that during the first half of the next year (2009), its liquidity would fall significantly short of the amount needed to continue operations. GM announced a 10% cut in salaried employment costs, staffing reductions, and incentive pay cuts. Further steps to save cash included cutting planned capital expenditures by \$2.4 billion. Clearly, GM hoped to weather the downturn on a government bailout. When the CEOs returned to Washington in December, the GM CEO drove a hybrid Chevrolet Malibu. On December 11, 2008, the Senate rejected legislation that would have provided \$14 billion in federal loans to keep GM afloat.

On June 1, 2009, General Motors (GM) filed for Chapter 11 reorganization in the Manhattan, New York, federal bankruptcy court. The filing reported \$82.29 billion in assets and \$172.81 billion in debt. This was the 4th largest bankruptcy in U.S. history. GM was organized into the “new” GM with the U.S. and Canadian governments owning a little over 70% of the company. Brands such as Hummer, Pontiac, and Saturn were discontinued and others such as SAAB were sold. The number of dealerships was reduced by over 15% with long-term intentions to reduce the number by 30%.

After filing for Chapter 11, GM qualified for “fresh start” reporting (ASC 852-10-45-19). The new GM reported on February 24, 2011, that the company had returned to

profitability with reported earnings of \$4.7 billion, and had achieved four consecutive quarters of profitability. In addition, cash from operations was \$6.8 billion.

Previous chapters have treated problems relating to the expansion of business activity through mergers and stock acquisitions, as well as the procedures followed in reporting the effects of the expanded operations. But just as some companies expand, others face financial circumstances that cause contraction or cessation of business activities. Every year many businesses, small and large, encounter financial difficulties, and many are forced to seek relief through accommodations with creditors or some form of reorganization in order to survive. Those that are unable to obtain such relief generally terminate operations by liquidating the business unit.

This chapter deals with the various relief procedures available to an insolvent debtor. **Insolvency** refers to the inability of a debtor to pay its obligations as they become due. Our discussion includes relief procedures not requiring court actions, as well as the legal procedures available under the Bankruptcy Reform Act of 1978, relevant provisions of which are discussed in later sections of this chapter. Although the Bankruptcy Reform Act provides for relief of all types of insolvent debtors, including individuals, our discussion will concentrate on the provisions of the act dealing with insolvent business entities. Another view of insolvency, sometimes referred to as deepening insolvency, focuses on the cases where a company incurs debt that would be beyond its ability to repay in the future—cash flow insolvency. In 2007, Bain Capital acquired Guitar Center in a leveraged buyout that resulted in Guitar Center carrying over \$1.6 billion in debt. Guitar Center's annual debt payments exceeded \$144 billion (in 2012, interest expense was approximately 90% of operating income and its cash coverage ratio was slightly over 2 times interest payments). Guitar Center noted in its 10K that they cannot provide any assurance that cash from operating activities will be sufficient to cover the principal and interest on debt. Similarly, Gibson Guitar has \$145 million in bank loans due in July 2018. Earlier in 2018, the Nashville-based guitar maker "<https://www.digitalmusicnews.com/2018/03/02/gibson-guitar-layoffs-bankruptcy/>" started reducing jobs at its prestigious Custom Shop. Gibson is planning a reduction that could amount to 12–15% of its current workforce. Debt holders do not believe that Gibson's earnings will be strong enough to attract new financing and have requested the current CEO to step down before investing more funds.

RELATED CONCEPTS

This view could fuel added scrutiny of the auditor's role in assessing going concern likelihood.

When a business becomes insolvent, it generally has three possible courses of action: (1) the debtor and its creditors may enter into a contractual agreement, outside of formal bankruptcy proceedings; (2) the debtor or its creditors may file a bankruptcy petition, after which the debtor is liquidated under Chapter 7 of the Bankruptcy Reform Act; or (3) the debtor or its creditors may file a petition for reorganization under Chapter 11 of the Bankruptcy Reform Act.

All three are described in greater detail in the Supplemental materials which are available from your instructor including illustrative problems, and exercises and problems that may be assigned.

INTERNATIONAL FINANCIAL REPORTING STANDARDS

CHAPTER CONTENTS

- 11.1 THE INCREASING IMPORTANCE OF INTERNATIONAL ACCOUNTING STANDARDS
- 11.2 HISTORICAL PERSPECTIVE
- 11.3 GAAP HIERARCHY—U.S. VERSUS IFRS
- 11.4 SIMILARITIES AND DIFFERENCES BETWEEN U.S. GAAP AND IFRS
- 11.5 BUSINESS COMBINATION AND CONSOLIDATION—U.S. GAAP VERSUS IFRS
- 11.6 INTERNATIONAL CONVERGENCE ISSUES

LEARNING OBJECTIVES

- 1 Describe how the changing world environment is leading to an increased focus on international financial reporting standards (IFRS).
- 2 Explain some of the remaining differences between IFRS and U.S. GAAP.
- 3 List some of the issues that companies would like to be resolved before the SEC requires adoption of IFRS.
- 4 Describe how the SEC might incorporate IFRS into the financial reporting system for U.S. issuers.
- 5 Describe differences in accounting for business combinations and consolidation between U.S. GAAP and IFRS.
- 6 List the steps that a non-U.S. company must follow to list its shares on a U.S. stock market.
- 7 Explain the role of form *20-F* filed with the Securities and Exchange Commission.
- 8 Indicate the role of American Depositary Receipts in the issuing of securities of non-U.S. companies in the United States.

IN
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"We're not going to embrace any standard that isn't as good as our own. We're the best capital market in the world."¹

11.1 THE INCREASING IMPORTANCE OF INTERNATIONAL ACCOUNTING STANDARDS

The International Accounting Standards Committee (IASC) was founded in 1973. Prior to 2001, it was the driving force toward global harmonization of accounting practices. Its objective was to formulate and to publish standards to be followed in the preparation of financial statements, to promote worldwide acceptance of these standards, and

¹ Arthur Levitt Jr., Chairman, SEC, Speech at New York University, 9/28/98.

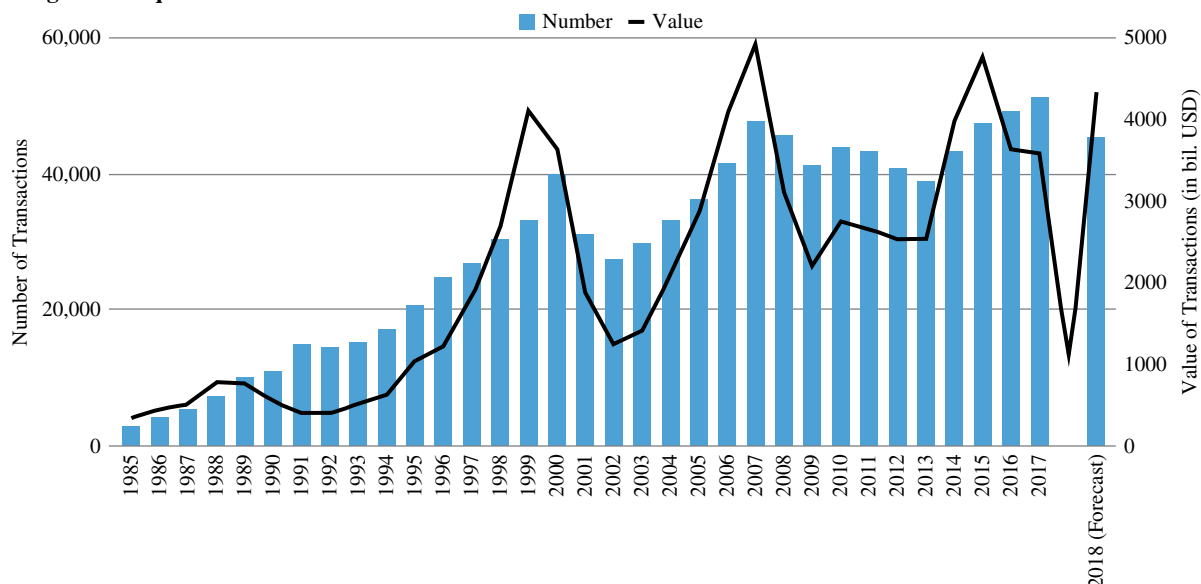
to work generally for improvements in international accounting. Initially, the IASC made decisions on accounting issues and reported them in the form of **International Accounting Standards (IAS)**. The first international accounting standard was issued in January 1975; 41 standards were issued by January 2001.

In January 2001, the IASC announced formation of the International Accounting Standards Board (IASB). This board is comprised of members from various countries (including the United States) with a goal of developing high-quality internationally accepted accounting standards for users of financial statements. The Board includes 14 members who are appointed to an initial term of 5 years (which can be renewed once for another 3 years). This board is responsible for issuing standards known as **International Financial Reporting Standards (IFRS)**. As of 2018, seventeen IFRS have been issued; approximately 120 nations permit or require IFRS for domestic companies (90 countries have fully conformed with IFRS as promulgated by the IASB). Some countries have adopted IFRS with the exception of certain standards deemed problematic for their environment or the need for additional standards. For instance, New Zealand GAAP specifies that “NZ-IFRS is substantively identical to IFRS... with three additional New Zealand—specific standards.” The European Union (EU) has adopted all IFRS, though a time lag has occurred in the adoption of several recent IFRS. In the EU, the audit report and basis of presentation note to the financial statements refer to compliance with “IFRS as adopted by the EU” and not “as promulgated by the IASB.” India, China, Japan, Indonesia, and most of the countries in Northern Africa have not yet adopted IFRS, but Japan allows voluntary adoption. Both the United States and Japan permit IFRS for foreign listed companies.

Understanding IFRS in the United States is becoming increasingly important. Cross-border transactions and acquisitions have been increasing and are expected to continue to grow. In Illustration 11-1, the number of cross-border acquisition has tripled since 1995. Not only do companies engage in cross-country transactions (by buying and selling products) but also companies may raise funds in the international market. In the past, these cross-border transactions might require understanding different countries’ national accounting standards. This is lessened to a great degree if the country has

ILLUSTRATION 11-1 Number & Value of Cross-border M&A

Mergers & Acquisitions Worldwide



Source: Institute of Mergers, Acquisitions and Alliances (IMAA), retrieved from <https://imaa-institute.org/mergers-and-acquisitions-statistics/>

adopted IFRS. With the development of international markets, firms are more likely to raise funds internationally. Firms may need to prepare voluntary disclosures using IFRS because international investors are familiar with IFRS. In addition, companies may desire to acquire international firms that use IFRS; thus, an understanding of how IFRS statements differ from U.S. GAAP is important. In addition, international companies often purchase companies in the United States. These companies, even though they are located in the United States, need to understand how the accounting standards differ.

IN
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Tower Semiconductor LTD. 2016

As many of the Company's investors and analysts are located in Israel and in Europe and are familiar with and use the International Financial Reporting Standards rules ("IFRS"), the Company provides on a voluntary basis a reconciliation from US GAAP to IFRS (condensed balance sheet, condensed statement of operations and additional information). IFRS differs in certain significant aspects from US GAAP. The primary differences between US GAAP and IFRS relating to the Company are the accounting for goodwill, financial instruments, pension plans, and termination benefits.

11.2 HISTORICAL PERSPECTIVE

LO 1 Increased focus on international standards.

After a joint meeting in September 2002, the FASB and the IASB issued the Norwalk Agreement, including a "memorandum of understanding." Each acknowledged its commitment to the development of high-quality, compatible accounting standards to be used for both domestic and cross-border financial reporting. At that meeting, the FASB and the IASB pledged their efforts to make their existing financial reporting standards fully compatible as soon as practicable and to coordinate their future work to ensure that once achieved, compatibility would be maintained.

At meetings in April and October 2005 and again in November 2009, the FASB and the IASB reaffirmed their commitment to the convergence of U.S. generally accepted accounting principles (U.S. GAAP) and International Financial Reporting Standards (IFRS). A common set of high-quality global standards has been stressed as the long-term strategic priority of both the FASB and the IASB. The Boards indicated nine major joint projects that over time should serve to improve and converge their respective conceptual frameworks.

On November 14, 2008, the SEC released a roadmap for the adoption of IFRS by U.S. issuers. Then on February 24, 2010, the SEC issued a release, *Commission Statement in Support of Convergence and Global Accounting Standards*. In the release, the SEC stated its continued belief that a single set of high-quality globally accepted accounting standards would benefit U.S. investors and its continued encouragement for the convergence of U.S. GAAP and IFRS.

On May 26, 2011, the SEC released a staff paper discussing possible work plans for incorporating IFRS into the financial reporting system. As capital markets have become increasingly global, U.S. investors have increased opportunities for international investment. The basis for considering the use of IFRS by U.S. issuers includes the following:

1. Improvements in accounting standards
2. Accountability and funding of the IASC Foundation
3. Improvement in the ability to use interactive data for IFRS reporting
4. Education and training of preparers and users relating to IFRS

The above four issues need to be addressed before adoption of IFRS by U.S. entities is likely.

Alternatives for incorporating IFRS into the financial reporting system include:

1. Full adoption of IFRS on a specified date, without any endorsement mechanism.
2. Full adoption of IFRS following staged transition over several years, similar to the approach described in the roadmap.
3. An option for U.S. issuers to apply IFRS.
4. Retaining U.S. generally accepted accounting principles (“GAAP”) with continued convergence efforts, with or without a specific mechanism in place to promote alignment with IFRS.
5. Retaining a U.S. standard-setter. (The standard-setter would facilitate the transition process by incorporating IFRS into U.S. GAAP over some defined period of time. At the end of this period, the objective would be that a U.S. issuer would be compliant with both U.S. GAAP and IFRS. This alternative has been labeled *condorsement* and is discussed later in the chapter.)

The first four approaches for incorporation were discussed prior to the work plan and the SEC’s staff paper focused on the fifth alternative (condorsement).

The SEC expressed its belief that the framework illustrates that:

1. The decision faced by the Commission in an effort to achieve a single set of high-quality, globally accepted accounting standards is not necessarily a binary decision (i.e., either to require the use of IFRS by all U.S. issuers immediately or not);
2. Incorporation of IFRS is not inconsistent with the SEC maintaining its ultimate authority over U.S. accounting standard setting; and
3. There are several potential ways to accomplish the broad objective of pursuing a single set of high-quality, globally accepted accounting standards while minimizing cost, effort, and other transition obstacles.

In its Strategic Plan for 2010–2015, the SEC seemed clear in its intent to support a single set of global accounting standards, stating that because of the increased global nature of the capital markets, the agency will promote higher quality financial reporting worldwide by supporting a single set of high-quality global accounting standards. In addition, the Plan called for the ongoing convergence between the FASB and the International Accounting Standards Board. It was believed that the United States would adopt IFRS by 2014. However, in its draft of the Strategic Plan for 2014–2018, the wording supporting a single set of financial statements has been attenuated. The SEC now states that because of the increasingly global nature of the capital markets, the agency will work to promote higher quality financial reporting worldwide and will consider whether a single set of high-quality global accounting standards is achievable. The SEC continues by stating that it intends to continue to support the FASB’s independence and focus on the needs of investors. There is no specific mention the inconsistencies between IFRS and U.S. GAAP.

The Accountability and Funding of the IASC Foundation

Based in London, the IASB is an accounting standard-setting body established to develop global standards for financial reporting. The Board is overseen by the IASC Foundation, a stand-alone, not-for profit organization, also based in London but incorporated in

* WWW.Internationalinvestment.net “Global adoption of IFRS accounting standards nears finish line” Sept. 6, 2016 by Helen Burggraf.

IN
THE
NEWS

Unnoticed by pretty much everyone outside of certain accountancy

industry circles, the Kingdom of Saudi Arabia quietly announced in November of 2015 that it would move to fully adopt the International Financial Reporting Standards (IFRS Standards) as its official financial accounting system, to be used by listed and unlisted companies alike going forward, beginning in stages over the next two years.*

Delaware. The Foundation is responsible for the activities of the IASB and other work that centers on IFRS, such as initiatives related to translation of IFRS from the English language, education about IFRS, and the development of interactive data taxonomies for IFRS. The IASC Foundation is governed by 22 trustees (“IASB Foundation Trustees”) whose backgrounds are geographically diverse (six from North America, six from Europe, six from Asia/Oceania, one from Africa, and three from any area). Initially, the IASB operations were financed through voluntary contributions by approximately 200 organizations.

The majority of the funding for IFRS is based on voluntary funding. Of the 17,731 thousand pounds contributed to the IFRS foundation in 2016, 43% came from International Accounting Firms (equal contributions from each of the Big Four firms), 21.5% came from the European Commission, 11.8% came from China, and all remaining countries contributed less than 5%.

Funding is important due to either a perceived or actual lack of objectivity resulting from the temptation to give special consideration to larger financial contributors. Also, large financial contributors might withdraw funding if they are not happy with the direction that the IASB is moving.

Possible Adoption Approaches

Full Adoption of IFRS Under this approach, countries recognize IFRS as issued by the IASB as GAAP. IFRS are authoritative once issued by the IASB, without approval by any local body. Although this approach seems to have the least potential to create deviations from IFRS as issued by the IASB, it also has the potential to result in a much greater variability as to how a specific national regulator (or other body) exercises its authority and fulfills its responsibility for investor protection. Very few jurisdictions follow this approach.

Adopt IFRS after Some Incorporation Process This approach would allow each country to address country-specific issues. However, this lessens the perception that countries use a single set of high-quality globally accepted accounting standards. Countries in this category can be divided into (1) countries that **converge** their standards with IFRS (without a firm commitment to incorporate fully IFRS as issued by the IASB) and (2) countries that undertake some form of local **endorsement**.

Convergence approach: Under the convergence approach, jurisdictions maintain their local standards but work to converge those standards with IFRS over time (an example is the People’s Republic of China).

Endorsement approach: Under this approach, jurisdictions incorporate individual IFRS into local standards. Deviations from IFRS vary under this approach. This approach is very popular; Australia serves as an example of a country following this approach.

“Condorsement” of IFRS The SEC’s prior work plan focused on this approach. The condorsement framework is predicated on several principles. First, U.S. GAAP would be retained, but the Financial Accounting Standards Board would incorporate IFRS into U.S. GAAP over a defined period, with a focus on minimizing transition costs. The FASB would incorporate newly issued IFRS into U.S. GAAP pursuant to some established endorsement protocol. This would require a change to how the FASB currently operates. Similar to other jurisdictions, the endorsement protocol would provide the Commission and the FASB with the ability to modify or supplement IFRS when in the public interest and necessary for the protection of investors.

LO 4 SEC work plan for incorporating IFRS.

Thus a “U.S. version” of IFRS could result. In addition, there may be a need for U.S. interpretations of IFRS on issues that are significant in the United States but not in the remainder of the world. The most likely example of a modification to IFRS is the possible continuation of some existing U.S. GAAP requirements that have no specific IFRS counterparts.

The Role of the SEC and the FASB As is the case to date, the SEC retains the ultimate authority to establish financial reporting requirements in those instances in which interpretative guidance is required or appropriate for U.S. constituents, although addressing such needs through standard setting would still be the preferred approach. The SEC could issue guidance following similar processes to those employed currently, such as issuing Staff Accounting Bulletins. The SEC would monitor international standard-setting developments. Currently, IFRS do not have any requirements for oil and gas companies and the SEC could decide to retain reporting requirements upon incorporation of IFRS.

Gietzmann and Isidro (2013) investigate institutional investor’s share holdings following the receipt of a SEC comment letter questioning the application of U.S. GAAP or IFRS (firms filing a form 20F). While the number of firms filing form 20F represents only 3.4% of firms filing with the SEC (in the sample), the percentage of firms filing form 20F have a statistically higher probability of receiving a comment letter from the SEC (23% versus 19% for 10K filers). This difference is economically significant because institutional investors react more negatively to comment letters questioning the application of IFRS as compared to U.S. GAAP. The authors find that institutional investors adjust their portfolios consistent with the belief that SEC’s comment letters provide insight into the quality of financial statements.²

The AICPA Board of Examiners began testing IFRS on the Uniform CPA Exam in 2011. The AICPA’s governing Council approved amending Rules 202 and 203 of the Code of Professional Conduct to recognize the IASB as an international accounting standard setter. That removed a potential barrier and gives U.S. private companies and not-for-profit organizations the choice whether to use IFRS.

11.3 GAAP HIERARCHY—U.S. VERSUS IFRS

RELATED CONCEPTS

In discussions between the FASB and IASB on developing a joint conceptual framework, the first issue debated was whether the objective should be to provide information to a wide range of users or only to existing shareholders. They agreed that information should be provided to all users making risky investments.

GAAP hierarchy refers to how an entity identifies the sources of accounting principles and the framework for selecting the principles used in preparing financial statements. The objective of the GAAP hierarchy is to provide a consistent framework for selecting accounting principles to be used in preparing financial statements that are presented in conformity with U.S. generally accepted accounting principles. Generally, the hierarchy contains multiple levels with the highest level given the most weight. Most standard-setters have a stated hierarchy to guide preparers of the financial statements.

In the last statement issued by the FASB before the codification became active, *SFAS No. 168—The FASB Accounting Standards Codification and the Hierarchy of Generally Accepted Accounting Principles—A Replacement of FASB Statement No. 162*—was issued on June 30, 2009. On the effective date of this pronouncement (annual and interim periods ending after September 15, 2009), the *FASB Accounting Standards Codification (ASC)* will become the source of authoritative accounting and

² Gietzmann M. and H. Isidro, Analysis of Institutional Investors’ Reaction to the Issuance of SEC’s Comment Letters to European IFRS Registrants versus US GAAP Registrants, *Journal of Business Finance and Accounting* 2013.

reporting standards for nongovernmental entities in the United States. In essence, this statement reduced the GAAP hierarchy to two levels: one that is authoritative (included in the FASB ASC) and one that is nonauthoritative (not included in the FASB ASC). The exception would be all rules and interpretations issued by the SEC that are also sources of authoritative GAAP for SEC registrants. *FASB Statement No. 168* is the final statement issued by the FASB in that form, and there are no longer Emerging Issue Task Force (EITF) abstracts, staff bulletins, or AICPA Accounting Statements of Position. Instead, FASB issues Accounting Standards Updates. For example, *FASB Statement No. 168* is referred to as Accounting Standards Update No. 2009-02.

The Codification includes approximately 90 topics and includes all accounting standards from the previous hierarchy, as well as some relevant portions of selected SEC staff interpretations and guidance. Keep in mind that the FASB ASC is not the authoritative source of SEC guidance. The Codification should reduce the extent of time and effort needed to solve accounting reporting issues, provide accurate and timely updates as new standards are released, and clearly distinguish between what is and what is not authoritative.

U.S. GAAP Hierarchy

Authoritative: Included in the FASB Accounting Standards Codification.

Non-Authoritative: Not included in the FASB Accounting Standards Codification.

Exceptions: SEC registrants must also follow SEC rules and regulations issued under the authority of federal securities laws.

In *IAS 8* (revised in 2003), the IASB determined the hierarchy to be followed in choosing accounting procedures to be used in preparing financing statements under IFRS. This hierarchy is:

IFRS Hierarchy (Issued by the IASB)

1. IFRS/IAS statements (8 IFRS and 41 IAS standards) and IFRIC/SIC Interpretations (14 IFRIC and 32 SIC). *SIC* stands for the Standards Interpretations Committee.
2. Apply a method that is relevant, reliable, and represents faithfully the financial position, the performance, and cash flows of the firm; reflect the economic substance of the firm.
3. Look to recent pronouncements of other standard-setters that use a similar conceptual framework (i.e., U.S. GAAP).
4. The conceptual framework.

At present, there are differences between the U.S. and IFRS hierarchies in the status of the conceptual frameworks within the GAAP hierarchy. For an entity preparing financial statements under International Financial Reporting Standards (IFRS), the IASB's *Framework* provides guidance when there is no standard or interpretation that specifically applies to a transaction or other event or condition, or that deals with a similar and related issue. In those situations, the entity's management is required to consider the definitions, recognition criteria, and measurement concepts for assets, liabilities, income, and expenses in the *Framework*. Under U.S. GAAP, the FASB's Concepts Statements have historically had a lower status—they were ranked in the lowest category under “other literature.” However, the FASB intends to incorporate the new conceptual framework into the codification of authoritative standards by its completion, thus raising its status.

Note the third item under the IFRS hierarchy. One concern about U.S. firms adopting IFRS is that there are fewer industry standards in IFRS than in U.S. GAAP. However, if a U.S. firm adopts IFRS and has been following a standard according to a specific U.S. rule, this firm might still be required to follow the U.S. rule because of item (3) of the IFRS hierarchy, which refers to pronouncements of other standard-setters.

11.4 SIMILARITIES AND DIFFERENCES BETWEEN U.S. GAAP AND IFRS

U.S. GAAP are often argued to be more rules-based, while IFRS are considered to be more principles-based, although this dichotomy is an oversimplification as most U.S. rules are rooted in principles. Furthermore, the IASB is embracing more interpretative details of its principles over time. For instance, the IASB's proposed change to IAS 12 on income taxes has many provisions that are rule based. However, U.S. GAAP includes more details at present than IFRS.

Similarities and Differences between FASB and IASB

LO 2 Differences between IFRS and U.S. GAAP.

In Illustrations 11-2, 11-3, and 11-4, a listing of similarities and differences between IFRS and U.S. GAAP is provided.³ Be aware, however, that the principles and rules are constantly changing under both IFRS and U.S. GAAP, making it important to check continually for recent updates or modifications. In Illustration 11-2, various financial statement presentation issues are addressed. IFRS financial statements include a balance sheet, an income statement and a statement of comprehensive income, a cash flow statement, and either a statement of changes in equity (SOCE) or a statement of recognized income or expense (SORIE). Two years of reports are required for all financial statements. In the U.S., SEC registrants are required to provide three years of financial statements except for the balance sheet, where two years of statements are required.

There are several differences affecting the income statement. In the U.S., expense items are usually listed on the income statement by function, such as selling expense, administration expense, and cost of goods sold. Under IFRS, expenditures can be listed by nature or by function. Examples of expenses listed by nature would be raw materials used, salary expense, depreciation expense, and so on. In the U.S., firms are allowed to report expenses by nature, but seldom do. Depreciation expense is generally included as part of cost of goods sold or part of selling, general, and administration expenses for instance, rather than listed separately. If an item is unusual and/or infrequent (and the amount is significant), IFRS allow a choice between disclosure only in the notes or presentation as a separate item in the income statement. Under U.S. GAAP, such material items must be reported on the face of the income statement.

Consider the following distinction between expenses by function or nature. Star Group lists, by function, General and Administration Expenses on the income statement of \$571,258. In the footnotes, these expenses are listed by nature as follows:

³ Additional comparisons of IFRS and U.S. GAAP are provided in Chapter 4.

EXPENSES CLASSIFIED BY NATURE

	Year Ended December 31, 2017 \$000's
General and administrative	
Processor costs	69,518
Office	81,174
Salaries and fringe benefits	170,422
Research and development salaries	25,180
Stock-based compensation	10,622
Depreciation of property and equipment	8,925
Amortization of deferred development costs	10,275
Amortization of intangible assets	127,986
Professional fees	66,185
(Reversal of) Impairment of assets held for sale, associates, and intangible assets	(6,799)
Bad debt	7,171
Loss on disposal of assets	571,258

ILLUSTRATION 11-2**Comparison of Financial Statement Presentation under U.S. GAAP and IFRS,
Select Items**

<i>Topic</i>	<i>U.S. GAAP</i>	<i>IFRS</i>
1. Financial periods presented	Generally, comparative financial statements are presented. Public companies are required to present two years for the balance sheet and three years for all other financial statements.	Comparative information must be presented for all amounts reported in the financial statements.
2. Balance sheet presentation	Entities may present either a classified or a non-classified balance sheet. Items on the balance sheet are listed in order of decreasing liquidity. Public companies must follow Reg S-X.	IFRS does not prescribe a format, but generally uses a current/noncurrent format be used and listed in order of increasing liquidity unless a liquidity format is more relevant and reliable.
3. Income statement presentation	Presented either as a single-step or multiple step format. Expenditures are usually listed by function.	IFRS does not prescribe a format, but expenditures are listed either by function or nature.
4. Extraordinary items	Prohibited.	Prohibited.
5. Unusual items	Individually significant items are reported on the face of the income statement and disclosed in the notes.	Separate disclosure is required, but not required to be reported on the income statement.
6. Deferred taxes classified	Deferred taxes are presented as noncurrent.	Deferred taxes are presented as noncurrent (convergence to US GAAP is expected).
7. Statement of cash flows	Standard headings but more guidance on items in each category (cash interest paid is included in operations, dividends paid is included in financing). Direct or indirect formats allowed for cash from operations.	Standard headings but limited guidance on contents (i.e., cash interest paid and dividends paid may be reported in operating or financing). Direct or indirect format allowed.

ILLUSTRATION 11-3**Comparison of Statement of Financial Position (Balance Sheets) and Disclosures under U.S. GAAP and IFRS**

<i>Topic</i>	<i>U.S. GAAP</i>	<i>IFRS</i>
1. Inventory	Carried at the lower of cost or realizable value. Inventory measured using LIFO and retail are reported at lower of cost or market.	Carried at lower of cost or realizable value. Realizable value is the best estimate of the amount expected to be realized considering the business purpose (may not always be fair value). LIFO is prohibited.
2. Reversal of inventory write-downs	Write-downs of inventory to lower of cost or realizable value create a new cost basis. Reversals of previously written down amounts are prohibited.	Previously written down amounts can be reversed up to the extent of the original impairment loss if the reason for impairment no longer exists.
3. Development costs	Both research and development costs are expenses as incurred unless addressed by a separate standard. (In the case of computer software, development costs are capitalized once technological feasibility is established.)	Development costs are capitalized when technical and economic feasibility can be demonstrated with specific criteria.
4. Property, Plant, and Equipment	Historical cost is used. Revaluations are not allowed.	Historical cost or revalued amounts are used. Regular revaluation of assets is required once the revaluation option is chosen.
5. Reviews for impairment of long-lived assets	Performed when there is an indicator of impairment.	Performed when there is an indicator of impairment.
6. Method for determining long-lived asset impairment	A two-step approach is used. If the recoverability test is not met, then the impairment test is performed (the amount that the carrying value exceeds its fair value).	A one-step approach is used, measured as the amount by which the carrying value exceeds its recoverable amount. The recoverable amount is the higher of the fair value less costs to sell or the present value of future cash flows less costs to dispose.
7. Provisions for liabilities	Recorded if probable and reasonable estimable <i>Probable</i> is interpreted as “likely.”	A present obligation (with uncertain timing or uncertain amount) that is recorded if probable (“more likely than not”) and reasonably estimable.
8. Contingent liability	If probable and estimable, the liability is <i>recognized</i> in the financial statements. Otherwise, the obligation is footnoted (unless remote).	A possible obligation that will be confirmed by uncertain future events. <i>Not recognized</i> in the financial statements. Disclosed if not remote.
9. Reduced disclosure of contingent liabilities	No reduced disclosure permitted.	Reduced disclosure permitted if it would severely prejudice the entity’s position with another party to the obligation.
10. Measurement of provision—range of outcomes	Most likely outcome should be accrued. When no outcome is more likely, accrue the minimum range of outcomes.	Best estimate of obligation (typically the expected value) should be used. If any outcome is as likely, use the midpoint of the estimates.

LO 2 Differences between IFRS and U.S. GAAP.

Illustration 11-3 provides similarities and differences for certain balance sheet items and some disclosures. One of the more controversial differences between U.S. GAAP and IFRS is that the use of LIFO inventory is prohibited by IFRS. The primary reason given is that the cost flow and the physical flow do not match. Also related to inventory issues are recoveries of previously written down inventory. Under IFRS, firms are allowed to recover costs up to the original amount written off if the conditions that gave rise to the write-off no longer exist. Under U.S. GAAP, the reduced value of the inventory becomes the new cost basis for the inventory and no recovery is allowed.

ILLUSTRATION 11-4**Comparison of Various Topics and Disclosures Under U.S. GAAP and IFRS**

<i>Topic</i>	<i>U.S. GAAP</i>	<i>IFRS</i>
1. Stock dividends declared after balance sheet date	SEC requires that the financial statements be adjusted for stock dividends declared after the balance sheet date.	Financial statements are not adjusted for stock dividends occurring after the balance sheet date.
2. Related party	Similar to IFRS.	The nature of the relationship (seven categories), amount of the transactions, outstanding balances, terms and types of the transactions are disclosed.
3. Compensation of key employees	Not required to be disclosed within the financial statements.	Required within the financial statements.
4. Capitalization of interest	Requires interest be capitalized as part of the cost of a qualifying asset.	Interest is capitalized as part of the cost of a qualifying asset.
5. Depreciation	Component depreciation is allowed, but seldom used.	Component depreciation is required if parts of the asset offer varying patterns of benefits.
6. Earnings per share (EPS)	Basic and diluted earnings per share for both continuing operations and net income are presented on the face of the income statement. Entities with an extraordinary item also must present EPS data for those line items. Cash flow per share not strictly prohibited.	Basic and diluted earnings per share for both continuing operations and net income are presented on the face of the income statement. Cash flow per share not strictly prohibited.
7. Accompanied financial information	A financial and operational review not required. SEC registrants must include a management discussion and analysis section.	A financial and operational review is encouraged, but not required.
8. Changes in estimates	Handled prospectively.	Same as U.S.
9. Changes in methods	Accounting policy changes are accounted for retrospectively by adjusting opening equity and comparatives, unless impracticable.	Same as U.S.
10. Error corrections	Error corrections are accounted for retrospectively by adjusting opening equity and comparatives, without regard to practicability.	Error corrections are accounted for retrospectively by adjusting opening equity and comparatives, unless impracticable.
11. Long-term liabilities expected to be refinanced	Classification may consider events after the reporting date (based on the entity's ability and intent).	Liabilities are classified according to their circumstances at the reporting date.

Although a single economic phenomenon can be faithfully represented in multiple ways, permitting alternative accounting methods for the same economic phenomenon diminishes comparability and, therefore, may be undesirable.⁴

⁴ IASB Exposure Draft, "An Improved Conceptual Framework for Financial Reporting," and FASB Exposure Draft, "Conceptual Framework for Financial Reporting," September 29, 2008.

Research and development costs are handled differently in IFRS and U.S. GAAP. In the U.S., all R&D expenditures are expensed as incurred (with the exception of software development costs). Under IFRS, development costs are capitalized once the product becomes technically and economically feasible. This means that in addition to technological feasibility, the firms must demonstrate a clear intention to complete, a clear intention and ability to use or sell the product, an ability to generate future benefits and to measure reliably the expenditure, and adequate resources to complete the development.

Another one potentially large difference concerns valuations of property, plant and equipment (PPE). In the U.S., PPE is accounted for on a historical cost basis. Revaluations are not allowed, unless the asset has become impaired. Under IFRS, the firm can elect to revalue each class of PPE. Common examples of asset classes are land, machinery, furniture and fixtures, and buildings. However, this revaluation cannot be a one-time event. Once a firm has chosen to revalue the assets, the assets must be revalued regularly so that the carrying amount is not materially different from the fair value of the asset. If the firm revalues PPE, any *increase* in fair value is not reported in operating income, but is instead recognized in equity in the “revaluation reserve” account (which is also reflected in comprehensive income). For instance, if an asset with an original cost of \$40,000 and a book value of \$30,000 (i.e., 75% remaining life using straight-line depreciation and no salvage value) was appraised as having a gross replacement cost of \$50,000, the following journal entry would be recorded using the revaluation model:

Asset (\$50,000 – \$40,000)	10,000	
Accumulated depreciation (25% × \$10,000)		2,500
Revaluation reserve (equity account)		7,500

The revaluation reserve account is reported on the balance sheet as an equity account and the \$7,500 amount is also included in comprehensive income. This approach is sometimes referred to as the *sound value* or *depreciated replacement cost* approach.

Also, if PPE is revalued, any decrease in fair value is also reported in the revaluation reserve account as long as it maintains a credit balance. Once the account reaches a zero balance, any additional decrease is recognized in operating income as an impairment loss.

Impairment tests for long-lived assets are performed only if events cause a change in circumstance that indicates that the carrying value of the asset may not be recovered. Under IFRS, a one-step approach is used to determine the impairment loss. The impairment loss is the excess of the carrying amount over the asset’s recoverable amount. The recoverable amount is the higher of the fair value less any costs to sell the asset or the present value of the future cash flows generated by the asset less disposal costs.

Depreciation of long-lived assets under IFRS must be based on component depreciation if the components of an asset have differing benefits. Consider the following example from paragraph 44 of IAS 16. Suppose that an entity purchases an aircraft for \$12 million, comprising the airframe (\$6 million), the engine (\$4 million), and remaining components (\$2 million). Suppose that straight-line depreciation is used, the salvage value is zero, and that the useful lives of the components are:

Aircraft frame	20 years
The engine component	16 years
Other components	8 years

The useful life of the entire aircraft is 20 years. Under U.S. GAAP and IFRS, the following entries would be made to record the purchase:

U.S. GAAP:

Asset	12,000,000	
Cash		12,000,000

IFRS:

Aircraft—Airframe	6,000,000	
Aircraft—Engine	4,000,000	
Aircraft—Other	2,000,000	
Bank/Liability		12,000,000

The entry to record depreciation expense would be:

U.S. GAAP:

Depreciation Expense (\$12 million/20)	600,000	
Accumulated Depreciation		600,000

IFRS:

Depreciation Aircraft—Airframe (\$6 mil/20)	300,000	
Depreciation Aircraft—Engine (\$4 mil/16)	250,000	
Depreciation Aircraft—Other (\$2 mil/8)	250,000	
Accumulated Depreciation—Airframe		800,000

As seen here, the amount of depreciation expense can vary significantly between IFRS and U.S. GAAP.

Contingent liabilities, under IFRS, are defined as “possible” obligations that will be confirmed by uncertain future events. Contingent liabilities are not recognized in the financial statements under IFRS. In the U.S., contingent liabilities are recognized in the financial statements if they are probable and can be reasonably estimated. U.S. GAAP defines *probable* as “likely,” and interprets this definition as implying a higher threshold than “more likely than not.” Under IFRS, *probable* is defined to mean “more likely than not.” One of the most important distinctions between U.S. GAAP and IFRS is that IFRS allow reduced disclosure in certain situations. For instance, if the disclosure would severely prejudice the entity’s position with another party to the obligation, the firm is allowed to reduce its disclosure under IFRS.

Illustration 11-4 provides comparisons on various issues. Related-party disclosures, earnings per share, and capitalization of interest are similar between IFRS and U.S. GAAP.

Changes in accounting principles are handled retrospectively under both systems and changes in accounting estimates are performed prospectively. Under IFRS, error corrections are done retrospectively unless impractical, while under U.S. GAAP, the errors must be corrected regardless of practicality.

Functional Currency in the translation of foreign operations: TenPeaks is a leading specialty coffee company doing business through two wholly owned subsidiaries. IFRS requires entities to consider primary and secondary indicators when determining functional currency. Primary indicators are closely linked to the primary economic environment in which the entity operates and are given more weight. Secondary indicators provide supporting evidence to determine an entity’s functional currency. Once the functional currency of an entity is determined, it should be used consistently, unless significant changes in economic factors, events and conditions indicate that the functional currency has changed. A change in functional currency is accounted for prospectively from the date of the change by translating all items into the new

functional currency using the exchange rate at the date of the change. Based on an analysis of the primary and secondary indicators, the functional currency of each of the Corporation and its subsidiaries has been determined. The Corporation's consolidated financial statements are presented in U.S. dollars.

In Illustrations 11-5, 11-6, and 11-7, examples of IFRS-based financial statements are provided. We do not provide an example of the statement of changes in equity.

ILLUSTRATION 11-5**Consolidated Balance Sheet (IFRS) at December 31, 2020 (In 000 Euros)**

	2020	2019
Noncurrent assets		
Property, Plant, and Equipment	64,566	40,891
Intangible Assets	7,496	2,978
Investment in an Associate	924	824
Available-for-Sale Investments	7,294	4,224
Deferred Tax Asset	463	442
	<u>80,743</u>	<u>49,359</u>
Current assets		
Inventories	30,099	30,842
Trade and Other Receivables	33,483	29,391
Prepayments	336	200
Cash and Short-term Deposits	20,101	18,233
Total Current Assets	<u>84,019</u>	<u>78,666</u>
Total Assets	<u>164,762</u>	<u>128,025</u>
Equity attributable to equity holders of the parent		
Issued Capital	26,654	23,538
Share Premium	7,687	163
Treasury Shares	(937)	(937)
Other Capital Reserves	1,254	231
Retained Earnings	<u>46,205</u>	<u>37,389</u>
	80,863	60,384
Noncontrolling Interests	<u>863</u>	<u>895</u>
Total Equity	<u>81,726</u>	<u>61,279</u>
Noncurrent liabilities		
Interest-bearing Loans and Borrowings	18,244	23,666
Convertible Preference Shares	3,361	3,199
Provisions	2,360	93
Other Liabilities	5,693	2,915
Deferred Tax Liability	<u>5,584</u>	<u>2,239</u>
	35,242	32,112
Current liabilities		
Trade and Other Payables	23,450	25,750
Interest-bearing Loans and Borrowings	18,255	3,358
Other Financial Liabilities	534	549
Income Tax Payable	5,011	4,856
Provisions	<u>545</u>	<u>119</u>
Total Current Liabilities	<u>47,795</u>	<u>34,632</u>
Total Liabilities	<u>83,037</u>	<u>66,744</u>
Total Equity and Liabilities	<u>164,763</u>	<u>128,023</u>

ILLUSTRATION 11-6**Consolidated Income Statement (IFRS)—Disclosed By Nature For The Year Ended December 31, 2020 (In 000 Euros)**

	2020	2019
Continuing operations		
Sale of goods	232,440	210,738
Rendering of services	20,729	20,010
Rental income	<u>1,699</u>	<u>1,666</u>
Revenue	254,868	232,414
Other income	1,918	3,083
Changes in inventories of finished goods and work in progress	(1,371)	(4,587)
Raw materials used	(179,802)	(159,024)
Employee benefits expense	(53,263)	(53,062)
Depreciation and amortization expense	(4,619)	(3,548)
Other expenses	(1,316)	(1,218)
Finance costs	(1,969)	(1,889)
Finance revenue	950	876
Share of profit of an associate	<u>100</u>	<u>98</u>
Profit before tax	15,496	13,143
Income tax expense	<u>(4,489)</u>	<u>(3,911)</u>
Profit for the year from continuing operations	11,007	9,232
<i>Discontinued operation:</i>		
Loss after tax for the year from a discontinued operation	<u>266</u>	<u>(227)</u>
Profit for the year	<u>11,273</u>	<u>9,005</u>
<i>Attributable to:</i>		
Equity holders of the parent	11,106	8,716
Minority interests	<u>167</u>	<u>289</u>
	<u>11,273</u>	<u>9,005</u>
Earnings per share attributable to ordinary equity holders of the parent		
basic	.52	.46
diluted	.52	.43
Earnings per share for continuing operations attributable to ordinary equity holders of the parent		
basic	.52	.47
diluted	.50	.44

RELATED CONCEPTS

In discussions between the FASB and IASB on developing a joint conceptual framework, they agreed that general purpose financial statements should not necessarily provide information useful to managers, since management is able to demand their own reports.

Notice on the balance sheet in Illustration 11-5 that the firm has chosen to classify assets and liabilities between current and non-current. In addition, the listing of the assets and liabilities is in order of liquidity (i.e., the least liquid asset and liability is listed first). Long-lived assets would be listed first on the balance sheet with the current asset section listed second. On the liability and equity side of the balance sheet, equity is generally listed first with long-term liabilities listed second, followed by current liabilities.

In Illustration 11-5, there is an account listed as a non-current asset called “investment in an associate.” In the U.S., this is an investment accounted for using the equity method of accounting. In addition, issued capital refers to common shares and share premium refers to additional paid-in capital. Provisions listed under current liabilities are the same as estimated liabilities in the U.S.

The income statement prepared under IFRS is presented in Illustration 11-6. IAS 1.88 requires expenses be listed by nature of the expense or by their function within the entity, whichever provides information that is reliable and more relevant. In the

ILLUSTRATION 11-7**Consolidated Statement of Cash Flows (IFRS) For The Year Ended December 31, 2020**

	2020	2019
<i>Operating activities</i>		
Profit before tax from continuing operations	15,495	13,143
Profit/(Loss) before tax from discontinued operations	<u>258</u>	<u>(234)</u>
Profit before tax	15,753	12,909
Adjustment to reconcile profit before tax to net cash flows		
<i>Non-cash:</i>		
Depreciation	4,594	4,093
Amortization and impairment of intangible assets	151	211
Gain on disposal of property, plant and equipment	(644)	(2,428)
Other gains and losses	801	889
Interest income	(950)	(876)
Interest expense	1,969	1,889
Share of net profit of associate	(100)	(98)
Movements in provisions	(592)	128
<i>Working capital adjustments:</i>		
Increase in trade and other receivables	(10,586)	(2,615)
Decrease in inventories	3,168	2,644
Increase in trade and other payables	3,260	3,054
Income tax paid	<u>(4,334)</u>	<u>(4,006)</u>
Net cash flows from operating activities	<u>12,490</u>	<u>15,794</u>
<i>Investing activities</i>		
Proceeds from sale of property, plant and equipment	2,408	2,806
Purchase of property, plant and equipment	(9,263)	(8,863)
Purchase of investment properties	(1,471)	(1,442)
Purchase of available-for-sale investments	(687)	(272)
Other	<u>(770)</u>	<u>(574)</u>
Net cash flows used in investing activities	<u>(9,783)</u>	<u>(8,345)</u>
<i>Financing activities</i>		
Proceeds from borrowings	3,315	3,200
Repayment of borrowings	(180)	(2,159)
Interest paid	(1,716)	(1,889)
Dividends paid to equity holders of the parent	(2,386)	(1,936)
Dividends paid to minority interests	(36)	(59)
Other	<u>111</u>	<u>150</u>
Net cash flows used in financing activities	<u>(892)</u>	<u>(2,693)</u>
Net increase in cash and cash equivalents	1,815	4,756
Net foreign exchange difference	52	23
Cash and cash equivalents at 1 January	<u>18,233</u>	<u>13,453</u>
Cash and cash equivalents at 31 December	<u>20,100</u>	<u>18,232</u>

illustration, the expenses are listed by nature (i.e., raw materials used, depreciation expense, etc.). In many IFRS income statements, revenues may be referred to as “turn-over.” This is simply a terminology difference and not a requirement of IFRS.

IFRS allow firms to choose either the direct or the indirect approach in computing cash from operations. In Illustration 11-7, the indirect approach is used. IFRS allow firms to start with either income before tax or after-tax income in the reconciliation

to cash from operations (income before tax is used in the illustration). In the United States, the indirect method begins with consolidated net income. In the United States, cash interest paid is classified as an operating cash flow, while under IFRS, the firm can choose to classify the cash outflow for interest as either operating or financing depending on which classification is more relevant to the entity.

11.5 BUSINESS COMBINATION AND CONSOLIDATION—U.S. GAAP VERSUS IFRS

In this section, we highlight the differences between IFRS and U.S. GAAP and provide an illustration of consolidation acceptable using IFRS. Illustration 11-8 provides a summary of the items discussed.

LO 5 Differences in business combinations and consolidations

IFRS 10 establishes the principles for the presentation and preparation of consolidated financial statements. In this section, we examine the standards for consolidation and business combinations for IFRS and compare them to U.S. GAAP. Like U.S. GAAP, IFRS present the financial statements according to the economic entity concept and require a parent entity that controls one or more entities to present consolidated financial statements. Whereas in the United States, control for non-VIE entities relies on the voting-interests model, IFRS defines three elements of control. Control exists if and only if the investor: (1) has *power* over the investee, (2) is *exposed, or has rights, to variable returns* from its involvement with the investee, and (3) has the *ability* to affect those returns through its power over the investee. Power over the investee typically means that the investor has existing rights (i.e., substantive voting shares) giving it the ability to direct the relevant activities (that affect returns) or rights to variable returns. Power over the investee means the parent must also have the ability to use its power. Definitions of control under U.S. GAAP and IFRS become particularly important when less than 50% of the voting stock is obtained. The following illustrates the requirements of IFRS 10.

Examples when an investor may have power with less than 50% ownership

1. The size of the investor's voting rights relative to the size of other vote holders and their participation in past shareholders' meetings.
2. Contractual agreements between the investor and other vote holders.
3. Potential voting rights of the investor and other investors.

Consider point one. If the investor owns 48% of the voting shares and no other investor owns more than 1% and there are no procedures or agreements for remaining shareholders to make collective agreements, the investor has "de facto control." However, if the next two largest shareholders owned 26%, no de facto control exists. U.S. GAAP does not have any "de facto" provisions in determining control.

Consider point two. Both the U.S. and IFRS allow consolidation by entities controlled by contract. Under U.S. GAAP, because most legal entities controlled by contract are likely to be VIE, (control as determined by the VIE guidelines), any remaining entities controlled by contract are generally not-for-profit entities. FASB is expected to move this section of Topic 810 Consolidations to Topic 958 Not-for-Profit.

The third point represents another major difference. Potential voting rights are ignored in determining control using U.S. GAAP but must be considered under IFRS. Potential voting rights are "rights to obtain voting rights of the investee with options or a convertible instrument." For instance, a 40% ownership shareholder who holds an option to obtain another 15% voting share may have control. Determination of control

ILLUSTRATION 11-8**Comparison of Statement of Financial Position (Balance Sheets) and Disclosures Under U.S. GAAP AND IFRS**

<i>Topic</i>	<i>U.S. GAAP</i>	<i>IFRS</i>
1. Basis of preparing financial statements	Economic entity concept.	Economic entity concept.
2. Definition of control	The possession, direct or indirect, of the power to direct or cause the direction of the management and policies of an entity through ownership, by contract, or otherwise. (usual condition is through majority voting interests)	Investor has <i>power</i> over the investee, is <i>exposed, or has rights, to variable returns</i> from its involvement with the investee and has the <i>ability</i> to affect those returns through its power over the investee.
3. Determining whether consolidation is appropriate	First apply the VIE model; if not a VIE, apply the voting interest equity model. VIEs are discussed in Topic 810-10-15-14.	Apply a single, control-based model.
4. Different reporting dates for the parent and subsidiary	Reporting dates may differ by up to three months. Significant events occurring within the three months are footnoted.	Required to have the same date, unless impracticable (in which case, the difference cannot exceed three months and adjustments to the books are required for significant events).
5. Allocating goodwill acquired	To the reportable units that are expected to benefit from the synergies	To the cash generating unit or groups of CGU that are expected to benefit from the synergies.
6. Impairment of goodwill, intangibles with indefinite lives	Goodwill and intangibles with indefinite lives are tested annually (or more frequently if there is an indication of impairment).	Goodwill and intangibles with indefinite lives are tested annually (or more frequently if there is an indication of impairment).

Private Company Standards (by Private Company Council)

<i>Topic</i>	<i>U.S. GAAP</i>	<i>IFRS</i>
7. Goodwill	Can elect option to amortize goodwill over 10 years or less. Can test for impairment based on a triggering even. Can test either at the entity-wide level or reporting unit level.	No separate guidance for private companies.
8. Identifying intangible assets in a business combination	Provides an option not to separately recognize and measure noncompete agreements and certain customer-related intangible assets in a business combination (instead include as part of goodwill).	No separate guidance for private companies.

in instances involving an option must consider how the rights of the other shareholders affect this option.

Thus, differences in the definition of control can affect the number of business combinations treated as consolidations between IFRS and U.S. GAAP.

After a business acquisition, the consolidated entity combines revenues and expenses of the parent with the revenues and expenses of its subsidiary from the date it obtains control until the date it loses control. Under IFRS, the parent and subsidiaries are required to have the same reporting dates, unless impracticable, in which case, the difference between the date of the subsidiary's financial statements and that of the consolidated financial statements shall be no more than three months. Further, IFRS requires adjustments for the effects of *significant transactions* or *events* that occur between the reporting date of the subsidiary and date the consolidated financial statements are prepared. An example of a significant event might be impairments of assets. Under U.S. GAAP, there are fewer reportable subsequent events and most are simply footnoted.

Conformity of accounting policies is another major difference between IFRS and U.S. GAAP. Suppose the subsidiary uses different accounting policies than the parent for like transactions and events. Under IFRS, the subsidiary's books must be adjusted

to conform to the parent's accounting policies. Consider a 100% owned subsidiary that sells inventory similar in nature to the inventory sold by its parent. The parent uses average cost for inventory while the subsidiary uses FIFO. On the income statement, the subsidiary reports cost of goods sold as \$118,000, and beginning and ending inventory on the balance sheet as \$40,000 and \$37,000, respectively. If the average inventory method were used, beginning and ending inventory would be \$35,000 and \$30,000, respectively. To adjust the books, on the consolidated workpaper, the following entry would be needed (ignoring taxes):

Cost Method	
Cost of goods sold	2,000
Retained earnings—Parent Company	5,000
Inventory	7,000

The debit to retained earnings is for the difference in beginning and ending inventory between the two methods. Retained earnings are debited because beginning inventory is lower under average than FIFO by \$5,000, implying that more inventory costs have been expensed in prior years. The \$7,000 credit to inventory is the amount that FIFO ending inventory is greater than ending inventory using average. Under FIFO the decrease in inventory during the year is \$3,000 (or \$40,000 less \$37,000) and under average the decrease in inventory is \$5,000 (\$35,000 less \$30,000); thus, cost of goods sold must be increased by the difference of \$2,000 (a decrease in inventory implies more inventory is being sold and cost of goods sold is higher).

If the equity method were used, the entry would be as follows:

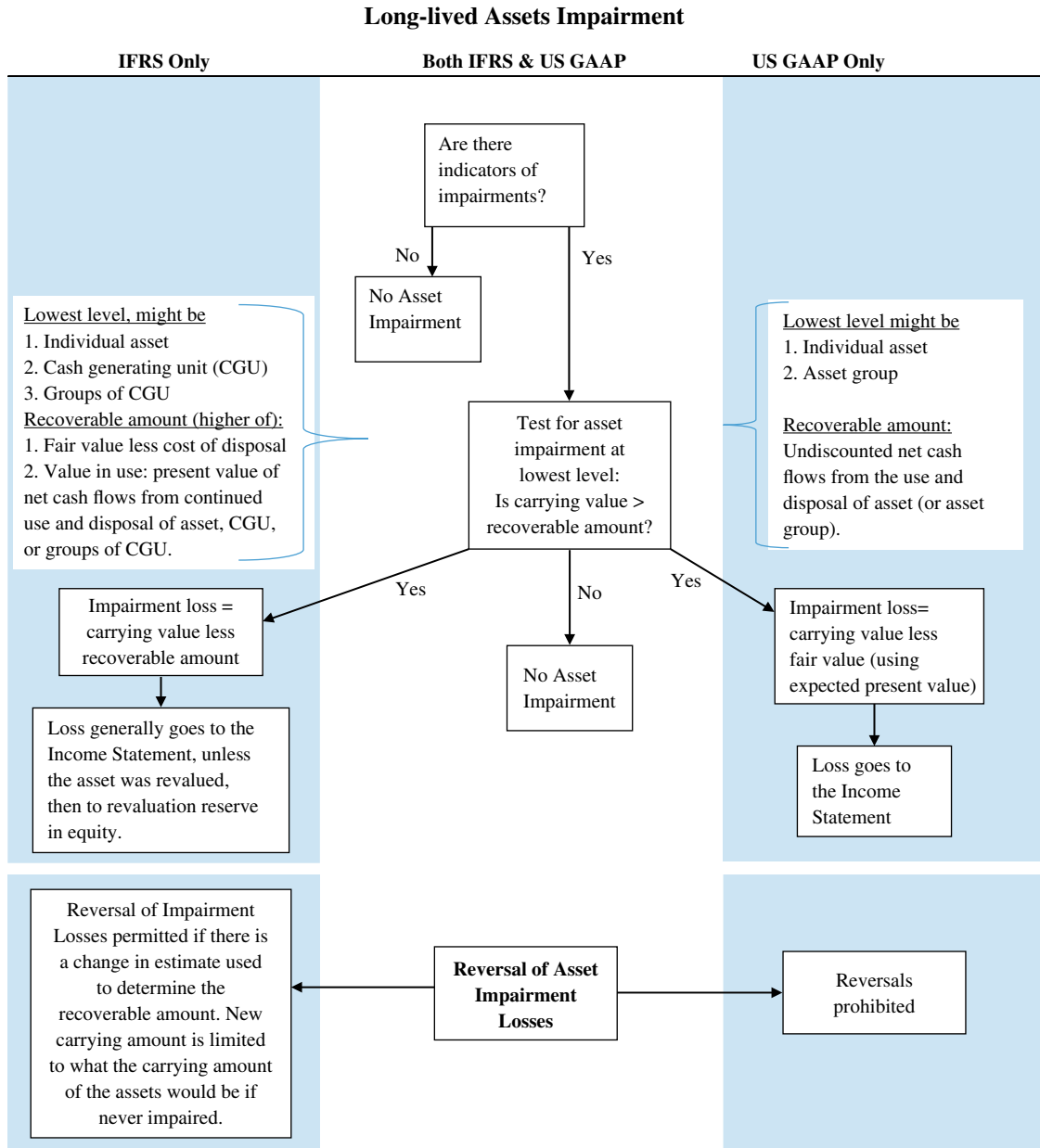
Equity Method	
Cost of goods sold	2,000
Investment in S Company	5,000
Inventory	7,000

The difference between the two entries arises because that under the equity method, the investment account was already adjusted in prior years for the difference in inventory methods. Thus, retained earnings on the parent's books have already been adjusted to average cost for the prior year effects of 5,000.

Upon attaining control, both U.S. GAAP and IFRS require the acquisition method, but there are differences in how the acquisition method is employed. Both standards require that the identifiable net assets be recorded on the consolidated books at fair value, but there are significant differences in how noncontrolling interest is recorded and in subsequent tests for the impairment of goodwill. Under U.S. GAAP, noncontrolling interest is always recorded at fair value. Under IFRS, on a case-by-case basis, noncontrolling interest can be recorded at either fair value or at the noncontrolling interests' percentage of the fair value of the identifiable net assets (this latter approach is referred to as the proportionate method). Because of this choice, there will be a difference in the amount of goodwill recorded in an acquisition and it potentially affects the amount of future goodwill impairment amounts. We illustrate these differences with an example later in this section of the textbook.

Flow charts are provided in Illustrations 11-9 and 11-10 to highlight the differences between IFRS and U.S. GAAP for impairment of assets and impairment of goodwill respectively. The middle column provides the standards when both IFRS

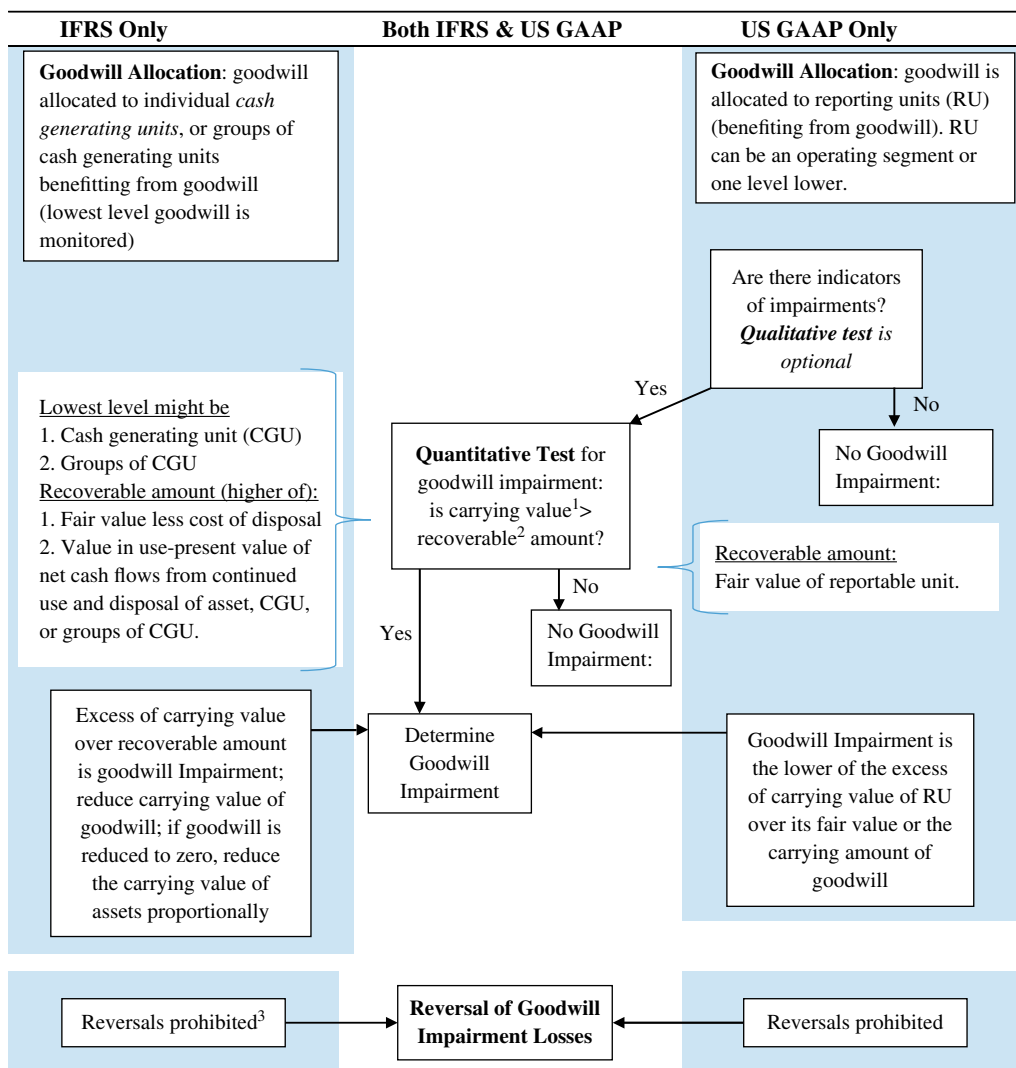
ILLUSTRATION 11-9



and U.S. GAAP are the same, while the columns on the left and right (in blue shade) describe differences as required by IFRS and by U.S. GAAP, respectively. Both U.S. GAAP and IFRS require that goodwill be tested annually for impairment for (this is also true for intangibles with indefinite lives). Other assets (other than goodwill and intangibles with indefinite lives) are subject to impairment when there are indicators of impairment. U.S. GAAP does not permit the reversal of any impairment loss (for either goodwill or asset impairments). IFRS permits reversal of asset impairments,

ILLUSTRATION 11-10

Goodwill Impairment (tested annually)



¹Under IFRS, if the proportionate method of consolidation is used, the carrying value must be grossed up to include goodwill (not allocated to NCI).

²Under IFRS, recoverable amounts can be reused if the CGU have not changed, if the previous recoverable amounts substantially exceeded the carrying value, and the likelihood is remote that an updated estimate would be below carrying value.

³Reversal amounts that exceed the carrying amount of goodwill are treated as asset impairments and may be reversed.

with the limitation that the carrying value of the asset cannot exceed what it would be if never impaired. IFRS also prohibits the reversal of goodwill impairment charges similar to the U.S. standard. However, under IFRS, if the excess of the carrying value over the recoverable amount exceeds the carrying value of the goodwill, this remaining excess may reduce other asset amounts (these are treated as asset impairments). Because these excess amounts are treated as asset impairments rather than goodwill impairments, they can be reversed.

In summary, IFRS is stricter with respect to defining recoverable amounts, while U.S. GAAP is stricter in prohibiting reversals of impairments.

Asset Impairments While the standards for *asset impairments* look identical in Illustration 11-9, the terms used in the standards are defined and measured very differently. Users of IFRS would prefer to test individual assets for impairment, but if the asset does not generate any cash flows (independent of other assets), the impairment testing is performed at the **cash generating unit** (CGU) level. The CGU is the smallest group of assets that generates cash inflows that are independent of the cash inflows of other assets or groups of assets (cannot be larger than an operating segment). For instance, a CGU might be a division of a company. U.S. GAAP requires assets be tested for impairment at the lowest level, which could be the asset level; similar to IFRS, if the asset doesn't generate cash inflows, the testing is done at the **asset group** level. The asset group level is the lowest level for which there are cash inflows and outflows that are independent of the net cash flows of other groups of assets. Clearly there is significant judgment needed under either IFRS and US GAAP in defining cash generating units and asset groups!

The test for asset impairment is whether the carrying value is greater than its recoverable amount. Recoverable amounts under IFRS are the higher of the fair value less the cost of disposal or the value in use. Value in use refers to the discounted expected future net cash flows from the continued use and disposal of the asset or CGU. Under U.S. GAAP, recoverable amounts are the sum of *undiscounted* net cash flows from the use and disposal of the asset. Value under U.S. GAAP is expected present value. Thus, one would expect fewer impairments using U.S. GAAP than IFRS.

Goodwill Impairments Using IFRS, goodwill is allocated to the cash generating unit (or groups of cash generating units) that benefit from the goodwill and this unit must be the lowest level at which the goodwill is monitored. See Illustration 11-10 for a flow-chart of standards for goodwill impairment. Under U.S. GAAP, goodwill is allocated to the reportable unit (which can be operating segments or one level lower than an operating segment). In the United States, there is a qualitative step when testing for goodwill, which examines indicators of goodwill impairment. This step is optional on a case-by-case basis.

Under IFRS, asset or cash generating units are impaired if the carrying value is greater than its recoverable amount. The recoverable amount is the greater of its fair value less costs to dispose and its value in use. Both of these amounts don't always need to be computed each year as long as one of these is greater than its carrying value.

Value in use is defined in IAS 36 as the present value of future cash flows expected from an asset or a CGU. Cash flows are calculated from the continued use of the asset and are based on approved budgets and forecasts for at least five years. Fair value can be computed using a market approach, a cost approach, or an income approach. The income approach is a discounted cash flow model, which appears similar to the approach used to estimate value in use. The primary difference between the two approaches is that the market approach uses assumptions that a market participant would use when pricing the asset. Under U.S. GAAP, fair value is not reduced by the cost of disposing the asset.

Two complicating scenarios may occur under IFRS. Because revaluation of entire classes of assets is allowed under IFRS, the carrying value of these assets is likely to be higher. Any impairment of the revalued portion of these revalued assets is offset to the revaluation reserve in equity (similarly, any recoveries of earlier impairment losses are offset to this equity account as well). The second issue relates to the measurement of noncontrolling interest. If the proportionate method is used rather than the fair value method, the amount of goodwill that is attributable to the noncontrolling interests is not recorded on the books. However, when testing for goodwill impairment, this portion of goodwill must be included in the quantitative test for impairment when comparing the carrying value of the CGU with its recoverable amount. This unrecorded

goodwill cannot be impaired, but it does affect the amount of impairment recorded. This is illustrated in the example later in the next section.

The impairment amount under U.S. GAAP is limited to the carrying value of goodwill or the excess of the carrying value of the reportable unit over its fair value. The impairment amount under IFRS first reduces the carrying amount of goodwill to zero. If there is any impairment amount remaining, the assets of the CGU are reduced in proportion to their carrying values.

Comprehensive Consolidation Example under IFRS

In this section, we illustrate the consolidated worksheet used to prepare consolidated financial statements under IFRS. We include conformity of accounting policies for inventory, as well as both methods allowed by IFRS for noncontrolling interest, Proportionate and Fair Value. We also provide the procedures needed for testing goodwill impairment. Regardless of whether the investment on the parent's books is kept using the cost method or one of the equity methods, the consolidated financial statements should be identical.⁵ The eliminating entries needed to achieve the correct balances, however, are not identical.

Assume on January 1, 2019, P Company, a European based-company, purchased 80% of S Company for €200,000. The trial balance at the end of the first year is reported in Illustration 11-11. P Company acquired S Company because it wanted to expand its operations geographically. S Company is located in the United States and will be classified as a cash-generating unit (CGU). IFRS requires that goodwill acquired in an acquisition be tested for impairment in the year of acquisition, so P Company elects to test for impairment on December 31 of each year. (U.S. GAAP does not have this requirement for the year of acquisition.) Because both P Company and S Company sell similar inventory, their inventory policies must conform for consolidation purposes. P Company uses average cost for inventories and S Company used FIFO (more on this issue later). In addition, because, IFRS allows a choice of consolidation method for noncontrolling interest (proportionate or fair value) on a case-by-case basis, we must modify the Computation and Allocation (CAD) Schedule used in prior chapters as follows (to derive all amounts needed):

Computation and Allocation of Difference Schedule

	<i>Parent Share</i>	<i>Noncontrolling Share</i>	<i>Total Value</i>
Purchase price and implied value	<u>€200,000</u>	50,000*	<u>250,000</u>
Less: Book value of equity acquired:			
Common stock	64,000	16,000	80,000
Other contributed capital	40,000	10,000	50,000
Retained earnings	<u>32,000</u>	<u>8,000</u>	<u>40,000</u>
Total book value	<u>136,000</u>	<u>34,000</u>	<u>170,000</u>
Excess of implied over book value	64,000	16,000	80,000
Increase plant and equipment	<u>(9,600)</u>	<u>(2,400)</u>	<u>(12,000)</u>
Goodwill	<u>54,400</u>	<u>13,600</u>	<u>68,000</u>
Noncontrolling interest (proportionate method)		36,400**	<u>—0—</u>

* $(€200,000 / .80) \times .20 = €50,000$

** $€50,000$ less $€13,600 = €36,400$ or $€182,000 \times .2 = €36,400$

⁵If the parent publishes standalone financial statement, IFRS prefers the cost method, but recently changed the standards to allow the equity method as well.

ILLUSTRATION 11-11**Trial balances for P Company and S Company
For Year Ending December 31, 2019**

December 31, 2019	P Company		S Company	
	<i>Dr.</i>	<i>Cr.</i>	<i>Dr.</i>	<i>Cr.</i>
Cash	79,000		15,000	
Accounts Receivable (net)	64,000		28,000	
Inventory, 1/1	56,000		32,000	
Investment in S Company	216,000			
Buildings and Equipment (net)	180,000		148,000	
Land	35,000		17,000	
Accounts Payable		35,000		24,000
Other Liabilities		62,000		37,000
Common Stock, \$10 par value		200,000		80,000
Other Contributed Capital		75,000		50,000
Retained Earnings, 1/1		210,000		40,000
Dividends Declared	20,000		10,000	
Sales		300,000		160,000
Equity in Subsidiary Income		24,000		
Purchases	186,000		95,000	
Expenses	70,000		46,000	
	<u>\$906,000</u>	<u>\$906,000</u>	<u>\$391,000</u>	<u>\$391,000</u>
Inventory, 12/31	67,000		43,000	

The €50,000 fair value of noncontrolling interest in this problem was derived from the implied value from the purchase by the parent ($€200,000/.80$) $\times .20 = €50,000$. If a control premium was required for the parent to purchase a controlling interest, the fair value of the noncontrolling portion would be less; but the remaining portion of the CAD schedule would be computed the same. For instance, if the fair value of the noncontrolling interest was estimated to be €48,000, the total value of Company S would be €248,000, resulting in total goodwill of only €66,000. The portion allocated to noncontrolling interest would be 20% of this, or €11,600.

The noncontrolling interest using the proportionate method of €36,400 can be computed two ways. The first method begins with the fair value of noncontrolling interest of €50,000 and subtracts the portion of goodwill assigned to the noncontrolling interest of €13,600 (or $€50,000$ less $€13,600 = €36,400$). The second method estimates the noncontrolling interest as a percentage of the fair value of the identifiable net assets. The fair value of the net identifiable net assets is equal to the book value of equity (€170,000) plus the portion of the excess of implied value over book value used to adjust the identifiable net assets to fair value (€12,000). Thus, the fair value of identifiable net assets is €182,000. Since the noncontrolling interest is 20%, the noncontrolling interest using the proportionate method is $€182,000 \times .2 = €36,400$.

Because the difference between implied and book values is established at the date of acquisition, this schedule will not change in future periods. As in prior chapters, the trial balance data in Illustration 11-11 reflect the effects of the investment, equity in subsidiary income, and dividend transactions. We present all workpapers for both the *proportionate* and *fair value* methods for reporting noncontrolling interests and for both the *cost* method and the *complete equity* methods for recording the investment transactions on the parent's books. IFRS prefers the cost method but allows both methods.

The trial balances are next arranged into *income statement*, *retained earnings statement*, and *balance sheet statement* sections as they are entered into the first two columns of the consolidated workpapers. These workpapers are presented in Illustration 11-12 (cost method and proportionate method), Illustration 11-13 (cost method – fair value method), Illustration 11-14 (equity method—proportionate method), and Illustration 11-15 (equity method—fair value method).

Cost method: When the investment account is carried on the cost method, there are two eliminating entries (regardless of the method used to account for noncontrolling interest). The first entry established reciprocity (or conversion to equity method) by recording prior years undistributed earnings into P Company’s retained earnings. In the year of acquisition, this entry is not needed since there are no prior year’s earnings included for consolidation. The second entry removes the dividend income from the parent’s books and reestablished the retained earnings of the subsidiary. These entries are the same regardless of the method used to account for noncontrolling interest (see Illustrations 11-12 and 11-13).

These entries are:
Reciprocity (prior years’ undistributed income)

Retained earnings—P Company (beginning)	0	
Investment in S Company		0

Next, to eliminate intercompany dividends under the equity method, this workpaper entry is made:

(1) Dividend Income	8,000	
Dividends declared (retained earnings—S)		8,000



EQUITY

Equity Method: When the investment account is carried on the equity basis, it is necessary first to make a workpaper entry reversing the effects of the parent company’s entries to the Investment account for subsidiary income and dividends during the current year. These entries differ from the cost method but do not differ depending on the method used to record noncontrolling interests (see Illustrations 11-14 and 11-15).

To eliminate the account “equity in subsidiary income” from the consolidated income statement, the following workpaper entry, presented in general journal form, is made (the computation of equity income is shown below):

(1) Equity in Subsidiary Income	30,400	
Investment in S Company		30,400



EQUITY

Next, to eliminate intercompany dividends under the equity method, this workpaper entry is made:

(2) Investment in S Company	8,000	
Dividends Declared		8,000

ILLUSTRATION 11-12

**P Company and Subsidiary
Consolidated Statements Workpaper
For the Year Ended December 31, 2019**

Cost Method NCI using Proportionate Method	P Company	S Company	Eliminating Entries		Noncontrolling Interest	Consolidated Balances
			Dr.	Cr.		
Income Statement						
Sales	300,000	160,000				460,000
Dividend Income	8,000	-	(1)	8,000		
Total Revenue	308,000	160,000				460,000
Cost of Goods Sold	175,000	84,000	(5)	7,000		266,000
Other Expenses	70,000	46,000				116,000
Total Cost and Expense	245,000	130,000				382,000
Net income/consolidated income	63,000	30,000				78,000
Noncontrolling Interest					4,600	(4,600)
Net Income to Retained Earnings	63,000	30,000		15,000	4,600	73,400
Retained Earnings Statement						
Retained Earnings 1/1						
P Company	210,000					210,000
S Company		40,000	(3)	40,000		
Net Income from Above	63,000	30,000		15,000	4,600	73,400
Dividends Declared						
P Company	(20,000)					(20,000)
S Company		(10,000)		(1)	8,000	(2,000)
Retained Earnings 12/31	253,000	60,000		55,000	2,600	263,400
Balance Sheet						
Cash	79,000	15,000				94,000
Accounts Receivable	64,000	28,000				92,000
Inventory 12/31	67,000	43,000		(7)	7,000	103,000
Investment in S	200,000			(3)	200,000	
Difference b/w Implied & Book Value			(3)	66,400	(4)	66,400
Buildings & Equipment	180,000	148,000				328,000
Land	35,000	17,000	(4)	12,000		64,000
Goodwill			(4)	54,400		54,400
Total	625,000	251,000				735,400
Accrued payables	97,000	61,000				158,000
Common Stock						
P Company	200,000					200,000
S Company		80,000	(3)	80,000		
Other Contributed Capital						
P Company	75,000					75,000
S Company		50,000	(3)	50,000		
Retained Earnings from Above	253,000	60,000		55,000	8,000	263,400
1/1 Noncontrolling Interest				(3)	36,400	36,400
12/31 Noncontrolling Interest					39,000	39,000
Total	625,000	251,000		317,800	317,800	735,400

ILLUSTRATION 11-13

**P Company and Subsidiary
Consolidated Statements Workpaper
For the Year Ended December 31, 2019**

Cost Method NCI at Fair Value	P Company	S Company	Eliminating Entries		Noncontrolling Interest	Consolidated Balances	
			Dr.	Cr.			
Income Statement							
Sales	300,000	160,000				460,000	
Dividend Income	8,000	-	(1)	8,000			
Total Revenue	308,000	160,000				460,000	
Cost of Goods Sold	175,000	84,000	(5)	7,000		266,000	
Other Expenses	70,000	46,000				116,000	
Total Cost and Expense	245,000	130,000				382,000	
Net income/consolidated income	63,000	30,000				78,000	
Noncontrolling Interest					4,600	(4,600)	
Net Income to Retained Earnings	63,000	30,000		15,000	4,600	73,400	
Retained Earnings Statement							
Retained Earnings 1/1							
P Company	210,000					210,000	
S Company		40,000	(3)	40,000			
Net Income from Above	63,000	30,000		15,000	4,600	73,400	
Dividends Declared							
P Company	(20,000)					(20,000)	
S Company		(10,000)		(1)	8,000	(2,000)	
Retained Earnings 12/31	253,000	60,000		55,000	8,000	2,600	263,400
Balance Sheet							
Cash	79,000	15,000				94,000	
Accounts Receivable	64,000	28,000				92,000	
Inventory 12/31	67,000	43,000		(7)	7,000	103,000	
Investment in S	200,000			(3)	200,000		
Difference b/w Implied & Book Value			(3)	80,000	(4)	80,000	
Buildings & Equipment	180,000	148,000				328,000	
Land	35,000	17,000	(4)	12,000		64,000	
Goodwill			(4)	68,000		68,000	
Total	625,000	251,000				749,000	
Accrued payables	97,000	61,000				158,000	
Common Stock							
P Company	200,000					200,000	
S Company		80,000	(3)	80,000			
Other Contributed Capital							
P Company	75,000					75,000	
S Company		50,000	(3)	50,000			
Retained Earnings from Above	253,000	60,000		55,000	8,000	2,600	263,400
1/1 Noncontrolling Interest					(3)	50,000	50,000
12/31 Noncontrolling Interest						52,600	52,600
Total	625,000	251,000		345,000	345,000		749,000

ILLUSTRATION 11-14

**P Company and Subsidiary
Consolidated Statements Workpaper
For the Year Ended December 31, 2019**

Complete Equity Method**NCI using Proportionate Method**

	P Company	S Company	Eliminating Entries		Noncontrolling Interest	Consolidated Balances
			Dr.	Cr.		
Income Statement						
Sales	300,000	160,000				460,000
Equity Income	18,400	-	(1)	18,400		
Total Revenue	318,400	160,000				460,000
Cost of Goods Sold	175,000	84,000	(5)	7,000		266,000
Other Expenses	70,000	46,000				116,000
Total Cost and Expense	245,000	130,000				382,000
Net income/consolidated income	73,400	30,000				78,000
Noncontrolling Interest					4,600	(4,600)
Net Income to Retained Earnings	73,400	30,000		25,400	4,600	73,400
Retained Earnings Statement						
Retained Earnings 1/1						
P Company	210,000					210,000
S Company		40,000	(3)	40,000		
Net Income from Above	73,400	30,000		25,400	4,600	73,400
Dividends Declared						
P Company	(20,000)					(20,000)
S Company		(10,000)		(2)	8,000	(2,000)
Retained Earnings 12/31	263,400	60,000		65,400	2,600	263,400
Balance Sheet						
Cash	79,000	15,000				94,000
Accounts Receivable	64,000	28,000				92,000
Inventory 12/31	67,000	43,000		(5)	7,000	103,000
Investment in S	210,400		(2)	8,000	(1)	18,400
				(3)	200,000	
Difference b/w Implied & Book Value			(3)	66,400	(4)	66,400
Buildings & Equipment	180,000	148,000				328,000
Land	35,000	17,000	(4)	12,000		64,000
Goodwill			(4)	54,400		54,400
Total	635,400	251,000				735,400
Accrued payables	97,000	61,000				158,000
Common Stock						
P Company	200,000					200,000
S Company		80,000	(3)	80,000		
Other Contributed Capital						
P Company	75,000					75,000
S Company		50,000	(3)	50,000		
Retained Earnings from Above	263,400	60,000		65,400	8,000	263,400
1/1 Noncontrolling Interest				(3)	36,400	36,400
12/31 Noncontrolling Interest					39,000	39,000
Total	635,400	251,000		336,200	336,200	735,400

ILLUSTRATION 11-15

**P Company and Subsidiary
Consolidated Statements Workpaper
For the Year Ended December 31, 2019**

Complete Equity Method NCI At Fair Value	P Company	S Company	Eliminating Entries		Noncontrolling Interest	Consolidated Balances
			Dr.	Cr.		
Income Statement						
Sales	300,000	160,000				460,000
Equity Income	18,400	-	(1)	18,400		
Total Revenue	318,400	160,000				460,000
Cost of Goods Sold	175,000	84,000	(5)	7,000		266,000
Other Expenses	70,000	46,000				116,000
Total Cost and Expense	245,000	130,000				382,000
Net income/consolidated income	73,400	30,000				78,000
Noncontrolling Interest					4,600	(4,600)
Net Income to Retained Earnings	73,400	30,000			4,600	73,400
Retained Earnings Statement						
Retained Earnings 1/1						
P Company	210,000					210,000
S Company		40,000	(3)	40,000		
Net Income from Above	73,400	30,000		25,400	4,600	73,400
Dividends Declared						
P Company	(20,000)					(20,000)
S Company		(10,000)		(2)	8,000	(2,000)
Retained Earnings 12/31	263,400	60,000		65,400	2,600	263,400
Balance Sheet						
Cash	79,000	15,000				94,000
Accounts Receivable	64,000	28,000				92,000
Inventory 12/31	67,000	43,000		(5)	7,000	103,000
Investment in S	210,400		(2)	8,000	(1)	18,400
					(3)	200,000
Difference b/w Implied & Book Value			(3)	80,000	(4)	80,000
Buildings & Equipment	180,000	148,000				328,000
Land	35,000	17,000	(4)	12,000		64,000
Goodwill			(4)	68,000		68,000
Total	635,400	251,000				749,000
Accrued payables	97,000	61,000				158,000
Common Stock						
P Company	200,000					200,000
S Company		80,000	(3)	80,000		
Other Contributed Capital						
P Company	75,000					75,000
S Company		50,000	(3)	50,000		
Retained Earnings from Above	263,400	60,000		65,400	8,000	263,400
1/1 Noncontrolling Interest					(3)	50,000
12/31 Noncontrolling Interest						52,600
Total	635,400	251,000		363,400	363,400	749,000

This reversal has two effects. First, it eliminates the equity in subsidiary income and dividends recorded by P Company. Second, it returns the investment account to its balance as of the beginning of the year. This is necessary because it is the parent company's share of the subsidiary's retained earnings at the *beginning of the year that* is eliminated in the investment elimination entry.

Investment elimination and difference allocation entries—Cost and Equity methods: The third, fourth, and fifth workpaper entries are the same in the year of acquisition regardless of the method used to account for the investment (cost or equity method). The third workpaper entry eliminates the Investment account (beginning of the year balance) against subsidiary stockholder equity accounts (common stock, other contributed capital, and beginning retained earnings), and the fourth entry distributes the difference between implied and book values of equity. These entries will differ depending on the method used to account for noncontrolling interest. First, we provide the entries if noncontrolling interests are accounted for using the proportionate method and then using the fair value method. Differences between the two approaches are bolded. All amounts were derived from the CAD schedule presented earlier. Note that under the proportionate method, goodwill is lower by €13,400. This number needs to be computed even though it is not recorded because, under IFRS, this amount is added to the existing carrying value of goodwill for future goodwill impairment testing.

If the proportionate method is used to account for noncontrolling interests, noncontrolling equity is equal to the noncontrolling interest in income times the fair value of the identifiable net assets, €36,400 (or $20\% \times 182,000$). If the fair value method is used to account for noncontrolling interests, noncontrolling equity is equal to the noncontrolling interest in income times the total implied fair value of the subsidiary, €50,000 (or $20\% \times 250,000$). Because noncontrolling interest is €13,600 lower using the proportionate method, goodwill is also €13,600 lower. We denote entries specific to the proportionate method by adding “a” to the journal entry number and entries specific to the fair value method by adding “b” to the journal entry number.

Proportionate method NCI

(3a)	Common Stock—S Company	80,000	
	Other Contributed Capital—S Company	50,000	
	1/1 Retained Earnings—S Company	40,000	
	Difference between Implied and Book Values	66,400	
	Investment in S Company		200,000
	Noncontrolling Interest in Equity		36,400

“The investment eliminating entry”

Proportionate method NCI

(4a)	Goodwill	54,400	
	Land	12,000	
	Difference b/w Implied and Book Value		66,400

“The differential entry”

Fair Value method NCI

(3b)	Common Stock—S Company	80,000	
	Other Contributed Capital—S Company	50,000	
	1/1 Retained Earnings—S Company	40,000	
	Difference between Implied and Book Values	80,000	
	Investment in S Company		200,000
	Noncontrolling Interest in Equity		50,000

“The investment eliminating entry”

Fair Value method NCI

(4b)	Goodwill	68,000	
	Land	12,000	
	Difference b/w Implied and Book Value		80,000

“The differential entry”

Accounting Policy conformity: The fifth entry results in conformity of the accounting policies between the parent and the subsidiary. Recall that P Company uses the average method for inventory while S Company uses FIFO. S Company decides to continue using FIFO but adjust the books for consolidation (using workpaper entries). Consider the following inventory information (numbers in euros).

December 31, 2019	<i>FIFO cost</i>	<i>Average cost</i>
<u>Income Statement</u>		
Cost of goods sold	84,000	91,000
<u>Balance Sheet</u>		
Beginning inventory (1/1)	32,000	32,000
Ending inventory	43,000	36,000
<u>Inventory account</u>		
Beginning inventory	32,000	32,000
Purchases	<u>95,000</u>	<u>95,000</u>
Available for sale	127,000	127,000
Ending inventory	<u>43,000</u>	<u>36,000</u>
Cost of goods sold	84,000	91,000

Beginning inventory at the date of acquisition is recorded at fair value (often not the same as the carrying value of inventory by S Company) and would be same amount regardless of the method used going forward. We assume that FIFO inventory is equal to fair value in this example. In the year of acquisition, the inventory conformity entries will be the same for the cost and equity methods. However, in the years

subsequent to acquisition, the entries will differ between the cost and equity methods, as cost of goods sold from prior years is replaced by debits to Retained Earnings (Cost method) or Investment (Equity Method).

For 2019, the inventory conformity entry will be:

Accounting policy conformity

(5)	Cost of goods sold	7,000	
	Inventory (balance sheet)		7,000

“The conformity entry”

Controlling and Noncontrolling interest in income: The computation of equity income is S Company’s reported income of €30,000 less €7,000 additional cost of goods sold from inventory conformity. Equity income is €18,400 (or $(€30,000 - €7,000) \times .80 = €18,400$). Noncontrolling interest in income is €4,600 (or $(€30,000 - €7,000) \times .20$). The equity method using IFRS also requires the conformity entry.

Goodwill Impairment test: IFRS requires that goodwill be tested for impairment, even in the year of acquisition. P Company chooses to test for impairment on December 31, 2019. Goodwill impairment tests require that goodwill be tested at the lowest level that goodwill is allocated and monitored. In our example, S Company is the lowest CGU, and all the acquisition goodwill has been assigned to this CGU. The test for goodwill impairment is whether the carrying value of the CGU is greater than its recoverable value (which is the higher of fair value less costs to dispose or its value in use, defined as the present value of cash flows expected from the use of the asset). If one of the two (the fair value or the value in use amount) is greater than the carrying value of the CGU, impairment need not be recorded (and the second recoverable value measure need not be computed).

From Illustration 11-12 or 11-14, the book value of Company S is 190,000 (the sum of common stock, other contributed capital, and retained earnings at 12/31/19). The total difference between implied value and book value on the date of acquisition is 80,000 using the fair value approach and 66,400 using the proportionate method to account for noncontrolling interest. Since all items causing a difference between implied and book value are nondepreciable or nonamortizable, the carrying value of the CGU is simply the book value plus the difference. Regardless of the method used to account for noncontrolling interest, the €80,000 difference from the fair value method is always used in testing for goodwill impairment. In other words, if the proportionate method is used, goodwill must be grossed-up to equal the value of goodwill “as if” the fair value method were used so that the total carrying value is compared to the total recoverable amount of the CGU. Thus, the carrying value of the CGU is:

Book value of equity of S Company		€190,000
Difference between implied value and book value		
Increase in land	12,000	
Grossed-up value of Goodwill	<u>68,000</u>	<u>80,000</u>
Total carrying value of CGU		€270,000

However, the amount of goodwill impairment is affected by the method used. If the recoverable amount is greater than 270,000, there is no goodwill impairment. In Illustrations 11-12 through 11-14, we assume this to be the case (no goodwill impairment). However, in the following section, we alter this assumption in three illustrative cases.

Let's examine three different scenarios in which the recoverable amount for the CGU is less than its carrying value by (A) less than total goodwill (less than 68,000), (B) equal to total goodwill (68,000), and (C) more than total goodwill (greater than 68,000). Cases A and B will have goodwill impairment only. In Case C, the impairment amount is greater than the carrying value of the goodwill, so any excess is treated similar to an asset impairment.

	Case A	Case B	Case C
Carrying value of CGU	270,000	270,000	270,000
Recoverable amount of CGU	<u>260,000</u>	<u>202,000</u>	<u>190,000</u>
<i>Potential Impairment amount</i>	<i>10,000</i>	<i>68,000</i>	<i>80,000</i>
Grossed-up/carrying value of goodwill	<u>68,000</u>	<u>68,000</u>	<u>68,000</u>
Excess (deficit)	<u>(58,000)</u>	<u>-0-</u>	<u>12,000</u>

Case A: Impairment amount 10,000 is less than total goodwill (68,000).

<i>Amount recognized</i>	<i>Proportionate Method</i>	<i>Fair Value Method</i>
Total Potential Impairment	10,000	10,000
Recognized percentage	<u>80%</u>	<u>100%</u>
<i>Goodwill impairment</i>	<u>8,000</u>	<u>10,000</u>
To controlling interest in income	8,000	8,000
To noncontrolling interest in income	<u>0</u>	<u>2,000</u>
Total impairment in consolidated income	<u>8,000</u>	<u>10,000</u>
Grossed-up/Carrying value of goodwill*	58,000	58,000
* for future goodwill impairment tests.		

Case B: Impairment amount of 68,000 is equal to total goodwill (68,000).

<i>Amount recognized</i>	<i>Proportionate Method</i>	<i>Fair Value Method</i>
Total potential Impairment	68,000	68,000
Recognized percentage	<u>80%</u>	<u>100%</u>
<i>Goodwill impairment</i>	<u>54,400</u>	<u>68,000</u>
To controlling interest in income	54,400	54,400
To noncontrolling interest in income	<u>0</u>	<u>13,601</u>
Total impairment in consolidated income	<u>54,400</u>	<u>68,000</u>
Carrying value of goodwill	-0-	-0-

Case C: Impairment amount 80,000 is greater than total goodwill (68,000).

<i>Amount recognized</i>	<i>Proportionate Method</i>	<i>Fair Value Method</i>
Total Potential Impairment	80,000	80,000
Grossed-up/Carrying amount of goodwill	<u>68,000</u>	<u>68,000</u>
Remaining excess of impairment over carrying value of goodwill	<u>12,000</u>	<u>12,000</u>
Potential goodwill impairment	68,000	68,000
Recognized percentage	<u>80%</u>	<u>100%</u>
<i>Goodwill impairment amount</i>	<u>54,400</u>	<u>68,000</u>
To controlling interest in income	54,400	54,400
To noncontrolling interest in income	<u>0</u>	<u>13,601</u>
Total impairment in consolidated income	<u>54,400</u>	<u>68,000</u>
<i>Other asset impairment amount</i>	<u>12,000</u>	<u>12,000</u>
To controlling interest in income	9,600	9,600
To noncontrolling interest in income	<u>2,400</u>	<u>2,400</u>
Total impairment in consolidated income	<u>12,000</u>	<u>12,000</u>
Total impairment (goodwill and asset)	<u>66,400</u>	<u>80,000</u>

To summarize, when the proportionate method is used to account for noncontrolling interest, the future goodwill impairment charge is limited to the controlling interest share of total goodwill. If goodwill is impaired in these situations, any goodwill impairment is only assigned to controlling interest income and doesn't affect the noncontrolling interest in income.

Accounting Policy Conformity—Subsequent years: The entry to conform accounting policies is more complex in subsequent years, and the method of accounting for the investment will matter. Suppose for 2020, the following inventory information was reported:

December 31, 220	<i>FIFO cost</i>	<i>Average cost</i>
<u>Income Statement</u>		
Cost of goods sold	97,000	95,000
<u>Balance Sheet</u>		
Beginning inventory (1/1)	43,000	36,000
Ending inventory	46,000	41,000
<u>Inventory account</u>		
Beginning inventory	43,000	36,000
Purchases	<u>100,000</u>	<u>100,000</u>
Available for sale	143,000	136,000
Ending inventory	<u>46,000</u>	<u>41,000</u>
Cost of goods sold	97,000	95,000

Therefore, the entries in the subsequent years for the cost and the equity methods are (differences are bolded):

Cost Method: Accounting policy conformity-Subsequent year

(5)	Retained earnings—P Company	5,600	
	Noncontrolling interest in equity	1,400	
	Cost of goods sold		2,000
	Inventory (balance sheet)		5,000

“The conformity entry”

Equity Method: Accounting policy conformity-Subsequent year

(5)	Investment in S Company	5,600	
	Noncontrolling interest in equity	1,400	
	Cost of goods sold		2,000
	Inventory (balance sheet)		5,000

“The conformity entry”

The difference between the two methods is the difference in the cost of goods sold from prior years related to the controlling interest. In 2019, cost of goods sold was higher than the method used by the subsidiary, so cost of goods sold was increased by 7,000 (of which 80% went to the controlling interest or 5,600). If the complete equity methods were used, this 5,600 would have been an adjustment of equity income and would have reduced the investment account by 5,600. If the cost method were used, the 5,600 is a reversal of the effect on beginning retained earnings of the parent, since the investment account is never adjusted for additional expenses and therefore, was never recorded on the parent’s books.

11.6 INTERNATIONAL CONVERGENCE ISSUES

At the time of this writing, there are currently no major joint projects remaining between the IASB and FASB. There are many obstacles that might have to be overcome before IFRS can become the standard for accounting in the United States. In the following section, we discuss some of the relevant issues.

LIFO Inventories

There are usually fewer choices allowed in valuing inventory for companies under IFRS than in the United States. For instance, LIFO is not acceptable under international standards. The IASB issued *IAS 2* on inventories recommending specific cost. If specific cost is not determinable, the benchmark is FIFO or weighted average. Also, in the U.S., the LIFO conformity rule, established in 1939, requires that taxpayers using LIFO for tax purposes must also use it for financial reporting purposes. Thus one important issue that the SEC must face is the potential costs incurred by firms to switch from LIFO to another method.

Accounting Trends and Techniques, in its survey of 600 largest companies in the U.S., reported that 38% of the companies used LIFO for some portion of their inventory (FIFO was used by 64% of the firms). If IFRS were adopted and firms were

required to switch to another method, such as FIFO, the LIFO reserve would become taxable. ExxonMobil's LIFO reserve at the end of 2016 was \$8.1 billion (it was \$25.4 billion in 2007), while GE's LIFO reserve at the end of 2017 was \$516 million dollars. Using a 35% marginal tax rate, this would increase Exxon's and GE's tax by \$2.8 billion and \$180.6 million respectively. It is unlikely that the SEC would allow such large costs to be incurred by firms to switch to international rules. Potential solutions might be for Congress to change the law either to eliminate the LIFO conformity rule or to modify it. Firms currently using LIFO could be significantly affected by a mandatory switch to IFRS.

IN
THE
NEWS

The House
Ways and
Means
Committee
reported that

a provision to repeal LIFO for U.S. tax purposes would raise approximately \$106 billion over ten years⁶.

Political Process—Avoiding “National GAAP” On February 15, 2006, the Ministry of Finance of the People's Republic of China announced the issuance of the Accounting Standards for Business Enterprises (“ASBEs”), which consist of a new Basic Standard and 38 Specific ASBEs. The ASBEs cover nearly all of the topics under the current International Financial Reporting Standards and became mandatory for listed Chinese enterprises on January 1, 2007. These standards include *substantially* all the IFRS with certain exceptions that reflect China's unique circumstances and environment. The first exception is the disclosure requirements for related parties. For instance, under Chinese rules, state enterprises are not by definition considered related parties simply because they are state-controlled. These enterprises are not exempted related-party disclosure provisions. One reason for this is the dominance of government enterprises, which would make disclosures cumbersome. The IASB later relaxed the requirements to help accommodate China's concerns. A second difference is that China allows only the cost method for measuring fixed assets and intangibles. *IAS 16* allows revaluations and recoveries of impairment losses. Chinese officials felt that revaluations allowed firms to manipulate the numbers and therefore did not adopt the revaluation provisions. Because new IFRS standards are reviewed to determine if they are appropriate in China, adoption is often delayed. Thus significant differences still exist between IFRS and Chinese GAAP.

The issue that the IASB would like to overcome is finding a way to get individual countries to adopt all the provisions of IFRS and not allow them to carve out sections. If each country tweaks the rules, there may not be “one” global set of accounting standards, but a bunch of “national IFRS-like” rules. The SEC, in removing the reconciliation to U.S. GAAP requirement on Form 20-F, requires foreign registrants to adopt IFRS *as promulgated by the IASB* in order to avoid reconciling. If the firms do not adopt IFRS as promulgated by the IASB, they are still required to reconcile to U.S. GAAP.

Political Process—Avoiding “National Pressure” In October of 2008, European Commission met with leaders from Germany, France, Italy, and Britain to discuss the economic crisis. They were concerned that European banks might be at a disadvantage relative to U.S. banks. This concern arose because of the assumed ability of U.S. firms to reclassify assets expected to be traded (carried at fair value) into “held to maturity” (carried at amortized cost) and avoid fair value measurements (permitted in only rare cases in the U.S.). IFRS rules did not allow such transfers. The European Commission threatened the IASB to change the rules or the EC would introduce legal changes to override the international rules. The IASB had four days to decide, and ultimately

⁶ House Ways and Means Committee, “H.R. 3970, Tax Reduction and Reform Act of 2007,” October 29, 2007.

changed the rules and abandoned its own due process. Typically, such changes would require months of work, if not years, by the IASB. This change in the international rules allowed firms to “backdate” the accounting to the beginning of July 2008. Thus the IASB was significantly influenced by the European Commission into changing the rules based on political pressure. Surely, this event did not go unnoticed by the SEC. Ultimately, the SEC must question how independent and credible the IASB is in setting accounting policy. In the U.S., the SEC can help shield the FASB from political pressures. The IASB has no such protector. This event may play an important role in the SEC’s determination of whether to adopt IFRS (as in other countries considering the adoption IFRS over the next several years). It may also lead to further changes in the IASB to prevent future issues similar to this one from happening again.

Private-, Small-, and Medium-Sized Entities

In July 2009, the IASB released IFRS for Small- and Medium-sized Entities (SMEs). This comprehensive set of standards was designed for entities that did not have public accountability (in an attempt to provide standards that would be more meaningful and cost effective for smaller and private companies). Public accountability would include such cases where the entity has debt or equity that is traded. Some differences between full IFRS and IFRS for SME include transaction costs and contingent consideration in a business combination. Under full IFRS, transactions costs are expensed while under IFRS for SME, transaction costs are considered part of the consideration paid. Also, contingent consideration under full IFRS is recognized at fair value regardless of the probability of being paid. Under IFRS for SME, contingent consideration is only recognized if it is probable that the amount will be paid (IFRS defines probable as more likely than not while U.S. GAAP defines probably as likely).

Possibly in response to the IFRS for SME, the Financial Accounting Foundation (FAF) established the *Private Company Council (PCC)* for U.S. firms. The PCC was created to improve the standard-setting process for private companies and is an advisory body to the FASB. The 11 member body reviews and proposes alternatives within GAAP. Two-thirds of the members must approve any vote and are submitted to the FASB. If a majority of the FASB Board approves, the alternative is exposed for public comment. After public comment, the PPC considers changes and votes again. If approved, the alternative is submitted to the FASB for a final decision.

SEC Registration and U.S. Listing for Non-U.S. Companies

In this section, we consider how international firms might be able to issue securities in the United States. A registration with the SEC under the 1934 Securities Exchange Act is mandatory for non-U.S. companies that intend to list on a U.S. stock market. Such a registration can be achieved for firms that intend to do only a listing by filing a form *20-F* with the SEC. However, if non-U.S. companies issue securities in the United States along with the U.S. listing, then the sale of these securities must be registered under the 1933 Securities Act, typically through the filing of an *F-1* statement. This registration must be declared effective subsequent to the actual listing or the offering of securities for sale in the event of an equity capital acquisition program. The informational requirements of a *20-F* and an *F-1* are reasonably similar. Foreign companies are required to comply with the SEC continuous reporting requirements in a manner very similar to that of U.S.-listed companies. Annual reporting requirements for U.S. companies involve filing a form *10-K*, and in the case of non-U.S. companies, involve filing a form *20-F* with the SEC. Under

the Securities Exchange Act of 1934, a non-U.S. company that registered with the SEC and listed its shares on a U.S. exchange would have to file *annual* reports on form *20-F* and *interim* reports on form *6-K* in order to keep the registration “current.”

LO 6 Listing by non-U.S. firms on U.S. exchanges

20-F Statement The *20-F* filing is similar to the *10-K* filing required of any publicly held domestic U.S. company, but the *20-F* allows the non-U.S. company to use IFRS as promulgated by the IASB or to retain its local GAAP reporting. If a company chooses to use its local GAAP (not IFRS), it can do so, as long as it meets one of two alternative conditions for explaining any differences between the reported numbers and numbers derived under U.S. GAAP. The firm may either (1) reconcile net income and the shareholders’ equity, thus showing earnings based on U.S. GAAP; or (2) fully disclose all financial information required of U.S. firms, including such detailed information as segmental disclosures.

The *20-F* is comprised of various subsections, each of which provides detailed information on the company and its securities issued within the United States. The key information provided in the *20-F* includes:

- A description of the firm’s business model, its legal structure, regulatory framework, its management, shareholders, management discussion and analysis (MD&A) statement, and information on the structure of the company’s outstanding securities and the markets on which those securities are traded.
- A detailed description of the securities that are being registered for U.S. public trading, including definitions of the rights of the shareholders.
- A description of the company’s financial structure and the issuer’s financial statements (audited, two-year comparative balance sheets and three-year comparative income statements and statements of cash flow).
- If the firm adopts IFRS as promulgated by the IASB, the firm is not required to reconcile to U.S. GAAP; otherwise the firm must provide a reconciliation to U.S. GAAP.

LO 7 The role of form *20-F*.

F-1 Statement A first-time offer of securities by any non-U.S. company that comes under the definition of a “foreign private issuer” requires filing an *F-1* statement as the principal registration statement. To qualify as a “foreign private issuer,” a non-U.S. company must meet certain conditions of ownership, location of assets, and location of executive officers. The *F-1* forms are typically used only in a first-time offer by non-U.S. issuers; on subsequent issuance, as long as the company has met certain periodic reporting requirements, a shorter *F-2* or *F-3* form may be used. Though the content and the structure of the registration statement of a non-U.S. issuer can vary from case to case depending on the nature of the offering, there are a few basic characteristics that are common across all types of statements.

IN
THE
NEWS

A study of the reconciliation differences between U.S. GAAP and national GAAP, examined over the period 2002 to 2007, found that the sign of income changed in over 5% of the 724 reconciliations examined (positive using one GAAP and negative using the alternative GAAP). The study found that income was higher using U.S. GAAP in 64% of the cases examined, while equity was higher 61% of the time under U.S. GAAP.⁷ It should be noted that recent convergence efforts between the FASB and IASB will eliminate a lot of the differences. For instance, both Boards now treat in-process R&D in a similar manner.

⁷ “The Market Reaction to the Reconciliation Requirement Elimination,” by P. Chaney, D. Jeter, and R. Willis, working paper, Vanderbilt University, 2009.

The most important component of a registration statement is the offer prospectus. The prospectus contains all information deemed necessary by the SEC for investors to make an informed investing decision. In addition to the financial statements, the prospectus also contains detailed nonfinancial information about the company, such as a description of the business, regulatory structure, management structure, capital structure, shareholding patterns, and shareholder rights. The financial statements must either be presented in accordance with U.S. GAAP, IFRS as promulgated by the IASB, or include an audited reconciliation of the home country GAAP numbers to U.S. GAAP. In addition to the prospectus, the *F-1* statement has information about the articles of association of the company, the registrant's bylaws, and significant legal and contractual obligations of the company. Such information is available on request by any related party.

Section 11.7 American Depository Receipts: An Overview," is available from your instructor.

SUMMARY

- 1 *Describe how the changing world environment is leading to an increased focus on international accounting standards (IFRS).* A dramatic rise in cross-border financial activity and the resulting internationalization of equity markets since the late 1980s have transformed the investor profiles of many companies. The movement has been away from a primarily debt-financed business world, in which a relatively informal flow of information between companies and creditors sufficed, to a primarily equity-financed environment in which more financial communication is demanded.
- 2 *Explain some of the major differences between IFRS and U.S. GAAP.* Some of the areas in which important differences arise include the fact the LIFO inventory is not permitted under IFRS, expenses on the income statement can be listed either by nature or function under IFRS, balance sheet items are generally listed in order of increasing liquidity, extraordinary items are not allowed under IFRS, property, plant and equipment can be revalued on a regular basis under IFRS, reversal of previously written down assets are allowed under IFRS, and development costs are capitalized under IFRS.
- 3 *List some of the issues that companies would like to be resolved before the SEC requires adoption of IFRS.* The four milestones discussed in the chapter are: (1) improvements in accounting standards; (2) the accountability and funding of the IASC Foundation; (3) the improvement in the ability to use interactive data for IFRS reporting; and (4) education and training relating to IFRS.
- 4 *Describe how the SEC might incorporate IFRS into the financial reporting system for U.S. issuers.* The work plan focuses on the condorsement approach. Under this approach, a U.S. standard-setter would be retained. The standard-setter would facilitate the transition process by incorporating IFRS into U.S. GAAP over some defined period. At the end of this period, the objective would be that a U.S. issuer would be compliant with both U.S. GAAP and IFRS. This alternative has been labeled "condorsement."
- 5 *Describe differences in accounting for business combinations and consolidations between the IFRS and FASB.* The definition of control used in consolidation is different between IFRS and U.S. GAAP which might lead to differences in the number of business combinations. IFRS allows the proportionate method to record goodwill in an acquisition for non-controlling interest. In addition, IFRS requires that both the parent and the subsidiary use the same accounting policies for similar transactions and events.
- 6 *List the steps that a non-U.S. company must follow to list its shares on a U.S. stock market.* A registration with the SEC under the 1934 Securities Exchange Act is mandatory for non-U.S. companies that intend to list on a U.S. stock market. Such a registration can be achieved for firms that intend to do only a listing by filing a form *20-F* with the SEC. However, if non-U.S. companies issue securities in the United States along with the U.S. listing, then the sale of these securities must be registered under the 1933 Securities Act, typically through the filing of an *F-1* statement. This registration must be declared effective subsequent to the actual listing or the offering of securities for sale in the event of an equity capital acquisition program.
- 7 *Explain the role of form 20-F filed with the Securities and Exchange Commission.* The *20-F* allows the non-U.S. company to retain its local GAAP reporting and still be able to list on a U.S. stock exchange, so long as it meets one of two alternative conditions for explaining any differences between the reported numbers and numbers derived under U.S. GAAP. The firm may either (1) reconcile net income and the shareholders' equity, thus showing earnings based on U.S. GAAP; or (2) fully disclose all financial information required of U.S. firms, including such detailed information as segmental disclosures.
- 8 *Indicate the role of American Depository Receipts in the issuing of securities of non-U.S. companies in the United States.* A depository receipt (DR) is a derivative instrument usually representing a certain fixed number of

publicly traded shares of a non-U.S. corporation. A DR that is traded in the United States is called an American Depository Receipt (ADR). ADRs may trade freely, subject to some conditions, like any U.S. security on one of the major exchanges like the New York Stock Exchange

(NYSE), NASDAQ, or the American Stock Exchange (AMEX), or trade over the-counter (OTC) in the “pink sheet” market. The ADR is treated similarly to a domestic security for the purposes of clearance, settlement, transfer, and ownership.

Supplemental Appendix 11A, “List of Current International Financial Reporting Standards issued by IASC and IASB,” is available from your instructor.

QUESTIONS

- LO 1** 1. As mentioned in Chapter 1, the project on business combinations was the first of several joint projects undertaken with the FASB and the IASB in their move to converge standards globally. Nonetheless, complete convergence has not yet occurred, and there are those who believe it to be a poor idea. Discuss the reasons for and against global convergence.
- LO 4** 2. In recent months, virtually every topic that has come to the attention of the standard-setters has been undertaken as a joint effort of the FASB and the IASB rather than as an individual effort by one of the two boards. List and discuss some of the joint projects that fall into this category.
- LO 1** 3. What is the rationale for the harmonization of international accounting standards?
- LO 6** 4. Why is the SEC, once so reluctant to accept IAS, now very willing to allow firms using IFRS to issue securities in the U.S. stock market without reconciling to U.S. GAAP?
- LO 7** 5. Discuss the types of ADRs that non-U.S. companies might use to access the U.S. markets.
- LO 1** 6. Describe the attitude of the FASB toward the IASB (International Accounting Standards Board).
- LO 3** 7. How does the FASB view its role in the development of an international accounting system? Currently, two members of the IASB were previously affiliated with the FASB. Comment on what effect this might have on the likelihood that the U.S. standard-setters will accept the new IASB statements, if any.
- LO 2** 8. List some of the major differences in accounting between IFRS and U.S. GAAP.

Business Ethics

A vice president of marketing for your company has been charged with embezzling nearly \$100,000 from the company. The vice president allegedly submitted fraudulent vendor invoices in order to receive payments. As the vice president of marketing for the company, the vice president is authorized to approve the payment of invoices submitted by third-party vendors who did work for the company. After the activities were uncovered, the company responded by stating: “All employees are accountable to our ethics guidelines and procedures. We do not tolerate violations of our ethics policy and will consistently enforce these policies and procedures.”

- 1. How would you evaluate the internal controls of the company?
- 2. Do you think there are companies that develop comprehensive ethics and compliance programs for mid- and lower-level employees and ignore upper-level executives and managers?
- 3. Is it an ethical issue if companies are not forthcoming concerning fraudulent activities of top executives in an effort to minimize negative publicity?

ANALYZING FINANCIAL STATEMENTS

AFS11-1 Challenger Limited (Unconsolidated Subsidiary of Bronco Drilling Company Inc.) LO 2

See the information from AFS8-1. The statement of comprehensive income is stated as:

Statement of Comprehensive Income for the year ended 31 December		
(Amounts in U.S. dollars)	2008	2007
(Loss)/profit for the year	6,922,645	1,616,154
Other comprehensive income		
Change in revaluation of rigs	15,378,561	–
Total comprehensive income	<u>22,301,206</u>	<u>1,616,154</u>

One of the major differences between IFRS and U.S. GAAP is the revaluation of property, plant and equipment (primarily it includes the revaluation of rigs). Challenger revalued its assets in 2008 but not in 2007. The gross increase in fair value of the rigs in 2008 was an increase of \$20,481,823.

Required:

- A. How often must a company revalue property, plant and equipment if it uses the revaluation model?
- B. Explain the most likely reason for the difference between the \$15,378,561 change in the revaluation reserve and \$20,481,823 (gross increase in rigs). Prepare the journal entry to record the revaluation in 2008. Show where each account used in the journal entry should be reported in the financial statements.
- C. Which financial statements would be affected if, during 2009, the fair value of the PPE dropped by \$25,000,000? Show the dollar amount and the direction of the change for each statement, assuming the reappraised assets to be, on average, 30% depreciated at the end of 2009.

AFS11-2 Ferrari 2017 Research and Development LO 2

Ferrari disclosed the following concerning research and development in their 2017 annual report: Development costs for car project production and related components, engines and systems are recognized as an asset if, and only if, both of the following conditions under IAS 38—*Intangible Assets* are met: that development costs can be measured reliably and that the technical feasibility of the product, volumes and pricing support the view that the development expenditure will generate future economic benefits. Capitalized development costs include all direct and indirect costs that may be directly attributed to the development process.

Capitalized development costs are amortized on a straight-line basis from the start of production over the estimated lifecycle of the model and the useful life of the components (generally between four and eight years). All other research and development costs are expensed as incurred.

In particular, the Group incurs significant research and development costs through the Formula 1 racing activities. These costs are considered fundamental to the development of the sports and street car models and prototypes. The model for the Formula 1 racing activities continually evolves and as such these costs are expensed as incurred.

For the year ended December 31, 2017, the Group capitalized development costs of €185,115 thousand (€141,396 thousand for the year ended December 31, 2016). On the consolidated income statement, profit before taxes was €746,416 in 2017 and €567,353 in 2016. Amortized development costs were €100,502 in 2017 and €104,055 in 2016.

Required:

- A. What are the standards for R&D under IFRS and US GAAP?
- B. What would be different if Ferrari used U.S. GAAP to account for R&D (i.e., what would be the impact on pretax income?)?

AFS11-3 Caterpillar's 2017 inventory

Caterpillar uses U.S. GAAP when preparing its consolidated financial statements. Information concerning inventories from their 2017 annual report is as follows:

Inventories are stated at the lower of cost or net realizable value. Cost is principally determined using the last-in, first-out (LIFO) method. The value of inventories on the LIFO basis represented about 65 percent and 60 percent of total inventories at December 31, 2017, and 2016. If the FIFO (first-in, first-out) method had been in use, inventories would have been \$1,934 million, \$2,139 million, and \$2,498 million higher than reported at December 31, 2017, 2016 and 2015, respectively. During 2017, inventory quantities were reduced. This reduction resulted in a liquidation of LIFO inventory resulting mostly from closure of our facility in Gosselies, Belgium. The liquidated inventory was carried at lower costs prevailing in prior years as compared with current costs. In

2017, the effect of this reduction in inventory decreased cost of goods sold by approximately \$66 million and increased profit by approximately \$49 million or \$.08 per share.

In July 2015, the FASB issued accounting guidance which requires that inventory be measured at the lower of cost or net realizable value. Prior to the issuance of the new guidance, inventory was measured at the lower of cost or market. Replacing the concept of market with the single measurement of net realizable value is intended to create efficiencies for preparers. Inventory measured using the last-in, first-out (LIFO) method and the retail inventory method are not impacted by the new guidance. The guidance was effective January 1, 2017, and was applied prospectively. The adoption did not have a material impact on our financial statements. In addition, Caterpillar reported sales of machinery and cost of goods sold for 2017 and 2016 as follows (in thousands):

	<u>2017</u>	<u>2016</u>
Sales of Machinery	\$42,676	35,773
Cost of goods sold	31,049	28,309

CNH Industrial uses IFRS when preparing its consolidated financial statements. Information concerning inventories from their 2017 annual report is as follows:

Caterpillar lists CNH as a global competitor in its annual report. CNH reports inventory as follows:

Inventories

Inventories of raw materials, semi-finished products, and finished goods (including assets leased out under operating lease) are stated at the lower of cost or market. Cost is determined by the first-in-first-out (FIFO) method. Cost includes the direct costs of materials, labor, and indirect costs (variable and fixed). Provision is made for obsolete and slow-moving raw materials, finished goods, spare parts, and other supplies based on their expected future use and realizable value. Net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs for sale and distribution. CNG reported sales of machinery and cost of goods sold for 2017 and 2016 as follows (in thousands):

	<u>2017</u>	<u>2016</u>
Sales of machinery	\$27,947	25,328
Cost of goods sold	23,064	20,866

Required:

- A. What difficulties exist when comparing companies when they use different accounting standards? In this example, what are the accounting differences related to inventory?
- B. Compute the gross margin percentage for each company for 2017 and 2016. Discuss the results.
- C. Redo the gross margin percentage for Caterpillar assuming that they used FIFO in place of LIFO. Does this change your comparison? Regardless of your answer, which approach is better (adjusting LIFO to FIFO or “as reported”)?
- D. Caterpillar’s current ratio for 2017 was 1.345, and CNH’s current ratio was 2.52. Does the choice of inventory method affect these computations? Consider Caterpillar’s current ratio. Is it likely to be higher or lower than 1.345 if FIFO were used? How much would it change if FIFO were used (ignore taxes).

AFS11-4 ASM International

ASM International is a Dutch Public liability company domiciled in the Netherlands. Since ASM International's initial listing on Nasdaq, ASMI has followed accounting principles generally accepted in the United States ("US GAAP"), both for internal as well as external purposes. In reconciling its net earnings in accordance with IFRS to US GAAP, two of the reconciling items were as follows:

	<u>2013</u>	<u>2014</u>
Inventory obsolescence	8	(233)
Development expenditures	(799)	(798)

Required:

- A. What are the requirements using IFRS versus US GAAP for write-offs of obsolete inventory? How can the adjustment be positive in one year and negative in the next?
- B. What are the requirements for accounting for development expenditures using IFRS versus US GAAP? Would the reconciling amounts ever be positive when adjusting from IFRS to U.S. income? If so, when?

AFS11-5 Nokia Annual Report 2017 (Form 20-F)

Nokia reported 2017 operating income on the Income Statement by subtracting expenses listed by function (i.e., selling, general, and administration) as seen below:

For the year ended December 31	Notes	2017 EURm
Net sales	4, 7	23,147
Cost of sales	8	(14,008)
Gross profit		9,139
Research and development expenses	8	(4,916)
Selling, general and administrative expenses	8	(3,615)
Other income	10	363
Other expenses	8, 10	(955)
Operating profit/(loss)		<u>16</u>

In footnotes 8 and 10, they list the expenses and other income by nature:

8. Expenses by nature

EURm	2017
Continuing operations	
Personnel expenses (Note 9)	7,845
Cost of material	7,776
Depreciation and amortization (Notes 14, 15)	1,591
Rental expenses	339
Impairment charges	210
Other	5,733
Total operating expenses	23,494

10. Other income and expenses

EURm	2017
Continuing operations	
Other income	
Foreign exchange gain on hedging foretasted sales and purchases, net	93
Pension curtailment income and amendment income	38
Realized gains from unlisted venture funds	51
Interest income from customer receivables and overdue payments	25
Profit on sale of property, plant and equipment	19
Expiration of stock option liability	18
VAT and other indirect tax refunds and social security credits	-
Subsidies and government grants	2
Other	117
Total	363
Other expenses	
Restructuring, cost reduction and associated charges	(568)
Impairment charges	(210)
Pension curtailment expenses	(41)
Expenses related to sale of receivables transactions	(37)
Valuation allowances for doubtful accounts and accounts receivable write-offs	(24)
Loss on sale of property, plant and equipment	(23)
Losses and expenses related to unlisted venture funds	(6)
Foreign exchange loss on hedging forecasted sales and purchases, net	-
Other	(46)
Total	(955)

Required:

- A. Does Nokia report expenses on the income statement by nature or by function?
- B. Using the income statement numbers, compute operating expenses for 2017. Does this number reconcile the amount of operating expenses reported in footnote 8? What is the difference and what is it?
- C. Looking at footnote 10, should Nokia include any of these items in operating income?

EXERCISES**EXERCISE 11-1 Component Depreciation LO 2**

SMC Company purchases a building for \$100,000. Included in this cost are \$12,000 for electrical systems and \$15,000 for the roof. The building is expected to have a 40-year useful life, but the electrical system will last for 20 years and the roof will last 15 years.

Required:

- A. Assuming that straight-line depreciation is used, compute depreciation expense assuming that U.S. GAAP is used.
- B. Assuming that straight-line depreciation is used, compute depreciation expense for year one assuming IFRS is used (assume component depreciation).

EXERCISE 11-2 Current International Issues LO 2 LO 4

The International Accounting Standards Board (IASB) web address is www.iasb.org. On this web page, there is a section labeled “news and events.” List some of the recent issues concerning the IASB.

EXERCISE 11-3 Opinions: International Federation LO 2 LO 4

The International Federation of Accountants’ web address is www.ifrs.org. On this page is a section labeled recent global knowledge gateway articles. Choose one of the items on this page and write a brief description.

EXERCISE 11-4A IFRS Balance Sheet LO 2

Air France—KLM Group reports the following balance sheet for the year ended December 31, 2013.

**Air France-KLM Group
CONSOLIDATED BALANCE SHEET**

<i>Assets In € millions</i>	<i>December 31, 2013</i>	<i>December 31, 2012</i>
Goodwill	237	252
Intangible assets	896	842
Flight equipment	9,391	10,048
Other property, plant and equipment	1,819	1,932
Investments in equity associates	177	381
Pension assets	2,454	2,477
Other financial assets(**)	1,963	1,665
Deferred tax assets	436	1,392
Other non-current assets	<u>113</u>	<u>152</u>
Total non-current assets	<u>17,486</u>	<u>19,141</u>
Assets held for sale	91	7
Other short-term financial assets(**)	1,031	933
Inventories	511	521
Trade accounts receivables	1,775	1,859
Income tax receivables	23	11
Other current assets	822	828
Cash and cash equivalents	<u>3,684</u>	<u>3,420</u>
Total current assets	<u>7,937</u>	<u>7,579</u>
Total assets	<u>25,423</u>	<u>26,720</u>
<i>Liabilities and equity In € millions</i>	<i>December 31, 2013</i>	<i>December 31, 2012</i>
Issued capital	300	300
Additional paid-in capital	2,971	2,971
Treasury shares	(85)	(85)
Reserves and retained earnings	(944)	403
Equity attributable to equity holders of Air France-KLM	<u>2,242</u>	<u>3,589</u>
Non-controlling interests	48	48
Total equity	<u>2,290</u>	<u>3,637</u>

<i>Liabilities and equity In € millions</i>	<i>December 31, 2013</i>	<i>December 31, 2012</i>
Provisions and retirement benefits	3,102	3,158
Long-term debt	8,596	9,565
Deferred tax liabilities	178	149
Other non-current liabilities	397	384
Total non-current liabilities	<u>12,273</u>	<u>13,256</u>
Liabilities relating to assets held for sale	58	–
Provisions	670	555
Current portion of long-term debt	2,137	1,434
Trade accounts payables	2,369	2,219
Deferred revenue on ticket sales	2,371	2,115
Frequent flyer programs	755	770
Current tax liabilities	2	3
Other current liabilities	2,332	2,474
Bank overdrafts	166	257
Total current liabilities	<u>10,860</u>	<u>9,827</u>
Total liabilities	<u>23,133</u>	<u>23,083</u>
Total liabilities and equity	<u>25,423</u>	<u>26,720</u>

Required:

- A. In what order are assets listed on the balance sheet?
- B. Comment on other differences (IFRS relative to U.S. GAAP) that you might notice on the balance sheet.
- C. What is the current ratio for the years ending December 31, 2012 and 2013?
- D. What is the ratio of long-term debt to equity for the years ending December 31, 2012 and 2013?
- E. Are there any typical balance sheet ratios that cannot be readily computed using the IFRS-based financial statement? If so, what are they?

EXERCISE 11-5 Goodwill Impairment LO 2

PMC acquired 100% of S Company for 200,000 when the fair value of the identifiable net assets was 160,000. PMC operates in three geographical regions: Europe, North America, and South America. Each region is classified as a CGU (each unit generates cash independently of the other regions). All three regions are expected to benefit from the acquisition of S Company and goodwill is allocated 50%:25%:25% to Europe, North America, and South America, respectively. The net identifiable assets of S Company were assigned to the Europe CGU. Goodwill is tested for impairment on December 31 of each year. The only goodwill on the books is from the acquisition of S Company. Assume the cost of disposal for each CGU is negligible (for this example).

On December 31, carrying value, the fair value, and the value in use (as projected by PMC) for each CGU were as follows (the carrying value does not include goodwill):

	Carrying Value	Fair Value	Value in Use
Europe	450,000	480,000	473,000
North America	350,000	360,000	345,000
South America	150,000	135,000	130,000

Required:

- A. If PMC uses the fair value method to record noncontrolling interest, determine the amount of goodwill impairment (and any asset impairment, if needed).
- B. If PMC uses the proportionate method to record noncontrolling interest, determine the amount of goodwill impairment (and any asset impairment, if needed).
- C. How is goodwill impairment tested using U.S. GAAP?

ASC Exercises: For all ASC exercises indicate as part of your answer: the Codification topic, subtopic, section, and paragraph upon which your answer is based (unless otherwise specified). All ASC questions require access to the FASB Codification.

ASC11-1 Overview Are International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) considered authoritative by the Codification?

ASC11-2 Presentation How does the Codification define a *highly inflationary country*?

PROBLEMS**PROBLEM 11-1 LO 2**

British Petroleum's income statement was prepared using IFRS is presented below (in \$ millions).

Group income statement		
For the year ended 31 December		
	2013	2012
Sales and other operating revenues	379,136	375,765
Earnings from joint ventures—after interest and tax	447	260
Earnings from associates—after interest and tax	2,742	3,675
Interest and other income	777	1,677
Gains on sale of businesses and fixed assets	13,115	6,697
Total revenues and other income	396,217	388,074
Purchases	298,351	292,774
Production and manufacturing expenses	27,527	33,926
Production and similar taxes	7,047	8,158
Depreciation, depletion and amortization	13,510	12,687
Impairment and losses on sale of businesses and fixed assets	1,961	6,275
Exploration expense	3,441	1,475
Distribution and administration expenses	13,070	13,357
Fair values gain on embedded derivatives	(459)	(347)
Profit before interest and taxation	31,769	19,769
Finance costs	1,068	1,072
Net finance expense relating to pensions and other post-retirement benefits	480	566
Profit before taxation	30,221	18,131
Taxation	6,463	6,880
Profit for the year	23,758	11,251
Attributable to		
BP shareholders	23,451	11,017
Non-controlling interests	307	234
	23,758	11,251

	2013	2012
Earnings per share—cents		
Profit for the year attributable to BP shareholders		
Basic	123.87	57.89
Diluted	123.12	57.50

ExxonMobil Corporation's income statement prepared using U.S. GAAP is presented below (in \$ millions).

CONSOLIDATED STATEMENT OF INCOME

	2013	2012
	<i>(millions of dollars)</i>	
Revenues and other income	420,836	451,509
Sales and other operating revenue (<i>I</i>)		
Income from equity affiliates	13,927	15,010
Other income	<u>3,492</u>	<u>14,162</u>
Total revenues and other income	<u>438,255</u>	<u>480,681</u>
Costs and other deductions		
Crude oil and product purchases	244,156	263,535
Production and manufacturing expenses	40,525	38,521
Selling, general and administrative expenses	12,877	13,877
Depreciation and depletion	17,182	15,888
Exploration expenses, including dry holes	1,976	1,840
Interest expense	9	327
Sales-based taxes (<i>I</i>)	30,589	32,409
Other taxes and duties	<u>33,230</u>	<u>35,558</u>
Total costs and other deductions	<u>380,544</u>	<u>401,955</u>
Income before income taxes	57,711	78,726
Income taxes	<u>24,263</u>	<u>31,045</u>
Net income including noncontrolling interests	33,448	47,681
Net income attributable to noncontrolling interests	<u>868</u>	<u>2,801</u>
Net income attributable to ExxonMobil	<u>32,580</u>	<u>44,880</u>
Earnings per common share (<i>dollars</i>)	7.37	9.70
Earnings per common share - assuming dilution (<i>dollars</i>)	7.37	9.70

Required:

- A. Are expenditures reported on BP's income statement reported by function or by nature of the expense? Be specific. Do you think that this format is more or less useful for users of the financial statements?
- B. On the BP income statement, what is the "earnings from associates" usually called in the U.S.?
- C. On ExxonMobil's income statement, are the expenses listed by function or by nature?
- D. Compare the performance of BP relative to ExxonMobil. Is it easy to compare the numbers from companies using IFRS to companies using U.S. GAAP?
- E. Does it matter that BP is using FIFO and ExxonMobil is using LIFO for inventory? The LIFO reserve decreased by \$282 million in 2013.

PROBLEM 11-2 IFRS Income Statement and Terminology Differences LO 2

The first two lines of Unilever Group's 2013 consolidated income statement (using IFRS) report the following amounts (in millions of euros):

Income Statement		
<i>Continuing Operations</i>	<i>2017</i>	<i>2016</i>
Turnover	53,715	52,713
Operating profit	8,857	7,801
<i>Footnotes</i>		
In footnote 3, the following is disclosed:		
Turnover	53,715	52,713
Cost of sales	<u>30,547</u>	<u>30,229</u>
Gross profit	23,168	22,484
Selling and administration expenses	<u>14,311</u>	<u>14,683</u>
Operating profit	8,857	7,801

Required:

- A. On the income statement, the first two lines in Unilever's income statement are turnover and operating profit. What does the term *turnover* mean? Which costs are typically reported between turnover and operating profit?
- B. How useful is Unilever's income statement presentation considering that this information about expenses is disclosed in footnote 3 rather than being reported on the face of the income statement?

PROBLEM 11-3 IFRS Illustrated Financial Statements LO 2

Each of the Big 4 auditors along with Grant Thornton and BDO International provide discussions of the effects of U.S. adopting IFRS.

<http://www.pwc.com>
<http://www.grantthornton.com>
<http://www.kpmg.com>
<http://www.bdointernational.com>
<http://www.iasplus.com/fs/fs.htm>
<http://www.ey.com/global>

Required:

Using one of the web pages, find information concerning financial statements prepared using IFRS.

- A. Conduct a web search and provide a summary of differences between the IFRS income statement and a typical income statement prepared using U.S. GAAP.
- B. Conduct a web search and provide a summary of differences between the IFRS balance sheet and a typical balance sheet prepared using U.S. GAAP.
- C. Conduct a web search and provide a summary of differences between the IFRS statement of cash flows and a cash flow statement prepared using U.S. GAAP.

PROBLEM 11-4 Proportionate Method—Cost Method LO 4

This problem is a continuation of the problem in Section 11.5 of the chapter. In the chapter, the workpaper was prepared for the year of the acquisition. In this problem, the consolidated statements are prepared for the second year after acquisition.

On January 1, 2019, P Company, a European based-company, purchased 80% of S Company for €200,000 (when the common stock account was €80,000, other contributed capital was €50,000, and retained earnings were €40,000). The trial balances at the end of 2020 are reported below. P Company acquired S Company because it wanted to expand its operations geographically.

S Company is located in the United States and will be classified as a CGU. P Company elects to test for impairment on December 31 of each year. Because both P Company and S Company sell similar inventory, their inventory policies must conform for consolidation purposes. P Company uses average cost for inventories and S Company used FIFO. In addition, P Company uses the proportionate method to record noncontrolling interest and the cost method to record the investment in S Company. There were no goodwill impairment charges during the year.

Trial Balance

December 31, 2020	<i>P Company</i>		<i>S Company</i>	
	<i>Dr.</i>	<i>Cr.</i>	<i>Dr.</i>	<i>Cr.</i>
Cash	€74,000		€41,000	
Accounts Receivable (net)	71,000		33,000	
Inventory, 1/1	67,000		43,000	
Investment in S Company	200,000			
Property and Equipment (net)	245,000		133,200	
Land	35,000		17,000	
Accounts Payable		€61,000		€25,000
Other Liabilities		70,000		28,200
Common Stock, \$10 par value		200,000		80,000
Other Contributed Capital		75,000		50,000
Retained Earnings, 1/1		253,000		60,000
Dividends Declared	30,000		10,000	
Sales		350,000		190,000
Dividend Income		8,000		
Purchases	215,000		100,000	
Expenses	80,000		56,000	
	<u>€1,017,000</u>	<u>€1,017,000</u>	<u>€433,200</u>	<u>€433,200</u>
Inventory, 12/31	82,000		46,000	

The following information was available for inventory for 2020. Consider the following inventory information (numbers in euros).

December 31, 2020	<i>FIFO cost</i>	<i>Average cost</i>
Income Statement		
Cost of goods sold	€97,000	€96,000
Balance Sheet		
Beginning inventory (1/1)	€43,000	€36,000
Ending inventory	46,000	40,000
Inventory account		
Beginning inventory	€ 43,000	€ 36,000
Purchases	<u>100,000</u>	<u>100,000</u>
Available for sale	143,000	136,000
Ending inventory	<u>46,000</u>	<u>40,000</u>
Cost of goods sold	€ 97,000	€ 96,000

Required:

1. Prepare the computation and allocation of difference schedule for the date of acquisition.
2. Prepare all worksheet eliminating entries needed for consolidation for 2020.

3. Complete the consolidated workpaper for the year ended December 31, 2020.
4. Show the computation of noncontrolling interest in equity at December 31, 2020.

PROBLEM 11-5 Proportionate Method—Complete Equity Method LO 4

This problem is a continuation of the problem in Section 11.5 of the chapter. In the chapter, the workpaper was prepared for the year of the acquisition. In this problem, the consolidated statements are prepared for the second year after acquisition.

On January 1, 2019, P Company, a European based-company, purchased 80% of S Company for €200,000 (when the common stock account was 80,000, other contributed capital was 50,000, and retained earnings were 40,000). The trial balances at the end of 2020 are reported below. P Company acquired S Company because it wanted to expand its operations geographically. S Company is located in the United States and will be classified as a CGU. P Company elects to test for impairment on December 31 of each year. Because both P Company and S Company sell similar inventory, their inventory policies must conform for consolidation purposes. P Company uses average cost for inventories and S Company used FIFO. In addition, P Company uses the proportionate method to record noncontrolling interest and the complete equity method to record the investment in S Company. There were no goodwill impairment charges during the year.

Trial Balance

December 31, 2020	P Company		S Company	
	Dr.	Cr.	Dr.	Cr.
Cash	€74,000		€41,000	
Accounts Receivable (net)	71,000		33,000	
Inventory, 1/1	67,000		43,000	
Investment in S Company	232,800			
Property and Equipment (net)	245,000		133,200	
Land	35,000		17,000	
Accounts Payable		€61,000		€25,000
Other Liabilities		70,000		28,200
Common Stock, \$10 par value		200,000		80,000
Other Contributed Capital		75,000		50,000
Retained Earnings, 1/1		263,400		60,000
Dividends Declared	30,000		10,000	
Sales		350,000		190,000
Equity in Subsidiary Income		30,400		
Purchases	215,000		100,000	
Expenses	80,000		56,000	
	<u>€1,049,800</u>	<u>€1,049,800</u>	<u>€433,200</u>	<u>€433,200</u>
Inventory, 12/31	82,000		46,000	

The following information was available for inventory for 2020. Consider the following inventory information (numbers in euros).

December 31, 2020	FIFO Cost	Average cost
Income Statement		
Cost of goods sold	€97,000	€96,000
Balance Sheet		
Beginning inventory (1/1)	43,000	36,000
Ending inventory	46,000	40,000

December 31, 2020	<i>FIFO Cost</i>	<i>Average cost</i>
<u>Inventory account</u>		
Beginning inventory	€ 43,000	€ 36,000
Purchases	<u>100,000</u>	<u>100,000</u>
Available for sale	143,000	136,000
Ending inventory	<u>46,000</u>	<u>40,000</u>
Cost of goods sold	€97,000	€96,000

Required:

1. Prepare the computation and allocation of difference schedule for the date of acquisition.
2. Prepare the worksheet eliminating entries needed for consolidation for 2020.
3. Complete the consolidated workpaper for the year ended December 31, 2020.
4. Show the computation of noncontrolling interest in equity for 2020.

PROBLEM 11-6 Goodwill Impairment—LO 4

This problem uses the information from Problem 11-4 or Problem 11-5. Recall that on January 1, 2019, P Company, a European based-company, purchased 80% of S Company for €200,000 (when the common stock account was 80,000, other contributed capital was 50,000, and retained earnings were 40,000). The trial balances at the end of 2020 are reported below. P Company acquired S Company because it wanted to expand its operations geographically. S Company is located in the United States and will be classified as a CGU. P Company elects to test for impairment on December 31 of each year. Because both P Company and S Company sell similar inventory, their inventory policies must conform for consolidation purposes. P Company uses average cost for inventories and S Company used FIFO.

Twelve thousand euros of the excess of implied value over book value was allocated to land with the remainder becoming goodwill. At December 31, 2020, the carrying value of Company S (before allocating the excess of implied over book value) was €217,000. The estimated fair value less cost to dispose of Company S was €290,000, which was higher than the value in use amount.

Required:

- A. Compute the carrying value of Company S needed to perform the goodwill impairment test. Does it matter which method (proportionate or fair value) is used to compute noncontrolling interest on the date of acquisition?
- B. Compute the amount of goodwill impairment, if any?
- C. Suppose that the excess of carrying value exceeded the recoverable amount by \$50,000. If the proportionate method were used, what impairment amounts would be recorded and which equity interest (controlling or noncontrolling) is assigned an impairment charge.

ACCOUNTING FOR FOREIGN CURRENCY TRANSACTIONS AND HEDGING

FOREIGN EXCHANGE RISK

CHAPTER CONTENTS

- 12.1 EXCHANGE RATES—MEANS OF TRANSLATION
- 12.2 MEASURED VERSUS DENOMINATED
- 12.3 FOREIGN CURRENCY TRANSACTIONS
- 12.4 USING FORWARD CONTRACTS AS A HEDGE

LEARNING OBJECTIVES

- 1 Distinguish between the terms “measured” and “denominated.”
- 2 Describe what is meant by a foreign currency transaction.
- 3 Understand some of the more common foreign currency transactions.
- 4 Identify three stages of concern to accountants for foreign currency transactions, and explain the steps used to translate foreign currency transactions for each stage.
- 5 Describe a forward exchange contract.
- 6 Explain the use of forward contracts as a hedge of an unrecognized firm commitment.
- 7 Identify some of the common situations in which a forward exchange contract can be used as a hedge.
- 8 Describe a derivative instrument and understand how it may be used as a hedge.
- 9 Explain how exchange gains and losses are reported for fair value hedges and cash flow hedges.

IN THE NEWS

The U.S. dollar has already lost nearly 2% of its value against other currencies and is trading at its lowest level in more than three years. This follows a 10% decline for the dollar in 2017 (Money.cnn.com 1/15/2018).¹

Many companies in the United States engage in international activities such as exporting or importing goods, establishing a foreign branch, or holding an equity investment in a foreign company. Recording and reporting problems are encountered when transactions with a foreign company or the financial statements of a foreign branch or investee are measured in a currency other than U.S. currency. Transactions to be settled in a foreign currency must be translated—that is, expressed in dollars—before they can be aggregated with the domestic transactions of the U.S. firm. When a foreign branch or investee maintains its accounts and prepares its financial statements in terms of the currency of the country in which it is domiciled, the accounts must be translated from the foreign

¹ www.investing.com, “Financial News,” 4/29/2014.

currency into dollars before financial statements for the combined entity are prepared. Translation is necessary because useful financial reports cannot be prepared until all transactions and account balances are stated in a common unit of currency.



IN
THE
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We are also exposed to foreign exchange risk when we enter into nonfunctional currency transactions, both intercompany and third-party. At each period-end, nonfunctional currency monetary assets and liabilities are revalued with the change recognized to other income and expense. We enter into monthly foreign exchange forward contracts, which are not designated for hedge accounting, with the intent to reduce earnings volatility associated with currency exposures. As of December 31, 2017, a total of 54 contracts were offsetting our exposures from the euro, Canadian dollar, Indonesian Rupiah, Chinese Yuan, Saudi Riyal and various other currencies, with notional amounts ranging from \$158,000 to \$39.5 million. Based on a sensitivity analysis as of December 31, 2017, we estimate that, if foreign currency exchange rates average ten percentage points higher in 2018 for these financial instruments, our financial results in 2018 would not be materially impacted.

In future periods, we may use additional derivative contracts to protect against foreign currency exchange rate risks.

In addition, the receivables or payables denominated in foreign currencies are subject to gains and losses because of changes in exchange rates. Also, firms make commitments or have budgeted forecasted transactions denominated in foreign currencies that are also subject to gains and losses from changes in exchange rates. Many companies resort to hedging strategies using derivatives to minimize the impact of these exchange rate changes on their financial statements. Derivative instruments can be characterized by volatile market values, and the firm's exposure to risk is usually not adequately represented by the amount reported in the books (carrying value) because of the great potential for future losses (and gains). Thus the accounting for these instruments is an important but difficult task.

Because of the widespread involvement of U.S. companies in foreign activities, accountants must be familiar with the problems associated with accounting for these activities. The expansion of international business has been of particular concern to accountants because of developments in the worldwide monetary system. These developments, coupled with the existence of a number of acceptable methods of translating foreign financial statements and reporting gains or losses on foreign currency fluctuations, have drawn the attention of the FASB at various times.² This chapter includes a discussion of the nature and use of exchange rates in the translation process, as well as the accounting standards applied in the translation of transactions measured in a foreign currency. Also, an introduction to hedge accounting is provided. The translation of accounts maintained in a foreign currency is discussed in the next chapter.

12.1 EXCHANGE RATES—MEANS OF TRANSLATION

Transactions that are to be settled in a foreign currency and financial statements of an affiliate maintained in a foreign currency are translated (converted) into dollars by multiplying the number of units of the foreign currency by a direct exchange rate. Thus,

² The discussion in this chapter is based primarily on the accounting prescribed in FASB ASC topics 830 and 815 [Foreign Currency Matters, Derivatives and Hedging].

translation is the process of expressing monetary amounts that are stated in terms in a foreign currency into the currency of the reporting entity by using an appropriate exchange rate. An **exchange rate** is the ratio between a unit of one currency and the amount of another currency for which that unit can be exchanged at a particular time.



IN
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The dollar's value refers to the purchasing power of the dollar versus other currencies, or the exchange rate between the two currencies. When the dollar is strong, foreign goods are relatively less expensive. This can benefit businesses that import raw materials or manufactured goods into the United States, such as Walmart. A weakening dollar benefits companies with foreign competitors, such as U.S. Steel because their competitors' goods become more expensive.

A weakening dollar might lead to rising interest rates because investors require higher rates to compensate for the added currency risk. A strong dollar means lower oil prices because the US purchases much of its oil abroad. As the dollar weakens, oil producers charge more to protect their margins.³

A **direct exchange quotation** is one in which the exchange rate is quoted in terms of how many units of the domestic currency can be converted into **one unit of foreign currency**. For example, a direct quotation of U.S. dollars for one British pound of 1.517 means that \$1.517 could be exchanged for one British pound. To translate pounds into dollars, the number of pounds is multiplied by the direct exchange rate expressed in dollars per pound. Exchange rates are also often stated in terms of converting **one unit of the domestic currency** into units of a foreign currency, which is called an **indirect quotation**. In the preceding example, one U.S. dollar could be converted into .6592 pound (1.00/1.517). To translate pounds into dollars, the number of pounds could also be divided by the indirect exchange rate (pounds per dollar).

Exchange rates may be quoted as either a spot rate or a forward rate. The **spot rate** is the rate at which currencies can be exchanged today, whereas the **forward** or **future rate** is the rate at which currencies can be exchanged at some future date. The forward rate is an exchange rate established at the time a forward exchange contract is negotiated. A **forward exchange contract** is a contract to exchange at a specified rate (the **forward rate**) currencies of different countries on a stipulated future date. Before the currencies are exchanged, the spot rate may move above or below the contracted forward exchange rate, but this has no effect on the forward rate established when the forward exchange contract was negotiated. In both the spot and forward markets, a foreign exchange trader provides a quotation for buying (the **bid rate**) and a quotation for selling (the **offer rate**) foreign currency. The trader's buying rate will be lower than the quoted selling rate, and the spread between the two rates is profit for the trader. Exchange rates are reported daily in terms of both direct and indirect quotations (see Illustration 12-1) in the financial section of many newspapers.

The relationship between major currencies is determined largely by supply and demand factors, called **floating rates**. Floating rates increase the risk to companies doing business with a foreign company⁴ because after a rate change occurs, all transactions are conducted at the new rate until the next change occurs. Because the amount to be received or paid is affected by a change in exchange rates, there is a direct

³ [www.wikinvest.com/currency/U.S._Dollar_\(USD\)](http://www.wikinvest.com/currency/U.S._Dollar_(USD)).

⁴ The concepts of economic exposure and accounting exposure are not identical. A company's economic exposure may be broadly defined as the uncertainty associated with the effect of exchange rate changes on the expected cash flows of the reporting entity. Accounting exposure, in contrast, is directly related to accounts that are translated at the current exchange rate.

ILLUSTRATION 12-1**Currencies U.S.-dollar foreign-exchange rates 2/15/2018**

<i>Country/Currency</i>	<i>in US\$</i>	<i>per US\$</i>
Americas		
Argentina peso	0.051	19.654
Brazil real	0.310	3.228
Canada dollar	0.801	1.248
Chile peso	0.002	593.400
Ecuador US dollar	1.000	1.000
Mexico peso	0.054	18.502
Uruguay peso	0.035	28.790
Venezuela bolivar	0.000	24985.000
Asia-Pacific		
Australia dollar	0.795	1.259
China yuan	0.158	6.348
Hong Kong dollar	0.128	7.820
India rupee	0.016	63.896
Indonesia rupiah	0.000	13520.000
Japan yen	0.009	106.120
Kazakhstan tenge	0.003	323.100
Macau pataca	0.124	8.054
Malaysia ringgit	0.257	3.893
New Zealand dollar	0.741	1.350
Pakistan rupee	0.009	110.600
Philippines peso	0.019	52.249
Singapore dollar	0.764	1.309
South Korea won	0.001	1064.140
Sri Lanka rupee	0.006	154.920
Taiwan dollar	0.035	28.960
Thailand baht	0.032	31.270
Vietnam dong	0.000	22708.000
Europe		
Bulgaria lev	0.639	1.564
Croatia kuna	0.168	5.9481
Czech Rep. koruna	0.049	20.27
Denmark krone	0.168	5.9569
Euro area euro	1.251	0.7996
Hungary forint	0.004	248.81
Iceland krona	0.010	100.12
Norway krone	0.129	7.7659
Poland zloty	0.301	3.3222

<i>Country/Currency</i>	<i>in US\$</i>	<i>per US\$</i>
Romania leu	0.268	3.7278
Russia ruble	0.018	56.396
Sweden krona	0.126	7.9295
Switzerland franc	1.085	0.9221
Turkey lira	0.266	3.7641
Ukraine hryvnia	0.037	26.8305
U.K. pound	1.410	0.7092
Middle East/Africa		
Bahrain dinar	2.653	0.377
Egypt pound	0.057	17.651
Israel shekel	0.283	3.5356
Kuwait dinar	3.340	0.2994
Oman sul rial	2.597	0.39
Qatar rial	0.275	3.6349
Saudia Arabia riyal	0.267	3.7504
South Africa rand	0.086	11.6192

Source: WSJ 2/15/2018

IN
THE
NEWS

The dollar rose to recent highs against the yen on Monday after a report showed that U.S. pending home sales rose for the first time in nine months in March, indicating that the housing market is picking up.⁵

economic impact on a company's operations. For example, a payable to be settled in 100,000 yen has a dollar equivalent value of \$434 when the direct exchange rate is \$.00434. An increase in the value of the yen to \$.00625 would result in an increase in the payable to \$625.

The selection of an exchange rate to be used in the translation process is complicated by the fact that some countries maintain multiple exchange rates. The government of a country may maintain official rates that differ from the market-determined rate, depending on the nature of the transaction. For example, a government may establish a set exchange rate for "essential goods and services" and allow the exchange rate for nonessential goods and services to float.

12.2 MEASURED VERSUS DENOMINATED

LO 1 Measured versus denominated.

Transactions are normally *measured* and recorded in terms of the currency in which the reporting entity prepares its financial statements. This currency is usually the domestic currency of the country in which the company is domiciled and is called the *reporting currency*. In subsequent illustrations, the U.S. dollar is assumed to be the reporting currency of U.S.-based firms. Assets and liabilities are *denominated* in a currency if their amounts are fixed in terms of that currency. Thus a transaction between two U.S. companies requiring payment of a fixed number of dollars is both measured and denominated in dollars. In a transaction between a U.S. firm and a foreign company, the two parties usually negotiate whether the settlement is to be made in dollars or in the domestic currency

⁵ www.investing.com, "Financial News," 4/29/2014.

of the foreign company. If the transaction is to be settled by the payment of a fixed amount of foreign currency, the U.S. firm measures the receivable or payable in dollars, but the transaction is denominated in the specified foreign currency. To the foreign company, the transaction is both measured and denominated in its domestic currency.

12.3 FOREIGN CURRENCY TRANSACTIONS

LO 2 Foreign currency transaction.

A transaction that requires payment or receipt (settlement) in a foreign currency is called a **foreign currency transaction**. A transaction with a foreign company that is to be settled in dollars is not a foreign currency transaction to a U.S. firm because the number of dollars to be received or paid to settle the account is fixed and remains unaffected by subsequent changes in the exchange rate. Thus a transaction of a U.S. firm with a foreign entity to be settled in dollars is accounted for in the same manner as if the transaction had been with a U.S. company.

A foreign currency transaction will be settled in a foreign currency, and the U.S. firm exposed to the risk of unfavorable changes in the exchange rate that may occur between the date the transaction is entered into and the date the account is settled. For example, assume that a U.S. firm purchased goods from a French firm and the U.S. firm is to settle the liability by the payment of 20,000 euros. The French firm would measure and record the transaction as normal because the billing is in its reporting currency. Because the billing is in a foreign currency (denominated in euros), the U.S. firm must translate the amount of the foreign currency payable into dollars before the transaction is entered in its accounts. An increase (decrease) in the direct exchange rate will increase (decrease) the number of dollars required to buy the fixed number of euros needed to settle the foreign currency liability.

The **direct exchange rate** is often said to be increasing, or the foreign currency unit to be strengthening, if more dollars are needed to acquire the foreign currency units. If fewer dollars are needed, then the foreign currency is weakening or depreciating in relation to the dollar (the direct exchange rate is decreasing). Consider the following information.

	Direct Exchange Rates	
	Yen Strengthens \$ Weakens	Yen Weakens \$ Strengthens
Beginning of year	\$1 = 1 yen	\$1 = 1 yen
End of year	\$2 = 1 yen	\$.5 = 1 yen

Would a U.S. company holding a 10,000 *receivable* denominated in yen prefer the yen to strengthen or weaken? In this case, the company prefers a strengthened yen because the equivalent of more dollars would be received and an exchange gain would be incurred. If the transaction involved a *payable* denominated in yen, the firm would have incurred an exchange rate loss because more dollars would have to be paid. As will be shown later, because firms cannot perfectly predict changes in exchange rates, the U.S. firm may **hedge**, that is, protect itself against an unfavorable change in the exchange rate by using derivatives.

In this chapter, we discuss the accounting for importing or exporting goods. Then we provide an introduction to hedging the risk of foreign currency rate changes.


 IN
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Some currencies have undergone major changes in comparison to the U.S. dollar. Consider the changes in the following direct exchange rates between the U.S. dollar and the Brazilian real and the Australian dollar:

	U.S. Dollars to Convert to Foreign Currency			% Change from 1/1/2000 to 10/12/2006
	1/1/2000	10/12/06	2/15/18	
Australian dollar	\$0.6565	\$0.7509	\$0.795	41.3%
Brazilian real	\$0.5435	\$0.4647	\$0.310	(14.5%)

From 2000 to 2018, the U.S. dollar strengthened relative to the Brazilian real but has weakened against the Australian dollar. One way to consider whether a currency has strengthened or weakened is to consider the direct exchange rate as the cost of the foreign currency. For instance, when the direct exchange rate increases, the currency is more valuable, so the currency has strengthened relative to the U.S. dollar. If the direct exchange rate decreases, the foreign currency is cheaper and the dollar has strengthened relative to the foreign currency.

Importing or Exporting of Goods or Services

LO 3 Common transactions.

Probably the most common form of foreign currency transaction is the exporting or importing of goods or services. In each unsettled foreign currency transaction, there are three stages of concern to the accountant. These stages and the appropriate exchange rate to use in translating accounts denominated in units of foreign currency (except for forward exchange contracts) are as follows:

LO 4 Three stages of concern.

- 1. At the date the transaction is first recognized in conformity with GAAP.** Each asset, liability, revenue, expense, gain, or loss arising from the transaction is measured and recorded in dollars by multiplying the units of foreign currency by the current direct exchange rate. (The **current exchange rate** is the spot rate in effect on a given date.)
- 2. At each balance sheet date that occurs between the transaction date and the settlement date.** Recorded balances that are denominated in a foreign currency are adjusted using the spot rate in effect at the balance sheet date, and the transaction gain or loss is recognized currently in earnings.
- 3. At the settlement date.** In the case of a foreign currency payable, a U.S. firm must convert U.S. dollars into foreign currency units to settle the account, whereas foreign currency units received to settle a foreign currency receivable will be converted into dollars. Although translation is not required, a transaction gain or loss is recognized if the number of dollars paid or received upon conversion does not equal the carrying value of the related payable or receivable.

Using the spot rate to translate foreign currency receivables and payables at each measurement date **provides an estimate of the number of dollars to be received or to be paid to settle the account**. Note that both gains and losses result in adjustments to the receivable or payable, approximating a form of current value accounting. The increase or decrease in the expected cash flow is generally reported as a foreign currency

transaction gain or loss, sometimes referred to as an *exchange gain or loss*, in determining net income for the current period.⁶

Importing Transaction To illustrate an importing transaction, assume that on December 1, 2020, a U.S. firm purchased 100 units of inventory from a French firm for 500,000 euros to be paid on March 1, 2021. The firm's fiscal year-end is December 31. Assume further that the U.S. firm did not engage in any form of hedging activity. The spot rates for euros (\$/euro) at various times are as follow:

	<u>Spot Rate</u>
Transaction date—December 1, 2020	\$1.25
Balance sheet date—December 31, 2020	1.28
Settlement date—March 1, 2021	1.27

The U.S. firm would prepare the following journal entry on December 1, 2020:

Dec. 1	Purchases	625,000	
	Accounts Payable (500,000 euros × \$1.25/euro)		625,000

At the balance sheet date, the accounts payable denominated in foreign currency is adjusted using the exchange rate (spot rate) in effect at the balance sheet date. The entry is

Dec. 31	Transaction Loss	15,000	
	Accounts Payable		15,000
	Accounts payable valued at 12/31 (500,000 euros × \$ 1.28/euro)		\$640,000
	Accounts payable valued at 12/1 (500,000 euros × \$ 1.25/euro)		<u>625,000</u>
	Adjustment to accounts payable needed		<u>\$ 15,000</u>
	or		
	[500,000 euros × (\$1.28 – \$1.05) = \$15,000]		

If the exchange rate had declined below \$1.25,⁷ for example to \$1.23, the U.S. firm would have recognized a gain of \$10,000 since it would have taken only \$615,000 (500,000 euros × \$1.23) to settle the \$625,000 recorded liability.

Before the settlement date, the U.S. firm must buy euros in order to satisfy the liability. With a change in the exchange rate to \$1.27, the firm must pay \$635,000 on March 1, 2021, to acquire the 500,000 euros. The journal entry to record the settlement is:

Mar. 1	Accounts Payable	640,000	
	Transaction Gain		5,000
	Cash (500,000 euros × \$1.27/euro)		635,000

Over the three-month period, the decision to delay making payment cost the firm \$10,000 (the \$635,000 cash paid less the original payable amount of \$625,000). This net amount was recognized as a loss of \$15,000 in 2020 and a gain of \$5,000 in 2021.

Note in the preceding example that at December 31, the balance sheet date, a transaction loss was recognized on the open account payable. Such a loss is considered

⁶ One exception to this treatment of transaction gains and losses would involve intercompany transactions that are of a long-term financing or capital nature between an investor and an investee that are consolidated, combined, or accounted for by the equity method. These are accounted for as a component of stockholders' equity.

⁷ Throughout this chapter, we often state the exchange rate simply in dollars; thus, a rate of \$1.25 means \$1.25 per unit of foreign currency (euro in this case).

unrealized because the account has not yet been settled or closed. When an account payable (or receivable) is settled or closed, a transaction gain or loss on the settlement is considered realized. The FASB reasoned that users of financial statements are best served by reporting the effects of exchange rate changes on a firm's financial position in the accounting period in which they occur, even though they are unrealized and may reverse or partially reverse in a subsequent period, as in the illustration above. This procedure is criticized, however, because under GAAP, gains are not ordinarily reported until realized and because the recognition of unrealized gains and losses results in increased earnings volatility.

IN
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Foreign currency transaction gains and losses are a result of the effect of exchange rate changes on transactions denominated in currencies other than the functional currency. Transaction gains and losses are recognized in other income (expense), net, on the consolidated statement of operations. For the years ended December 31, 2017, 2016, and 2015, we recorded foreign currency transaction gains (losses) of \$52.3 million, \$26.1 million, and (\$45.6) million, respectively.

Exporting Transaction Now assume that the U.S. firm sold 100 units of inventory for 500,000 euros to a French firm. All other facts are the same as those for the importing transaction. The journal entries to record this exporting transaction on the books of the U.S. company are:

December 1, 2020—Date of Transaction

Accounts Receivable (500,000 euros × \$1.25)	625,000	
Sales		625,000

December 31, 2020—Balance Sheet Date

Accounts Receivable (\$640,000 – \$625,000)	15,000	
Transaction Gain		15,000
The receivable valued at 12/31: 500,000 euros × \$1.28 =	\$640,000	
The receivable valued at 12/1: 500,000 euros × \$1.25 =	<u>\$625,000</u>	
Change in the value of the receivable	\$ 15,000	

March 1, 2021—Settlement Date

Cash (500,000 euros × \$1.27)	635,000	
Transaction Loss	5,000	
Accounts Receivable		640,000

A comparison of the entries to record the exporting transaction with those prepared to record an importing transaction reveals that a movement in the exchange rate has an opposite effect on the company's reported income. That is, the increase in the exchange rate from \$1.25 to \$1.28 resulted in a transaction gain in the case of a foreign currency receivable, whereas a transaction loss was reported in the case of a foreign currency payable. When the exchange rate decreased from \$1.28 to \$1.27, a transaction loss was reported on the exposed receivable, whereas a transaction gain was reported on the exposed payable. Thus one tool available to management to hedge a potential loss on a foreign currency receivable is to enter into a transaction to establish a liability to be settled in the same foreign currency. Similarly, a liability to be settled in units of a foreign currency can be hedged by entering into a receivable transaction denominated in the same foreign currency. These relationships are summarized in the following chart.

	<i>Balance Sheet</i>		<i>Income Statement Effect</i>
	<i>Exposed Account</i>	<i>Effect on Balance Reported</i>	
Increase in Direct Exchange Rate			
Importing Transaction	Payable	Increase	Transaction loss
Exporting Transaction	Receivable	Increase	Transaction gain
Decrease in Direct Exchange Rate			
Importing Transaction	Payable	Decrease	Transaction gain
Exporting Transaction	Receivable	Decrease	Transaction loss

**IN
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NEWS**

The ruble's largest decline in recent weeks could get worse as a

surprise interest-rate increase curtails growth and the Ukraine crisis increases the likelihood for more sanctions Morgan Stanley said.

The Russian currency depreciated 0.7% to 36.0305 per dollar after a surprise interest rate increase failed to offset Standard & Poor's move to lower Russia's credit rating to one level above junk.⁸

How should a transaction gain or loss be reported? In the previous examples, the dollar amount recorded in the Sales account and the Purchases account was determined by the exchange rate prevailing at the transaction date. Adjustments to the foreign-currency-denominated receivable or payable were recorded directly to transaction gain or loss. Under this approach, referred to as the *two-transaction approach*, the sale or purchase is viewed as a transaction separate and distinct from the financing arrangement. Thus the transaction gain or loss does not result from an operating decision to buy or sell goods or services in a foreign market but from a financial decision to delay the payment or receipt of foreign currency and not to hedge the exposed receivable or payable against possible unfavorable currency rate changes.

An alternative view that was rejected by the FASB considers the initial transaction and settlement to be one transaction. Supporters of this method contend that the initial transaction is incomplete and the amounts recorded are estimates until such time as the total sacrifice from the purchase (units of domestic currency paid) or the total benefits from the sale (units of domestic currency received) are known. Under this view, transaction gains or losses should be accounted for as an adjustment to the cost of the asset purchased or to the revenue recorded in a sales transaction. There is an obvious implementation problem with this method when the sale or purchase is recorded in one fiscal period and the receipt or payment occurs in another period.

TEST YOUR KNOWLEDGE 12.1

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

Multiple Choice

On December 1, 2019, SMC entered into a transaction to import raw materials from a foreign country. The account is to be settled on March 1 with the payment of 50,000 euros. The spot rate for euros on December 1 was \$1.4/euro and on March 1 was \$1.44/euro.

1. If SMC does not hedge the payable, raw materials will be recorded on the books on March 1, 2020 at what amount?
 - a. 50,000 euros
 - b. \$72,000
 - c. \$70,000
 - d. None of the above
2. What is the total amount of the transaction gain or loss to be included in net income?
 - a. \$2,000 gain
 - b. \$2,000 loss
 - c. No gain or loss is recognized until the raw materials are sold
 - d. There is no gain or loss. The change in the value of the raw materials offsets the change in the payable.

⁸ www.bloomberg.com, Yen Heads for Weekly Gain As Ruble Weakens on Ukraine, Andrea Wong, 4/25/2014.

LO 8 Derivatives as a hedge.

RELATED CONCEPTS

Many assets and liabilities do not have readily observable market values and measurement often relies on *present values*. The use of simplifying assumptions aims for present value measurements that are more *relevant* than undiscounted measurements.

IN THE NEWS

Sri Lanka, like many other emerging market inflation-targeting countries, has a managed float exchange rate regime and intervenes relatively frequently. Frequent interventions and the absence of a transparent implementation framework can make it more difficult for the markets and public to assess the objectives of foreign exchange interventions.¹¹

Hedging Foreign Exchange Rate Risk

Derivative Instruments After the issuance of *SFAS No. 52* (now in FASB ASC Topic 830 Foreign Currency Matters) on foreign currency translation, the FASB became aware that firms were using creative instruments with increasing frequency to accomplish their desired hedging, many of which were not included in the scope of *SFAS No. 52*. Consequently, the FASB issued another standard, *SFAS No. 133* (now in FASB ASC Topic 815 Derivatives and Hedging), which expanded the scope of accounting for hedges. Under these guidelines, certain designated hedges are accounted for using **hedge accounting**. This will be elaborated upon later.⁹

A **derivative instrument** may be defined as a financial instrument that, by its terms at inception or upon occurrence of a specified event, provides the holder (or writer) with the right (or obligation) to participate in some or all of the price changes of another *underlying* value of measure, but does not require the holder to own or deliver the underlying value of measure. Thus its value is *derived* from the underlying value of measure. The underlying value of measure may be one or more referenced financial instruments, commodities, or other assets, or other specific items to which a rate, an index of prices, or another market indicator is applied. In most cases, derivatives differ from traditional instruments (stocks and bonds, for example) in that the eventual dollar amount of the performance is dependent upon subsequent value changes, rather than upon a static measure, and the eventual outcome is necessarily favorable to one of the parties involved and unfavorable to the other. The cash payments involved are made at the end of the contract rather than at its inception for the most part, and the instruments have consequently been treated in the past in many cases as a type of off-balance sheet agreement.

The FASB identified the following as keystones for the accounting for derivative instruments:¹⁰

- Derivative instruments represent rights or obligations that meet the definitions of assets or liabilities and should be reported in financial statements.
- Fair value is the most relevant measure for financial instruments and the only relevant measure for derivative instruments.
- Only items that are assets or liabilities should be reported as such in the balance sheet.
- Special accounting for items designated as being hedged should be provided only for qualifying items, as demonstrated by an assessment of the expectation of effective offsetting changes in fair values or cash flows during the term of the hedge for the risk being hedged.

Although over a thousand different types of derivative instruments have been created, they are sometimes separated into the following two broad categories:

- Forward-based derivatives, such as forwards, futures, and swaps, in which either party can *potentially* have a favorable or an unfavorable outcome but not both simultaneously (e.g., both will not simultaneously have favorable outcomes).

⁹ See FASB ASC topic 815 [Derivatives and Hedging].

¹⁰ FASB ASC paragraph 815–10–10–1.

¹¹ Business Times, Sunday, May 1, 2011.

- Option-based derivatives, such as interest rate caps, option contracts, and interest rate floors, in which only *one* specified party can potentially have a favorable outcome and it agrees to pay a premium at inception for this potentiality. The other party is paid the premium, and it can potentially have only an unfavorable outcome.

Derivatives are recognized in the balance sheet at their fair value. Determination of that value is based on the changes in the underlying value of measure (commodity, financial instrument, index, etc.) and on assessment of the expected future cash flows. The result is a payable position for one of the involved parties and a receivable position for the other.

Forward Exchange Contracts

LO 5 Forward exchange contracts.

Although hedging can be accomplished with many different types of derivatives, in this chapter we focus mainly on hedging with the use of forward contracts. Later in this chapter, we illustrate the use of options as a hedging device.

A forward exchange contract (forward contract) is an agreement to exchange currencies of two different countries at a specified rate (the forward rate) on a stipulated future date. At the inception of the contract, the forward rate normally varies from the spot rate. *The difference between the two rates is referred to as a discount (premium) if the forward rate is less than (greater than) the spot rate*, as shown here.

	Exchange Rate	
Forward rate	\$.175	} .007 premium
Spot rate	.168	
Forward rate	.162	} .006 discount

Which Kind of Forward Contract to Choose?

LO 6 Hedging with forward contracts.

If the item being hedged is a foreign currency *account payable*, the firm should use a **forward contract to purchase the foreign currency** on the date the payable becomes due. This implies that the firm can lock in the cost of acquiring the foreign currency on the date the forward contract is acquired, and subsequent changes in the exchange rate will not affect the amount the firm has to pay. On the other hand, if the item being hedged is a foreign currency *accounts receivable*, the firm should use a **forward contract to sell the foreign currency** on the date the receivable is expected to be collected.

The valuation of a forward contract (intrinsic versus time value): Forward contracts are valued on a net basis. For example, consider the following. Suppose on January 1, 2017, you obtain a one-year forward contract to sell 10,000 Canadian dollars using the December 31, 2017, forward rate of \$0.90. This forward rate is the best guess to estimate what the spot rate will be on December 31, 2017. Therefore on January 1, 2017, you believe that 10,000 Canadian dollars will be worth \$9,000 one year from now. The forward contract locks in the amount of cash you will receive, \$9,000. But since on January 1 this is also the expected cost to obtain Canadian dollars, the value of the forward contract is zero on this date, and it will remain zero until the forward rate for December 31, 2017, settlement changes. Assume the following additional information:

Date	Spot Rate	Forward Rate	
		for 12/31/17 Settlement	Premium
1/1/2017	\$0.80	\$0.90	\$0.10
7/1/2017	\$0.83	\$0.88	\$0.05
12/31/2017	\$0.84	\$0.84	\$0.00

With this forward contract, the amount of dollars to be received is fixed at \$9,000, but the amount paid to acquire the foreign currency alters with changes in the exchange rate. What conditions will cause the contract to be beneficial to the firm? If the future spot rate falls below the forward rate on the forward contract, the firm will benefit. Looking at the data in retrospect, this is a valuable forward contract for the firm because the forward contract locks in the cash received at the \$0.90 rate, but the firm can purchase the currency on the settlement date at a spot rate of \$0.84. In other words, the firm pays \$0.84 to get \$0.90. But on the date the forward contract is acquired, there is no guarantee that the firm will benefit from the contract (i.e., the spot rate on the settlement date might increase above \$0.90).

As the settlement date for the forward contract approaches, the forward rate converges to the **settlement date** spot rate. Also, note that the premium changes over time but eventually will become zero on the settlement date. What is the **value of the forward** on July 1, 2017? The amount of cash received from the forward is fixed at \$9,000, but now the forward rate for December 31 settlement has changed to \$0.88. This implies that we could enter into a contract to purchase the 10,000 Canadian dollars for \$8,800. Thus the value of the forward has increased by \$200 (the change in the forward rate). Similarly, on the settlement date, the forward rate drops to \$0.84. Now the 10,000 Canadian dollars can be purchased for \$8,400, and the forward contract has increased in value by another \$400. The **total change in value of the forward contract** from the inception to the settlement date can be computed by taking the difference between the original forward rate of \$0.90 and the spot rate on the settlement date (\$0.84). In this example the forward contract increased in value by \$600 or $[(\$0.90 - \$0.84) (10,000)]$.

Notice that the initial premium is \$0.10 and that the spot rate increased over the year by \$0.04. The difference between these two equals the change in the value of the forward contract over the forward contract. (In this case the premium represents a gain, and the change in the spot rate is a loss.) Since the premium will eventually be zero on the settlement date, the change in the premium (or discount) is known as the **time element** of the change in value of the forward contract. The change in the spot rate is considered the change in the **intrinsic value** of the forward. Thus the total change in value is equal to the sum of the intrinsic value and the time value. (Keep in mind that each of these changes in value can be positive or negative.) This is summarized in the following chart.

Date	Forward Rate for 12/31/17			Change in Value(a)		
	Spot Rate	Settlement	Premium	Total Value	Intrinsic Value	Time Value
1/1/2017	\$0.80	\$0.90	\$0.10			
7/1/2017	\$0.83	\$0.88	\$0.05	\$0.02	(\$0.03)	\$0.05
12/31/2017	\$0.84	\$0.84	\$0.00	\$0.04	(\$0.01)	\$0.05
Total change in rates and premium				\$0.06	(\$0.04)	\$0.10
Foreign currency (Canadian dollars)				10,000	10,000	10,000
Total change in value in dollars ^a				\$600	(\$400)	\$1,000

^a Definitions

The total change in the value of the forward contract = the change in the forward rates multiplied by the foreign currency.

The change in the intrinsic value of the forward contract = the change in the spot rate multiplied by the foreign currency.

The change in the time value of the forward contract = the change in the premium multiplied by the foreign currency.

Why Do Forward Rates Differ from Spot Rates?

Forward rates for the purchase or sale of foreign currency, on some future date, can be higher, lower, or equal to the current spot rate on that currency. For instance, if the current spot rate for the exchange of pesos and dollars is \$0.95, the forward rate to exchange pesos for dollars in one year might be higher or lower than \$0.95 (it is unlikely to be equal). Why do these rates differ? The answer to this question involves differences in interest rates between the two countries. Suppose that the one-year forward rate and the current spot rate are equal but that in the United States the cost of borrowing money for one year is 5% while in Mexico the cost of borrowing is 10%. A U.S. company could take \$9,500 and convert this amount into 10,000 pesos (at today's spot rate) and invest this amount in Mexico at 10% for one year. This would accumulate to 11,000 pesos. At the same time, the firm could buy a forward contract to sell 11,000 pesos at the forward rate of \$0.95 for \$10,450. Assuming investments in the United States and Mexico had equal risks and tax characteristics, this would amount to a risk-free 5% return (a 10% return in Mexico less 5% that could have been earned in the United States). Investors would commit large sums of money to this investment. In our example, this process would tend to drive up U.S. interest rates, drive down Mexican interest rates, and lower the forward rate. The equilibrium is known as **interest rate parity**. Therefore,

$$\text{Forward rate} = \frac{(1+i^{US})}{(1+i^{Mexico})}(\text{spot rate})$$

where i represents the interest rate and the superscript represents the country. Therefore, the forward rate that guarantees interest rate parity is \$0.9068, or

$$\text{Forward rate} = (1.05/1.10)(\$0.95) = \$0.9068.$$

Then in this example, the 11,000 pesos could only be converted into \$9,975, enabling the U.S. company to earn only 5% interest. Therefore, if the interest rate in the foreign country is **higher** than the rates in the United States, the forward rate will be **below** the current spot rate. If the interest rate in the foreign country is **lower** than the rates in the United States, the forward rate will be **above** the current spot rate.

There are a number of business situations in which a firm may desire to acquire a forward exchange contract. The uses of forward contracts include the following:

1. Hedges

- a. Forward contracts used as a hedge of a **foreign currency transaction**. These include importing and exporting transactions denominated in foreign currency. These hedges do not qualify for hedge accounting because the foreign exchange gains and losses are already reported in earnings under FASB ASC paragraph 830-10-15-3, and the payables and receivables are reported at market value on the balance sheet.
- b. Forward contracts used as a hedge of an **unrecognized firm commitment (a fair value hedge)**. An example of an unrecognized firm commitment is when a firm enters into a contract to purchase an asset in two months for a fixed amount of foreign currency. Since the exchange rate may change over the next two months, the firm might use a forward contract to hedge the potential change in value of the purchased asset. Hedge accounting rules apply. Both the change in value of the hedge and the value of the hedged item are reported in earnings (before the contract is reported on the books). This is illustrated later.
- c. Forward contract used as a hedge of a **foreign-currency-denominated "forecasted" transaction** (a cash flow hedge). A forecasted transaction is a situation where the firm has planned sales receipts (expected to occur in the near future) and uses the forward contract as a means to hedge the cash flow risk. Initially,

foreign exchange gains and losses are reported in comprehensive income, while no offsetting amount is reported for the hedged item. Eventually, the exchange gains and losses will be reported in earnings in the period the hedged item affects earnings (i.e., if the item being hedged is a forecasted purchase of inventory, the gains and losses on the hedge will be reclassified into earnings when the inventory is sold).

d. Forward contracts as a hedge of a *net investment in foreign operations*.

2. Speculation

Forward contracts used to speculate changes in foreign currency.

These classifications are important because the accounting for a particular type of forward contract depends on the purpose for which it was obtained. The difference in accounting relates primarily to two questions.

1. How is a transaction gain or loss on the forward contract computed, and when should the gain or loss be reported?
2. What value should be reported for the forward contract in the financial statements over the life of the contract?

Hedges of forecasted foreign currency transactions may include some intercompany transactions. The hedging of foreign currency intercompany cash flows with foreign currency options is not uncommon. Because of its belief that the accounting for all derivative instruments should be the same, the FASB broadened the scope of hedges that are eligible for hedge accounting.¹² If an *intercompany* foreign currency derivative is created, it can only be a hedging instrument in the *consolidated* financial statements *if* the other member enters into an offsetting contract with an outside (unaffiliated) party to hedge its exposure. This restriction applies because the standards require that some component with foreign currency exposure must be a party to the hedging transaction. In the stand-alone statements of the subsidiary, however, the intercompany derivative could be designated as a hedge in the absence of third-party involvement. Therefore intercompany derivatives can be classified as either fair value or cash flow hedges if they meet the definition for that particular hedge and if the member of the consolidated group *not using the intercompany derivative* as a hedge enters into a hedge contract with an unrelated party to offset the original exposure from the intercompany hedge.

12.4 USING FORWARD CONTRACTS AS A HEDGE

Hedge of a Foreign Currency Exposed Liability

Consider the following importing example.

Importing transaction with a forward contract used as a hedge

1. On December 1, 2020, a U.S. firm purchased inventory for 500,000 euros payable on March 1, 2021 (i.e., the transaction is denominated in euros).
2. The firm's fiscal year-end is December 31.

¹² FASB ASC paragraph 815-20-25-4.

3. The spot rate for euros (\$/euro) and the forward rates for euros on March 1, 2020, at various times are as follows:

	<i>Spot Rate</i>	<i>Forward Rate (for 3/1/2021 euros)</i>
Transaction date—December 1, 2020	\$1.05	1.052
Balance sheet date—December 31, 2020	1.055	1.059
Settlement date—March 1, 2021	1.07	

4. On December 1, 2020, the U.S. firm entered into a forward contract to buy 500,000 euros on March 1, 2021, for \$1.052.

LO 7 Forward contracts as a hedge.

On December 1, 2020, the firm entered a contract to purchase inventory for 500,000 euros (the spot rate was \$1.05 on that date). If the exchange rate did not change over the payment period, the firm would owe \$525,000 to settle the payable. However, if the exchange rate increased to \$1.07, the firm would have to pay \$535,000 to settle the debt ($500,000 \times \$1.07$). On the other hand, if the exchange rate dropped to \$1.02, the firm would only need to pay \$510,000 (or $500,000 \times \$1.02$). Because the firm cannot perfectly estimate the change in the exchange rate, the company might prefer to eliminate this risk by entering into a forward contract *to buy euros* on March 1, 2021. Since the forward rate on December 1, 2020, to purchase euros on March 1, 2021, is \$1.052, the company can buy 500,000 euros on March 1 for a guaranteed price of \$526,000. This fixed price means that the firm has determined in advance the maximum (and exact) amount of loss it will suffer—in this case \$1,000. Thus the firm is protected from future increases in the exchange rate above \$1.052. By locking into a set price, the firm gains if the spot rate on March 1, 2021, increases above \$1.052 and loses if the spot rate decreases below \$1.052. The important point to note about the hedge is that the firm knows with certainty on December 1, 2020, the amount of cash needed to purchase the asset.

The entries to record the purchase and forward exchange contract are as follows.

December 1, 2020—Transaction Date

(1)	Purchases	525,000	
	Accounts Payable (500,000 euros \times \$1.05)		525,000
	To record purchase of goods on account using the spot rate on December 1, 2020.		

The accounts payable for the inventory purchase is recorded using the spot rate on the transaction date (on December 1, 2020):

(2)	Foreign Currency (FC) Receivable from Exchange Dealer	526,000	
	Dollars Payable to Exchange Dealer (500,000 euros \times \$1.052)		526,000
	To record forward contract to buy 500,000 euros using the forward rate.		

At the date of the transaction, the U.S. firm records the forward contract by recognizing a payable and a receivable of \$526,000 for the number of dollars to be paid (units of foreign currency to be purchased multiplied by forward rate) to the exchange dealer when the forward contract matures.¹³ The net value of the forward contract is

¹³ In practice, a journal entry may not be made to record a forward contract when the contract was negotiated because it represents an executory contract. Although arguments can be made either for or against recording such contracts, in this chapter forward contracts are recorded because it is easier to analyze the subsequent adjustments required to report the effects of a forward contract on the firm's reported income.

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The USD Index measures the performance of the US Dollar against a basket of currencies: EUR, JPY, GBP, CAD, CHF and SEK.

zero since the payable and the receivable are exactly offset. The value of the receivable from the dealer and the accounts payable for the purchase of inventory are subject to changes in exchange rate, but the gains and losses generally offset each other since the terms and the amounts are equal.

On December 31, 2020, the spot rate increases from \$1.05 to \$1.055, resulting in an increase of \$2,500 to accounts payable. The spot rate is used for accounts payable since that is the amount needed to settle the liability.

December 31, 2020—Balance Sheet Date

(3)	Transaction Loss	2,500	
	Accounts Payable		2,500
	To record a loss on the liability denominated in foreign currency		
	Current value of accounts payable (500,000 euros × \$1.055) =		\$527,500
	Less: Recorded value of accounts payable =		<u>\$525,000</u>
	Adjustment needed to accounts payable		<u>\$ 2,500</u>
	or [500,000 euros × (\$1.055 – \$1.05)] = \$2,500		

On the other hand, the value of the forward contract is determined using the change in the forward rates. The forward rate increased to \$1.059 from \$1.052. This results in an increase of \$3,500 to the receivable from the exchange dealer. Recall that the payable to the foreign exchange dealer is fixed by the forward contract. Thus the forward contract has a positive \$3,500 value at this point (December 31).

(4)	FC Receivable from Exchange Dealer	3,500	
	Transaction Gain		3,500
	To record a gain on foreign currency to be received from exchange dealer [(500,000 euros × \$1.059 = \$529,500) – \$526,000].		

If the financial statements are prepared on December 31, 2020, the value of the forward contract is as follows:

FC Receivable from Exchange Dealer (500,000 × 1.059)	\$529,500
Dollars Payable to Exchange Dealer (500,000 × 1.052)	<u>526,000</u>
Net Receivable from Exchange Dealer	<u>\$ 3,500</u>

This net value would be reported on the balance sheet. In addition, accounts payable would be recorded at the spot rate, or \$527,500. The income statement would report an exchange loss of \$2,500 and an exchange gain of \$3,500.

Note that even though the forward contract and the accounts payable cover similar terms (December 1 to March 1) and amounts (500,000 euros), the amount of the transaction loss on the payable does not equal the transaction gain on the FC receivable. They are not equal because accounts payable is valued using changes in the spot rate, while the value of the forward contract is determined using changes in the forward rates. On the settlement date, the forward rate and the spot rate become equal. Thus the total transaction gain or loss on the contract will eventually equal the guaranteed gain or loss determined on the date the forward contract is acquired.

On March 1, 2021, the spot rate increases to \$1.07 from \$1.055, resulting in an increase in accounts payable of \$7,500 [(\$1.07 – \$1.055) × 500,000]. Since on the settlement date, the forward rate on this date and the spot rate are identical, the change in the March 1 forward rate on December 31 to the spot rate on March 1, 2021, is \$0.011, or (\$1.059 to \$1.07). This results in an increase to the foreign currency (FC)

receivable of \$5,500, or $[(\$1.07 - \$1.059) \times 500,000]$. The journal entries to record these events are as follows:

March 1, 2021—Settlement Date

(5)	Transaction Loss	7,500	
	Accounts Payable		7,500
	To record a loss from 12/31/20 to 3/1/21 on liability denominated in foreign currency. The current value of the payable \$535,000 (500,000 euros \times \$1.07) less the recorded value of the payable on December 31 of \$527,500 is \$7,500: $[(500,000 \text{ euros} \times \$1.07, \text{ or } \$535,000) - \$527,500]$.		
(6)	FC Receivable from Exchange Dealer	5,500	
	Transaction Gain		5,500
	To record a gain from 12/31/20 to 3/1/21 on foreign currency to be received from exchange dealer. The change in the 12/31 forward rate to the spot rate on March 1, 2021, times 500,000 euros, or $[(500,000 \text{ euros} \times \$1.07, \text{ or } \$535,000) - \$529,500]$.		

The recorded balances in both accounts payable and the FC receivable are \$535,000, reflecting the spot rate on March 1, 2020. The dollars payable to the dealer remain fixed at \$526,000, the original contracted amount. Entry (7) records the cash payment of \$526,000 and the reduction of the FC payable. Also, the receivable is converted to the Investment in FC representing the 500,000 euros acquired in the forward contract. In entry (8), the euros are used to settle the accounts payable.

(7)	Dollars Payable to Exchange Dealer	526,000	
	Investment in FC (500,000 euros)	535,000	
	FC Receivable from Exchange Dealer		535,000
	Cash		526,000
	To record payment to exchange dealer and receipt of 500,000 euros (500,000 euros \times \$1.07 = \$535,000).		
(8)	Accounts Payable	535,000	
	Investment in FC		535,000
	To record payment of liability upon transfer of 500,000 euros.		

By obtaining the forward contract, the firm was able to establish at the transaction date the amount of dollars (\$526,000) that it would take to acquire the 500,000 euros needed to settle the account with the foreign firm. Note, however, that the cost of the inventory of \$525,000 was established on December 1 [entry (1)]. If the forward contract had not been obtained, the firm would have had to pay \$535,000 to settle the account and would have reported a net loss of \$10,000 on the exposed liability position. The net gain from entering into the forward contract, however, largely canceled out the net loss on the exposed liability position.

These transactions can be summarized in the following table.

<i>Hedged Item</i>	<i>Balance</i>	<i>Transaction Gain/(Loss)</i>	<i>Hedge</i>	<i>Balance</i>	<i>Transaction Gain/(Loss)</i>
Accounts Payable			FC Receivable		
12/1/2020	\$ 525,000		12/1/2020	\$ 526,000	
12/31/2020	527,500	(2,500)	12/31/2020	529,500	3,500
3/1/2020	535,000	(7,500)	3/1/2020	535,000	5,500
Total gain/(loss)		<u>(10,000)</u>			<u>9,000</u>

Thus the net effect is a \$1,000 loss when the forward contract is used.

Hedge of a Foreign Currency Exposed Asset

LO 7 Forward contract as a hedge.

In the preceding example, the U.S. firm entered into a forward purchase contract to hedge an exposed liability position at a time when the forward rate was at a premium. Accounting for a forward contract entered into as a hedge of an exposed receivable position is based on similar analysis. However, because the U.S. firm will be receiving foreign currency in settlement of the exposed receivable balance, it will enter into a forward contract *to sell* foreign currency for U.S. dollars. In this case, the receivable from the dealer is denominated in a fixed number of dollars, the amount of which is based on the contracted forward rate, whereas the obligation to the dealer is denominated in a foreign currency, which is translated into dollars using the current spot rate.

TEST YOUR KNOWLEDGE

12.2

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

Multiple Choice

On December 1, 2019, SMC entered into a transaction to import raw materials from a foreign country. The account is to be settled on March 1 with the payment of 50,000 euros. The spot rates and the forward rates on various dates are as follows:

Date	Spot Rate \$ per Euro	Forward Rate (March 1 Settlement)
Dec. 1	\$1.00	\$1.03
March 1	\$1.04	\$1.04

- To hedge the company's accounts payable position, SMC should:
 - Buy a forward contract to purchase 50,000 euros on March 1

- Buy a forward contract to sell 50,000 euros on March 1
 - None of the above
- If SMC uses a forward contract to hedge the payable, what is the overall transaction gain or loss on the company from using the hedge?
 - \$2,000 gain
 - \$1,500 loss
 - \$1,500 gain
 - \$2,000 loss
 - \$500 gain

Fair Value Hedge—Hedging an Unrecognized Foreign Currency Commitment

In the preceding discussion of the importing and exporting of goods, the purchase or sale of an asset was recorded on the transaction date. This date is considered the point at which title to the goods is transferred, which is consistent with the recording of a transaction with another domestic company. However, if the U.S. firm at a date earlier than the transaction date made a commitment to a foreign company to sell goods or buy goods, and the price was established in foreign currency at the commitment date, changes in the exchange rate between the commitment date and transaction date would be reflected in the cost or sales price of the asset. For example, assume that a U.S. firm made an agreement on June 1 to buy goods from a Swiss company for 500,000 Swiss francs. At this date, the spot rate was \$.20, but on the transaction date, when title to the goods transferred and a journal entry was recorded, the spot rate was \$.22. The entry to record the purchase is

Purchases (500,000 Swiss francs × \$.22)	110,000	
Accounts Payable		110,000

LO 9 Reporting gains and losses on fair value hedges.

Thus the change in the exchange rate that occurred between the commitment and the transaction dates becomes part of the cost of inventory rather than being reported as a separate gain or loss item. The company, however, may still acquire a forward contract to hedge against the unfavorable change in the fair value of the asset that may occur after the commitment date.

Such a forward contract is referred to as a **fair value hedge**, a derivative designed to hedge exposure to either a recognized asset or liability or, in this case, an unrecognized foreign currency commitment. In the case of an unrecognized foreign currency commitment, a fair value hedge is applicable only if there is an identifiable foreign currency commitment that specifies all significant terms (such as quantity and price) and performance is probable. ***A gain or loss on this type of forward contract as well as the offsetting gain or loss on the hedged item are recognized currently in earnings.*** The gain or loss (the change in the fair value of the forward contract) is an adjustment of the carrying value of the forward contract. Similarly, the change in value of the firm commitment is recorded as such on the balance sheet (even though the commitment has not yet been recorded). The measurement of hedge effectiveness is beyond the scope of this chapter, but since the forward contracts are for similar terms and amounts, they are assumed to be highly effective.

Fair Value Hedge Illustration To illustrate the accounting for a forward contract acquired to hedge an identifiable foreign currency commitment (a fair value hedge), the following facts are assumed:

Fair Value Hedge Example

1. On March 1, 2020, a U.S. firm contracts to sell equipment to a foreign customer located in Argentina for 200,000 pesos. The equipment is expected to cost \$60,000 to manufacture and is to be delivered, and the account is to be settled one year later on March 1, 2021. Thus the transaction date and the settlement date are both March 1, 2021.
2. On March 1, 2020, the U.S. firm enters into a forward contract to sell 200,000 pesos in 12 months at the forward rate of \$.39.
3. Spot rates and the forward rates for pesos on selected dates are

<i>Date</i>	<i>Spot Exchange Rate</i>	<i>3/1/2016 Forward Rate</i>
March 1, 2020	\$.40	\$.39
December 31, 2020	.397	.382
March 1, 2021	.38	

The journal entry to record the forward contract on March 1, 2020, is:

March 1, 2020

(1) Dollars Receivable from Exchange Dealer		
(200,000 pesos × \$.39)	78,000	
FC Payable to Exchange Dealer		78,000
To record the forward contract to sell 200,000 pesos.		

Nine months later, on the balance sheet date (12/31/20), the FC payable needs to be adjusted to fair value using the *change in the forward rates*. Also, since this is a fair value hedge, the change in the fair value of the hedged item must also be recorded. This is computed using the change in the forward rate. These entries are as follows:

December 31, 2020

(2)	FC Payable to Exchange Dealer	1,600	
	Exchange Gain		1,600
	To record gain on foreign currency to be delivered to exchange dealer using the change in forward rates (200,000 pesos \times (\$.39 - \$.382)).		
(3)	Exchange Loss	1,600	
	Firm Commitment		1,600
	To record loss on firm commitment using the change in the forward rate (200,000 pesos \times (\$.39 - \$.382)).		

Note that the firm commitment has not been recorded on the books as of December 31, 2020. On the December 31, 2020, balance sheet, the value of the forward contract is as follows:

Dollars Receivable from Exchange Dealer (fixed) (200,000 \times .39)	\$78,000
FC Payable to Exchange Dealer (200,000 \times .382)	<u>76,400</u>
Net Receivable	<u>\$ 1,600</u>

On the balance sheet, the firm commitment would be reported as a \$1,600 liability. On the income statement, the exchange gain of \$1,600 is reported, as well as an exchange loss of \$1,600.

On March 1, 2021 (the transaction date and the settlement date), the journal entries are:

March 1, 2021

(4)	FC Payable to Exchange Dealer	400	
	Exchange Gain		400
	To record gain on forward contract from 12/31/20 to 3/1/21 [200,000 pesos \times (\$.38 - \$.382)] = \$400.		
(5)	Exchange Loss	400	
	Firm Commitment		400
	To record loss on forward contract from 12/31/20 to 3/1/21 [200,000 pesos \times (\$.38 - \$.382)] = \$400.		

Entries (4) and (5) adjust the values of the FC payable and the change in the fair value of the firm commitment. Note that since the transaction date occurs on the settlement date, the change in value is computed as the change in the forward rate on 12/31/2020 to the spot rate on March 1, 2021 (i.e., .382 to .38).

(6)	Investment in FC (200,000 \times .38)	76,000	
	Firm Commitment	2,000	
	Sales (200,000 pesos \times \$.39)		78,000
	To record sale of equipment to foreign customer.		
(7)	Cost of Goods Sold	60,000	
	Inventory		60,000
	To record cost of equipment sold.		
(8)	Cash (200,000 \times \$.39)	78,000	
	FC Payable to Exchange Dealer (200,000 \times \$.38)	76,000	
	Investment in FC		76,000
	Dollars Receivable from Exchange Dealer		78,000
	To record settlement of forward contract.		

Because of the forward contract, the amount of sales recorded in entry (6) is equal to the forward rate on the forward contract multiplied by 200,000 pesos, or \$78,000 (i.e., $200,000 \times \$0.39$). The firm commitment account is eliminated on this date. In entry (8), the firm sells 200,000 pesos for \$78,000.

The effect of these transactions on the firm's profitability is as follows:

Sales (\$76,000 + \$2,000)	\$78,000
Cost of Goods Sold	<u>60,000</u>
Gross Profit	<u>\$18,000</u>

The number of dollars to be received was locked in by the forward contract at \$78,000, and the equipment was expected to cost \$60,000. Thus the forward contract permitted the U.S. firm to lock in an expected profit of \$18,000 on the sales contract. If the forward contract had not been obtained, the profit earned on the contract would have depended on the exchange rate in effect when payment was received from the Argentinean customer. Without the hedge, the amount of sales recorded would have been \$76,000 ($200,000 \text{ pesos} \times \0.38) and the gross profit would have been \$16,000. And if the exchange rate had dropped below \$0.38, the amount of sales recorded would have been even lower. For example, at an exchange rate of \$0.30, the amount of sales recorded would have equaled the amount of cost of goods sold, thus eliminating any gross profit on the contract.

Cash Flow Hedge—Hedge of a Forecasted Transaction

LO 9 Fair value hedge vs. cash flow hedge.

Firms may also be concerned about hedging the cash flows for future transactions that have not yet occurred or for which there are no firm commitments. Forward contracts in such circumstances are known as **cash flow hedges**. For instance, on January 26, 2020, Lands' End reported carrying \$77 million of forward contracts and \$16 million of options on the balance sheet. Lands' End anticipated selling products to subsidiaries in the United Kingdom, Japan, and Germany over the next year and planned to purchase various inventory items from European suppliers. Even though they might not have a specific contract, Lands' End may decide, because of the high probability of occurrence of these transactions, to hedge this foreign currency exchange risk by using a cash flow hedge.

Unlike the treatment of fair value hedges, cash flow hedges may defer the Income statement recognition of the gains and losses on forecasted transactions if certain criteria are met. Like other gains and losses that are excluded from the income statement, they must be included as components of "other comprehensive income" and reported in the stockholders' equity section of the balance sheet. The criteria for this treatment include:

- The forecasted transaction is specifically identifiable at the time of the designation as a single transaction or a group of individual transactions.
- The forecasted transaction is probable, and it presents exposure to price changes that are expected to affect earnings and cause variability in cash flows.
- The forecasted transaction involves an exchange with an outside (unrelated) party. (An exception is allowed for intercompany foreign exchange transactions. See the previous discussion in this chapter.)
- The forecasted transaction does not involve a business combination.

Amounts in accumulated other comprehensive income are reclassified into earnings in the same period or periods during which the hedged forecasted transaction affects earnings. For example, if the forecasted hedged item is inventory, the reclassification from accumulated other comprehensive income into earnings occurs when the inventory is sold. If the forecasted hedged item is the purchase of a fixed asset, the reclassification occurs when the equipment is depreciated.

We next present an illustration of the accounting for a forecasted transaction meeting the criteria identified by the FASB for deferral of the gains or losses into comprehensive income.

Cash Flow Hedge Illustration—Forward Contracts To illustrate the hedge of a forecasted foreign currency transaction with the use of an option, assume the following:

1. On December 1, 2020, a U.S. firm estimates that at least 5,000 units of inventory will be purchased from a company in the United Kingdom during January of 2021 for 500,000 euros. The transaction is probable, and it is to be denominated in euros. Sales of the inventory are expected to occur in the six months following the purchase.
2. The company enters into a forward contract to purchase 500,000 euros on January 31, 2021, for \$1.01.
3. Spot rates and the forward rates at the January 31, 2021, settlement were as follows (dollars per euro):

	<i>Spot Rate</i>	<i>Forward Rate for 1/31/21</i>
December 1, 2020	\$1.03	\$1.01
Balance Sheet Date (12/31/20)	\$1.00	\$0.99
January 31, 2021	\$0.98	

By using the forward contract, the firm is assured of paying \$505,000 regardless of changes in the exchange rate. If the exchange rate were to drop below \$1.01 the firm would lose, but if the exchange rate were to exceed \$1.01, the firm would be better off using the forward contract.

The entry on December 1, 2020, to record the forward exchange contract to purchase 500,000 euros on January 31, 2021, for \$1.01 is:

December 1, 2020

(1)	FC Receivable from Exchange Dealer (500,000 euros × \$1.01)	505,000	
	Dollars Payable to Exchange Dealer		505,000

One month later on the balance sheet date (December 31, 2020), the change in the value of the forward contract is \$10,000 [$500,000 \times (\$1.01 - \$0.99)$]. Therefore, on December 31, 2020, the following entry is made:

December 31, 2020—Balance Sheet Date

(2)	Foreign Exchange Loss—Other Comprehensive Income (Balance Sheet)	10,000	
	FC Receivable from Exchange Dealer		10,000
	To record a loss on the change in forward contract [500,000 × (\$1.01 – \$0.99)]		

Notice that unlike the fair value hedge, there is no offsetting firm commitment entry since this is a forecasted transaction. The exchange gain or loss is reported in comprehensive income and will affect the income statement when the inventory is eventually sold. On the balance sheet, the forward contract is reported as a liability at its fair value of \$10,000, and the offsetting amount is reported in stockholders' equity in accumulated other comprehensive income (as a loss).

January 31, 2021—Transaction and Settlement Date

(3)	Foreign Exchange Loss—Other Comprehensive Income (Balance Sheet)	5,000	
	FC Receivable from Exchange Dealer		5,000
	To adjust the forward contract to its market value of \$15,000.		
	The change in value of the forward contract		
	[($\$.99$ 12/31 forward rate less $\$.98$ January 31, 2021, spot rate) \times 500,000 euros] is \$5,000.		

Note that the balance in the FC Receivable account is \$490,000 after entry (3). The entry to record the settlement of the forward contract is as follows:

(4)	Investment in FC (500,000 euros)	490,000	
	Dollars Payable to Exchange Dealer	505,000	
	FC Receivable from Exchange Dealer		490,000
	Cash		505,000
	To settle with the trader.		

Now suppose that the forecasted transaction occurs and the 5,000 units of inventory are purchased on January 31, 2021, for 500,000 euros. The journal entry to record the purchase is:

(5)	Inventory (at the 1/31/16 spot rate)	490,000	
	Investment in FC (500,000 euros)		490,000

Suppose that in February, the inventory is sold for \$600,000. The entries to record the sale and to reclassify the amounts from Other Comprehensive Income (a \$15,000 loss, including \$10,000 loss at December 31, 2020, plus the \$5,000 additional loss at January 31, 2021) into earnings are as follows:

February 2021—Inventory Sales Date

(6)	Cash	600,000	
	Cost of goods sold	490,000	
	Sales		600,000
	Inventory		490,000
(7)	Cost of goods sold (Income Statement)	15,000	
	Foreign exchange loss—Other Comprehensive Income (Balance Sheet)		15,000
	To reclassify the amounts from accumulated other comprehensive income into earnings (cost of goods sold).		

In entry (7), the amounts recorded in accumulated other comprehensive income are reclassified into earnings. The FASB does not specify where on the income statement this amount should be reported. Many companies include this gain or loss as part of cost of goods sold, as shown above.

TEST YOUR KNOWLEDGE 12.3

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

Multiple Choice

On October 1, 2018, Short Company ordered some equipment from a supplier for 200,000 euros. Delivery and payment is to occur on November 30, 2019. The spot rates on October 1, 2018 and November 30, 2019 are \$1.50 and \$1.30.

1. If the company does not hedge the commitment, at what amount is the equipment recorded on the books on November 30, 2019?
 - a. \$300,000
 - b. \$260,000
 - c. \$200,000
 - d. None of the above
2. If the company acquires a forward contract to hedge any unfavorable changes in fair value of the equipment, at what amount is the equipment recorded on the books on November 30, 2019? The forward rate for November 30 settlement is \$1.35.
 - a. \$300,000
 - b. \$260,000
 - c. \$270,000
 - d. None of the above
3. If the forward contract is acquired, what is the overall exchange gain or loss?
 - a. \$0
 - b. \$10,000 gain
 - c. \$10,000 loss
 - d. \$30,000 gain

Economic Hedge of a Net Investment in a Foreign Entity

A U.S. firm that maintains an equity investment in a foreign company may enter into a foreign currency transaction or a nonderivative financial instrument in an effort to minimize or offset the effects of currency fluctuations on the net investment. A foreign currency transaction is considered a hedge of a net investment in a foreign entity if the forward contract is designated as, and is effective as, a hedge of the net investment. The gain or loss on the hedging instrument is reported in the same manner as the translation adjustment, that is, reported in the cumulative translation adjustment section of other comprehensive income.¹⁴

For example, assume that a U.S. firm holds an investment in the net assets of a French company that conducts its business primarily in francs and accounts for the investment using the current rate method. As will be shown in Chapter 13, the investor company applying the equity method to a less than 50%-owned investee will record its share of the effect of a change in the exchange rate on the net assets of the foreign investee. To hedge against the exposure to exchange rate changes, the U.S. firm may enter into an agreement to borrow euros from a French bank. Assume further that the loan is designated as, and is effective as, a hedge of the net investment in the French company. On subsequent balance sheet dates, both the net assets of the foreign company and the loan denominated in euros are adjusted to reflect the current exchange rate. A gain (loss) from the adjustment of the liability will offset a loss (gain) from the adjustment of the net investment in the foreign company, and a hedge results. Both adjustments are reported as a component of stockholders' equity (accumulated other comprehensive income) rather than reported currently in income. However, if the net adjustment to the loan balance exceeds the adjustment of the balance of the investment, the excess is reported in the determination of net

¹⁴ FASB ASC paragraph 815-35-35-1.

income as a transaction gain or loss. The gains or losses accumulated in a separate component of stockholders' equity remain there until part or all of the investment in the foreign company is sold.

Forward Contracts Acquired to Speculate in the Movement of Foreign Currencies

LO 3 Common transactions.

A forward contract may be acquired for speculative purposes in anticipation of realizing a gain. For example, assume that on December 1, 2020, the spot rate for the British pound is \$1.85 and that the 90-day futures rate is \$1.86. Further assume that a company expecting the exchange rate to increase to, say, \$1.93, enters into a contract on December 1 to acquire £100,000 on March 1, 2021. (A forward contract to sell foreign currency would be negotiated if the firm expected the future spot rate to be lower than the forward rate.) The firm's fiscal year ends on December 31, and on that date the futures rate for pounds to be purchased on March 1, 2021, is \$1.87. The spot rate is \$1.92 on March 1, 2021. The journal entries to record the transactions are:

December 1, 2020

(1)	FC Receivable from Exchange Dealer	186,000	
	Dollars Payable to Exchange Dealer		186,000
	To record the forward contract ($£100,000 \times \$1.86$).		

This entry recognizes that the U.S. firm has contracted to buy £100,000 in 90 days when the payment of \$186,000 is made to the exchange dealer. Both the debit and credit related to a forward contract are measured by multiplying the £100,000 by the forward rate of \$1.86. The FASB reasoned that the forward rate should be used because a firm speculating in foreign currency changes is exposed to the risk of movements in the forward rate. Since both accounts are based on the forward rate, there is no separate accounting for any discount or premium on the forward contract.

December 31, 2020

(2)	FC Receivable from Exchange Dealer	1,000	
	Transaction Gain		1,000
	To record gain on foreign currency to be received from exchange dealer [$£100,000 \times \$1.87 = \$187,000 - \$186,000$] or [$£100,000 \times (\$1.87 - \$1.86)$].		

The foreign currency receivable is adjusted at the financial statement date since it is denominated in foreign currency units. The amount of the adjustment is computed by multiplying the units of foreign currency to be received by the difference between the forward rate available for the remaining life of the forward contract and the rate last used to value the contract. The transaction gain (or loss) is reported currently in income.

March 1, 2021

(3)	FC Receivable from Exchange Dealer	5,000	
	Transaction Gain		5,000
	To record gain on foreign currency to be received from exchange dealer [$(£100,000 \times \$1.92 = \$192,000 - \$187,000)$].		
(4)	Dollars Payable to Exchange Dealer	186,000	
	Investment in FC	192,000	
	Cash		186,000
	FC Receivable from Exchange Dealer		192,000
	To record payment to exchange dealer and receipt of foreign currency.		

(5) Cash	192,000	
Investment in FC		192,000
To record conversion of pounds into cash.		

On March 1, the firm records any gain or loss as a result of changes in the exchange rate from the last valuation date to the date of the transaction. Upon payment of \$186,000 to the exchange dealer, the firm will receive £100,000, which can be converted into \$192,000. The total gain of \$6,000 recognized over the life of the contract is the difference between the value of the foreign currency received (\$192,000) when the forward contract was exercised and the amount paid (\$186,000) to the exchange dealer. If the firm had entered into a forward contract to sell foreign currency, the accounting would be similar to that above, except the debit in entry (1) is for a fixed amount of dollars to be received; the credit records the obligation to buy foreign currency units for delivery to the exchange dealer. The estimated cost of units to be delivered will vary as the exchange rate fluctuates.

Disclosure Requirements of the Various Hedges

FSAB ASC Section 815-20-50 specifies certain minimal disclosures for derivative instruments and nonderivative instruments designated as qualifying hedging instruments. The disclosures include the objectives of the instruments, the strategies for achieving those objectives, the context needed for understanding them, and the risk management policy. In addition, a description of transactions or items that are hedged must be disclosed for each category.

The following specific disclosures are required:

- 1. Fair value hedges** (such as hedges of the foreign currency exposure of unrecognized firm commitments)
 - a.** A description of where the amount of the gain or loss is reported on the income statement.
 - b.** The amount of the gain or loss recognized in earnings when the hedged item no longer qualifies as a fair value hedge.
- 2. Cash flow hedges** (includes forecasted transactions)
 - a.** A description of where the amount of the gain or loss is reported on the income statement.
 - b.** A description of the transactions or other events that will result in the reclassification into earnings of gains and losses that are reported in accumulated other comprehensive income, and the estimation of the net amount of the existing gains or losses at the reporting date expected to be reclassified into earnings within the next 12 months.
 - c.** The maximum length of time over which the firm is hedging its exposure to the variability in future cash flows for forecasted transactions.
 - d.** The amount of the gain or loss reclassified into earnings as a result of the discontinuance of cash flow hedges because it is probable that the transaction will not occur.
- 3. Hedges of the net investment** in a foreign operation

The net amount of gains or losses is included in the cumulative translation adjustment during the reporting period. All derivative instruments not designated as hedges

must be identified as to their purpose, and qualitative disclosures about the use of derivatives are encouraged.

Finally, the amount of net gains or losses from cash flow hedges on derivative instruments included in “other comprehensive income” must be shown as a separate classification. The disclosures should include beginning and ending accumulated gains or losses from derivative instruments, the net change during the period from hedging activities, and the net amount reclassified to earnings.

Disclosure Requirements Fair Value Measurements [FASB ASC Paragraphs Topic 820-10-50-1 and 2]

Reporting entities should disclose information that helps users of the financial statements assess the fair value measurements used in the financial statements. Specifically, both of the following items should be disclosed:

- a.** After initial recognition, the valuation techniques and inputs used to develop subsequent measurements of fair value for assets and liabilities measured on a recurring or nonrecurring basis in the statement of financial position
- b.** For recurring fair value measurements using significant unobservable inputs (Level 3), the effect of the measurements on earnings (or changes in net assets) or other comprehensive income for the period

In addition, each of the following items should be disclosed for each interim and annual period for each class of assets and liabilities. The information should be presented to permit reconciliation of the fair value measurement disclosures to the specific line items in the statement of financial position.

- a.** The fair value measurement at the reporting date
- b.** The level within the fair value hierarchy in which the fair value measurement in its entirety falls, segregating the fair value measurement using any of the following:
 - 1.** Quoted prices in active markets for identical assets or liabilities (Level 1)
 - 2.** Significant other observable inputs (Level 2)
 - 3.** Significant unobservable inputs (Level 3)
- c.** The amounts of significant transfers between Level 1 and Level 2 of the fair value hierarchy and the reasons for the transfers
- d.** For fair value measurements using significant unobservable inputs (Level 3), a reconciliation of the beginning and ending balances
- e.** The amount of the total gains or losses for the period included in earnings (or changes in net assets) that are attributable to the change in unrealized gains or losses relating to those assets and liabilities still held at the reporting date and a description of where those unrealized gains or losses are reported in the statement of income (or activities)
- f.** For fair value measurements using significant other observable inputs (Level 2) and significant unobservable inputs (Level 3), a description of the valuation technique (or multiple valuation techniques) used, such as the market approach, income approach, or the cost approach, and the inputs used in determining the fair values of each class of assets or liabilities.

Toys R Us 2016 10K

We face foreign currency transaction exposures related to short-term, cross-currency intercompany loans and merchandise purchases:

We enter into short-term, cross-currency intercompany loans with our foreign subsidiaries. The majority of this exposure is economically hedged through the use of foreign currency forward contracts. Therefore, a 10% change in foreign currency exchange rates against the USD would not have a material impact on our pretax earnings related to our short-term, cross-currency intercompany loans that were outstanding as of January 28, 2017 and January 30, 2016.

Our foreign subsidiaries make USD denominated merchandise purchases through the normal course of business. From time to time, we enter into foreign exchange forward contracts to manage this exposure. As of January 28, 2017 and January 30, 2016, we estimate that a 10% change in foreign currency exchange rates against the USD would impact our pre-tax earnings by \$24 million and \$2 million, respectively, with respect to our merchandise foreign exchange forward contracts.

Our Toys-Canada subsidiary borrowed a portion of the Tranche A-1 Loan denominated in USD, which is subject to foreign exchange remeasurement. As of January 28, 2017, we estimate that a 10% change in the Canadian Dollar against the USD would impact our pre-tax earnings by \$12 million.

Using Options to Hedge Foreign Currency Changes

LO 8 Derivatives used as a hedge.

So far in this chapter, forward contracts have been used as hedging items. With the use of a forward contract, the firm will report either a gain or a loss. For example, if an accounts payable of 10,000 euros is hedged using a forward rate of \$1.30, the firm is guaranteed to pay only \$13,000. If the spot rate on the date of settlement is higher than \$1.30, the firm gains, but if the spot rate falls below \$1.30, the firm would have been better off not using the forward contract. While a forward contract is costless to acquire, upon entering into such a contract the firm must eventually deliver the specified amount of currency regardless of the gain or loss.

Conversely, suppose the firm wanted to hedge against only the upside or downside risk from changes in the exchange rate. To accomplish this, the firm could use an **option**, which gives the holder the advantage of *right* but not the obligation to buy or sell the currency. Thus, if the exchange rate changes in a negative manner, the firm can simply let the option lapse without a loss. In other words, the holder of the option does not have to exercise the option. When using options, a call option is appropriate to hedge against upside risk. A **call option** is an option to purchase the foreign currency at a specified rate, referred to as the exercise price. A **put option** is an option to sell the foreign currency at a specified rate. The advantage of using options is that the option gives the holder the *right* to buy or sell the currency, but if the exchange rate changes in a negative manner, the firm can simply let the option lapse. In other words, the holder of the option does not have to exercise the option. The disadvantage of the option is that there is an initial cost (i.e., a premium) to acquire the option. For instance, in the preceding example, the firm could purchase an option for \$600¹⁵ that would allow the firm to purchase 10,000 euros at an exercise price of \$1.295. If the spot rate on the settlement date exceeds \$1.295, the firm will exercise the option; if the spot rate is less than \$1.295, the firm will let the option expire.

An “in the money” option is an option where the firm benefits if the option is exercised. If on the date the call option was purchased, the spot rate of \$1.295 was

¹⁵ The seller of the option would use some option pricing model, such as Black-Scholes, for determining the amount of the premium paid.

equal to the exercise price of \$1.295, the option would be at the money at that point. This means that the entire value of the option is due to the “time value” of the option. The option has value because, over time, the spot rate may exceed the exercise price of the call option (or the spot rate may be less than the exercise price for a put option).

Continuing our example, suppose that one month later the spot rate increased to \$1.31. For a call option, this means that the firm can exercise the option and obtain 10,000 euros for \$1.295 when the current exchange rate is \$1.31. Thus the option has an intrinsic value of \$150 [the difference between the spot rate and exercise price multiplied by the amount of currency ($\$1.31 - \1.295)(10,000 euros)]. Thus, if the call option had a current market price of \$700, \$150 would be treated as the intrinsic value and \$550 would be treated as the time value of the option. Thus “in the money” options contain both an intrinsic and time value element. If the spot rate drops to \$1.28 (after the option was acquired), the firm would be better off not exercising the option and purchase the needed euros on the market at \$1.28.

The following chart helps illustrate when a call or a put option might be used and when the option is in the money.

<i>Item Hedged</i>	<i>Option Used</i>	<i>Exercise Price Exceeds Spot Rate</i>	<i>Exercise Price Is Less Than the Spot Rate</i>
Payable	Call Option	“Out of the Money”	“In the Money”
Receivable	Put Option	“In the Money”	“Out of the Money”

Thus a call option is used when a foreign currency is needed to pay a liability in the future, and a put option is used when foreign currency received in the future needs to be sold and converted into dollars.

Cash Flow Hedge Using Options: An Illustration To illustrate the hedge of a forecasted foreign currency transaction with the use of an option, assume the following:

1. On December 1, 2020, a U.S. firm estimates that inventory will be sold to a company in Germany during January of 2021 for 500,000 euros. The cost of the inventory sold is estimated to be \$300,000.
2. Spot rates were as follows (dollars per euro):

December 1, 2020	\$1.03
Balance sheet date (12/31/20)	\$1.00
February 1, 2021	\$0.98

3. The transaction is to be denominated in euros.
4. On December 1, 2020, the company purchases a put option for \$5,000 to hedge any changes that may occur in the receivable denominated in euros. This option allows the firm to sell 500,000 euros at \$1.02 with an expiration date of February 1, 2021. The spot rate was \$1.03 on this date so the option is out of the money. At year-end (the balance sheet date), the market value of the option increased to \$14,000. On the option expiration date, the option only has an intrinsic value (the difference between the exercise price and the spot rate). Therefore on February 1, the value of the option is \$20,000.

The rationale for use of the option is as follows. Because the sale is expected to occur in the future (next January) and because the exchange rate may change unfavorably, the company buys an option to sell 500,000 euros at \$1.02 or \$510,000. When the sale of inventory occurs and the company receives the euros, the firm is

subject to any exchange losses. However, because the firm now has an option to sell euros, the company can use the euros that it receives from the sale to deliver on the option. Therefore, if the exchange rate drops below the exercise rate (\$1.02), the firm is covered (i.e., the firm exercises the option and sells the 500,000 euros for \$510,000). If the exchange rate exceeds the exercise rate, the option will not be exercised.

The entries to record the purchase and forward exchange contract are:

December 1, 2020—Transaction Date

(1)	Option to sell euros	5,000	
	Cash		5,000
	To record purchase of a put option.		

On the balance sheet date (December 31, 2020), the option is adjusted to its market value of \$14,000. Therefore on December 31, 2020, the following entry is made.

December 31, 2020—Balance Sheet Date

(2)	Option to sell euros	9,000	
	Foreign exchange gain—Other Comprehensive Income (balance sheet equity)		9,000
	To record a gain on the change in option value (\$14,000 – \$5,000).		

The recognition of the gain is reported in other comprehensive income because it qualifies under the criteria designated in FASB ASC paragraph 815-30-35-9. For example, the forecasted transaction is probable, and it presents exposure to price changes that are expected to affect earnings and cause variability in cash flows. Amounts deferred from earnings are reported in other comprehensive income and are reclassified into earnings in the period during which the hedged forecasted transaction “affects earnings” (for example, when a forecasted sale actually occurs).¹⁶

February 1, 2021—Option Expiration Date

(3)	Option to sell euros	6,000	
	Foreign exchange gain—Other Comprehensive Income (balance sheet equity)		6,000
	To adjust the option value to its market value of \$20,000.		
	The value of the option [(\$1.02 exercise price less \$0.98 spot rate) × 500,000 euros] is \$20,000 less the carrying value of the option (\$14,000).		

Technically, since the forecasted transaction occurred on this date, the gain recorded in entry (3) could also be reported in earnings immediately. We chose to initially record the gain using the balance sheet account (other comprehensive income) and then immediately reclassify the total exchange gain into earnings (see entry 6 below).

(4)	Investment in FC (500,000 euros)	490,000	
	Revenues		490,000
	Cost of goods sold	300,000	
	Inventory		300,000
	To sell the inventory (complete the forecasted transaction).		
(5)	Cash (exercise price \$1.02 × 500,000 euros)	510,000	
	Option to sell euros (intrinsic value on option date)		20,000
	Investment in FC (500,000 euros @ \$0.98)		490,000
	To exercise the option and settle with the trader.		

¹⁶ FASB ASC paragraph 815-30-35-3.

(6)	Foreign exchange gain—Other		
	Comprehensive Income	15,000	
	Revenue (\$9,000 from entry 2 and \$6,000 from entry 3).		15,000
	To reclassify the total exchange gains into earnings.		

Note that in entry (4), revenue is recorded at the spot rate. However, entry (6) adjusts revenue to recognize the benefit of the option. Entry (6) is required because the amount recognized in other accumulated income is reclassified into earnings in the period the hedged item affects earnings. Thus the total amount of revenue recognized is \$505,000, which represents the revenue recognized at the spot rate (\$490,000) plus the net benefit of the option \$15,000 (\$1.02 exercise rate over the spot rate \$0.98 multiplied by 500,000 euros less the initial cost of the option of \$5,000).

Split Accounting—Intrinsic and Time Value Elements In order to qualify for “hedge accounting” under FASB ASC paragraph 815-20-25-72 to 87, the hedges must be effective. Firms are required to measure the effectiveness of their hedges quarterly. If the hedge is not highly effective, hedge accounting can no longer be used. Therefore, firms must determine how they measure hedge effectiveness. This usually means that the changes in value of the hedge (e.g., the forward contract or option) should be approximately equal to the changes in value of the hedged item. In the examples used in this chapter, we have used the change in the forward rate to measure the change in value of the forward contracts and the total change in the value of the option to measure the change in value of the option. The FASB allows split accounting for derivatives. This means that the intrinsic value of the derivative and the part of the option value related to time can be separated and accounted for differently. For instance, firms can use the total change in value of the option to measure gains and losses *or* the change in the intrinsic value to measure the change in value of the derivative. The change in the time value element would be taken immediately into earnings. Although it is important to know that these complicating factors exist, in this chapter we measure the change in value of the derivative using the total value of the derivative. Also, we assume that all hedges are highly effective.

Other Forms of Foreign Borrowing or Lending

Earlier in the chapter, we illustrated the exporting or importing of inventory. Accounting for other types of foreign borrowing or lending transactions is similar; that is, the two-transaction approach is followed in which the cost of an asset acquired or revenue recognized is accounted for independently from the method of settlement. For example, if a fixed asset is acquired from a foreign company on credit, the cost of the asset is the number of foreign currency units that would be paid in a cash transaction multiplied by the exchange rate at the transaction date. The cost of the asset is not adjusted for subsequent changes in the exchange rate, but the liability is adjusted at each balance sheet date on the basis of the exchange rate in effect at that date. The adjustment to the liability is reported currently in income. The amount recorded for interest expense is the equivalent number of U.S. dollars needed to make the interest payment.


SUMMARY

- 1 *Distinguish between the terms* measured and denominated. Transactions are normally **measured** and recorded in terms of the currency in which the reporting entity prepares its financial statements. Assets and liabilities are **denominated** in a currency if their amounts are fixed in terms of that currency.
- 2 *Describe what is meant by a foreign currency transaction.* A foreign currency transaction is a transaction that requires settlement in a foreign currency, not in U.S. dollars (for a U.S. firm).
- 3 *Understand some of the more common foreign currency transactions.* Some common transactions include: (1) importing or exporting goods or services on credit with the receivable or payable denominated in a foreign currency; (2) borrowing from or lending to a foreign company with the amount payable or receivable denominated in the foreign currency; (3) engaging in a transaction with the intention of hedging a net investment in a foreign entity; and (4) entering into a forward contract to buy or sell foreign currency.
- 4 *Identify three stages of concern to accountants for foreign currency transactions and explain the steps used to translate foreign currency transactions for each stage.* At the initial date, the transaction is recognized (in conformity with GAAP), the account (balance sheet or income statement) arising from the transaction is measured and recorded in dollars by multiplying the foreign currency unit by the current exchange rate. At each subsequent balance sheet date until settlement, recorded balances that are denominated in a foreign currency are adjusted to reflect the current exchange rate in effect at the balance sheet date. At the settlement date, the treatment depends on whether the balance to be settled is a foreign currency payable or receivable. If a foreign currency payable is being settled, a U.S. firm must convert U.S. dollars into foreign currency units to settle the account. At the settlement of a foreign currency receivable, the foreign currency units received are converted into dollars.
- 5 *Describe a forward exchange contract.* A forward exchange contract is an agreement to exchange currencies of two different countries at a specified rate (the forward rate) on a stipulated future date. At the inception of the contract, the forward rate is usually different from the spot rate.
- 6 *Explain the use of forward contracts as a hedge of an unrecognized firm commitment.* In many cases, the firm enters into an agreement to purchase or sell goods where the transaction is denominated in a foreign currency. Because the exchange rate might change before the payable is paid or the receivable is collected, a firm can use a forward contract to lock in the amount of cash paid or the amount of cash received.
- 7 *Identify some of the common situations in which a forward exchange contract can be used as a hedge.* Hedges may be used to hedge a foreign currency exposed receivable or payable position, to hedge a net investment in a foreign subsidiary, to hedge an identifiable foreign currency commitment, or to hedge a forecasted transaction.
- 8 *Describe a derivative instrument and understand how it may be used as a hedge.* A derivative is an executory contract between two parties to be executed at a later date, with the resulting future cash flows dependent on the change in some other underlying measure of value. The eventual dollar amount of the performance is determined by subsequent value changes, and the eventual outcome is necessarily favorable to one of the parties involved and unfavorable to the other.
- 9 *Explain how exchange gains and losses are reported for fair value hedges and cash flow hedges.* The FASB allows deferral of the exchange gain and loss on cash flow hedges (a forecasted transaction). Like other gains and losses that are excluded from the income statement, they are included as components of “other comprehensive income” and reported in the stockholders’ equity section of the balance sheet. On the other hand, exchange gains and losses on fair value hedges (unrecognized firm commitments) are reported in current periods earnings along with the exchange gain or loss on the hedged item.

TEST YOUR KNOWLEDGE SOLUTIONS

12.1

1. c 2. b


12.2

1. a 2. b


12.3

1. b 2. c 3. a

QUESTIONS

- LO 2** 1. Define currency exchange rates and distinguish between “direct” and “indirect” quotations.
- LO 3** 2. Explain why a firm is exposed to an added risk when it enters into a transaction that is to be settled in a foreign currency.
- LO 4** 3. Name the three stages of concern to the accountant in accounting for import–export transactions. Briefly explain the accounting for each stage.
- LO 4** 4. How should a transaction gain or loss be reported that is related to an unsettled receivable recorded when the firm’s inventory was exported?
- LO 4** 5. A U.S. firm carried a receivable for 100,000 yen. Assuming that the direct exchange rate declined from \$.009 at the date of the transaction to \$.006 at the balance sheet date, compute the transaction gain or loss. What balance would be reported for the receivable in the firm’s balance sheet?
- LO 4** 6. Explain what is meant by the “two-transaction method” in recording exporting or importing transactions. What support is given for this method?
- LO 5** 7. Describe a forward exchange contract.
- LO 7** 8. Explain the effects on income from hedging a foreign currency exposed net asset position or net liability position.
- LO 6** 9. What criteria must be satisfied for a foreign currency transaction to be considered a hedge of an identifiable foreign currency commitment?
- LO 5** 10. The FASB classifies forward contracts as those acquired for the purpose of hedging and those acquired for the purpose of speculation. What main differences are there in accounting for these two classifications?
- LO 9** 11. How are foreign currency exchange gains and losses from hedging a forecasted transaction handled?
12. What is a put option, and how might it be used to hedge a forecasted transaction? **LO 8**
13. Define a derivative instrument, and describe the keystones identified by the FASB for the accounting for such instruments. **LO 8**
14. Differentiate between forward-based derivatives and option-based derivatives. **LO 8**
15. List some of the criteria laid out by the FASB that are required for a gain or loss on forecasted transactions (a cash flow hedge) to be excluded from the income statement. If these criteria are satisfied, where are the gains or losses reported, and when (if ever) are they shown in the income statement? What is the rationale for this treatment? **LO 9**

Business Ethics

Executive stock options (ESOs) are used to provide incentives for executives to improve company performance. ESOs are usually granted “at-the-money,” meaning that the exercise price of the options is set to equal the market price of the underlying stock on the grant date. Clearly, executives would prefer to be granted options when the stock price (and thus the exercise price) is at its lowest.

Backdating options is the practice of choosing a past date when the market price was particularly low. Backdating has not, in the past, been illegal if no documents are forged, if communicated to the shareholders, and if properly reflected in earnings and in taxes.

1. Since backdating gives the executive an “instant” profit, why wouldn’t the firm simply grant an option with the exercise price lower than the current market price?
2. Suppose the executive was not involved in backdating the ESOs. Does the executive face any ethical issues?¹⁷

Note: Students are encouraged to read the *WSJ* referenced above.

ANALYZING FINANCIAL STATEMENTS

AFS12-1 Mattel’s Exchange Rate Exposure **LO 7**

Currency exchange rate fluctuations may impact Mattel’s results of operations and cash flows. Mattel’s currency transaction exposures include gains and losses realized on unhedged inventory purchases and unhedged receivables and payables balances that are denominated in a currency other than the applicable functional currency.

Inventory purchase transactions denominated in the euro, British pound sterling, Canadian dollar, Mexican peso, Hong Kong dollar, and Indonesian rupiah were the primary transactions that caused foreign currency transaction exposure for Mattel in 2010.

Mattel uses foreign currency forward exchange contracts as cash flow hedges primarily to hedge its purchases and sales of inventory denominated in foreign currencies. These contracts generally have maturity dates up to 18 months. These derivative instruments have been designated as effective cash flow hedges.

¹⁷ *WSJ*, “Options Study Becomes Required Reading,” by Steve Stecklow, 5/30/06.

Additionally, Mattel uses foreign currency forward exchange contracts to hedge intercompany loans and advances denominated in foreign currencies. Due to the short-term nature of the contracts involved, Mattel does not use hedge accounting for these contracts.

Required:

- A. During 2010, for the forward contracts designated as a cash flow hedge, the value of unsettled forward contracts increased by \$8,725 and the value of settled forward contracts decreased by \$3,024. Prepare the journal entries to record the change in value of the forward contract and indicate on which financial statement the item is reported.
- B. For the forward contracts not designated as a hedging instrument, the value of unsettled forward contracts decreased by \$3,797 and the value of settled forward contracts increased by \$3,052. Prepare the journal entries to record the change in value of the forward contracts and indicate on which financial statement the item is reported.
- C. All forward contracts used by Mattel are classified as Level 2 investments. What does this mean?

EXERCISES

EXERCISE 12-1 Importing and Exporting Journal Entries LO 4

Selco, a U.S. Company, imports and exports tools, shop equipment, and industrial construction supplies. The company uses a periodic inventory system. During April the company entered into the following transactions. All rate quotations are direct exchange rates.

- | | | |
|-------|----|---|
| April | 3 | Purchased power tools from a wholesaler in Japan, on account, at an invoice cost of 1,600,000 yen. On this date the exchange rate for the yen was \$.0072. |
| | 5 | Sold hand tools on credit that were manufactured in the U.S. to a retail outlet located in West Germany. The invoice price was \$2,800. The exchange rate for euros was \$1.25. |
| | 9 | Sold electric drills on account to a retailer in New Zealand. The invoice price was 16,800 U.S. dollars and the exchange rate for the New Zealand dollar was \$.76. |
| | 11 | Purchased drill bits on account from a manufacturer located in Belgium. The billing was for 801,282 euros. The exchange rate for euro was \$1.26. |
| | 16 | Paid 1,000,000 yen on account to the wholesaler for purchases made on April 3. The exchange rate on this date was \$.0067. |
| | 18 | Settled the accounts payable with the Belgium manufacturer. The exchange rate was \$1.28. |
| | 22 | Received full payment from the New Zealand retailer. The exchange rate was \$.74. |
| | 30 | Completed payment on the April 3 purchase. The exchange rate for yen was \$.0078. |

Required:

Prepare journal entries on the books of Selco to record the transactions listed above.

EXERCISE 12-2 Importing and Exporting Journal Entries LO 4

During December of the current year, Teletex Systems, Inc., a company based in Seattle, Washington, entered into the following transactions:

- | | | |
|-----|----|--|
| Dec | 10 | Sold seven office computers to a company located in Colombia for 8,541,000 pesos. On this date, the spot rate was 365 pesos per U.S. dollar. |
| | 12 | Purchased computer chips from a company domiciled in Taiwan. The contract was denominated in 500,000 Taiwan dollars. The direct exchange spot rate on this date was \$.0391. |

Required:

- A. Prepare journal entries to record the transactions above on the books of Teletex Systems, Inc. The company uses a periodic inventory system.
- B. Prepare journal entries necessary to adjust the accounts as of December 31. Assume that on December 31 the direct exchange rates were as follows:

Colombia peso	\$.00268
Taiwan dollar	\$.0351

- C. Prepare journal entries to record settlement of both open accounts on January 10. Assume that the direct exchange rates on the settlement dates were as follows:

Colombia peso	\$.00320
Taiwan dollar	\$.0398

- D. Prepare journal entries to record the December 10 transaction, adjust the accounts on December 31, and record settlement of the account on January 10, assuming that the transaction was denominated in dollars rather than pesos. Assume the same exchange rates as those given.

EXERCISE 12-3 Multiple Choice—Importing Transactions LO 6

On December 1, 2019, Tuscano Corp. entered into a transaction to import raw materials from a foreign company. The account is to be settled on February 1 with the payment of 60,000 foreign currency units (FCU). On December 1, Tuscano also entered into a forward contract to hedge the exposed position resulting from the import transaction. The forward rate is \$.71 per unit of foreign currency. Tuscano Corp. has a December 31 fiscal year-end. Spot rates and the forward rates on relevant dates were:

<i>Date</i>	<i>Spot Rate per Unit of Foreign Currency</i>	<i>Forward Rate (Feb. 1 Settlement)</i>
December 1	\$.69	\$.71
December 31	.72	.715
February 1	.73	.73

Required:

Use the data given to select the best answer to each question.

- The forward contract entered into on December 1 is an example of
 - A hedge of an exposed receivable position.
 - A hedge of a foreign currency commitment.
 - A contract entered into for speculation.
 - A hedge of an exposed payable position.
- The entry to record the forward contract is

(a) Dollars Receivable	41,400	
FCU Payable		41,400
(b) FCU Receivable	41,400	
Dollars Receivable		41,400
(c) Dollars Receivable	42,600	
FCU Payable		42,600
(d) FCU Receivable	42,600	
Dollars Payable		42,600
(e) None of the above		

3. On December 31, what will be the adjusted balance in the Accounts Payable account and how much gain or loss was recorded as a result of the adjustment?

	<i>Payable Balance</i>	<i>Gain or Loss Recorded</i>
(a)	\$43,200	\$1,800 gain
(b)	40,800	2,400 loss
(c)	40,800	2,400 gain
(d)	43,200	1,800 loss

4. What amount of net transaction gain or loss from the transactions should be included in the determination of the 2019 net income?
- (a) \$1,500 loss.
 (b) \$1,800 loss.
 (c) \$—0—Because a gain or loss on the forward contract is offset by a loss or gain on the exposed position.
 (d) \$2,400 gain.
5. Which of the following statements is *not* true?
- (a) Assuming the account payable is to be settled on February 1, Tuscano Corp. was able to reduce its cash outflow for the purchases as a result of entering into the forward contract.
 (b) During 2020, a transaction loss of \$600 was recorded on the forward contract.
 (c) Tuscano Corp. paid \$42,600 to complete the forward contract.
 (d) During 2020 a transaction loss of \$600 was recorded on the exposed payable.

EXERCISE 12-4 Multiple Choice LO 2 LO 4 LO 6

Select the best answer for each of the following.

1. A forward contract is a hedge of an identifiable foreign currency commitment if
- (a) The forward contract is designated as, and is effective as, a hedge of a foreign currency commitment.
 (b) The foreign currency commitment is firm.
 (c) The amount of the forward contract is equal to the amount of the commitment.
 (d) Both (a) and (b).
 (e) Both (a) and (c).
2. The Carnival Company has a receivable from a foreign customer that is payable in the local currency of the foreign customer. The account receivable for 800,000 local currency units (LCU) has been translated into \$280,000 on Carnival's December 31, 2019, balance sheet. On January 15, 2020, the receivable was collected in full when the exchange rate was 4 LCU to \$1. What journal entry should Carnival make to record the collection of this receivable?
- (a) Cash 200,000
 Accounts Receivable 200,000
- (b) Cash 200,000
 Transaction Loss 80,000
 Accounts Receivable 280,000
- (c) Cash 200,000
 Deferred Transaction Loss 80,000
 Accounts Receivable 280,000
- (d) Cash 280,000
 Accounts Receivable 280,000

3. A foreign currency transaction to a company domiciled in the United States is a transaction in which the amount is
 - (a) Measured in a foreign currency.
 - (b) Denominated in U.S. dollars.
 - (c) Denominated in a foreign currency.
 - (d) Measured in U.S. dollars.
4. A direct exchange quotation is one in which the exchange rate is quoted
 - (a) In terms of how many units of the domestic currency can be converted into one unit of foreign currency.
 - (b) In terms of how many units of the foreign currency can be converted into one unit of the domestic currency.
 - (c) For the future delivery of currencies exchanged.
 - (d) For the immediate delivery of currencies exchanged.

EXERCISE 12-5 Multiple Choice LO 4

Select the best answer for each of the following.

1. A sale of goods by a U.S. company was denominated in a foreign currency. The sale resulted in a receivable that was fixed in terms of the amount of foreign currency that would be received. Exchange rates between the dollar and the currency in which the transaction was denominated changed so that a loss was incurred. This loss should be included as a(n)
 - (a) Extraordinary item in the income statement.
 - (b) Component of income from continuing operations.
 - (c) Separate component of stockholders' equity.
 - (d) Deferred item in the balance sheet.
2. On September 1, 2019, Change Corp. received an order for equipment from a foreign customer for 300,000 units of foreign currency when the U.S. dollar equivalent was \$96,000. Change shipped the equipment on October 15, 2019, and billed the customer for 300,000 units of foreign currency when the U.S. dollar equivalent was \$110,000. Change received the customer's remittance in full on November 16, 2019, and sold the 300,000 foreign currency units for \$105,000. In its income statement for the year ended December 31, 2019, Change should report a foreign exchange loss of
 - (a) \$9,000
 - (b) \$5,000
 - (c) \$14,000
 - (d) \$—0—
3. McNeil, a U.S. corporation, bought inventory items from a supplier in Denmark on November 5, 2019, for 100,000 kroner, when the spot rate was \$.4395. At McNeil's December 31, 2019, year-end, the spot rate was \$.4345. On January 15, 2020, McNeil bought 100,000 kroner at the spot rate of \$.4445 and paid the invoice. How much should McNeil report in its income statement for 2019 and 2020 as transaction gain or loss?

2019	2020
(a) \$—0—	\$ 500 loss
(b) \$500 loss	\$—0—
(c) \$500 loss	\$1,000 gain
(d) \$500 gain	\$1,000 loss

4. During 2019 a U.S. firm sold inventory to a foreign customer. The transaction was denominated in the local currency of the buyer. The direct exchange rate decreased from the date of the transaction to the end of the fiscal period; the rate increased from the end of the fiscal year to the date the account was settled in 2020. A transaction gain or loss should be recognized

	<u>2019</u>	<u>2020</u>
(a) Loss		Loss
(b) Gain		Loss
(c) Loss		Gain
(d) Gain		Gain

(AICPA adapted)

EXERCISE 12-6 Transaction Gain or Loss LO 4

Agentel Corporation is a U.S.-based importing-exporting company. The company entered into the following transactions during the month of November.

- Nov. 6 Purchased merchandise from AGT, a Swiss firm, for 600,000 francs.
 5 Sold merchandise to SLS, Inc., a firm located in Rio De Janeiro, Brazil, for \$200,000.
 18 Sold merchandise to TNT, Ltd., a British firm, for 130,000 pounds.
 20 Purchased merchandise from SDS, Ltd., a British firm, for \$160,000.

All the transactions were unsettled at December 31, Agentel's fiscal year-end. Spot rates are as follows:

<i>Date</i>	<i>Swiss Franc</i>	<i>Currency</i>	
		<i>Real</i>	<i>Pound</i>
November 6	\$1.049	\$.412	\$1.520
November 15	1.0487	.409	1.509
November 18	1.0476	.414	1.506
November 20	1.0468	.405	1.498
December 31	1.046	.398	1.482

Required:

- A. Compute the amount that Agentel would report for each unsettled receivable and payable in its balance sheet prepared at December 31.
 B. Compute the transaction gain or loss on each unsettled receivable and payable that would be reported in the income statement prepared for the year ended December 31.

EXERCISE 12-7 Journal Entries, Income Effect, and Amount of Cash Received LO 6

ASI recently completed the development and installation of an accounting information system for a company located in Rio De Janeiro, Brazil. The company considered that all revenue realization criteria were satisfied and accordingly recorded on October 2, 2019, a receivable from the foreign company. The receivable is to be settled in 120 days on February 1 by the delivery of 300,000 real. To hedge against an unfavorable change in the foreign exchange rate, ASI acquired a forward contract to sell 300,000 real on February 1 for \$.4730 per real. The following exchange rates were quoted:

<i>Date</i>	<i>Spot Rate</i>	<i>Forward Rate (Delivery on 2/1)</i>
October 2	\$.4737	\$.4730
December 31	.4895	.4810
February 1	.4950	—

ASI is a calendar-year company.

Required:

- A. Prepare the journal entries to record the transactions, adjust the accounts on December 31, and settle the receivable and forward contract on February 1.
- B. (1) Based on the data given above, complete the following table.

	2019	2020
Revenue	_____	_____
Transaction gain (loss) related to the exposed receivable balance	_____	_____
Transaction gain (loss) related to the forward contract	_____	_____
Effect on net income	_____	_____

(2) What was the cumulative effect on net income (i.e., 2019 plus 2020)?

(3) How much cash was received when the account was settled?

EXERCISE 12-8 Fair Value Hedge (Unrecognized Firm Commitment) LO 6

Vanderbilt Clothing Company placed a clothing order with a company located in Taiwan. The order was placed on November 1, 2019, for delivery on May 1, 2020. Vanderbilt agreed to pay for the goods on May 1, 2020, with the delivery of 5,000,000 Taiwan dollars. To protect against fluctuations in the exchange rate, the company entered into a forward contract on November 1, 2019, to buy 5,000,000 Taiwan dollars on May 1, 2020, for \$.02634 per unit.

Direct exchange rates per Taiwan dollar on specific dates are as follows:

<i>Date</i>	<i>Spot Rate</i>	<i>Forward Rate— Maturity May 1</i>
November 1, 2019	\$.02631	\$.02634
December 31, 2019	.02740	.02735
May 1, 2020	.02591	—

Required:

Prepare the journal entries to be made by Vanderbilt Clothing Company during 2019 and 2020 to account for the transactions described above.

EXERCISE 12-9 Journal Entries—Speculation Using a Forward Contract LO 5

Sharon Myers, chief finance officer for Sitco Products, convinced the president of the company to enter into a 90-day forward contract to sell 900,000 Swedish kronas as a speculative venture. When the forward contract was acquired on November 1, 2019, the spot rate for the krona was \$.5045 and the 90-day future rate was \$.5085. At December 31, 2019, the end of the firm's fiscal year, the spot rate was \$.4981 and the future rate for kronas to be sold on January 30, 2020, was \$.4996. On January 30, 2020, the spot rate was \$.4826.

Required:

Prepare all necessary journal entries in regard to the forward contract.

EXERCISE 12-10 Journal Entries—Speculation Using a Forward Contract LO 5

Use the data given in Exercise 12-9, except assume that on November 1, Sitco Products entered into a 90-day forward contract to buy 900,000 Swedish kronas on January 30 for \$.5085 per krona.

Required:

Prepare all necessary journal entries in regard to the forward contract.

EXERCISE 12-11 Equipment Purchase, Issuance of a Note LO 4

Roland Brothers, Inc. purchased equipment from a British firm for £120,000 on April 1, 2019. To finance the purchase of the equipment, the president of the company signed a note for £120,000 with a British bank. The loan is denominated in pounds, matures on March 31, 2020, and bears interest at 12% per annum payable on June 30, September 30, December 31, and March 31. Spot rates for the British pound are as follows:

April 1, 2019	\$1.574
June 30, 2019	1.560
September 30, 2019	1.526
December 31, 2019	1.498
March 31, 2020	1.538

Required:

Prepare journal entries to record the purchase of the equipment, the interest payments, the adjustment of the accounts on December 31 (the fiscal year-end), and the payment of the note at maturity.

EXERCISE 12-12 Forward Contract Hedge of an Importing Transaction LO 6

On November 15, 2019, Solanski Inc. imported 500,000 barrels of oil from an oil company in Venezuela. Solanski agreed to pay 50,000,000 bolivars on January 15, 2020. To ensure that the dollar outlay for the purchase will not fluctuate, the company entered into a forward contract to buy 50,000,000 bolivars on January 15 at the forward rate of \$.0269. Direct exchange rates on various dates were:

	<i>Spot Rate</i>	<i>Forward Rate 1/15 Delivery</i>
November 15	\$.0239	\$.0269
December 31	.0224	.0254
January 15	.0291	

Solanski Inc. is a calendar-year company.

Required:

Compute the following:

1. The dollars to be paid on January 15, 2020, to acquire the 50,000,000 bolivars from the exchange dealer.
2. The dollars that would have been paid to settle the account payable had Solanski not hedged the purchased contract with the forward contract.
3. The discount or premium on the forward contract.
4. The transaction gain or loss on the exposed liability related to the oil purchase in 2019 and 2020.
5. The transaction gain or loss on the forward contract in 2019 and 2020.

EXERCISE 12-13 Cash Flow Hedge Illustration LO 9

Consider the following information:

1. On December 1, 2019, a U.S. firm *plans* to purchase a piece of equipment (with an asking price of 100,000 francs) in Switzerland during January of 2020. The transaction is probable, and the transaction is to be denominated in euros.
2. On December 1, 2019, the company enters into a forward contract to buy 100,000 Swiss francs for \$1.01 on January 31, 2020.

3. Spot rates and the forward rates for January 31, 2020, settlement were as follows (dollars per Swiss franc):

	<i>Spot Rate</i>	<i>Forward Rate for 1/31/20</i>
December 1, 2019	\$0.99	\$1.01
Balance sheet date (12/31/19)	\$1.01	\$1.02
January 31 and February 1, 2020	\$1.04	

4. On February 1, the equipment was purchased for 100,000 Swiss francs.

Required:

- A. Prepare all journal entries needed on December 1, December 31, January 31, and February 1 to account for the forecasted transaction, the forward contract, and the transaction to buy the equipment.
- B. When should the company reclassify any amounts reported in other accumulated comprehensive income as a result of the cash flow hedge?

EXERCISE 12-14 Fair Value Hedge Illustration—Forward Contract LO 6

Consider the following information:

- On December 1, 2019, a U.S. firm *contracts* to sell equipment (with an asking price of 1,000,000 pesos) in Mexico. The firm will take delivery and will pay for the equipment on March 1, 2020.
- On December 1, 2019, the company enters into a forward contract to sell 1,000,000 pesos for \$0.0948 on March 1, 2020.
- Spot rates and the forward rates for March 1, 2020, settlement were as follows (dollars per peso):

	<i>Spot Rate</i>	<i>Forward Rate for 3/1/20</i>
December 1, 2019	\$0.0954	\$0.0948
Balance sheet date (12/31/19)	0.0949	0.0944
March 1, 2019	0.0947	

4. On March 1, the equipment was sold for 1,000,000 pesos. The cost of the equipment was \$40,000.

Required:

Prepare all journal entries needed on December 1, December 31, and March 1 to account for the forward contract, the firm commitment, and the transaction to sell the equipment.

EXERCISE 12-15 Fair Value Hedge Illustration—Options LO 8

- On June 1, 2019, a U.S. firm *contracts* to sell equipment (with an asking price of 2,000,000 krona) in Sweden. The firm will take delivery and will pay for the equipment on August 1, 2019.
- Spot rates were as follows (dollars per krona):

	<i>Spot Rate</i>
June 1, 2019	\$0.107
August 1, 2019	0.102

3. On August 1, the equipment was sold for 2,000,000 krona. The cost of the equipment was \$100,000.

Suppose that on June 1, 2019, the firm believes, based on recent changes in the economy, that there is a high probability of exchange rate losses from the transaction. If the firm acquires an option to hedge the transaction, answer the following questions.

Required:

- A.** Does the firm believe that the krona is strengthening or weakening relative to the U.S. dollar?
- B.** What kind of option should the firm use: a put or a call option?
- C.** Suppose the following options are available. Each option can only be exercised on August 1. Choose the option that should be used to hedge the transaction and prepare all journal entries needed to record the hedge and the transaction to sell the equipment.

<i>Option Type</i>	<i>Amount</i>	<i>Exercise Rate</i>	<i>Cost to Acquire</i>
Call Option	2,000,000 krona	\$0.1035	\$ 8,000
Put Option	2,000,000 krona	\$0.1035	\$15,000

PROBLEMS**PROBLEM 12-1 Journal Entries—Exporting Transactions LO 4**

GAF manufactures electrical cells at its St. Louis facility. The company's fiscal year-end is September 30. It has adopted the perpetual inventory cost flow method to control inventory costs. The company entered into the following transactions during the month of September. All exchange rates are direct quotations.

<i>Date</i>	<i>Transaction</i>	<i>Billing Amount</i>	<i>Rate of Exchange</i>
2019			
Sept. 5	Exported 10 electrical cells to a company located in Argentina. Cost per unit, \$950.	17,341 pesos	\$1.1291
9	Received raw materials ordered from a British company. The goods were shipped FOB destination and had not been recorded on the books of GAF, Inc.	12,200 Pounds	1.6821
14	Exported 12 electrical cells to a company domiciled in Norway. Cost per unit, \$970.	160,274 Krone	.1450
30	End of fiscal year-end.		
	Peso		1.1091
	British pound		1.6911
	Krone		.1530

<i>Date</i>	<i>Transaction</i>	<i>Billing Amount</i>	<i>Rate of Exchange</i>
Oct. 5	Received full payment for the 10 units sold on September 5.		1.1190
9	Paid British company in full for raw materials purchased September 9.		1.5948
30	Received full payment for 12 units sold on September 14.		.1440

Required:

- A.** Prepare the journal entries required on the books of GAF to record the transactions and year-end adjustments. Round all computations to the nearest dollar.
- B.** Based on the two exporting transactions listed above, complete the following table.

	<i>Transaction</i>	
	<i>Sept. 5</i>	<i>Sept. 14</i>
September 30, 2019, year-end:		
1. Sales	_____	_____

	<i>Transaction</i>	
	<i>Sept. 5</i>	<i>Sept. 14</i>
2. Transaction gain (loss)	_____	_____
September 30, 2020, year-end:		
3. Sales	_____	_____
4. Transaction gain (loss)	_____	_____
5. Net effect on income for both years (Sum lines 1–4)	_____	_____
6. Cash received on settlement date	_____	_____

PROBLEM 12-2 Importing/Exporting Transactions with a Forward Contract Hedge LO 6

Crystal Exporting Co. is a U.S. wholesaler engaged in foreign trade. The following transactions are representative of its business dealings. The company uses a periodic inventory system and is on a calendar-year basis. All exchange rates are direct quotations.

- Dec. 1 Crystal Exporting purchased merchandise from Chang's Ltd., a Hong Kong manufacturer. The invoice was for 210,000 Hong Kong dollars, payable on April 1. On this same date, Crystal Exporting acquired a forward contract to buy 210,000 Hong Kong dollars on April 1 for \$.1314.
- Dec. 29 Crystal Exporting sold merchandise to Zintel Retailers for 120,000 Hong Kong dollars, receivable in 90 days. No hedging was involved.
- April 1 Crystal Exporting received 120,000 Hong Kong dollars from Zintel Retailers.
- 1 Crystal Exporting submitted full payment of 210,000 Hong Kong dollars to Chang's, Ltd., after obtaining the 210,000 Hong Kong dollars on its forward contract.

Spot rates and the forward rates for the Hong Kong dollar were as follows:

	<i>Spot Rate</i>	<i>Forward Rate for April 1 Delivery</i>
Dec. 1	\$.1265	\$.1314
Dec. 29	.1240	.1305
Dec. 31	.1259	.1308
April 1	.1430	

Required:

- A. Prepare journal entries for the transactions including the necessary adjustments on December 31.
- B. Explain the income statement treatment given to any transaction gains and losses recognized at December 31.

PROBLEM 12-3 Foreign Trade Journal Entries and Forward Contract Hedge LO 6

On December 1, 2019, King Company exported equipment that had cost \$210,000 to a Brazilian company for 1,000,000 real. The account is to be settled on January 31, 2020. King Company is a calendar-year company and uses a perpetual inventory system. Direct exchange rates were:

	<i>Spot Rate</i>
December 1	\$.4441
December 31	.3690
January 31	.4421

Required:

- A. Prepare journal entries to record the exporting transaction, adjust the accounts on December 31, and settle the account on January 31.
- B. What effect did changes in the exchange rate have on income in 2019 and 2020?

- C. Assume the facts given above, except that on December 1, King Company entered into a forward contract to sell 1,000,000 Real on January 31 for \$.4451 per real. Prepare the journal entries needed in 2019 and 2020 to record the forward contract and settle the accounts. The forward rate on December 31 for January 31 delivery was \$.3810.
- D. What is the combined effect on income in 2019 and 2020 from the exporting transaction and the forward contract?

PROBLEM 12-4 Journal Entries—Exporting Transactions with Forward Contract Hedges LO 6

Centennial Exchange of St. Louis, Missouri, imports and exports grains. The company has a September 30 fiscal year-end. The periodic inventory system and the weighted-average cost flow method are used by the company to account for inventory cost. The company negotiated the following transactions during 2019 (assume forward contracts exist for the krone and forint).

- Sept. 1 Sold 1,000,000 bushels of wheat to a Norwegian company for 16,500,000 krone. The account is to be settled on October 30.
- Sept. 1 The management of Centennial was concerned that the krone would decline in value. They therefore entered into a forward contract to sell 16,500,000 Krone on October 30 for \$.1442 per krone.
- Sept. 5 Sold 1,000,000 bushels of wheat to a Tokyo company for \$5,300,000. The account is to be settled on November 5.
- Sept. 15 Purchased grain from an exporting company that operates in Hungary. The contract provides for the payment of 20,000,000 forint on October 15.
- Sept. 15 Entered into a forward contract to buy 20,000,000 forint on October 15 for \$.006490 per Forint.
- Sept. 18 Sold 500 tons of soybean meal to Able & Born, Ltd., a Toronto company, for 48,000 Canadian dollars. The account is to be settled on December 17.
- Oct. 15 Completed the forward contract to buy 20,000,000 forint and then submitted payment to pay for the grain purchased on September 15.
- Oct. 30 Received 16,500,000 Kronas from the Norwegian customer and settled forward contract.
- Nov. 5 Received payment in full for the wheat sold on September 5 to the Tokyo company.
- Dec. 17 Received payment from Able & Born, Ltd. for the September 18 sale.

Direct exchange quotations for specific dates are presented below:

	<i>Norway—Krone</i>	<i>Japan—Yen</i>	<i>Hungary—Forint</i>	<i>Canada—Dollar</i>
September 1	\$.1480	\$.00738	\$.006427	\$.8250
September 5	.1458	.00740	.006428	.8248
September 15	.1456	.00741	.006430	.8246
September 18	.1456	.00737	.006431	.8245
September 30	.1455	.00736	.006433	.8243
October 15	.1458	.00734	.006435	.8241
October 30	.1457	.00732	.006370	.8241
November 5	.1456	.00730	.006439	.8244
December 17	.1453	.00731	.006438	.8250

On September 30, the forward rate for krone (with an October 30 settlement) was \$.1450 and the forward rate for forints (with an October 15 settlement) was \$.00640.

Required:

Prepare journal entries, including year-end adjustments, to record the above transactions.

PROBLEM 12-5 Various Hedging Cases LO 5 LO 9

Apple Company was incorporated in Delaware in 2012. On November 2, 2019, the controller of the company entered into a forward contract to sell 50,000 British pounds for \$1.5920 on March 1, 2020. The following exchange rates were quoted on the indicated dates:

	<i>Spot Rate</i>	<i>Forward Rate March 1 Delivery</i>
November 2, 2019	\$1.6021	1.5920
December 31, 2019	1.5820	1.58
March 1, 2020	1.6543	

Apple Company's fiscal year-end is December 31.

Required:

- A.** Assume that the forward contract was entered into as a hedge against an exposed foreign currency receivable balance in the amount of £50,000. Prepare the journal entries that would be made by Apple Company on
- (1) November 2—to record the sale of the goods on account for £50,000 and to record the forward contract.
 - (2) December 31—to adjust the accounts related to the exposed asset and forward contract at fiscal year-end.
 - (3) March 1—to adjust the accounts related to the exposed asset and forward contract and to record the settlement of the receivable and delivery of the pounds to the exchange dealer.
- B.** Assume that the controller indicated on November 2 that the forward contract was acquired as a hedge of a future foreign currency transaction that is a commitment of Apple to sell inventory for £50,000 on March 1. Apple Company designates this hedge as a fair value hedge of an unrecognized firm commitment. Prepare the journal entries related to the forward contract and commitment to sell inventory that would be made by Apple Company on November 2, December 31, and March 1.
- C.** Assume that the contract was entered into to speculate in future exchange rate fluctuations. Prepare the journal entries that would be made by Apple Company on November 2, December 31, and March 1.
- D.** Compute the effect of the transactions in (A), (B), and (C) on the net income for the fiscal years ended December 31, 2019, and December 31, 2020. Indicate how the balance sheet accounts related to the forward contract would be reported in the December 31, 2019, balance sheet.

PROBLEM 12-6 Hedge of an Unrecognized Foreign Currency Commitment – Fair Value Hedge LO 6

Citron Company is a U.S.-based citrus grower. On October 1, 2019, the company entered into a contract to ship 25,000 boxes of grapefruit on January 28 to Japan. Payment of 50,100,000 yen is to be received on March 29, 2020. On October 1, Citron also entered into a forward contract to sell 50,100,000 yen on March 29 at the forward rate of \$.007412. The forward contract is considered a hedge of the unrecognized foreign currency commitment. The direct exchange rate and forward rate for the yen were as follows:

	<i>October 1</i>	<i>December 31</i>	<i>January 28</i>	<i>March 29</i>
Spot rate	\$.007235	\$.007879	\$.007623	\$.007640
Forward rate available for the remaining period of the forward contract	.007412	.007910	.007674	No appl.

Required:

A. Prepare the necessary journal entries to record the following transactions and events:

- Oct. 1 Entered into the contract to sell the grapefruit and negotiated the forward contract.
 Dec. 31 Fiscal year-end of Citron Company.
 Jan. 28 The grapefruit were shipped FOB shipping point. The grapefruit cost Citron \$7.50 per box. Citron uses a perpetual inventory system.
 Mar. 29 Received the payment and delivered the yen to the exchange broker to settle the forward contract.

B. Compute the increase or decrease in income for each fiscal year as a result of the transactions above.

C. Compute the increase or decrease in income each period that would have occurred if Citron had not entered into the forward contract.

PROBLEM 12-7**Foreign Currency Risk LO 2 LO 5**

During her first quarter review of the financial statements, Debra Bell, the CFO of HAL Computer Corporation, was distressed to notice the company's transaction loss had been steadily increasing each month. HAL is a publicly held manufacturer of "PC clone" personal computers. Like most manufacturers of its kind, HAL does not manufacture domestically but utilizes lower cost offshore suppliers for components and subcontractors for assembly. As it is HAL's policy to denominate foreign contracts in U.S. dollars whenever possible, the increase in transaction losses was particularly puzzling.

Subsequent conversations with HAL's controller, Tom Stewart, revealed all new contracts had been denominated in foreign currencies (primarily the South Korean won and Taiwanese dollar) in order to obtain more favorable purchase terms. Further, Mr. Stewart believed that the U.S. dollar would strengthen due to it being an election year. Since these contracts specify delivery and payment at various dates over the next 12 months, tremendous potential for exposure exists for the company if the dollar continues to decline against the major foreign currencies.

Required:

A. Mr. Stewart executed all new foreign contracts in foreign currencies in the belief it would help the company.

- (1) Do you think he was justified in his actions given the company policy?
- (2) On what basis did you decide if the controller was justified or not?
- (3) Was the loss a factor in your decision? Is this appropriate?

B. A substantial amount of foreign denominated contracts already exist for goods and services not yet received.

- (1) What actions may HAL take to minimize potential losses?
- (2) What are the advantages and disadvantages of these actions?
- (3) What implication does each of these scenarios have for financial statement disclosure?

C. Assume that you are Ms. Bell, and you are concerned about how the Board of Directors and the stockholders may react. Additionally, you are about to purchase a new home and are planning to sell some HAL stock for the down payment.

- (1) After carefully considering all of your options, what action do you decide to take?
- (2) Did concern over the Board, stockholders, or HAL's stock price enter into your decision? Why or why not?

PROBLEM 12-8 Hedge of a Forecasted Sale Using a Foreign Currency Option LO 8

A U.S. company estimated that, in the first two months of 2016, its export sales to a Swiss company would generate 400,000 francs. On December 1, 2020, in an effort to protect against the weakening franc, the company purchased an option (out of the money) to sell 400,000 Swiss francs at an exchange rate of \$0.60 with an expiration date of February 25, 2021. The cost of the option was \$6,000. The spot rates on the following dates were:

December 1, 2020	\$0.62
December 31, 2020	\$0.60
February 25, 2021	\$0.57

The option's value in the options market on December 31, 2020, was \$9,000. December 31 is also an interim reporting date. The option was exercised on February 25, 2020.

Required:

Prepare all journal entries needed on December 1, December 31, and February 25 to account for the option.

PROBLEM 12-9 Cash Flow Hedge Illustration—Forward Contract LO 9

Consider the following information:

- On December 1, 2011, a U.S. firm *plans* to sell a piece of equipment [with an asking price of 200,000 units of a foreign currency (FC)] during January of 2012. The transaction is probable, and the transaction is to be denominated in euros.
- The company enters into a forward contract on December 1, 2011 to sell 200,000 FC on February 1, 2012, for \$1.02.
- Spot rates and the forward rates for January 31, 2012, settlement were as follows (dollars per euro):

	<i>Spot Rate</i>	<i>Forward Rate for 2/1/12</i>
December 1, 2011	\$1.04	\$1.02
Balance sheet date (12/31/11)	\$1.01	\$1.00
January 31 and February 1, 2012	\$0.99	

- On January 31, the equipment was sold for 200,000 FC. The cost of the equipment was \$170,000.

Required:

- Prepare all journal entries needed on December 1, December 31, January 31, and February 1 to account for the forecasted transaction, the forward contract, and the transaction to sell the equipment.
- Prepare any entry needed on February 1 to reclassify amounts from other accumulated comprehensive income into earnings.

PROBLEM 12-10 Fair Value Hedge of an Unrecognized Firm Commitment LO 5

On October 1, 2019, Fairchange Corporation ordered some equipment from a supplier for 300,000 euros. Delivery and payment are to occur on November 15, 2019. The spot rates on October 1 and November 15, 2019, are \$1.20 and \$1.30, respectively.

Required:

- Assume that Fairchange entered into a forward contract on October 1, 2019, to hedge the firm commitment. The forward rates for euros for November 15 delivery were

October 1	\$1.23
November 15	\$1.30

Furthermore, assume the equipment was purchased and paid for on November 15. Prepare all journal entries needed to record and settle the hedge and to record the purchase of the equipment.

B. If the forward contract was not acquired, record the journal entry to purchase the equipment.

PROBLEM 12-11 Fair Value Hedge of an Unrecognized Firm Commitment LO 6

(This is a more complicated version of Problem 12-10.)

On October 1, 2019, Fairchange Corporation ordered some equipment from a supplier for 300,000 euros. Delivery is to occur on November 15, 2019, while payment is expected to occur on December 15, 2019. The spot rates on October 1, November 15, and December 15, 2019, are \$1.20, \$1.30, and \$1.28, respectively.

Required:

A. Assume that Fairchange entered into a forward contract on October 1, 2019, to hedge the firm commitment. The forward rates for euros for December 15 delivery were

October 1	\$1.23
November 15	\$1.30
December 15	\$1.28

Furthermore, assume the equipment was purchased on November 15 and was paid for on December 15, 2019. Prepare all journal entries needed to record and settle the hedge and to record the purchase and payment of the equipment.

B. If the forward contract was not acquired, record the journal entries to purchase and pay for the equipment.

PROBLEM 12-12 Fair Value Hedge of an Unrecognized Firm Commitment LO 6

(This is the same as Problem 12-10 except that an option is used to hedge the commitment.) On October 1, 2019, Fairchange Corporation ordered some equipment from a supplier for 300,000 euros. Delivery and payment are to occur on November 15, 2019. The spot rates on October 1 and November 15, 2019, are \$1.20 and \$1.30, respectively.

Required:

A. Assume that Fairchange purchased an option for \$4,000 on October 1, 2019, to hedge 300,000 euros. The call option has an exercise price of \$1.24. The values of the option on various dates are as follows:

October 1	\$ 4,000
November 15	\$ 18,000

Furthermore, assume the equipment was purchased and paid for on November 15. Prepare all journal entries needed to record and settle the hedge and to record the purchase of the equipment.

B. If the option was not acquired, record the journal entry to purchase the equipment.

TRANSLATION OF FINANCIAL STATEMENTS OF FOREIGN AFFILIATES

CHAPTER CONTENTS

- 13.1 ACCOUNTING FOR OPERATIONS IN FOREIGN COUNTRIES
- 13.2 TRANSLATING FINANCIAL STATEMENTS OF FOREIGN AFFILIATES
- 13.3 OBJECTIVES OF TRANSLATION
- 13.4 TRANSLATION METHODS
- 13.5 IDENTIFYING THE FUNCTIONAL CURRENCY
- 13.6 TRANSLATION OF FOREIGN CURRENCY FINANCIAL STATEMENTS
- 13.7 TRANSLATION OF FOREIGN FINANCIAL STATEMENTS ILLUSTRATED
- 13.8 FINANCIAL STATEMENT DISCLOSURE

LEARNING OBJECTIVES

- 1 Distinguish between the current exchange rate and the historical exchange rate.
- 2 Understand the objectives of financial statement translation.
- 3 Identify the functional currency of a foreign entity.
- 4 Compare the two methods used to convert the financial statements of a foreign entity into U.S. dollars.
- 5 Distinguish between the circumstances under which each of the two methods is appropriate under current GAAP.
- 6 Explain the factors involved in translating the statements of a foreign entity operating in a highly inflationary economy.
- 7 Translate the statements of a foreign entity when the functional currency is the local currency.
- 8 Translate the statements of a foreign entity when the functional currency is the U.S. dollar.
- 9 Understand the concept of comprehensive income in the context of foreign currency translation.
- 10 Identify the disclosure requirements for firms with foreign entities.

Walmart's foreign currency translation impact reduced sales by \$680 million for the three months ending July 31, 2013, which represented one-third of its full-year sales forecast reduction.¹

¹ Walmart Form 8-K, August 15, 2013.

In the preceding chapter, the translation of various types of foreign currency transactions entered into by a U.S. company was described. A U.S. company also may be involved in foreign activities through the operations of a branch, a subsidiary, or an investee company in a foreign country. If the foreign entity maintains its books in a foreign currency, its accounts must be restated into dollars so that the accounts of the U.S. company and the foreign entity are stated in a common currency before the accounts are combined or consolidated or the equity method of accounting is applied. The concepts underlying the restatement of the accounts of a foreign entity are discussed in this chapter.

IN
THE
NEWS

"The US dollar is the world's premiere currency, with approximately two thirds of world official foreign-exchange holdings being dollars. Moreover, many countries appear willing to run sustained trade surpluses with the US, supplying everything from t-shirts to Porsches in return for additional dollar holdings."²

IN
THE
NEWS

The rise in gold prices and fall of the dollar have begun to unsettle investors. In the short term, a weaker dollar means higher prices for imports and more expensive trips abroad. In the long run, a falling dollar could reduce the demand for U.S. debt. This could cause interest rates to increase, have a negative impact on the economy, and perhaps bring an end to the dollar as the world's premier currency.³

13.1 ACCOUNTING FOR OPERATIONS IN FOREIGN COUNTRIES

A U.S. firm may maintain branch offices or hold equity interests in companies that are domiciled in foreign countries. As a general rule, a foreign subsidiary is consolidated if the parent company owns, directly or indirectly, a controlling interest in the voting stock of the subsidiary. The exceptions to the general rule are as follows:

1. The intent to control is likely to be temporary.
2. Control does not actually rest with the parent company. For example, some governments restrict the withdrawal of assets from the country or impose exchange restrictions. Thus, a foreign entity may operate under conditions of foreign exchange restrictions, controls, or other government-imposed regulations that are of a type that raise significant doubt as to the parent company's ability to control the subsidiary.⁴

FASB ASC paragraph 810-10-15-10 extended the equity method of accounting to an investment in common stock of a foreign company in which the investor can exert significant influence (generally holds a 20 to 50% interest in the voting stock) over the investee, unless the investee operates under conditions of exchange restrictions, controls, or other uncertainties that would affect the ability to influence the policies of the foreign investee. In other words, it might be considered misleading to include in operations the investor's equity interest in the investee's net income if the income might not be distributed because of government restrictions. Investments in common stock not accounted for using the equity method are reported at fair value or at cost.

Accounting for a foreign entity is further complicated when there are significant differences between accounting principles in the United States and those in the other

² *YaleGlobal*, "Why Dollar Hegemony Is Unhealthy," Yale Global Online by Thomas I. Palley, 6/20/06.

³ *USA Today*, "Beaten-up Dollar Unsettles Investors in USA and Abroad," by John Waggoner, 6/22/2006, p. B.1.

⁴ FASB ASC paragraph 323-10-15-6.

country. When such differences in accounting concepts exist, it is difficult to compare the results of operations and the financial position of companies operating in different countries. To aid statement users in making comparisons, foreign statements that are not in conformity with generally accepted accounting standards in the United States must be adjusted to conform to U.S. standards before conversion into U.S. dollars.

13.2 TRANSLATING FINANCIAL STATEMENTS OF FOREIGN AFFILIATES

A foreign entity will generally measure and record its transactions in terms of the currency of the country in which it is located, called the *local currency*. A U.S. company maintaining a branch office in a foreign country or holding an equity interest in a foreign company must convert the account data expressed in a foreign currency into dollars before the financial statements can be combined or consolidated. Furthermore, if the equity method of accounting is used to account for an investment in a foreign investee company, the financial statements of the affiliate must be converted into dollars before the investor's share of the investee's reported net income or loss is properly determinable. The conversion from another currency into the currency of the parent company is frequently called "translation." Because the term is popularly used in this manner and because the FASB used the term "translation" in this way in the definitive standard (*SFAS No. 52*) on which much of this chapter is based, we too use the term to refer to the conversion process. Note, however, that the word has a dual meaning as used in the context of foreign currency conversion, and some users may prefer to restrict their use of the term to one of the following two definitions: (1) a generic term to apply to any restatement of foreign currency units into the currency of the parent (as used heretofore in this text) and (2) a specific term that applies only to one of the two methods of conversion described in the following sections (i.e., to the "current method" rather than to the "temporal method"). The FASB uses the term in both ways, as do we.

In the process of translation, all accounts of the foreign entity stated in units of foreign currency are converted into the reporting currency by multiplying the foreign currency amounts by an exchange rate. The development of translation procedures is complicated by the fact that the rate of exchange between two currencies is not stable. There has been considerable controversy as to which foreign currency accounts should be translated using the current exchange rate and which accounts should be converted using historical exchange rates. The *current exchange rate* is the spot rate in effect at the end of the accounting period (i.e., the balance sheet date). The *historical exchange rate* is the spot rate in effect on the date a transaction takes place. Another controversial area relates to how to report the adjustment that is needed to balance the accounts that result when there are changes in the exchange rate.

LO 1 Current versus historical exchange rates.

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Itron Inc. 10-K 12/31/2017 Foreign Currency Exchange Rate Risk

We conduct business in a number of countries. As a result, approximately half of our revenues and operating expenses are denominated in foreign currencies, which expose our account balances to movements in foreign currency exchange rates that could have a material effect on our financial results. Our primary foreign currency exposure relates to non-U.S. dollar denominated transactions in our international subsidiary operations, the most significant of which is the euro.

Revenues denominated in functional currencies other than the U.S. dollar were 47% of total revenues for the year ended December 31, 2017, compared with 47% and 51% for the years ended December 31, 2016 and 2015.⁵

⁵ Sherwin-Williams Company 8-K, April 22, 2010.

Translation Adjustment or Translation Gain or Loss

The translation of some accounts using the current exchange rate and others using the historical exchange rate will result in an inequality between the total of the debit account balances and the total of the credit account balances. This difference may be referred to as a *translation adjustment* or *translation gain or loss*. As will be shown in a later section of this chapter, the amount of the translation adjustment is affected by an entity's accounting exposure to changes in the exchange rate. In an accounting sense, an entity's exposure to exchange risk is related to the set of accounts translated at the current rate. Current accounting standards require that the translation adjustment (gain or loss) be reported currently in income *or* deferred as a component of stockholders' equity, depending on the method used to translate the accounts. The appropriate method is not a free choice, but rather is dictated by the circumstances as described in *SFAS No. 52* [ASC 830–30–45–12]. If the adjustment is reported as a component of equity, it is not included in current earnings *but* is nonetheless a component of *comprehensive income*.

13.3 OBJECTIVES OF TRANSLATION

Functional Currency Concept

The objectives of translation are to:⁶

1. Provide information that is generally compatible with the exposed economic effects of an exchange rate change on an enterprise's cash flows and equity.
2. Reflect in consolidated statements the financial results and relationships of the individual consolidated entities as measured in their *functional currencies* in conformity with U.S. generally accepted accounting principles.

LO 2 The objectives of translation.

RELATED CONCEPTS

The functional currency approach was adopted to provide information compatible with the expected economic effects of a change in the exchange rate on the enterprise's cash flows and equity, consistent with the objective of financial reporting as specified in FASB Concept No. 1.

With respect to the first objective, compatibility in terms of effect on equity is achieved if, for example, an entity is in an exposed asset position and the translation process results in an increase in stockholders' equity when there is a favorable change in the exchange rate. (An entity's exposed asset position is the excess of assets that are translated at the current exchange rate over liabilities that are translated at the current exchange rate.) An unfavorable change in the exchange rate should result in a reduction in stockholders' equity. Compatibility in terms of cash flow consequences is achieved if favorable (unfavorable) rate changes that are reasonably expected to affect cash flows are *reflected* as gains (losses) in determining net income for the period, and the effect of rate changes that have only remote and uncertain implications for realization are *excluded* from determining net income for the period.

In objective 2, the Board moved from a single-enterprise perspective of consolidation of a foreign entity to a multiple-enterprise perspective. The Board reasoned that foreign operations are often conducted in economic and currency environments that differ from those of the U.S. parent. Thus, a foreign entity is viewed as a separate business entity that generates its earnings in its local economic, legal, and political environment. The Board believes that the operating performance and financial condition of a foreign entity are best measured by expressing its accounts in the currency of the economic environment in

⁶ FASB ASC subtopic 830–30.

which it primarily conducts its operations and generates and expends its cash, its **functional currency**. The determination of an entity's functional currency is discussed in a later section of this chapter. Also see Illustration 13-1 for a list of indicators to help in identifying the functional currency. Under the Board's view of a foreign entity, the translation of accounts expressed in the functional currency should retain the financial results and relationships that were created in the economic environment of the foreign operations rather than as if the operations had been conducted in the economic environment of the reporting currency.

In its 2016 10K, Toys R Us reported the following functional currencies for their foreign operating subsidiaries:

- Australian dollar for our subsidiary in Australia;
- British pound sterling for our subsidiary in the United Kingdom;
- Brunei dollar for our subsidiary in Brunei;
- Canadian dollar for our subsidiary in Canada;
- Chinese yuan for our subsidiary in China;
- Euro for our subsidiaries in Austria, France, Germany, Spain, and Portugal;
- Hong Kong dollar for our subsidiaries in Hong Kong;
- Japanese yen for our subsidiary in Japan;
- Malaysian ringgit for our subsidiary in Malaysia;
- Polish zloty for our subsidiary in Poland;
- Singapore dollar for our subsidiary in Singapore;
- Swiss franc for our subsidiary in Switzerland;
- Taiwan dollar for our subsidiary in Taiwan; and
- Thailand baht for our subsidiary in Thailand.

ILLUSTRATION 13-1

Functional Currency Indicators

<i>Economic Indicator</i>	<i>Indicators Pointing to Local Currency as Functional Currency</i>	<i>Indicators Pointing to U.S. Dollar as Functional Currency</i>
Cash flows	Primarily in the local currency and do not directly affect parent's cash flows.	Directly affect the parent's cash flows on a current basis and are readily available for remittance to the parent.
Sales prices	Are not primarily responsive in the short term to exchange rate changes; determined primarily by local conditions.	Are primarily responsive in the short term to exchange rate changes; determined primarily by worldwide competition.
Sales market	Active local market although there may be significant amounts of exports.	Sales are mostly in the United States, or sales contracts are denominated in dollars.
Expenses	Production costs and operating expenses are determined primarily by local conditions.	Production costs and operating expenses are obtained primarily from U.S. sources.
Financing	Primarily denominated in the local currency, and foreign entity's cash flow from operations is sufficient to service existing and normally expected obligations.	Primarily from parent or other dollar-denominated obligations, or parent company is expected to service the debt.
Intercompany transactions	Low volume of intercompany transactions and there is not an extensive interrelationship between operations of the foreign entity and those of the parent. However, foreign entity may rely on parent's or affiliates' competitive advantages such as patents and trademarks.	High volume of intercompany transactions; there is an extensive interrelationship between operations of the parent and those of the foreign entity, or the foreign entity is an investment or financing device for the parent.

Source: [FASB ASC 830-10-55-5].

13.4 TRANSLATION METHODS

LO 4 Two methods of conversion.

To accomplish the objectives of translation, two translation methods are used depending on the functional currency of the foreign entity:

Current rate method. When using the current rate method, all assets and liabilities are translated using the current exchange rate. Revenue and expense transactions are translated at the exchange rate prevailing on the date each underlying transaction occurred. Since separate translation of each transaction is usually impractical, an appropriate average rate can be used to approximate the results that would be obtained from translation of each transaction.

Temporal method. Under this method, monetary assets and liabilities such as cash, receivables, and payables are translated at the current exchange rate. Assets and liabilities carried at historical cost are translated at historical exchange rates. Assets and liabilities carried at current values (such as inventory carried at market when applying the lower of cost or market rule) are translated at the current exchange rate. Thus, the temporal method places emphasis on whether an account is measured in terms of historical cost or current values.

Revenue and expense transactions, except those related to assets and liabilities translated at historical rates, are translated at exchange rates in effect on the dates the underlying transaction occurred. An appropriate average rate can be used to approximate the results that would be obtained from translation of each transaction. Revenues and expenses that relate to assets and liabilities translated at historical rates (such as depreciation expense, amortization expense, and the cost of sales) are translated at the historical rates used to translate the related assets and liabilities.

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“You have to separate out the effect of the currency and ask yourself, how would the company have done in local currency?” says Terry Bivens, food, tobacco, and beverage analyst for Argus Research. “If you see a company that has done badly because of currency translations, but is going strong in local terms, then you’re more reassured.”⁷

13.5 IDENTIFYING THE FUNCTIONAL CURRENCY

LO 3 Identifying the functional currency.

The functional currency may be (1) the currency of the country in which the foreign entity is located (the local currency), (2) the U.S. dollar, or (3) the currency of another foreign country. Often, the functional currency is the local currency of the country in which the entity is located and in which the accounting records are maintained. For example, a French subsidiary with operations that are relatively self-contained and integrated in France would have the euro as its functional currency. In this example, the French subsidiary primarily generates and expends euros.

In other cases, the dollar may be identified as the functional currency when a foreign subsidiary is a direct extension or an integral component of the reporting U.S. parent company. For example, the dollar would ordinarily be the functional currency

⁷ *The Wall Street Journal*, “Dollar to Play a Central Role in Profit Data,” by Michael Gonzalez, 4/17/95, p.C1.

RELATED CONCEPTS

One objective not considered in *FASB Statement No. 52*, the appropriateness of using a single *unit of measure* for the financial statements essentially requiring the U.S. dollar to be the monetary unit. This requirement ignores the fact that foreign operations are often entirely conducted in the currency of another country.

for a subsidiary domiciled in Mexico that is financed by a U.S. parent company, that acquires significant assets by expending dollars, and whose only business is to assemble components that are manufactured in the United States and are returned to the United States to be sold by the parent company. In this case, the dollar may be the functional currency even though transactions of the subsidiary are recorded in pesos in the subsidiary's books.

In still other cases, the identification of the functional currency will not be as clear as in these two examples. For example, a Mexico City subsidiary might manufacture a component for a product, a significant number of which are sold in Mexico or to companies domiciled in other foreign countries, in addition to providing some units for the U.S. parent, or a foreign entity might conduct significant amounts of business in two or more currencies. In such situations the functional currency could be a currency other than the dollar, such as the local currency of the foreign entity or the currency of a third country. To provide some guidance in selecting the functional currency, the FASB identified six economic indicators for management to consider. These indicators are listed in Illustration 13-1. The order in which the indicators are listed does not suggest any priority; rather, the indicators are to be considered both individually and collectively. When the indicators are mixed and the functional currency cannot be clearly identified, the standard indicates that management's judgment is required to assess the facts and circumstances in identifying the functional currency.

A foreign entity may operate and generate cash flows through more than one distinct and separable operation. Each of these operations may be identified as an entity and may have a different functional currency if conducted in different economic environments.

TEST YOUR KNOWLEDGE 13.1

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

Multiple Choice

- Indicators that the local currency is also the functional currency include all of the following *except*:
 - The majority of the cash flows are in the local currency.
 - Sales prices are determined by local market conditions.
 - Financing is generally from the parent or guaranteed by the parent.
 - Production costs and expenses are determined by local conditions.
- Indicators that the local currency is also the functional currency for a foreign subsidiary include:
 - Sales are mostly in the United States.
 - There is a high volume of intercompany transactions.
 - Financing is primarily from the parent.
 - Sales prices are not primarily responsive to short-term exchange rates.

13.6 TRANSLATION OF FOREIGN CURRENCY FINANCIAL STATEMENTS

The method used to translate a foreign entity's financial statements and the disposition of the resulting translation adjustment depends on the determination of the functional currency. As indicated earlier, the functional currency of the foreign entity might be (1) the local currency of the foreign entity, (2) the U.S. dollar, or (3) the currency of a third country (i.e., a country other than the country in which the subsidiary is located or the United States). The translation process and the disposition of the translation adjustment for these three situations, assuming that the books are kept in the local currency of the foreign entity and that the accounting conforms to U.S. generally

accepted accounting principles, are summarized in a flow chart in Illustration 13-2. As shown in Illustration 13-2, an exception is made when the foreign economy is highly inflationary. In this case, the functional currency (as defined here) is not used to determine the appropriate accounting. Also, if the books of the foreign entity are kept in U.S. dollars, translation is not necessary. Further, if the books of the foreign entity are not kept in accordance with U.S. generally accepted accounting principles, the accounts must be adjusted to conform to U.S. GAAP, preferably before translating the account balances.

LO 5 Which methods of conversion to use.

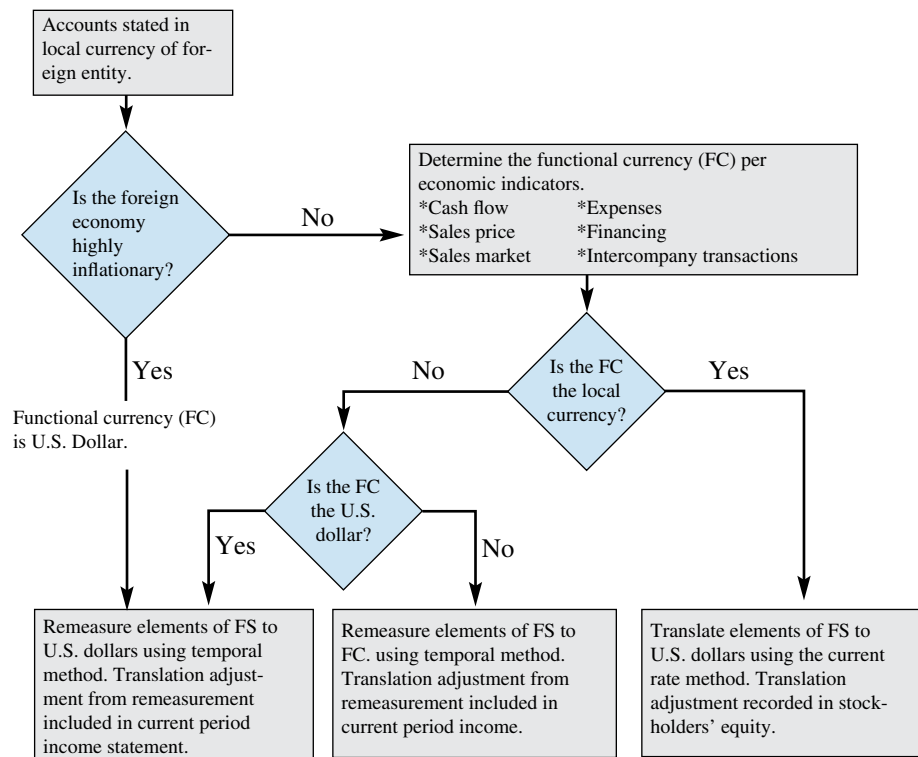
Note in Illustration 13-2 that the terms *remeasurement* and *translation* are used when the accounts stated in one currency are converted into another currency. The distinction between the two is as follows:

Remeasurement. If a foreign entity does not maintain its records in its functional currency, the local currency accounts are remeasured into the functional currency using the temporal method. **Remeasurement** is the process of translating the accounts of a foreign entity into its functional currency when they are stated in another currency.

Translation. Accounts measured in the functional currency are translated into the reporting currency using the current rate method.

ILLUSTRATION 13-2

Summary of Translation Process and Disposition of Translation Gain or Loss



Source: Adapted from Dahli Gray, "Functional Currency Concept—Flexibility and Comparability Effects," *The Woman CPA*, January 1983, p. 22.

As explained later, remeasurement is a change in the unit of measure, whereas translation retains the functional currency as the unit of measure and simply changes the form in which the accounts are stated. Recall that the term *translation* is used in two different ways: (1) as a generic term to apply to any restatement of foreign currency units into dollars and (2) more specifically to apply to the restatement of foreign currency units that are already measured in the functional currency into dollars (current rate method). Thus, “translation” may be used synonymously with the current method, while “remeasurement” is used synonymously with the temporal method. The first step in the translation process is to determine if the foreign entity is operating in a highly inflationary economy.

Foreign Entity Operates in a Highly Inflationary Economy

LO 6 Factors involved in translating the statements of a foreign entity operating in a highly inflationary economy.

The relative rate of inflation between two countries is an important contributing factor to changes in exchange rates. Often, the currency of a country experiencing high inflation will weaken (i.e., one unit of that country’s currency can be purchased with less domestic currency) substantially against the currency of a more stable economy. Thus, using the current rate method to translate inventories and fixed assets of foreign operations in highly inflationary economies often results in a substantial reduction in the translated amounts.

To illustrate, assume that a foreign subsidiary acquired land for 100,000 foreign currency units (FCU) when the exchange rate was \$1 per FCU. In subsequent years, the foreign country experienced significant inflation and the exchange rate decreased to \$.20 per FCU. If the current exchange rate is used, the land would translate to \$20,000 (100,000 FCU × \$.20) and a cumulative translation loss of \$80,000 is reported.

It is the Board’s belief that the currency of a country that has a highly inflationary economy has lost its utility as a store of value and cannot be a functional measuring unit. As a practical solution to the problem, the Board prescribed that the financial statements of a foreign entity operating in a highly inflationary economy shall be remeasured as if the functional currency were the reporting currency (U.S. dollar). For such entities this means that the foreign financial statements should be translated using the *temporal method*. According to the foregoing illustration, the land account would be translated to \$100,000 (100,000 FCU × \$1.00) using the historical exchange rate when the land was purchased.

FASB defines a highly inflationary economy as one with a cumulative inflation of approximately 100% over a three-year period (which is approximately a 26% annual rate).⁸ The International Practices Task Force of the AICPA’s Center for Audit Quality (CAQ) monitors the status of “highly inflationary” countries.

At the May 16, 2017, meeting of the Center for Audit Quality SEC Regulations Committee’s International Practices Task Force, the SEC staff indicated that Venezuela, South Sudan, and Ukraine should be considered highly inflationary economies under US GAAP. The SEC staff also said it expected companies to consider Sudan highly inflationary because the recent drop in the three-year average below 100% was deemed to be temporary.

RELATED CONCEPTS

Under the *historical cost principle*, a stable *monetary unit* is important for reporting the financial position and operations over time. In a highly inflationary economy, historical cost numbers measured in nominal currency amounts lose *relevance*.

⁸ FASB ASC paragraph 830-10-45-11.

Foreign Entity Operates in an Economy That Is Not Highly Inflationary

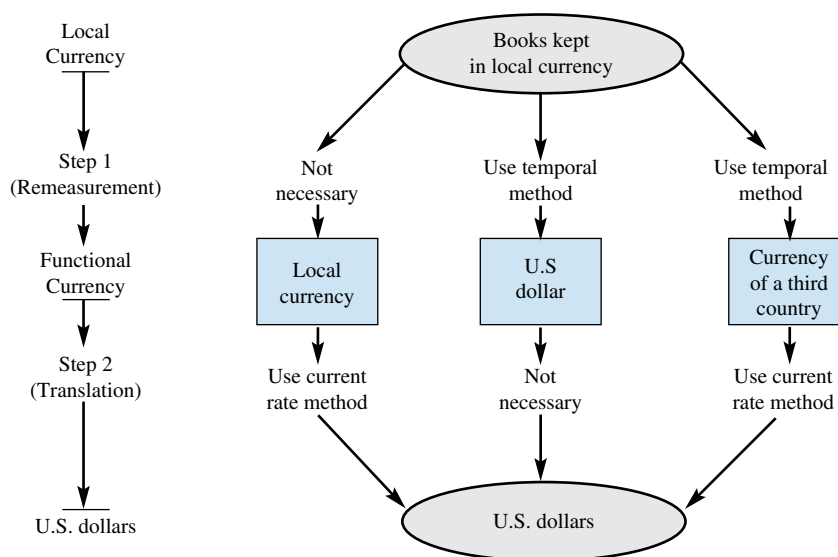
If the foreign entity does not operate in a highly inflationary economy, the functional currency must be identified. The translation process for the three possibilities follows:

1. *The local currency is the functional currency.* The accounts are translated into dollars using the current rate method. Since the functional currency is the local currency, the accounts are already measured in the functional currency, and remeasurement is unnecessary. The resulting translation adjustment is recorded as a separate component of stockholders' equity.
2. *The U.S. dollar is the functional currency.* When the foreign entity does not maintain its records in its functional currency, the accounts are remeasured into the functional currency, in this case dollars, using the temporal method. Since the U.S. dollar is the functional currency, remeasurement translates the accounts into dollars and no further translation is necessary. The resulting translation adjustment is reported in the current period's income statement.
3. *The functional currency is the currency of a third country.* The local currency accounts are first (a) remeasured in the functional currency (the currency of the third country) using the temporal approach, and then (b) the remeasured functional currency amounts are translated into dollars using the current rate approach. The translation gain or loss from using the temporal method is reported in income, while the adjustment resulting from use of the current rate approach is reported in a separate component of owners' equity.

The steps in the translation process may be diagrammed as shown in Illustration 13-3. Identification of the functional currency is the key step in the translation process as it determines the method to be used to translate the foreign currency accounts.

ILLUSTRATION 13-3

Diagram of Translation Process



The approach outlined is consistent with the objective of preserving the financial results and relationships of an individual consolidated entity as measured in its functional currency. That is, when the local currency is identified as the functional currency, use of the current rate method retains the local currency as the unit of measure. A translation method preserves the financial results if a net income or loss reported in the functional currency statements is retained in the translated income statement. Maintaining relationships as measured in their functional currency is achieved when, for example, the current ratio is 2 : 1 when computed from the functional currency balance sheet and the ratio is also 2 : 1 when computed from the translated statements. The current rate method retains the financial results and relationships as measured in their functional currency by translating the assets and liabilities at one constant rate (the current rate) and the income statement items at one constant rate (the average rate).

Remeasurement using the temporal method when the functional currency is the U.S. dollar is consistent with a single-enterprise perspective of consolidation. In this case, the operations of the foreign entity are viewed as a direct extension or an integral component of the parent's domestic operations. That is, the parent and subsidiary are viewed as if they were a single company. The objective of translation is to change the unit of measure from that of the local currency to the reporting currency of the parent company, the functional currency. The translation process should then reflect all transactions of the subsidiary as if they were conducted or measured in one currency only, the parent's reporting currency. The use of historical exchange rates to translate accounts carried at historical cost preserves the original cost of the accounts in conformity with the historical cost concept. In effect, the accounts are restated as if dollars had been used to measure and record the assets and liabilities on the transaction dates.

When the functional currency is that of a third country, the accounts of the foreign entity maintained in its local currency are remeasured (translated) into the functional currency using the temporal method. The relationships as measured in the functional currency are retained by translating the functional currency balances into the reporting currency using the current rate method.

The reporting of the translation adjustment is also dependent on the selection of the functional currency. When the foreign entity's accounts are remeasured (temporal method) to the functional currency, either the U.S. dollar or the currency of a third country, the resulting adjustment is reported in the current period's income statement. When translating the accounts from the functional currency into dollars (current rate method), translation adjustments are accumulated and reported as a separate component of stockholders' equity. In the latter case, the Board regarded translation adjustments associated with a foreign investment as unrealized and considered their effect on cash flow to be uncertain and remote. As discussed earlier, one objective of translation is to provide information that is compatible with the expected economic effects of rate changes on cash flow. Compatibility is achieved when the effect of rate changes that have uncertain and remote implications for realization are excluded from income.

The cumulative translation adjustment is carried in the accounts until sale of the foreign entity. At that time, the amount attributable to that entity is removed from the separate component of equity and reported as part of the gain or loss on the sale.

TEST YOUR KNOWLEDGE 13.2

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

Multiple Choice

1. If the functional currency is the currency of a third country (not the parent's and not the local currency), the appropriate approach to converting the account balances into U.S. dollars is:
 - a. The temporal approach.
 - b. The current approach.
 - c. Both approaches, with the accounts first converted into the functional currency using the temporal approach and then into U.S. dollars using the current approach.
 - d. Both approaches, with the accounts first converted into the functional currency using the current approach and then into U.S. dollars using the temporal approach.

13.7 TRANSLATION OF FOREIGN FINANCIAL STATEMENTS ILLUSTRATED

To illustrate the translation process, assume that on January 2, 2020, P Company, a U.S.-based company, acquired for 2,000,000 francs an 80% interest in SFr Company, a Swiss company. SFr maintains its books in Swiss francs, and they are in conformity with GAAP in the United States. The translation process will be illustrated under two different assumptions: (1) the Swiss franc is the functional currency, and (2) the U.S. dollar is the functional currency.

Exchange rates for the franc for the 2020 fiscal year are as follows:

<i>Date</i>	<i>Spot Rate</i>
January 2 (date of acquisition)	\$1.15
September 1	1.10
December 31	1.08
Average for the fourth quarter	1.09
Average for the year	1.12

In translating the income statement accounts, it is assumed that revenues were generated and expenses were incurred evenly during the year. It is also assumed that the company uses the FIFO cost flow assumption, and that the ending inventory was acquired during the last quarter.

Entries made on the books of P Company to account for the investment and the preparation of a consolidated statements workpaper based on the translated account balances are illustrated in the appendix to this chapter which can be found from your instructor.

**Functional Currency Is the Local Currency—
Current Rate Method**

Year-end financial statements at December 31 in francs for the subsidiary and the translation of the account balances into dollars using the current rate method are presented in Illustration 13-4. The translation rules are as follows:

1. All assets and liabilities are translated from the local currency into the reporting currency using the current exchange rate (i.e., the spot rate on the balance sheet date).

ILLUSTRATION 13-4

Functional Currency

Is Local Currency	SFr Company
Swiss Franc (SFr)	Workpaper to Translate Account
Current Rate Method	Balances of Foreign Subsidiary
	December 31, 2020

		<i>Current Rate Method</i>		
<i>Combined Statement of Income and Retained Earnings</i>	<i>Adjusted Trial Balance (SFr)</i>	<i>Translation Rate</i>		<i>Adjusted Trial Balance (Dollars)</i>
Sales	3,020,000	(A)	\$1.12	3,382,400
Cost of Goods Sold	1,850,000	(A)	1.12	2,072,000
Depreciation Expense	100,000	(A)	1.12	112,000
Other Expenses	655,000	(A)	1.12	733,600
Income Tax Expense	82,000	(A)	1.12	91,840
Net Income	<u>333,000</u>			<u>372,960</u>
1/2 Retained Earnings	480,000		(1)	552,000
Less: 9/1 Dividends Declared	<u>300,000</u>	(H)	1.10	<u>330,000</u>
12/31 Retained Earnings	<u>513,000</u>			<u>594,960</u>
<i>Balance Sheet</i>				
Cash	930,000	(C)	1.085	1,009,050
Accounts Receivable (net)	608,000	(C)	1.085	659,680
Inventories (FIFO cost)	830,000	(C)	1.085	900,550
Land	500,000	(C)	1.085	542,500
Buildings (net)	650,000	(C)	1.085	705,250
Equipment (net)	430,000	(C)	1.085	466,550
Total	<u>3,948,000</u>			<u>4,283,580</u>
Accounts Payable	640,000	(C)	1.085	694,400
Short-Term Notes Payable	635,000	(C)	1.085	688,975
Bonds Payable	900,000	(C)	1.085	976,500
Common Stock	960,000	(H)	1.15	1,104,000
Additional Paid-in Capital	300,000	(H)	1.15	345,000
Retained Earnings	513,000			594,960
Total	<u>3,948,000</u>			<u>4,403,835</u>
Cumulative Translation Adjustment—			(B/A)	
Debit Balance*				<u>(120,255)</u>
Total				<u>4,283,580</u>

* Include as a component of stockholders' equity

(1) Retained earnings in dollars on January 2 (480,000 SFr × \$1.15).

(A) Average exchange rate used to approximate the rate on the date these elements were recognized.

(H) Historical exchange rate (or date of acquisition).

(C) Current exchange rate.

(B/A) Balancing amount.

2. Paid-in capital accounts are translated using the historical rate, but the date to which the historical rate pertains depends on whether the acquisition was accounted for as a purchase or a pooling of interests. In a ***purchase transaction***, the accounts are translated using the historical rate on the date the acquisition of the equity interest occurred. In the case of a ***pooling of interests***, these accounts are translated using the historical rate(s) that existed on the date(s) that the foreign entity's capital transaction(s) occurred.

3. Components of the ending retained earnings are translated as follows:
 - a. The beginning retained earnings balance is set equal to the ending balance of last year. In this case, since this is the first year of acquisition, the balance is set equal to the January 2 balance of \$72,000 ($480,000 \text{ francs} \times \1.15).
 - b. As a component of equity, dividends are translated into dollars using the exchange rate in effect when the dividend was declared.
 - c. Net income or loss is carried forward from the translated income statement as discussed later.
 - d. The cumulative translation adjustment is a balancing amount in the balance sheet. (The adjustment is discussed in more detail in the next section.)
4. Revenue and expense accounts (including cost of goods sold and depreciation), gains, and losses are translated using the exchange rate when the elements were recognized during the period. Because separate translation of numerous transactions is usually impractical, the use of an appropriate average to translate revenue and expense accounts is permitted.

An Analysis of the Translation Adjustment When some accounts in a trial balance are translated using one rate and other accounts are translated using a different rate, an inequality will result between the total of the debit account balances and the total of the credit account balances. For example, in Illustration 13-4 the 608,000 francs debit balance in the accounts receivable account is translated to \$659,680 using the current exchange rate of \$1.085. But the 608,000 francs included in accounts receivables are also included in the sales account balance. The 608,000 franc balance in sales is translated to \$94,848 ($608,000 \text{ francs} \times \1.56) using the average exchange rate for the period. Between these transactions there is a translation adjustment credit of \$21,280, since the accounts receivable could be converted into \$659,680 at the balance sheet date, as opposed to \$680,960 at the time of the sale. A translation adjustment will also result when items that are translated at the current rate are included in two successive trial balances and the exchange rate changes.

LO 7 The functional currency is the local currency.

In Illustration 13-4 the translation adjustment is a balancing amount that reconciles the total debit balances with the total credit balances after the individual accounts have been translated and is reported as a component of stockholders' equity. The translation adjustment for the period results from an entity's accounting exposure to exchange risk, which in an accounting sense is related to the set of accounts that are translated at the current rate. Fluctuations in the exchange rate have no effect on the translated amount of an account translated at a historical rate on two balance sheets.

The translation adjustment under the current rate method may be verified by a direct computation as in Illustration 13-5. Since all assets and liabilities are translated at the current rate under the current rate method, only net assets (assets minus liabilities) are exposed to currency fluctuations and thus result in a translation gain or loss. This net investment view of the firm recognizes that functional currency assets produce revenues in a foreign currency and can be an effective hedge of liabilities that require payment in the same foreign currency. Thus, equal amounts of functional currency assets and liabilities hedge one another and only net assets are exposed to exchange risk. Most firms will be in a net asset position, which results in a transaction gain (loss), when the direct exchange rate increases (decreases). Note that the steps shown in Illustration 13-5 provided a check for the current period change in the cumulative translation adjustment. To reconcile with the amount reported in the stockholders' equity section of the balance sheet, it is necessary to add (subtract) the cumulative translation adjustment reported in the prior period. To the extent that

ILLUSTRATION 13-5**Verification of the Translation Adjustment
Current Rate Method Functional Currency—Swiss Franc (SFr)**

	<i>SFr</i>	<i>Translation Rate</i>	<i>Reporting Currency (Dollars)</i>
1/1 Exposed net asset position	1,740,000*	\$1.15	2,001,000
Adjustments for changes in net asset position during year			
Net income for year	333,000	1.12	372,960
Dividends declared	<u>(300,000)</u>	1.1	<u>(330,000)</u>
Net asset position translated using rate in effect at date of each transaction			<u>2,043,960</u>
12/31 exposed net asset position	<u>1,773,000</u>	1.085	<u>1,923,705</u>
Change in cumulative translation adjustment during year—net decrease			120,255
1/1 Cumulative translation adjustment**			<u>0</u>
12/31 Cumulative translation adjustment			<u>120,255</u>

*A condensed balance sheet for SFr Company on January 2, 2020 was as follows:

	<i>SFr</i>		<i>SFr</i>
Monetary assets	1,100,000	Monetary liabilities	1,800,000
Nonmonetary assets		Common stock	960,000
Inventory	760,000	Additional paid-in capital	300,000
Fixed assets	<u>1,680,000</u>	Retained earnings	<u>480,000</u>
Total	<u>3,540,000</u>	Total	<u>3,540,000</u>

Net assets on 1/1 = 3,540,000 SFr - 1,800,000 SFr = 1,740,000 SFr

** The beginning balance is zero since this was the first year the investment was held.

the adjustment is sometimes a gain and sometimes a loss, the cumulative amount may remain near zero. On the other hand, a series of adjustments in the same direction may result in a relatively large credit (debit) balance. Credit balances may be viewed as net cumulative gains, while debit balances reflect net cumulative losses.

The first column in Illustration 13-5 reconciles the net asset position at the beginning of the year to the net asset position at the end of the year. Note that only the transactions that affected stockholders' equity will cause a change in the net asset position. The Swiss francs balances in column 1 are translated into dollars using different exchange rates as follows. The beginning exposed net asset position is translated using the exchange rate in effect at the beginning of the period. The increases and decreases in the net asset position are translated using the exchange rate at the date the transactions were assumed to occur. The ending exposed net asset position is translated using the current exchange rate.

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The functional currency of the Company's Chinese subsidiaries is the Chinese Yuan Renminbi. Translation gains of \$9,274,169 and \$8,127,749 at December 31, 2010 and 2009, respectively are classified as an item of other comprehensive income in the stockholders' equity section of the consolidated balance sheet. During the year ended December 31, 2010 and 2009 other comprehensive income in the consolidated statements of operations and other comprehensive income included translation gains (loss) of \$1,146,420 and \$10,745, respectively.⁹

⁹ Bodisen Biotech, Inc. 10-K, April 15, 2011.

RELATED CONCEPTS

In FASB Concept No. 3, *comprehensive income* is defined as the change in equity during a period from transactions with nonowners. Because a change in the exchange rate does not affect the net cash flows generated by the foreign operations (when the functional currency is not the U.S. dollar), the translation adjustment is reported separately from income; it is reported as a component of other comprehensive income.

Interpretation of Results In the preceding illustration, the current rate method was used to translate the foreign currency financial statements when the francs, as opposed to the dollar, was identified as the functional currency. As noted earlier, one of the objectives of translation is to retain in the translated statements the financial results and relationships of the financial statements as measured in the functional currency. With respect to financial results, a net income is reported in both the functional currency statements and the translated statements. A few selected financial ratios are computed here to show that the current rate method retains the financial relationships:

	<i>Swiss Francs</i>	<i>Dollars</i>
Current ratio	$\frac{2,368,000}{1,275,000} = 1.86$	$\frac{402,560}{216,750} = 1.86$
Debt to equity	$\frac{2,175,000}{1,773,000} = 1.23$	$\frac{369,750}{301,410} = 1.23$
Gross profit percentage	$\frac{1,170,000}{3,020,000} = 38.7\%$	$\frac{182,520}{471,120} = 38.7\%$
Net income to sales	$\frac{333,000}{3,020,000} = 11.0\%$	$\frac{51,948}{471,120} = 11.0\%$

Another objective of translation is to provide information that is generally compatible with the expected economic effects of a change in exchange rates. In the illustration, the exchange rate increased from \$.15 to \$.17 during the period, a favorable change for a U.S. parent company holding an investment in an exposed net asset position.

Translation of the foreign currency financial statements using the current rate approach resulted in a \$36,462 increase in stockholders' equity.

LO 9 Comprehensive income and foreign currency translation.

Statement of Comprehensive Income and Statement of Shareholders' Equity

Opinions remain divided as to the appropriateness of excluding currency translation adjustments from net income, as currently done under the "current" method. These adjustments represent one of several items of concern to the FASB because of their frequency of occurrence and relative importance, coupled with their exclusion from reported earnings. The FASB labeled such items as "other comprehensive income." In the early 1980s, the FASB defined comprehensive income as including *all* changes in equity during a period except those resulting from investments by owners and distributions to owners. Thus, comprehensive income consists of net income plus other items such as unrealized gains (losses) on available-for-sale securities and certain pension costs related to minimum pension liability that are excluded from net income under current GAAP. More recently, the FASB added the requirement that a statement of comprehensive income must be included in a complete set of financial statements.

In Illustration 13-6, we show the statement of comprehensive income and the reconciliation of changes in all shareholders' equity accounts for the year 2015 for SFr Company in dollars. Of course, these amounts would be added to the parent's balances for preparation of a consolidated statement of comprehensive income (and a consolidated statement of shareholders' equity).

ILLUSTRATION 13-6**Functional Currency is the Local Currency****SFr Company**

Current Rate Method

Statement of Comprehensive Income (in dollars)**For the Year Ended December 31, 2020**

Net income	\$372,960
Other comprehensive income:	
Currency translation adjustment	(120,250)
Comprehensive income	<u>\$252,710</u>

SFr Company
Statement of Shareholders' Equity
for the Year Ended December 31, 2020

	<i>Common Stock</i>	<i>Additional Paid-in Capital</i>	<i>Retained Earnings</i>	<i>Accumulated Other Comprehensive Income</i>	<i>Total</i>
Balance, 1/2/2020	\$1,104,000	\$345,000	\$552,000	0	\$2,001,000
Comprehensive income:					
Net income			372,960		372,960
Other comprehensive income:					
Currency translation adjustment				(120,255)	(120,255)
<i>Total comprehensive income</i>					<u>88,410</u>
Dividends declared			(330,000)		(330,000)
Balance, 12/31/15	<u>\$1,104,000</u>	<u>\$345,000</u>	<u>\$594,960</u>	<u>(\$120,255)</u>	<u>\$1,923,705</u>

Functional Currency Is the U.S. Dollar—Temporal Method

LO 8 The functional currency is the U.S. dollar.

The temporal method is used to remeasure the accounts of a foreign entity when the entity operates in a highly inflationary economy or its books are maintained in a currency other than its functional currency. The objective of the remeasurement process is to produce the same results as if the transactions of the foreign entity had been recorded initially in its functional currency. To accomplish this, the historical exchange rate is used to translate accounts carried at historical cost, while the current exchange rate is used to translate other accounts. The remeasurement process is as follows:

1. Monetary assets and liabilities (for example, cash, receivables, and most liabilities) that are expressed in the balance sheet at current values are translated using the current rate. (An asset or a liability is monetary if it represents a claim to a fixed amount of dollars. All other assets and liabilities are nonmonetary.)
2. Nonmonetary assets and liabilities carried at past exchange prices (historical cost) are translated at historical exchange rates, which results in translating these amounts to the equivalent number of dollars on the date the transaction took place.
3. Nonmonetary assets and liabilities carried at current or future exchange prices (for example, marketable securities or inventory carried at replacement cost) are translated at the current exchange rate.
4. Paid-in capital accounts are translated using the historical exchange rate at the date of acquisition, or at the date the original capital transaction(s) occurred if subsequent to acquisition.

5. The components that make up the ending retained earnings balance are translated as follows:
 - a. The beginning balance is set equal to the ending balance of the last period.
 - b. Dividends are translated at the rate existing on the date of the declaration.
 - c. Net income or loss is carried forward from the translated income statement.
6. Revenues and expenses related to assets and liabilities translated at historical rates (primarily inventory cost and depreciation) are translated at the respective historical rates used to translate the related asset or liability.
7. Other revenue and expense accounts are translated in a manner that produces approximately the same results as if the individual transactions were translated at the rate in effect when the transaction occurred; generally a weighted average rate is used for all transactions for simplicity's sake.
8. The translation gain or loss is reported in the income statement.

A list of some common nonmonetary items that should be remeasured using the historical rate is presented in Illustration 13-7. Remeasurement of the nonmonetary accounts using historical exchange rates normally requires that the foreign entity maintain detailed records identifying the purchase date and the exchange rate.

The December 31 trial balance of SFr Company in Swiss francs and the remeasurement of the accounts using the temporal method are shown in Illustration 13-8. The first step is to translate the individual accounts, except for the ending retained earnings balance of 513,000 francs, using the appropriate exchange rate. The ending retained earnings balance of \$581,555 is computed as a balancing amount required to equate the firm's liabilities and stockholders' equity with the total assets. Next, the ending retained earnings is carried to the combined statement of income and retained earnings where the translation gain of \$37,295 is the balancing amount in the combined statement.

ILLUSTRATION 13-7

Nonmonetary Items Remeasured Using the Historical Rate

Balance Sheet Items

- Equity securities carried at cost (use current rate for those carried at fair value)
- Inventories carried at cost (use current rate for those carried at fair value)
- Prepaid expenses such as insurance, advertising, and rent
- Property, plant, and equipment
- Accumulated depreciation on property, plant, and equipment
- Patents, trademarks, licenses, and formulas
- Goodwill
- Other intangible assets
- Deferred charges and credits, except deferred income taxes and policy acquisition costs for life insurance companies
- Common stock
- Preferred stock carried at issuance price

Income Statement Items

- Cost of goods sold
- Depreciation of property, plant, and equipment
- Amortization of intangible items such as patents, licenses, etc.
- Amortization of policy acquisition costs for life insurance companies.

Source: FASB ASC para. 830-10-45-15.

ILLUSTRATION 13-8

Functional Currency

Is U.S. Dollar—	SFr Company
Temporal Method	Workpaper to Translate Account
	Balances of Foreign Subsidiary
	December 31, 2020

<i>Balance Sheet</i>	<i>Adjusted Trial Balance (Swiss Francs)</i>	<i>Temporal Method</i>		<i>Adjusted Trial Balance (Dollars)</i>
		<i>Translation Rate</i>		
Cash	930,000	(C)	1.085	1,009,050
Accounts Receivable (net)	608,000	(C)	1.085	659,680
Inventories (FIFO cost)	830,000	Sch. 1		904,700
Land	500,000	(H)	1.150	575,000
Buildings (net)	650,000	(H)	1.150	747,500
Equipment (net)	430,000	(H)	1.150	494,500
Total	<u>3,948,000</u>			<u>4,390,430</u>
Accounts Payable	640,000	(C)	1.085	694,400
Short-Term Notes Payable	635,000	(C)	1.085	688,975
Bonds Payable	900,000	(C)	1.085	976,500
Common Stock	960,000	(H)	1.150	1,104,000
Additional Paid-in Capital	300,000	(H)	1.150	345,000
Retained Earnings	513,000	(B/A)		581,555
Total	<u>3,948,000</u>			<u>4,390,430</u>
Combined Statement of Income and Retained Earnings				
Sales	3,020,000	(A)	1.12	3,382,400
Cost of Goods Sold	1,850,000	Sch. 1		2,119,700
Depreciation Expense	100,000	(H)	1.15	115,000
Other Expenses	655,000	(A)	1.12	733,600
Income Tax Expense	82,000	(A)	1.12	91,840
Translation Gain	—	(B/A)		(37,295)
Net Income	333,000			359,555
1/2 Retained Earnings	480,000	(1)		552,000
Less: 9/1 Dividends Declared	300,000	(H)	1.10	330,000
12/31 Retained Earnings	513,000			581,555

① Carry down retained earnings

- (1) Retained earnings in dollars on January 2.
- (A) Average exchange rate used to approximate the rate on the date these elements were recognized.
- (H) Historical exchange rate.
- (C) Current exchange rate.
- (B/A) Balancing amount.

Schedule 1

Translation of cost of goods sold

	<i>Swiss Franc</i>	<i>Translation Rate</i>	<i>Dollars</i>
Beginning inventory (assumed)	760,000	1.15	874,000
Purchases (assumed)	1,920,000	1.12	2,150,400
	2,680,000		3,024,400
Less: Ending inventory	830,000	1.09	904,700
Cost of goods sold	<u>1,850,000</u>		<u>2,119,700</u>

- ① Carry down retained earnings.
- ② Complete income statement down to translation gain or loss.
- ③ Beginning with ending retained earnings, work back to net income.

Ending Retained Earnings	+	Dividends	-	1/2 Retained Earnings	=	Net Income
\$581,555	+	330,000	-	552,000	=	359,555
- ④ Compute translation gain or loss.

Translation gain (loss) = Net Income - (Sales - Expenses)
= \$359,555 - (3,382,400 - 3,060,140) = 37,295

An Analysis of the Translation Gain or Loss The translation loss in the temporal method of translation is derived by a direct calculation in Illustration 13-9. Procedurally, the approach is based on the same underlying concept as that used to verify the translation adjustment reported when the current rate method was used. That is, the translation loss is related to those accounts translated at the current exchange rate. However, in applying the temporal method, in general, monetary items only are translated at the current rate while most nonmonetary items are translated at historical rates. Accordingly, the dollar value of monetary items is affected by variations in the exchange rate, giving rise to a gain or loss. On the other hand, nonmonetary items will not result in a gain or loss because each item is translated in successive balance sheets using its respective historical exchange rate. As a result, as long as these items are reported in the balance sheet, they will retain their original translated dollar amounts (less accumulated amortization), even though the exchange rate may have changed.

A translation loss results from application of the temporal method, as opposed to the credit translation adjustment calculated on the exposed assets using the current rate method, because SFr Company maintained a net monetary liability position throughout the year. An increasing exchange rate will produce a translation loss on an exposed net monetary liability position.

ILLUSTRATION 13-9

Verification of the Translation Loss Temporal Method Functional Currency—U.S. Dollar

	<i>Swiss Francs</i>	<i>Translation Rate</i>	<i>Reporting Currency (U.S. Dollar)</i>
1/1 Exposed net monetary liability position	700,000*	\$1.15	805,000
Adjustments for changes in net monetary position during the year:			
Less: Increase in cash and receivables from sales	(3,020,000)	1.12	(3,382,400)
Add: Decrease in monetary assets or increase in monetary liabilities:			
Purchases	1,920,000	1.12	2,150,400
Other expenses	655,000	1.12	733,600
Income taxes	82,000	1.12	91,840
Dividends declared	300,000	1.1	330,000
Net monetary liability position translated using rate in effect at date of each transaction	<u>—</u>		728,440
12/31 Exposed net monetary liability position**	<u>637,000</u>	1.085	<u>691,145</u>
Translation gain (loss)			<u>37,295</u>

* The January 2, 2020, condensed balance sheet is given in Illustration 13-5.

	<i>Swiss Francs</i>
Monetary liabilities	1,800,000
Less: Monetary assets	<u>1,100,000</u>
Net monetary liability position	<u>700,000</u>

** See Illustration 13-8.

	<i>Swiss Francs</i>
Monetary liabilities (640,000 + 635,000 + 900,000)	2,175,000
Less: Monetary assets (930,000 + 608,000)	<u>1,538,000</u>
Net monetary liability position	<u>637,000</u>

Comparison of the Two Methods

In translating the balance sheet, the differences and similarities between the temporal and current rate methods are highlighted in the following schedule:

	<i>Balance Sheet Translation Rates</i>	
	<i>Current Rate Method</i>	<i>Temporal Method</i>
Monetary asset	Current	Current
Nonmonetary asset carried at historical cost	Current	Historical
Nonmonetary asset carried at market value	Current	Current
Monetary liability	Current	Current
Nonmonetary liability	Current	Historical

The two methods differ primarily in terms of the appropriate rate to use for non-monetary items carried at historical cost. In the income statement, a net income of \$51,948 resulted when the Swiss franc was the functional currency (Illustration 13-4), whereas a net income of \$52,660 was reported when the U.S. dollar was the functional currency (Illustration 13-8). There are two reasons for this difference. First, when the foreign currency is strengthening against the dollar, cost of goods sold and depreciation expense are usually greater when the current rate method of translation is used. Second, a translation loss of \$11,918 is reported in the dollar functional currency income statement, whereas a credit adjustment of \$36,462 is reported in stockholders' equity in the franc functional currency statement.

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Constant currency Non-GAAP adjustments

Companies with major foreign operations often fear that large exchange rate fluctuations severely affect their financial performance. Consider a company located in the United States but does business in the European Union, earning revenues in euros. In year one, the company recognizes 100,000€ in revenues and 15,000€ in net income. In year two, the company recognizes 105,000€ in revenues and net income of 16,500€. The direct exchange rate to convert euros to dollars averaged 1.30 dollars per euro in year one and 1.20 in year two.

GAAP

	In euros			In U.S. Dollars		
	Year One	Year Two	Change	Year One	Year Two	Change
Revenue	100,000	105,000	+5%	130,000	126,000	(3.1%)
Net Income	15,000	16,500	+10%	19,500	19,800	+1.5%

As reported, depending on how the exchange rate changes, growth in revenues of 5% are reported as declines in revenues of 3.1%. Many companies feel this masks the true performance. To counter this effect, many companies report constant currency numbers as non-GAAP numbers. Constant currency numbers use either the exchange rate at the beginning or end of the period for all years being translated.

Non GAAP (constant currency)

	In U.S. Dollars (year one rate =1.3)			In U.S. Dollars (year two rate =1.2)		
	Year One	Year Two	Change	Year One	Year Two	Change
Revenue	130,000	136,500	+5%	120,000	126,000	+5%
Net Income	19,500	21,450	+10%	18,000	19,800	+10%

While the percentage increase in revenues and income are the same, the amount of revenues and income reported will depend on the direction of the change in the exchange rate. In this example, because the euro is weakening relative to the dollar, the company may prefer to use a historical rate, which artificially increases revenue for the current year. In many cases, executive compensation is based on non-GAAP earnings.

13.8 FINANCIAL STATEMENT DISCLOSURE

Companies are required to disclose certain items, as follows:

1. The aggregate translation gain or loss included in the determination of net income for the period, including gains or losses related to forward contracts, should be disclosed in either the financial statements or notes thereto.
2. An analysis of the cumulative translation adjustment equity account should be provided in a separate statement or note or as part of a statement of changes in equity. The analysis should include:
 - a. The beginning and ending cumulative translation adjustment amounts.
 - b. The aggregate adjustment for the period resulting from the translation of foreign currency statements and gains and losses from certain hedging activities and intercompany long-term investment transactions.
 - c. The amount of income taxes for the period allocated to the cumulative translation adjustment equity account.
 - d. The amounts transferred from the cumulative translation adjustment equity account and included in the determination of net income for the period as a result of the sale of part or all of an investment in a foreign entity.
3. Exchange rate changes that occur after the balance sheet date and their effect on unsettled foreign currency transactions, if significant.

U.S. companies must also comply with the provisions of the Foreign Corrupt Practices Act (FCPA). The FCPA was enacted in 1977 in response to disclosures by more than 400 U.S. corporations of questionable or improper payments made to foreign officials to elicit their support for business arrangements with the U.S. firms. An extensive investigation by the SEC revealed that in a significant number of cases, the foreign payments had been made to appear in the corporate records as a normal operating expense and that inadequate documentation precluded the verification of the purpose of the payment.

The FCPA contains two major sections: an antibribery section and an accounting standards section. The antibribery provision makes it a criminal offense to offer a bribe to a foreign government official or foreign political official. The accounting standards section of the Act is intended to help prevent the concealment of foreign corrupt payments.

In February 1978 the SEC issued *Accounting Series Release No. 242*, which emphasized the importance of the provisions of the Act and the need to comply with its requirements. In the release the SEC stated that although the Act imposed new requirements with respect to the maintenance of internal accounting controls and outlawed certain foreign corrupt practices, it did not alter the existing obligation to adequately disclose questionable and illegal corporate payments and practices. The SEC went on to state that “registrants have a continuing obligation to disclose all material information and all information necessary to prevent other disclosures made from being misleading with respect to such transactions.”

In one of the current joint projects of the FASB and the IASB, the Boards are proposing a single statement of comprehensive income (in place of the current alternatives for presenting comprehensive income—in the statement of owners’ equity, in a statement separate from the income statement, or as part of the income statement). Further, the Boards propose that an entity should present foreign currency transaction gains and losses, including the components of any net gain or loss arising on remeasurement into the functional currency, in the same section and category as the assets and liabilities that give rise to the gains or losses. Also see Chapter 11 for an expanded discussion of the proposed changes in financial statement presentation.

LO 10 Required disclosures.

RELATED CONCEPTS

This presentation is believed to improve the *comparability* of financial statements because all entities will present the components of comprehensive income in a similar manner.

IFRS

TEST YOUR KNOWLEDGE 13.3

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

Multiple Choice

1. Under the current method of currency translation, which of the following balance sheet accounts is translated at historical exchange rates?
 - a. Cash
 - b. Accounts Receivable
 - c. Bonds Payable
 - d. Common Stock

SUMMARY

- 1 *Distinguish between the current exchange rate and the historical exchange rate.* The current exchange rate is the spot rate in effect at the end of the accounting period (i.e., the balance sheet date). The historical exchange rate is the spot rate in effect on the date a transaction takes place.
- 2 *Understand the objectives of financial statement translation.* The objectives are to provide information that is compatible with the exposed economic effects of an exchange rate change on a firm's cash flows and equity, and to reflect in the consolidated statements the financial results and relationships of the individual entities as measured in their functional currencies in conformity with U.S. GAAP.
- 3 *Identify the functional currency of a foreign entity.* The functional currency is the currency of the primary economic environment in which the foreign entity conducts its operations and generates and expends its cash.
- 4 *Compare the two methods used to convert the financial statements of a foreign entity into U.S. dollars.* Under the **current method**, all assets and liabilities are translated using the current exchange rate on the balance sheet date. For income statement accounts (revenues and expenses), a weighted-average exchange rate is used to approximate the results that would be obtained from translation of each transaction. Under the **temporal method**, monetary assets and liabilities are translated at the current exchange rate. Assets and liabilities carried at historical cost are translated at historical exchange rates. Assets and liabilities carried at current values (such as inventory carried at market under the lower of cost or market rule) are translated at the current exchange rate. Revenues and expenses that relate to assets and liabilities translated at historical rates (such as depreciation expense, amortization expense, and the cost of sales) are translated at the historical rates used for the related assets and liabilities. Other revenues and expenses are converted using a weighted-average rate.
- 5 *Distinguish between the circumstances under which each of the two methods is appropriate under current GAAP.* The temporal method (also referred to as remeasurement) is appropriate when the functional currency is the U.S. dollar or when the foreign environment is highly inflationary. The current method (also referred to as translation) is appropriate when the functional currency is the local currency. If the functional currency is the currency of a third country, it is necessary to remeasure the accounts *first* into the functional currency using the temporal method and *then* to translate the accounts into U.S. dollars (the reporting currency) using the current method.
- 6 *Explain the factors involved in translating the statements of a foreign entity operating in a highly inflationary economy.* The currency of a country experiencing high inflation will weaken substantially against the currency of a more stable economy. Thus, using the current rate method to translate inventories and fixed assets of foreign operations in highly inflationary economies often results in a substantial reduction in the translated amounts. Because the currency of the country has lost its utility as a store of value and cannot be a functional measuring unit, the Board prescribed that the financial statements be remeasured as if the functional currency were the reporting currency (U.S. dollar).
- 7 *Translate the statements of a foreign entity when the functional currency is the local currency.* The accounts are translated into dollars using the current rate method. The resulting translation adjustment is recorded as a separate component of stockholders equity.
- 8 *Translate the statements of a foreign entity when the functional currency is the U.S. dollar.* When the foreign entity does not maintain its records in its functional currency, the accounts are remeasured into the functional currency (dollars) using the temporal method. The resulting translation adjustment is reported in the current period's income statement.
- 9 *Understand the concept of comprehensive income in the context of foreign currency translation.* The currency translation adjustment under the "current" method represents one of several items of concern to the FASB because of their frequency of occurrence and relative importance,

coupled with their exclusion from reported earnings. These items are, however, included in comprehensive income, defined as *all* changes in equity during a period except those resulting from investments by owners and distributions to owners. A statement of comprehensive income must be included in a complete set of financial statements.

- 10** *Identify the disclosure requirements for firms with foreign entities.* Companies must disclose: (1) the aggregate translation gain or loss included in earnings for the period, including gains or losses related to forward contracts; (2) an analysis of the cumulative translation adjustment equity account; and (3) the effect of any significant exchange rate changes that occur after the balance sheet date.

Supplemental Appendix 13A, “Accounting for a Foreign Affiliate and Preparation of Consolidated Statements Workpaper Illustrated,” is available from your instructor. Supplemental Appendix 13B, “Preparing the Statement of Cash Flows with International Subsidiaries” is available from your instructor.

TEST YOUR KNOWLEDGE SOLUTIONS

13.1 1. c 2. d **13.2** 1. c **13.3** 1. d

QUESTIONS

(The letter A or B after a question, exercise, or problem refers to the Appendix which can be found at www.wiley.com/go/jeter/AdvancedAccounting7e)

- LO 2** 1. What requirements must be satisfied if a foreign subsidiary is to be consolidated?
- LO 3** 2. What is meant by an entity’s functional currency and what are the economic indicators identified by the FASB to provide guidance in selecting the functional currency?
- LO 5** 3. The _____ is the functional currency of a foreign subsidiary with operations that are relatively self-contained and integrated within the country in which it is located. In such cases, the _____ method of translation would be used to translate the accounts into dollars.
- LO 5** 4. The _____ is the functional currency of a foreign subsidiary that is a direct and integral component or extension of a U.S. parent company. In such cases, the _____ method of translation is used to translate (remeasure) the accounts into dollars.
- LO 6** 5. Which method of translation is used to convert the financial statements when a foreign subsidiary operates in a highly inflationary economy?
- LO 4** 6. Define remeasurement.
- LO 4** 7. Under the current rate method, how are assets and liabilities that are stated in a foreign currency translated?
- LO 4** 8. Under the current rate method, describe how the various balance sheet accounts are translated (including the equity accounts) and how this translation affects the computation of various ratios (such as debt to equity or the current ratio). In particular, discuss whether or not the ratios will change when computed in local currencies and compared to their calculations (after translation) using the parent’s currency.
9. What is the objective of the temporal method of translation? **LO 4**
10. Assuming that the temporal method is used, how are revenue and expense items in foreign currency financial statements converted? **LO 4**
11. A translation adjustment results from the process of translating financial statements of a foreign subsidiary from its functional currency into dollars. Where is the translation adjustment reported in the financial statements if the current rate method is used to translate the accounts? **LO 7**

Business Ethics

The Shady Tree Company is preparing to announce their quarterly earnings numbers. The company expects to beat the analysts’ forecast of earnings by at least 5 cents a share. In anticipation of the increase in stock value and before the release of the earnings numbers, the company issued stock options to the top executives in the firm, with the option price equal to today’s market price.

1. This type of executive stock option is often referred to as “spring-loading.” Do you think this practice should be allowed? Does it provide information about the integrity of the firm or is this just good business practice?
2. Do you think this practice violates the insider trading rules?

ANALYZING FINANCIAL STATEMENTS

AFS13-1 Foreign Currency Translation

Red Hat, Inc. reported comprehensive income from 2013 to 2015 as follows (\$ thousands):

	<u>2013</u>	<u>2014</u>	<u>2015</u>
Net income	\$150,204	\$178,292	\$180,201
Unrealized loss on available- for-sale investments	(795)	(437)	(1)
Foreign currency translation	<u>(2,810)</u>	<u>(3,945)</u>	<u>(56,163)</u>
Comprehensive income	<u>\$148,189</u>	<u>\$181,800</u>	<u>\$124,039</u>

Required:

- A. Which method does Red Hat use to translate foreign subsidiaries? Why?
- B. Explain the change in the translation adjustment from 2013 to 2015.

AFS13-2 NON-GAAP Constant Dollar Reporting

Red Hat, Inc. reported the following in its 2017 10K:

Non-GAAP disclosures

In accordance with accounting principles generally accepted in the United States (“U.S. GAAP”), the income statements of our non-U.S. operations are translated into U.S. dollars using the average exchange rates for each month in an applicable period. To the extent the U.S. dollar weakens against foreign currencies, the translation of transactions denominated in foreign currencies results in increased revenue, as stated in U.S. dollars, for our non-U.S. operations. Similarly, revenue, as stated in U.S. dollars, for our non-U.S. operations decreases if the U.S. dollar strengthens against foreign currencies. In this Part II, Item 7, we disclose non-GAAP amounts and growth rates that exclude the impact of foreign currency exchange rate fluctuations for fiscal 2017 in an effort to provide a comparable framework for assessing how our business performed when compared to fiscal 2016. To compute the non-GAAP impact of foreign currency exchange rate fluctuations, we translate amounts from our non-U.S. operations for fiscal 2017 using the average foreign currency exchange rate for the 12 months ended February 29, 2016.

Required:

- A. What might be a disadvantage of reporting trends in revenues and earnings using GAAP?
- B. When reporting non-GAAP constant dollar amounts, firms must choose the constant exchange rate to convert all the numbers. Speculate as to why Red Hat might choose a rate from 2016, rather than a rate from 2017?

AFS13-3 Functional Currency

On May 24, 2011, Intel Holdings announced its financial results for the quarter ended March 31, 2011. The results reflect the consolidated financial results of Magyar Telecom B.V. and its subsidiaries. The reporting currency is the euro; however, the functional currency is the Hungarian forint (the currency of the primary economic environment in which the Company operates). When comparing the financial results for the quarter ended March 31, 2011, to the financial results for the quarter ended March 31, 2010, the reported results in euros have been affected by the difference between the average HUF/EUR exchange rates. The Hungarian forint depreciated against the euro by 1% with an average HUF/EUR exchange rate of 272.48 during the quarter ended March 31, 2011, compared to the average HUF/EUR exchange rate of 268.57 during the quarter ended March 31, 2010.

Required:

Explain how the change in the exchange rate will affect Intel’s consolidated financial statements.

EXERCISES

EXERCISE 13-1 Identifying the Exchange Rate LO 5

Accounts are listed below for a foreign subsidiary that maintains its books in its local currency. The equity interest in the subsidiary was acquired in a purchase transaction. In the space provided, indicate the exchange rate that would be used to translate the accounts into dollars assuming that the functional currency was identified (a) as the U.S. dollar and (b) as the foreign entity's local currency. Use the following letters to identify the exchange rate:

- H—historical exchange rate
 C—current exchange rate
 A—average exchange rate for the current period

<i>Account</i>	<i>Exchange Rate if the Functional Currency Is:</i>	
	<i>U.S. Dollar</i>	<i>Local Currency</i>
Cash	_____	_____
Accounts receivable	_____	_____
Inventory carried at cost	_____	_____
Inventory carried at market	_____	_____
Prepaid rent	_____	_____
Property, plant, and equipment	_____	_____
Goodwill	_____	_____
Accounts payable	_____	_____
Bonds payable	_____	_____
Unamortized premium on bonds payable	_____	_____
Preferred stock carried at issuance price	_____	_____
Common stock	_____	_____
Sales	_____	_____
Cost of goods sold	_____	_____
Depreciation expense	_____	_____

EXERCISE 13-2 Multiple Choice LO 3 LO 5 LO 7 LO 8

Select the best answer for each of the following items:

- Golf Company acquired 80% of the outstanding stock of Ping Company, a foreign company, in an acquisition accounted for as a purchase transaction. In preparing consolidated statements, the paid-in capital of Ping Company should be translated into dollars at the
 - Current exchange rate in effect at the balance sheet date.
 - Exchange rate in effect at the date the capital transactions of the subsidiary took place.
 - Exchange rate in effect at the date Golf Company purchased the Ping Company stock.
 - Exchange rate effective when Ping Company was organized.
- The account balances of a foreign entity are required by *SFAS No. 52* to be measured using that entity's functional currency. The functional currency of an entity is defined as
 - The currency in which the entity's transactions are recorded.
 - The currency of the primary economic environment in which the entity operates.
 - The U.S. dollar.
 - The local currency of the country in which the entity is physically located.

3. When translating foreign currency financial statements for an entity whose functional currency is the local currency of the country in which it is physically located, which of the following accounts is translated using current exchange rates?

	<i>Bonds Payable</i>	<i>Inventories Carried at Market</i>
(a)	No	No
(b)	Yes	No
(c)	No	Yes
(d)	Yes	Yes

4. A translation adjustment (or translation gain) that is a consequence of translation of a functional currency that is different from the reporting currency should be
- (a) Deferred and amortized over a period not to exceed 40 years.
 (b) Deferred until a subsequent year when a loss occurs and offset it against that loss.
 (c) Included as a separate item in the equity section of the balance sheet.
 (d) Included in net income in the period in which it occurs.
5. A wholly owned foreign subsidiary of Import Corporation has certain expense accounts for the year ended December 31, 2014, stated in local currency units (LCU) as follows:

	<i>LCU</i>
Amortization of patent (patent was acquired January 1, 2012)	40,000
Provision for doubtful accounts	40,000
Rent	120,000

The exchange rates at various dates are as follows:

	<i>Dollar Equivalent of 1 LCU</i>
December 31, 2014	\$.20
Average for the year ended December 31, 2014	.24
January 1, 2012	.25

The subsidiary's operations were an extension of the parent company's operations. What total dollar amount should be included in Import's income statement to reflect the foregoing expenses for the year ended December 31, 2014?

- (a) \$48,000.
 (b) \$40,000.
 (c) \$48,400.
 (d) \$42,000.

(AICPA adapted)

EXERCISE 13-3 Multiple Choice LO 3 LO 4 LO 5 LO 7 LO 8

Select the best answer choice for each of the following items.

1. Perez Company's operations are unrelated to the operations of its subsidiary. Certain balance sheet accounts of the foreign subsidiary at December 31, 2014, have been translated into U.S. dollars as follows:

	<i>Translated at:</i>	
	<i>Current Rates</i>	<i>Historical Rates</i>
Accounts receivable, current	\$200,000	\$220,000
Accounts receivable, long-term	130,000	140,000
Prepaid insurance	50,000	55,000
Goodwill	100,000	110,000

If the accounting is in accordance with *SFAS No. 52*, what total should be included in Perez's balance sheet at December 31, 2014, for the foregoing items?

- (a) \$480,000.
 (b) \$490,000.
 (c) \$495,000.
 (d) \$580,000.
2. When the functional currency of a foreign operation is the U.S. dollar, translation gains and losses resulting from translating (remeasuring) foreign currency financial statements into U.S. dollars should be included as
- (a) An extraordinary item in the income statement for the period in which the rate changes.
 (b) An ordinary item in the income statement for losses but deferred for gains in accordance with the conservatism convention.
 (c) An ordinary item in the income statement for the period in which the rate changes.
 (d) A deferred item in the balance sheet.
3. Pal Company is translating account balances of its foreign subsidiary into dollars for its December 31, 2014, balance sheet and its 2014 income statement. The functional currency was identified as the local currency of the foreign subsidiary. The average exchange rate for 2014 should be used to translate
- (a) Retained earnings at January 1, 2014.
 (b) Equipment purchased in 2014.
 (c) Sales for 2014.
 (d) Cash at December 31, 2014.
4. One of the first steps in translating the financial statements of a foreign subsidiary is the identification of the functional currency of that entity. Which of the following indicates that the functional currency is the local currency of the foreign entity?
- (a) There is a high volume of intercompany transactions.
 (b) Financing is primarily denominated in the local currency.
 (c) Sales are mostly in the United States, or sales contracts are denominated in dollars.
 (d) Sales prices are primarily responsive in the short term to exchange rate changes.
5. When the foreign operations are conducted in a highly inflationary economy, at what translation rates should the goodwill and accounts receivable accounts in foreign statements be translated into U.S. dollars?

	<u>Goodwill</u>	<u>Accounts Receivable</u>
(a)	Current	Average for year
(b)	Historical	Current
(c)	Historical	Historical
(d)	Current	Current

(AICPA adapted)

EXERCISE 13-4 Foreign Currency Translation—Current Rate Method LO 7

On January 1, 2014, Trenten Systems, a U.S.-based company, purchased a controlling interest in Grant Management Consultants located in Zurich, Switzerland. The acquisition was treated as a purchase transaction. The 2014 financial statements stated in Swiss francs are given below.

GRANT MANAGEMENT CONSULTANTS
Comparative Balance Sheets
January 1 and December 31, 2014

	<i>Jan. 1</i>	<i>Dec. 31</i>
Cash and Receivables	20,000	55,000
Net Property, Plant, and Equipment	40,000	37,000
Totals	<u>60,000</u>	<u>92,000</u>
Accounts and Notes Payable	30,000	32,000
Common Stock	20,000	20,000
Retained Earnings	10,000	40,000
Totals	<u>60,000</u>	<u>92,000</u>

GRANT MANAGEMENT CONSULTANTS
Consolidated Income and Retained Earnings Statement
for the Year Ended December 31, 2014

Revenues	75,000
Operating Expenses including Depreciation of 3,000 francs	<u>30,000</u>
Net Income	45,000
Dividends Declared and Paid	<u>15,000</u>
Increase in Retained Earnings	<u>30,000</u>

Direct exchange rates for Swiss franc are:

	<i>Dollars per Swiss Franc</i>
January 1, 2014	\$1.09
December 31, 2014	1.03
Average for 2014	1.06
Dividend declaration and payment date	1.08

Required:

- A. Translate the year-end balance sheet and income statement of the foreign subsidiary using the current rate method of translation.
- B. Prepare a schedule to verify the translation adjustment.

EXERCISE 13-5 Foreign Currency Remeasurement—Temporal Method LO 8

Use the information provided in Exercise 13-4.

Required:

- A. Convert (remeasure) the financial statements of the foreign subsidiary using the temporal method of translation.
- B. Prepare a schedule to verify the translation gain or loss.

EXERCISE 13-6 Local Currency Is a Foreign (Non-U.S.) Currency LO 7

Refer to Exercise 13-4. Using the same information, assume that the Brazilian real is identified as the functional currency of the subsidiary.

Required:

- A. Remeasure the account balances that are expressed in Swiss francs into Brazilian reals, Direct exchange rates for the real are:

	<i>Real per Franc</i>
Beginning of current year	1.3940
End of current year	1.2899
Average for current year	1.3445
Dividend payment date	1.2438

- B.** Translate the remeasured accounts that are now stated in Reals into dollars using the current rate method. Direct exchange rates for the real are:

	<i>Dollars per Real</i>
Beginning of current year	\$.4891
End of current year	.4630
Average for current year	.4751
Dividend payment date	.4740

EXERCISE 13-7 Current Rate Method LO 7

Dorsey Corporation purchased 90% of the common stock of Lansing Company on January 1, 2008. The cost of the investment was equal to the book value interest acquired. Lansing Company operates two retail stores and an exporting business in London that specializes in buying and selling British tweeds. The subsidiary provided the following financial statements in pounds to the parent company:

LANSING COMPANY
Consolidated Income and Retained Earnings Statement
for the Year Ended December 31, 2014

Sales	2,900,000
Cost of Goods Sold	(1,400,000)
Depreciation Expense	(300,000)
Other Expenses	<u>(400,000)</u>
Net Income	800,000
1/1 Retained Earnings	<u>900,000</u>
	1,700,000
Less: Dividends Declared and Paid, December 31	<u>(325,000)</u>
12/31 Retained Earnings	<u>1,375,000</u>

LANSING COMPANY
Balance Sheet
December 31, 2014

Cash and Receivables	1,275,000
Merchandise Inventory	490,000
Property, Plant, and Equipment	<u>3,450,000</u>
Total	<u>5,215,000</u>
Current Liabilities	640,000
Long-Term Notes Payable	1,200,000
Capital Stock	2,000,000
Retained Earnings	<u>1,375,000</u>
Total	<u>5,215,000</u>

Lansing Company was incorporated on January 1, 2006, at which time all the property, plant, and equipment was purchased. The long-term notes were issued to partially finance the purchase of the fixed assets.

Direct exchange rates for the British pound are as follows:

January 1, 2006	\$1.8996
January 1, 2008	1.8365
Average for the last quarter 2018	1.5300
January 1, 2019	1.4919
December 31, 2019	1.4730
Average for 2019	1.4788
Average for August–December 2019	1.4950

The January 1, 2019, retained earnings balance of Lansing in dollars was \$1,593,408, and the cumulative translation adjustment was a debit balance of \$939,898. The beginning inventory of £420,000 was acquired during the last quarter of 2018 and the ending inventory was acquired during the last five months of 2019. Sales were made and purchases and other expenses were incurred evenly during the year.

Required:

Translate the December 31, 2019, account balances of Lansing Company into dollars assuming that the pound is the functional currency of Lansing Company.

EXERCISE 13-8 Temporal Method (Remeasurement) LO 8

Refer to the data provided in Exercise 13-7 for Dorsey Corporation and Lansing Company.

Required:

Translate (remeasure) the account balances of Lansing into dollars assuming that the dollar is the functional currency of Lansing Company. The beginning retained earnings balance of Lansing Company in dollars was \$1,791,324.

EXERCISE 13-9 Translation Assuming Various Functional Currencies LO 7 LO 8

Slocome Travel owns a travel agency that operates in London. Account balances in pounds for the subsidiary are summarized below:

	2019	
	January 1	December 31
Cash and Receivables	32,000	35,000
Office Supplies	1,500	900
Land, Building, and Equipment	70,000	65,000
Accounts Payable	(15,500)	(6,900)
Long-Term Note Payable	(25,000)	(15,000)
Common Stock	(40,000)	(40,000)
Retained Earnings	(23,000)	(23,000)
Dividends—Declared and Paid on December 31	—	4,000
Revenues	—	(40,000)
Operating Expenses	—	20,000
Totals	<u>—0—</u>	<u>—0—</u>

Exchange rates for the British pound for 2019 were as follows:

January 1	\$1.5403
December 31	1.5961
Average for year	1.5532

The subsidiary did not make any purchases of office supplies or plant assets during the year. Revenues were earned and operating expenses, other than depreciation and supplies used, were incurred evenly throughout the year.

Required:

- A. Prepare a schedule to compute the translation adjustment for the year, assuming the foreign entity's functional currency is the pound.
- B. Prepare a schedule to compute the translation gain or loss, assuming the foreign entity's functional currency is the U.S. dollar.
- C. Explain why your results differ under the two methods.

EXERCISE 13-10A Consolidated Workpaper (See supplemental Appendix 13A available from your instructor)

A U.S. company owns an 80% interest in a company located on Mars. Martian currency is called the Martian Credit. During the year the parent company sold inventory that had cost \$24,000 to the subsidiary on account for \$30,000 when the exchange rate was \$.5192. The subsidiary still held one-half of the inventory and had not paid the parent company for the purchase at the end of the fiscal period. The unsettled account is denominated in dollars. The exchange rate at the fiscal year-end was \$.4994.

Required:

- A.
 - (1) Compute the amounts that would be reported for the inventory and accounts payable in the subsidiary's translated balance sheet. The entity's functional currency is the Martian Credit.
 - (2) Compute the subsidiary's transaction gain or loss on the accounts payable denominated in dollars.
 - (3) How is the transaction gain or loss reported in the foreign entity's financial statements?
- B. Compute the amount of the intercompany profit to be eliminated in the consolidated statements workpaper prepared for the current year.
- C.
 - (1) Assuming that the transaction had been denominated in 50,204 Martian Credits rather than dollars, compute the transaction gain or loss that would be reported by the parent company.
 - (2) How is the gain or loss reported in the consolidated financial statements?
 - (3) How would your answer differ if the loan to the foreign subsidiary of a long-term investment nature?

ASC Exercises For all ASC exercises indicate as part of your answer: the Codification topic, subtopic, section, and/or paragraph upon which your answer is based (unless otherwise specified). All ASC questions require access to the FASB Codification.

ASC13-1 Presentation The Statement of Comprehensive Income was required by FASB in *SFAS Statement No. 130*; describe the formats that are acceptable to display the information in the statement.

ASC13-2 Disclosure One of the items reported as part of comprehensive income relates to foreign currency translation gains or losses. Describe the circumstances under which such gains/losses appear only in comprehensive income and not in net income. List examples of other items that are appropriately reported as components of "other comprehensive income."

ASC13-3 Presentation For purposes of topic 830, what is a highly inflationary economy and how is a highly inflationary economy determined?

ASC13-4

Cross-reference The rules providing guidance on foreign currency translation can be found in *FASB Statement No. 52*. Where is this information located in the Codification? List all the topics and sub-topics in the codification (i.e., ASC XXX–XX). (*Hint*: There are three main topics.)

ASC13-5

Presentation Can a gain or loss from a translation of foreign currencies due to a major devaluation in currency be treated as an extraordinary item?

PROBLEMS

PROBLEM 13-1 Translation—Local Currency Is the Functional Currency LO 7

On January 1, 2019, a U.S. company purchased 100% of the outstanding stock of Ventana Grains, a company located in Latz City, New Zealand. Ventana Grains was organized on January 1, 2000. All the property, plant, and equipment held on January 1, 2019, was acquired when the company was organized. The business combination was accounted for as a purchase transaction. The 2019 financial statements for Ventana Grains, prepared in its local currency, the New Zealand dollar, are given here.

VENTANA GRAINS
Comparative Balance Sheets
January 1 and December 31, 2019

	<i>Jan. 1</i>	<i>Dec. 31</i>
Cash and Receivables	500,000	880,000
Inventories	600,000	500,000
Land	400,000	400,000
Buildings (net)	650,000	605,000
Equipment (net)	465,000	470,000
Totals	2,615,000	2,855,000
Short-Term Accounts and Notes	295,000	210,000
Long-Term Notes (600,000 issued September 1, 2006, 80,000 issued July 1, 2019)	600,000	680,000
Common Stock	800,000	800,000
Additional Paid-in Capital	200,000	200,000
Retained Earnings	720,000	965,000
Total	2,615,000	2,855,000

VENTANA GRAINS
Consolidated Income and Retained Earnings Statement
for the Year Ended December 31, 2019

Revenues		3,225,000
Cost of Goods Sold:		
Beginning Inventory	600,000	
Purchases	2,100,000	
Goods Available for Sale	2,700,000	
Less: Ending Inventory	500,000	
Cost of Goods Sold		2,200,000
Gross Profit on Sales		1,025,000
Depreciation Expense	140,000	
Other Expenses	540,000	
Net Income		345,000
Jan. 1 Retained Earnings		720,000
Total		1,065,000
Less: Dividends Paid		100,000
Dec. 31 Retained Earnings		965,000

The account balances are computed in conformity with U.S. generally accepted accounting standards.

Other information is as follows:

1. Direct exchange rates for the New Zealand dollar on various dates were:

<i>Date</i>	<i>Exchange Rate</i>
January 1, 2000	\$.8011
September 1, 2010	.5813
January 1, 2019	.7924
July 1, 2019	.7412
December 31, 2019	.7298
Average for 2019	.7480
Average for the last four months of 2019	.7476

2. Ventana Grains purchased additional equipment for 100,000 New Zealand dollars on July 1, 2019, by issuing a note for 80,000 New Zealand dollars and paying the balance in cash.
3. Sales were made and purchases and “Other Expenses” were incurred evenly throughout the year.
4. Depreciation for the period in New Zealand dollars was computed as follows:

Building	45,000
Equipment—Purchased before 1/1/2019	85,000
Equipment—Purchased July 1, 2019	10,000

5. The inventory is valued on a FIFO basis. The beginning inventory was acquired when the exchange rate was \$.7480. The ending inventory was acquired during the last four months of 2019.
6. Dividends of 50,000 New Zealand dollars were paid on July 1 and December 31.

Required:

- A. Translate the financial statements into dollars assuming that the local currency of the foreign subsidiary was identified as its functional currency.
- B. Prepare a schedule to verify the translation adjustment determined in requirement A. Describe how the translation adjustment would be reported in the financial statements.

PROBLEM 13-2 Remeasurement—U.S. Dollar Is the Functional Currency LO 8

Refer to the information given in Problem 13-1.

Required:

- A. Remeasure the financial statements into dollars assuming that the U.S. dollar was identified as the functional currency of the foreign subsidiary.
- B. Prepare a schedule to verify the translation gain or loss determined in requirement A. Describe how the translation gain or loss would be reported in the financial statements.

PROBLEM 13-3 Translation—Local Currency Is the Functional Currency LO 7

(This problem is a continuation of the illustration presented in the chapter.)

On January 2, 2019, P Company, a U.S.-based company, acquired for 2,000,000 francs an 80% interest in SFr Company, a Swiss company. On January 2, 2019, SFr Company reported a retained earnings balance of 480,000 francs. SFr’s books are maintained in Swiss francs and are in conformity with U.S. generally accepted accounting principles. Trial balances of the two companies as of December 31, 2020, are presented here:

<i>Debits</i>	<i>P Company (Dollars)</i>	<i>SFr Company (Swiss Francs)</i>
Cash	500,200	962,500
Accounts Receivable	516,400	660,000
Inventories (FIFO cost)	627,800	1,037,000
Investment in SFr Company	300,000	—
Land	450,000	500,000
Buildings (net)	610,000	550,000
Equipment (net)	563,000	405,000
Dividends Declared	200,000	375,000
Cost of Goods Sold	2,720,000	2,313,000
Depreciation Expense	210,000	125,000
Other Expense	914,000	818,800
Income Tax Expense	100,000	102,000
Totals	<u>7,711,400</u>	<u>7,848,300</u>
<i>Credits</i>	<i>P Company (Dollars)</i>	<i>SFr Company (Swiss Francs)</i>
Accounts Payable	540,000	800,000
Short-term Notes Payable	300,000	650,300
Bonds Payable	700,000	850,000
Common Stock	800,000	960,000
Additional Paid-in Capital	300,000	300,000
Retained Earnings, 1/1	544,400	513,000
Sales	4,200,000	3,775,000
Dividend Income	327,000	—
Totals	<u>7,711,400</u>	<u>7,848,300</u>

Other information related to the subsidiary follows:

1. Beginning inventory of 830,000 Swiss francs was acquired when the exchange rate was \$1.078.
2. Purchases made uniformly throughout 2020 were 2,520,000 francs.
3. The Swiss franc is identified as the subsidiary's functional currency.
4. The subsidiary's beginning (1/1/20) retained earnings and cumulative translation adjustment (credit) in dollars were \$175,948 and \$390,691 respectively.
5. All plant assets were acquired before the parent obtained a controlling interest in the subsidiary.
6. Sales are made and all expenses are incurred uniformly throughout the year.
7. The ending inventory was acquired during the last quarter.
8. The subsidiary declared and paid dividends of 375,000 francs on September 2.
9. The following direct exchange rate quotations were available:

Date of subsidiary acquisition	\$1.07
Average for 2014	1.075
January 1, 2015	1.08
September 2, 2015	1.09
December 31, 2015	1.10
Average for the 4th quarter, 2015	1.095
Average for 2015	1.085

Required:

- A. Prepare a translated balance sheet and combined statement of income and retained earnings for the subsidiary.
- B. Prepare a schedule to verify the translation adjustment.

- C. Compute the following ratios based on the franc and the U.S. dollar financial statements.
- (1) Current ratio.
 - (2) Debt to equity.
 - (3) Gross profit percentage.
 - (4) Net income to sales.

PROBLEM 13-4 Remeasurement—U.S. Dollar Is the Functional Currency LO 8

Use the information provided in Problem 13-3 for P Company and SFr Company.

Required:

- A. Convert the accounts of the foreign subsidiary, assuming that the U.S. dollar is the functional currency of both companies. For this problem assume that the subsidiary's beginning (1/1/20) retained earnings balance in the translated balance sheet is \$551,055.
- B. Prepare a schedule to verify the translation gain or loss, assuming a 637,000 Swiss franc net exposed liability position at the beginning of the year.

PROBLEM 13-5 Temporal Method LO 8

Pasquale Company is a manufacturer of oil drilling equipment located in Canada. The company is 90% owned by a U.S. parent company. The accounting department of Pasquale Company accumulated the following 2019 information for the company's auditor.

Equipment:

1. The equipment account contained the following items:

<i>Description</i>	<i>Cost (Can. \$)</i>	<i>Useful Life</i>	<i>Acquisition Date</i>	<i>Exchange Rate on Acquisition Date</i>
Drill press	30,000	5 years	July 15, 2010	\$.8430
Stamping press	80,000	4 years	January 2, 2012	.7360
Fork lift	42,000	6 years	September 1, 2013	.6998

2. Pasquale Company depreciates assets by the straight-line method and assumes a zero residual value.
3. Its policy is to take a full year's depreciation on all depreciable assets acquired before July 1 and no depreciation on all depreciable assets required after July 1.

Inventory:

1. The beginning inventory of 60,000 Canadian dollars was acquired during the last quarter of 2018.
2. Inventory purchases of 400,000 Canadian dollars were made uniformly during the year.
3. The ending inventory of 60,000 Canadian dollars was acquired during November and December, 2019.

Marketable Securities:

1. Marketable securities, carried at cost, were acquired for 30,000 Canadian dollars when the direct exchange rate was \$.9320.

Direct Exchange Rates:

Average for the last quarter of 2018, \$.7322
 January 1, 2019, \$.7080
 Average for November and December, 2019, \$.6845
 Average for 2019, \$.7140
 December 31, 2019, \$.6960

Required:

- A. Compute the account balances that would be reported for equipment, inventory, and marketable securities in the December 31, 2019, balance sheet expressed in U.S. dollars, assuming that the temporal method was used to translate the accounts.
- B. Compute the depreciation expense and cost of goods sold for 2019 in U.S. dollars, assuming that the temporal method was used to translate the accounts.
- C. Repeat requirements A and B, assuming that the current rate method was used to translate the accounts.
- D. Contrast the effects on income from using the current rate method and the temporal method to translate cost of goods sold and depreciation expense. Explain why net income is increased or decreased when the accounts were translated using the current rate method.

PROBLEM 13-6A Cost Method Workpaper—Current Rate Method (See Appendix 13A online at www.wiley.com/go/jeter/AdvancedAccounting7e) LO 7

For this problem, refer to the information provided in Problem 13-3 for P Company and SFr Company. Ignore deferred income taxes in the assignment of the difference between implied and book value.

Required:

- A. If you have not already done so, prepare a workpaper to translate the trial balance of the subsidiary into dollars using the current rate method.
- B. Prepare the journal entries made on the books of P Company during 2020 to account for its investment in SFr Company. P Company uses the cost method to record its investment in SFr Company. At the date of acquisition, the 760,000 franc difference between implied and book value interest acquired was allocated as follows:

<i>Asset</i>	<i>Francs</i>	<i>Translation Rate</i>	<i>Dollars</i>
Land	385,000	\$1.07	411,950
Building	<u>375,000</u>	1.07	<u>401,250</u>
Total	<u>760,000</u>		<u>813,200</u>

The building is depreciated over a 10-year remaining life using the straight-line method of amortization.

- C. Prepare a consolidated statement's workpaper at December 31, 2020.

PROBLEM 13-7A Cost Method Workpaper—Temporal Method (See Appendix 13A online at www.wiley.com/go/jeter/AdvancedAccounting7e) LO 8



COMPREHENSIVE

P Company holds an 80% interest in SFr Company, a Swiss company. A trial balance for P Company and SFr Company at December 31, 2020, and other data are given in Problems 13-3 and 13-4. Ignore deferred income taxes in the assignment of the difference between implied and book value.

Required:

- A. If you have not already done so (Problem 13-4), prepare a workpaper to translate the trial balance of the subsidiary into dollars using the temporal method of translation. The subsidiary's beginning retained earnings balance in the translated balance sheet is \$76,660.
- B. Prepare the journal entries made on the books of P Company during 2020 to account for the investment in SFr Company. P Company uses the cost method to record its investment in SFr Company. At the date of acquisition, the 760,000 franc difference between implied and book value interest acquired was allocated as follows:

<i>Asset</i>	<i>Francs</i>	<i>Translation Rate</i>	<i>Dollars</i>
Land	385,000	\$1.07	401,250
Building	375,000	1.07	813,200
Total	<u>760,000</u>		<u>114,000</u>

The building is depreciated over a 10-year remaining life using the straight-line method of amortization.

C. Prepare a consolidated statements workpaper at December 31, 2020.

PROBLEM 13-9 Local Currency Is the Functional Currency, Equity Method for Investment LO 7

On January 2, 2019, P Company, a U.S.-based company, acquired for 2,000,000 francs an 80% interest in SFr Company. On January 2, 2019, SFr Company reported a retained earnings balance of 480,000 francs. SFr's books are maintained in francs and are in conformity with U.S. generally accepted accounting principles. Trial balances of the two companies as of December 31, 2020, are presented below.

<i>Debits</i>	<i>P Company (Dollars)</i>	<i>SFr Company (Swiss Francs)</i>
Cash	500,200	962,500
Accounts Receivable	516,400	660,000
Inventories (FIFO cost)	627,800	1,037,500
Investment in SFr Company	297,806	—
Land	450,000	500,000
Buildings (net)	610,000	550,000
Equipment (net)	290,000	405,000
Dividends Declared	200,000	375,000
Cost of Goods Sold	2,720,000	2,312,500
Depreciation Expense	210,000	125,000
Other Expense	914,000	818,750
Income Tax Expense	100,000	102,500
Totals	<u>\$7,436,206</u>	<u>7,848,750</u>
<i>Credits</i>		
Accounts Payable	540,000	800,000
Short-Term Notes Payable	300,000	650,750
Bonds Payable	700,000	850,000
Common Stock	800,000	960,000
Additional Paid-in Capital	300,000	300,000
Retained Earnings, 1/1	542,878	513,000
Sales	4,200,000	3,775,000
Equity Income	53,328	—
Totals	<u>\$7,436,206</u>	<u>7,848,750</u>

Other information related to the subsidiary follows:

1. Beginning inventory of 830,000 francs was acquired when the exchange rate was \$1.078.
2. Purchases made uniformly throughout 2020 were 2,520,000 francs.
3. The franc is identified as the subsidiary's functional currency.
4. The subsidiary's beginning (1/1/20) retained earnings and cumulative translation adjustment (credit) in dollars were \$75,948 and \$36,462, respectively.
5. All plant assets were acquired before the parent obtained a controlling interest in the subsidiary.

6. Sales are made and all expenses are incurred uniformly throughout the year.
7. The ending inventory was acquired during the last quarter.
8. The subsidiary declared and paid dividends of 375,000 francs on September 2.
9. The following direct exchange rate quotations were available:

Date of subsidiary acquisition	\$1.07
Average for 2014	1.075
January 1, 2015	1.08
September 2, 2015	1.09
December 31, 2015	1.10
Average for the fourth quarter, 2015	1.095
Average for 2015	1.085

Required:

- A. Prepare a translated balance sheet and combined statement of income and retained earnings for the subsidiary.
- B. Prepare a schedule to verify the translation adjustment.
- C. Compute the following ratios based on the franc and the U.S. dollar financial statements:
 - (1) Current ratio.
 - (2) Debt to equity.
 - (3) Gross profit percentage.
 - (4) Net income to sales.

PROBLEM 13-10 U.S. Dollar Is the Functional Currency, Equity Method for Investment LO 8

Use the information provided in Problem 13-9 for P Company and SFr Company.

Required:

- A. Convert the accounts of the foreign subsidiary, assuming that the U.S. dollar is the functional currency of both companies. For this problem assume that the subsidiary's beginning (1/1/20) retained earnings balance in the translated balance sheet is \$76,660.
- B. Prepare a schedule to verify the translation gain or loss, assuming a 637,000 franc net exposed liability position at the beginning of the year.

REPORTING FOR SEGMENTS AND FOR INTERIM FINANCIAL PERIODS

CHAPTER CONTENTS

- 14.1 NEED FOR DISAGGREGATED FINANCIAL DATA
- 14.2 STANDARDS OF FINANCIAL ACCOUNTING AND REPORTING
- 14.3 INTERIM FINANCIAL REPORTING

LEARNING OBJECTIVES

- 1 Understand the need for disaggregated financial data.
- 2 Describe the basic requirements of public companies in reporting segmental data.
- 3 Determine an operating segment.
- 4 Define a reportable segment.
- 5 Identify the information to be presented for each reportable segment.
- 6 Explain when and what types of geographic data must be reported.
- 7 Explain when information about major customers must be reported.
- 8 Describe current requirements for companies to report interim information.
- 9 Indicate some problems with interim reporting and the authoritative position on the issue.

IN THE NEWS

On Nov 7, 2016, the SEC instituted and settled a cease-and-desist order against PowerSecure International Inc., alleging it failed to identify and report its segments as required by FASB Accounting Standards Codification (ASC) Topic 280, *Segment Reporting*. PowerSource agreed to pay a \$470,000 fine to settle the SEC's claims. It is worth noting that in its annual report for 2015, the company acknowledged a material weakness in its internal controls over segment reporting in prior years, which contributed to faulty segment reporting—from 2012 to the first quarter of 2014, PowerSource disclosed one reportable segment, when it should have identified and reported multiple segments.¹

Segment reporting was the third most common area discussed in SEC comment letters in the first three quarters of 2013, following tax and goodwill accounting issues, according to Audit Analytics. In its regular review process, the agency addressed segment reporting

¹ *Journal of Accountancy*, "Improving internal control over segment reporting," by Xiaowen Jiang, DBA, and Ling Lin, DBA, November 1, 2017.

issues in some 435 letters to 184 companies through September 30, according to the firm. The SEC expects to “continue to focus on this area,” added a representative.²

In previous chapters we have dealt with the process of aggregating the financial data relating to the activities of an affiliated group of companies. Investors and lenders holding equity or creditor interests are aware of the importance of consolidated statements in reporting the financial position and results of operations of a group of companies under common control. At the same time, investors, creditors, and other users of financial statements also need disaggregated data that provide information about the various segments of an enterprise or affiliated group of companies.

14.1 NEED FOR DISAGGREGATED FINANCIAL DATA

LO 1 The need for disaggregated financial data.

Research studies conducted by various organizations such as the Financial Executives Research Foundation, the Financial Analysts Federation, and the National Association of Accountants concluded that financial statement users want disaggregated information to aid them in evaluating prospective investments. If return on investment is computed on the basis of expected cash flows, the evaluation of risk requires an assessment of the uncertainty surrounding both the timing and the amount of these expected cash flows. Major uncertainty results from (1) factors unique to individual companies, (2) factors related to the industries and geographical areas in which those companies operate, and (3) related national and international economic and political factors.

Users need financial statement information to determine conditions, trends, and ratios that assist in predicting cash flows of firms. These factors are often compared with those of other firms, as well as with industry-wide data, and general national and international economic information is considered in making an overall evaluation of the risk involved. When a firm engages in activities in several industries or geographic areas, analysis and the process used to predict future cash flows become more complex. Different industries or geographic areas may have different rates of profitability, opportunities for growth, and types of risk. Thus, most users agree that, although consolidated financial information is important, it is more useful if supplemented with disaggregated information to assist in analyzing the uncertainties surrounding the timing and amounts of expected cash flows.

14.2 STANDARDS OF FINANCIAL ACCOUNTING AND REPORTING

For a long time, FASB has indicated a belief in the benefits of disclosing segmental data. Several standards requiring segment disclosures have been issued and revised over time starting with *SFAS No. 14* in 1976. *SFAS No. 14* was amended by *SFAS No. 21* in 1978 and ultimately replaced with the current standard (*SFAS No. 131*), which is included in FASB ASC topic 280 (Segment Reporting). Segmental disclosures have limitations as well as strengths. The primary benefit is the unveiling of information that has been merged and possibly buried in the consolidated data. For example, specific information about a declining or growing product line or unstable geographic area may be useful in

² <https://blogs.wsj.com/cfo/2013/12/10/sec-gets-serious-on-improper-segment-reporting/>.

RELATED CONCEPTS

The FASB felt that the industry approach previously required in *SFAS No. 14* did not provide the needed information required by users. Defining segments based on the enterprise's internal organization better defines the risks and opportunities that management deems important, and thus better meets the criterion of *usefulness*.

LO 2 Basic disclosure requirements.

IN THE NEWS

Cracker Barrel reports only one segment despite having a retail store connected to the restaurants. One owner argues: "In the final analysis, you are either not properly measuring the restaurant and retail businesses, and thus you are not properly managing them, or you are measuring/managing them properly but failing to report both operating segments to your owners."³

LO 4 Reportable segments.

RELATED CONCEPTS

Providing segment data based on the enterprise's internal organization may make the segment data less *comparable* between similar firms if each firm is organized differently. *Relevance*, however, remains the overriding concern rather than comparability in this setting.

projecting future cash flows or in assessing risk. The arguments *against* segmental disclosures include the following:

- Segmental information may be misleading or meaningless due to inherent accounting classification and allocation problems, to lack of user knowledge, or to variation in the measurement techniques applied by different companies.
- Disclosures to competing firms, labor unions, and so on could have adverse effects and could discourage management from taking on desirable but risky projects in order to avoid the disclosures.
- Users are already bombarded with an excessive amount of accounting detail, and segmental disclosures merely add to the burden.

Nonetheless, most people believe the advantages outweigh the disadvantages. In addition, the increased pace of merger activity and the increase in foreign operations have led to greater importance being attached to segmental disclosures. Thus, the FASB requires all public companies to report information about the revenues earned in different countries and their assets, about major customers, and about revenues for each product and service, even when *some* of the information is not used by the firm in its operating decisions.

In general, the FASB implemented a management approach, focusing on the way in which management organizes segments internally to make operating decisions and to assess performance. The objective of this approach is to facilitate consistency between internal and external reporting. Information may be segmented by product or service, by geographic area, by customer type, or by legal entity. For each operating segment, firms must report segmental profit or loss, certain items of revenue and expense, segmental assets, and other items.

Current GAAP do not limit segmental reporting to financial data only. It also requires a discussion of the firm's rationale or method for categorizing its operations into segments, as well as any difference in measurement techniques between periods being reported or between the segment and the entire entity. If statements are presented for more than one period, the required information must be presented for each period. The information required should be a disaggregation of *consolidated financial information* where the firm has consolidated subsidiaries, and a disaggregation of the individual firm data if it has no consolidated subsidiaries.

We next define some terms that have been given specific connotations for purposes of segmental reporting. The terms and their definitions are as follows:

- Operating segment.** A component of an enterprise that may earn revenues and incur expenses, about which separate financial information is evaluated regularly by the chief operating decision maker in deciding how to allocate resources and in assessing performance.
- Reportable segment.** A segment considered to be significant to an enterprise's operations; specifically, one that has passed one of three 10% tests or has been identified as being reportable through other criteria (aggregation, for example).
- Chief operating decision maker.** A person whose general function (not specific title) is to allocate resources to, and assess the performance of, the segments of an enterprise.

³ "Top Investor laments Cracker Barrel's 'low road in accounting disclosure,'" Geert De Lombaerde, nashvillepost.com, 8/25/2011.

- d. **Segment revenue.** The revenue from sales to unaffiliated customers and from intersegment sales or transfers.
- e. **Segment operating profit or loss.** All of a segment's revenue minus all operating expenses, including any allocated revenues or expenses (e.g., common costs).
- f. **Segment assets.** Those tangible and intangible assets directly associated with, or used by, a segment, including any allocated portion of assets used jointly by more than one segment. If portions of assets are allocated internally and used by the chief operating decision maker, then those amounts should be allocated on a reasonable basis and disclosed for external reporting purposes as well.
- g. **Corporate assets.** Assets maintained for general corporate purposes and not used in the operations of any segment.
- h. **General corporate expense.** An expense incurred for the benefit of the corporation as a whole, which cannot be reasonably allocated to any segment.
- i. **Transfer pricing.** The pricing of products or services between operating segments or geographic areas.

Two of the most difficult tasks in applying the segment disclosure requirements are those of determining (1) an appropriate basis for the allocation of common costs and (2) appropriate operating segments.

Determining Operating Segments

LO 3 Determine an operating segment.

Operating segments of the firm are determined using a modified management approach. An operating segment is a component that exhibits all of the following characteristics:

- It engages in business activities that may earn revenues and incur expenses (including transactions with other components of the entity).
- The entity's chief operating decision maker (may be one individual or a group of executives) regularly reviews the component's operating results to assess its performance and make decisions about resources to be allocated to it.
- Discrete financial information is available.

Disclosures are required for each operating segment, subject to the quantitative thresholds and aggregation criteria presented next. Because the aggregation can occur before performing the quantitative tests, we present those criteria first.

Aggregation Criteria An entity is permitted (but not required) to aggregate operating segments that have similar economic characteristics if the segments are also similar in *all* the following areas:

- The nature of their products or services.
- The nature of the production processes.
- The types or class of customers.
- The methods used to distribute products or provide services.
- The nature of the regulatory environment (banking, for example).⁴

Operating segments are considered to be similar if their future prospects are expected to be essentially the same. Thus, the similarity of the economic characteristics

⁴ See FASB ASC paragraph 280-10-50-11 for more details on the regulatory environment.

is evaluated based on *future prospects* and not based simply on current indicators. In other words, even if the segments do not currently have similar gross margins and sales trends, when the economic characteristics and the other five criteria are met and the segments are expected to have similar long-term average gross margins and sales trends, the two segments may be aggregated.

Likewise, if segments are not expected to have similar future economic characteristics, but in the current year have similar gross margins or sales trends, the segments should not be aggregated for the current-year segment disclosures.

Quantitative Thresholds Each operating segment that is significant to the enterprise as a whole must be identified as a *reportable* segment. A segment is considered to be significant if it meets **one or more** of the following tests, the tests being applied separately for each fiscal year for which financial statements are prepared:

- Its combined external and internal revenue is **10% or more** of the combined external and internal revenue of all operating segments.
- The absolute amount of its reported profit or loss is **10% or more** of the *greater* absolute amount of:
 - The combined reported profit of all operating segments not reporting a loss
 - The combined reported loss of all operating segments that reported a loss
- Its assets are **10% or more** of the combined assets of all operating segments.

Entities are permitted to present operating segments separately that fall below the quantitative thresholds, or such operating segments may be combined with other segments not meeting the quantitative thresholds if the segments share a *majority* of the aggregation criteria.

An example of the application of these tests for Papco, Inc. is presented in Illustration 14-1. In this example the information of Papco is segmented by its products. The results of the tests should be evaluated from the standpoint of *comparability*. Thus, a segment that has been significant in the past and is expected to be significant in the future should be treated as a reportable segment even though it fails to meet a test in the current year. Further, if the structure of the organization changes so that the reportable segments are redefined, the information presented from prior periods should be **restated** so that it is comparable with the current structure (if practical). In such cases, the firm should explicitly disclose the fact that the earlier periods have been restated and why. Also, if a particular segment that was previously not considered significant becomes significant in the current period, then segmental data should be presented for that segment for the prior periods as well as the current one.

Seventy-Five Percent Combined Revenue Test

In addition to the tests described above, the reportable segments taken together must represent a substantial portion of the firm's total operations. To determine whether a substantial portion of a firm's operations are explained by its segment information, ***the combined revenue from sales to unaffiliated customers of all reportable segments must constitute at least 75% of the combined revenue from sales to unaffiliated customers of all operating segments.*** If the 75% test is not satisfied, additional segments must be identified until the test is met. The test is applied separately for each fiscal period for which financial statements are prepared.

RELATED CONCEPTS

The FASB rejected the requirement that a secondary definition of segments be disclosed if the internal organization is not segmented by products and services or geography. This requirement was rejected because of the cost of providing this alternative information (*cost-benefit* considerations).

ILLUSTRATION 14-1
Significance Tests
Year Ended December 31, 2019
(Thousands of Dollars)
Papco, Inc.

<i>Revenue Test</i>	<i>Segments</i>					
	<i>Lumber</i>	<i>Paper</i>	<i>Printing</i>	<i>Furniture</i>	<i>Leather</i>	<i>Combined</i>
Sales to Unaffiliated Customers	\$16,000	\$ 3,000	\$2,000	\$1,500	\$1,000	\$23,500
Intersegment Sales	5,000	2,000	500	500	—0—	8,000
Total Revenue	<u>\$21,000</u>	<u>\$ 5,000</u>	<u>\$2,500</u>	<u>\$2,000</u>	<u>\$1,000</u>	<u>\$31,500</u>
Percentage of Total Revenue	<u>67%</u>	<u>16%</u>	<u>8%</u>	<u>6%</u>	<u>3%</u>	<u>100%</u>

The lumber and paper segments are reportable segments under the revenue test because their total revenues are at least 10% of combined total revenue of \$31,500, whereas the other segments are not reportable segments under this test.

Operating Profit Test

Operating Profit (Loss)	\$ 2,500	\$ 600	\$(300)	\$ 150	\$(100)	\$ 2,850
Percentage of \$3,250*	77%	18%	9%	5%	3%	

The lumber and paper segments are reportable segments under the operating profit test because the absolute amounts of their operating profit or loss are each **at least 10% of the greater of** (1) the combined profit of all segments that did not incur a loss* (\$2,500 + \$600 + \$150 = \$3,250), or (2) the combined loss of all segments that incurred a loss (\$300 + \$100 = \$400). The other segments are not reportable segments under this test.

Assets Test

Segment Assets	\$25,000	\$12,000	\$8,000	\$3,000	\$4,000	\$52,000
Percentage of Total Assets	48%	23%	15%	6%	8%	100%

The lumber, paper, and printing segments are reportable segments because their assets are at least 10% of combined identifiable assets of \$52,000. The furniture and leather segments are not reportable segments under this test.

Reportable Segments (still subject to the 75% Combined Revenue Test)

- 1) Lumber (met all three tests above)
- 2) Paper (met all three tests above)
- 3) Printing (met the asset test above)

75% Combined Revenue Test

Sales to Unaffiliated Customers	\$16,000	\$ 3,000	\$2,000	\$1,500	\$1,000	\$23,500
Percentage of Total Sales	68.1%	12.8%	8.5%	6.4%	4.3%	100.0%
Combined Percentage	89.4%					

The three reportable segments have combined revenue in excess of 75% of total unaffiliated revenue; therefore, no additional segments need be identified. The furniture and leather segments would be combined when reported.

Application of this 75% test to the situation presented in Illustration 14-1 produces the following:

$$\frac{\text{Combined Sales to unaffiliated customers by the lumber, paper, and printing segments}}{\text{Combined Sales to unaffiliated customers by all segments}} = \frac{\$16,000 + \$3,000 + \$2,000}{\$23,500} = 89.4\%$$

Thus, the 75% test is met, and the lumber, paper, and printing segments will be reported individually and the furniture and leather segments combined into one unit. If

the 75% test had not been met, one or more of the segments that did not qualify as reportable segments under the previous tests would have to be included as reportable segments.

The FASB standard implies that the number of reportable segments should probably not exceed 10 segments. If the number does exceed 10, then the entity should revisit the aggregation criteria. (See Illustration 14-2)

Information to Be Presented The following types of information must be presented for each of a firm's reportable segments, and in the aggregate for the segments that are not separately reported.

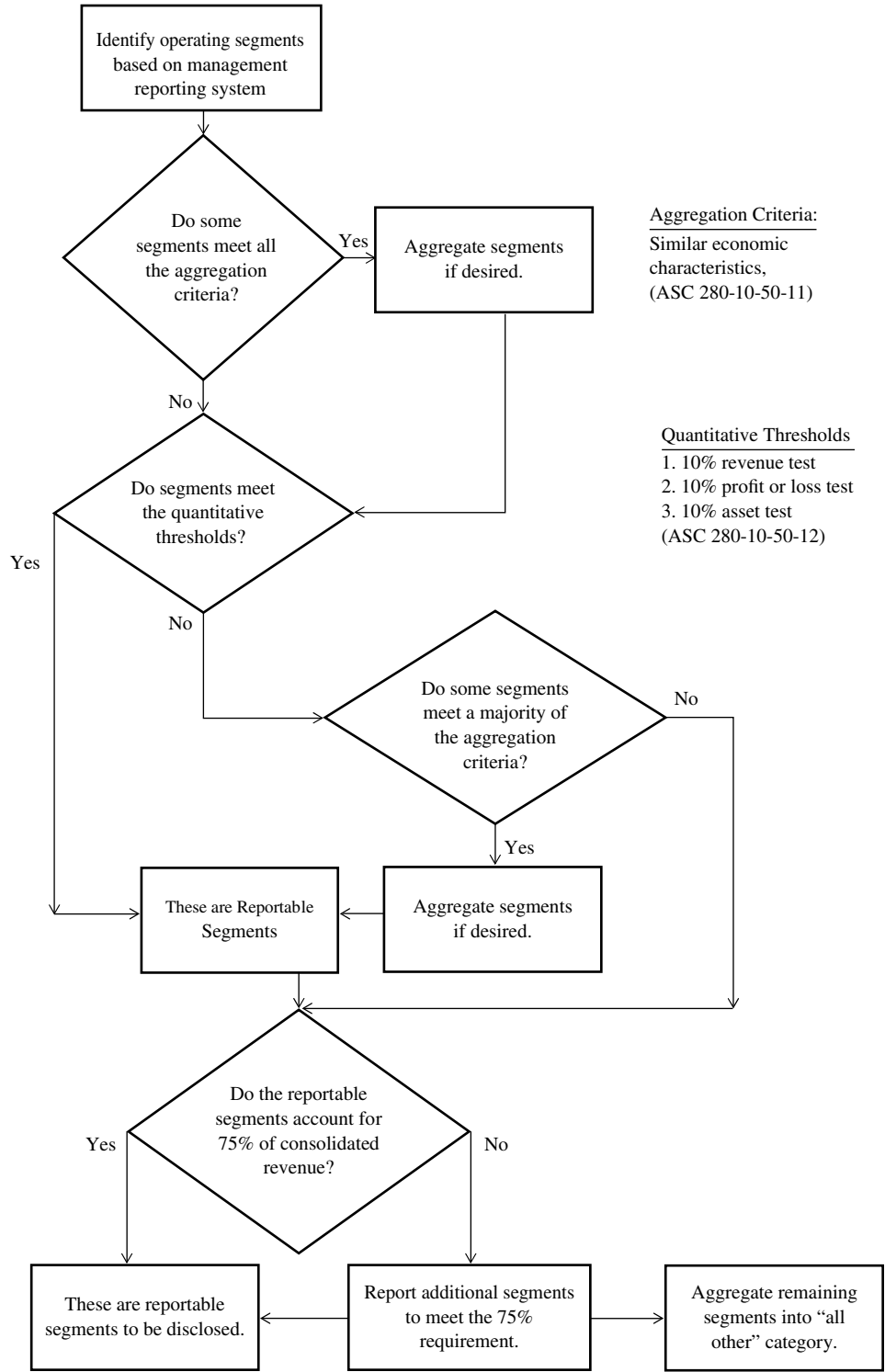
LO 5 Reportable segment information to be presented.

- **General information.** FASB ASC paragraph 280-10-50-21 requires an explanation of how management identified its reportable segments, as well as whether any segments have been aggregated. A description is also required of the types of products or services from which each segment obtains its revenues.
- **Information about segment operating profit or loss.** Rather than specifying a strict definition of profit or loss for segmental purposes, the standard designates that a management approach focusing on internal decision making be used to determine the measurement of segmental profit or loss. Thus, the following items are disclosed only *if* they are included in the measures reviewed by the chief operating decision maker:
 - a. Revenues from external customers
 - b. Revenues from other segments
 - c. Interest revenue and expense
 - d. Depreciation, depletion and amortization expense
 - e. Income tax expense
 - f. Equity income from investments
 - g. Extraordinary items or other unusual items
 - h. Other significant noncash items

The absence of specific rules in calculating segment profit or loss leaves room for possible departures from GAAP as applied at the consolidated level. For example, pension expense may not be allocated to segments if not reviewed by the decision maker for that segment. The possibility of departures from GAAP for segmental disclosures is addressed further in a later section of this chapter, in comparison to recommended international standards.

- **Information about segment assets.** Firms are required to disclose those assets that are evaluated by the chief operating decision maker for the segment, including the following information *if* such information is reviewed by the officer: expenditures for most long-lived assets and the carrying basis of "influential" investments, or those measured using the equity method. If the asset information is not disclosed, that fact and the reason should be stated.
- **Information about the bases for measurement.** Differences in measurement between segments and the consolidated entity must be disclosed for: income before tax, discontinued operations, extraordinary items, and for segment profit or loss. Similarly, differences in measurement between segment assets and the consolidated assets must be disclosed, if any. For example, information on how jointly used assets are allocated to segments may be needed to understand the segment information. The basis should be disclosed for any transactions between segments, and any asymmetrical allocations to segments should be explained.

ILLUSTRATION 14-2



RELATED CONCEPTS

Verifiability is a component of reliability. Segment data do not have the same degree of verifiability as other financial data. The tradeoff for lessened verifiability is the relevance of the segment data for users' decisions.

Finally, any changes from the measurement methods used in prior periods must be disclosed, and their effects on segment profit or loss.

- **Reconciliation of segment amounts and consolidated amounts for revenue, profit or loss, assets, and other significant items.** Differences occur for a variety of reasons, including the following: Some segments not meeting the quantitative thresholds are presented as “all other.” Some items are not allocated to segments if there is no reasonable basis for doing so, or because the information is not used by the chief operating decision maker. Transactions between segments may give rise to “intersegment” revenue, profit, or loss amounts that are eliminated from the consolidated totals. Because the focus in segmental reporting is a management approach, it may result in different accounting methods from those used for external reporting for the consolidated entity. A reconciliation of such items must be presented in sufficient detail to explain the differences. It should include:
 - Revenue to revenue reported in the consolidated income statement.
 - Operating profit or loss to pretax income from continuing operations in the consolidated income statement.
 - Segment assets to consolidated total assets.

Illustration 14-6, presented later in this chapter, illustrates a reconciliation of the above items.

- **Interim disclosures.** Unlike the previous standard on segmental reporting, current standards require that segmental disclosures be included in interim reports.⁵ The extent of the disclosures depends on whether the firm presents a complete set of financial statements for the interim period, or condensed financial statements. If the firm presents a complete set of statements, the interim disclosures are the same as presented above for reportable segments. If condensed statements are presented for interim periods, they should include the following for each reportable segment: revenues, including intersegment sales; profit or loss; disclosures of any changes in measurement bases for segmentation or components of profit or loss since the most recent annual report; any material changes in assets since the most recent annual report; and a reconciliation of income from continuing operations for the consolidated entity and for the total of the reportable segments.
- **Enterprisewide Disclosures.** Because of the choice allowed in designating reportable segments, a given firm may report its segmental information based on products or services, geographic areas, and so on. Thus other information about the bases not chosen is not provided as part of the above disclosures. Current GAAP require that such information be presented if practicable. If not practicable, the reason for not including the disclosures should be stated. These additional disclosures are made on an enterprise-wide basis rather than a segmental basis and are required only for annual reporting. They are required even if a firm has only a single reportable segment. They include:
 - Product or service disclosures:** revenues from external customers for each *product or service* or group of products or services, on the same basis as the general-purpose financial statements. This disclosure is not required if the reportable segments are structured around products or services.

⁵ FASB ASC paragraph 280-10-50-32.

—**Geographic area disclosures:** revenues from external customers and long-lived assets for the firm’s country of domicile and for all the other countries in total, also on the same basis as the general-purpose financial statements; *and* revenues from external customers and long-lived assets for *each foreign country or group of foreign countries*, if material, along with the basis for allocating revenues (location of customer, where shipped, etc.). These disclosures are generally not required if the company’s reportable segments have been organized around **geographic area**. (See FASB ASC paragraph 280-10-50-41.)

—**Major customer disclosures:** information about **major customers** for each customer representing **10% or more** of total enterprise revenues, including the amount of revenues and the segment(s) to which the revenue is traceable. A group of customers under common control is treated as a single customer, as are the various agencies of a government. (See FASB ASC paragraph 280-10-50-42.)

Methods of Presentation Information about the reportable segments of a firm may be included in its financial statements in any of the following ways:

- Within the body of the financial statements, with appropriate explanatory disclosures in the footnotes to the financial statements.
- Entirely in the footnotes to the financial statements.
- In a separate schedule that is included as an integral part of the financial statements.

Financial information such as revenue, operating profit or loss, and identifiable assets must be presented in dollar amounts; related percentages may be shown if desired.

As an illustration of segment reporting, assume the segment data presented in Illustration 14-1. In addition, assume that the consolidated income statements and balance sheets for 2018 and 2019 for Papco, Inc. are as shown in Illustration 14-3. Disclosure of segmental information organized by products/services might take the form of the supporting schedules and footnotes as shown in Illustration 14-4. This illustration also serves to reconcile the segmental data to the totals for the consolidated entity.

Geographic Areas

LO 6 Reporting on geographical areas.

As mentioned in the preceding section, entities are required to report revenues from external customers and long-lived assets attributable to their domestic operations and foreign operations. Foreign operations are defined as those located outside the United States (or other “home country”) that produce revenue from sales to unaffiliated customers or from intra-enterprise sales or transfers between countries or geographic areas. Foreign operations do **not**, however, include unconsolidated subsidiaries and investees. If operations are conducted in two or more foreign countries or geographic areas, information must be presented separately for each significant foreign country or geographic area and in the aggregate for all other foreign operations. Where the operations in some foreign countries are grouped into geographic areas, the groupings should be made on the basis of a consideration of (1) proximity, (2) economic affinity, (3) similarities of business environments, and (4) the nature, scale, and degree of interrelationship of the operations in the various countries.

To illustrate, foreign operations information for Papco, Inc. might be presented as shown in Illustration 14-5, assuming that the company conducts operations in the United States, Canada, and Mexico.

ILLUSTRATION 14-3

Papco Inc.		
Consolidated Income Statement		
(Thousands of Dollars)		
	<i>Year Ended December 31</i>	
	<i>2018</i>	<i>2019</i>
Sales	\$23,500	\$22,100
Cost of Goods Sold	16,400	15,300
Selling, General, and Administrative Expense	4,530	4,380
Interest Expense	600	570
Total Cost and Expense	<u>21,530</u>	<u>20,250</u>
Operating Income	1,970	1,850
Equity in Income of B Company	150	120
Income before Income Taxes	2,120	1,970
Income Taxes	<u>1,020</u>	<u>980</u>
Net Income	<u>\$ 1,100</u>	<u>\$ 990</u>

Papco Inc.		
Consolidated Balance Sheet		
(Thousands of Dollars)		
	<i>December 31</i>	
	<i>2019</i>	<i>2018</i>
Cash	\$1,870	\$1,785
Receivables	2,640	2,860
Inventories	6,400	6,345
Investment in B Company	700	600
Plant and Equipment (net of accumulated depreciation of \$17,500 in 2019 and \$16,200 in 2018)	41,500	40,400
Other Assets	690	970
Total Assets	<u>\$53,800</u>	<u>\$52,960</u>
Current Liabilities	\$2,400	\$2,320
Bonds Payable	12,000	12,000
Common Stock, \$50 par value	30,000	30,000
Additional Paid-in Capital	3,000	3,000
Retained Earnings	<u>6,400</u>	<u>5,640</u>
Total Liabilities and Stockholders' Equity	<u>\$53,800</u>	<u>\$52,960</u>

LO 7 Reporting on major customers.**Information about Major Customers**

To provide information about the potential effects of dependency on one or more major customers, if **10% or more** of the revenue of a firm is derived from sales to any *single customer*, that fact and the amount of revenue from each such customer must be disclosed, as stated previously. Also, if **10% or more** of the revenue is derived from sales to the *federal government, a state government, a local government, or a foreign government*, that fact and the amount of revenue must be disclosed. Disclosure should include the amount of

ILLUSTRATION 14-4

Papco Inc.
Segmental Disclosures by Product/Service
(Thousands of Dollars)

<i>Year Ended December 31, 2019</i>	<i>Lumber</i>	<i>Paper</i>	<i>Printing</i>	<i>Other</i>	<i>Total</i>
Revenues from external customers	\$16,000	\$ 3,000	\$2,000	\$2,500	\$23,500
Intersegment revenues	5,000	2,000	500	500	8,000
Depreciation and amortization	640	290	190	100	1,220
Interest expense	200	100	80	100	480
Segment operating profit	2,500	600	(300)	50	2,850
Segment assets	25,000	12,000	8,000	7,000	52,000
Capital expenditures	1,540	420	30	210	2,200
<i>Year Ended December 31, 2018</i>	<i>Lumber</i>	<i>Paper</i>	<i>Printing</i>	<i>Other</i>	<i>Total</i>
Revenues from external customers	\$15,200	\$ 2,800	\$2,100	\$2,000	\$22,100
Intersegment revenues	4,800	1,700	300	460	7,260
Depreciation and amortization	600	290	175	125	1,190
Interest expense	190	90	75	90	445
Segment operating profit	2,460	580	(430)	70	2,680
Segment assets	24,460	11,500	7,900	7,520	51,380
Capital expenditures	1,280	360	20	240	1,900

Note A—Product and Service Segments.

The Company operates in three main areas of product/service: lumber products, paper products, and printing. Intersegment sales are made at the same prices as sales to nonaffiliates.

ILLUSTRATION 14-5**Papco Inc. Enterprisewide Disclosures (Thousands of Dollars)***Geographic Information*

<i>Revenue</i>	<i>Year Ended December 31</i>	
	<i>2019</i>	<i>2018</i>
United States	<u>\$18,000</u>	<u>\$17,500</u>
Foreign Countries		
Canada	4,000	3,500
Mexico	<u>1,500</u>	<u>1,100</u>
Total Revenue from Foreign Countries	<u>5,500</u>	<u>4,600</u>
Total Consolidated Revenue	<u>\$23,500</u>	<u>\$22,100</u>

Long-Lived Assets

United States	<u>\$28,827</u>	<u>\$28,180</u>
Foreign Countries		
Canada	9,375	9,193
Mexico	<u>4,688</u>	<u>4,597</u>
Total Assets in Foreign Countries	<u>14,063</u>	<u>13,790</u>
Total Consolidated Assets	<u>\$42,890</u>	<u>\$41,970</u>

Major Customers

We do not provide information on major customers because no single external customer represented 10% or more of total revenues.

ILLUSTRATION 14-6**Papco Inc. Reconciliation of Major Segment Information (Thousands of Dollars)**

<i>Revenue</i>	<i>Year Ended December 31</i>	
	<i>2019</i>	<i>2018</i>
Total revenue for reportable segments	\$28,500	\$26,900
Revenue for other segments aggregated	3,000	2,460
Elimination of intersegment revenue	<u>(8,000)</u>	<u>(7,260)</u>
Total consolidated revenue	<u>\$23,500</u>	<u>\$22,100</u>
<i>Profit and Loss</i>		
Total profit and loss for reportable segments	\$ 2,800	\$ 2,610
Other profit and loss	50	70
Elimination of intersegment profits	(680)	(630)
Unallocated amounts relating to corporate headquarters:		
Interest expense	(120)	(125)
Depreciation	(80)	(75)
Equity in income of B Company	<u>150</u>	<u>120</u>
Income before taxes	<u>\$ 2,120</u>	<u>\$ 1,970</u>
<i>Assets</i>	<i>2019</i>	<i>2018</i>
Total assets for reportable segments	\$ 45,000	\$ 43,860
Other assets	7,000	7,520
Corporate investment in B Company	700	600
General corporate assets	<u>1,100</u>	<u>980</u>
Total consolidated assets	<u>\$ 53,800</u>	<u>\$ 52,960</u>
<i>Other Significant Items</i>		
Reportable segment depreciation and amortization	\$ 1,120	\$ 1,065
Other depreciation and amortization	100	125
Adjustment for depreciation on corporate assets	<u>80</u>	<u>75</u>
Consolidated totals	<u>\$ 1,300</u>	<u>\$ 1,265</u>
Reportable segment interest expense	\$ 380	\$ 355
Other interest expense	100	90
Adjustment for interest on corporate borrowing	<u>120</u>	<u>125</u>
Consolidated totals	<u>\$ 600</u>	<u>\$ 570</u>
Reportable segment interest expense	\$ 1,990	\$ 1,660
Other capital expenditures	210	240
Adjustment for acquisition of corporate assets	<u>200</u>	<u>150</u>
Consolidated totals	<u>\$ 2,400</u>	<u>\$ 2,050</u>

sales to each customer and the reportable segment making the sales. Customers' names, however, need not be disclosed. These disclosures are required even if the firm has only one reportable segment.

Reconciliation

A reconciliation of major segmental data presented in earlier illustrations and the consolidated data in the income statement for Papco, Inc. is presented in Illustration 14-6.

TEST YOUR KNOWLEDGE 14.1

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

Short Answer

Nash Consolidated is involved in four operating segments, A, B, C, and D (there are no intersegment sales). The following information is available.

Segment	Operating Profit (Loss)	Nonaffiliate Sales	Identifiable Assets
A	(500)	1,600	4,000
B	100	400	600
C	900	2,000	5,000
D	90	1,000	1,000

- Using the revenue test, determine which of the operating segments are reportable segments.
- Using the operating profit test, determine which of the operating segments are reportable segments.
- Using the asset test, determine which of the operating segments are reportable segments.
- Using your answer to parts 1 through 3 and using the 75% combined revenue test, determine the number of reportable segments.

14.3 INTERIM FINANCIAL REPORTING**IN THE NEWS**

In a document listing reporting deficiencies uncovered during the peer reviews, the following item was noted: Failure to disclose, in the accountant's or auditor's report, a material departure from professional standards [an example includes the omission of a significant income tax provision on interim financial statements].⁶

IN THE NEWS

Wal-Mart has three reportable segments: Walmart U.S., Walmart International, and Sam's Club.⁷

In a dynamic business environment, financial information must be available on a timely basis if sound investment decisions are to be made. Although businesses have historically considered the fiscal year to be the primary reporting period, interim financial statements have been presented frequently to provide information concerning financial status and progress for time periods of less than one year. The normal time period for interim reporting is a quarter of a year (such reports are generally called quarterly reports), but other periods such as a month might be used. These interim statements are generally prepared for the most recent interim period, as well as on a cumulative or year-to-date basis; they may consist of statements of financial position, income, and cash flows. The primary focus, however, has been on the presentation of interim income information, and some companies present only interim income statements.

Publicly owned companies are generally required to file some type of quarterly report as part of the agreement with the stock exchanges that list their stock. In addition, the SEC requires accelerated filers (firms with a market value greater than \$75 million) to file Form 10-Q with the Commission within 40 days after the end of each of the first three quarters of the fiscal year (45 days otherwise). The financial information disclosure portion of Form 10-Q requires that condensed financial statements include (1) comparative income statements for the quarter and year-to-date for the current and preceding year, (2) comparative statements of financial position at the end of the most recent quarter for the current and preceding year, and (3) comparative statements of cash flows for the current and preceding year. Most public companies also issue these reports required by the SEC to their stockholders and to other interested parties.

Problems in Interim Reporting

LO 8 Current interim reporting requirements.

LO 9 Problems in interim reporting.

Although the SEC established disclosure requirements for the financial information included in Form 10-Q, the development of accounting practices to be followed in preparing interim financial reports for external reporting purposes was left to the accounting

⁶ www.AICPA.org, 7/7/06.

⁷ Wal-Mart 10K, for the year ended January 31, 2014.

profession. No official guide or pronouncement on the practices to be used was issued until the Accounting Principles Board issued *Opinion No. 28*, “Interim Financial Reporting,” in May 1973 (now included in FASB ASC topic 280, Interim Reporting). Thus, before *APB Opinion No. 28* was issued, the form and content of interim reports and the accounting practices to be used in their preparation were left to the discretion of the reporting companies. In addition, interim reports are essentially unaudited reports. As a result, several problems evolved in the preparation of interim reports.

The seasonal nature of operations in many industries can cause wide fluctuations in revenues, expenses, and net income from one interim period to another. The relatively short time period available to determine interim results and the added cost of determining accurate figures for accruals, deferrals, and inventories encouraged the use of a variety of estimation techniques, some of which proved to be highly inaccurate. In fact, many firms used a wider variety of accounting practices and estimation procedures for interim reports than they did for year-end reports. In addition, two essentially conflicting views of the nature of interim periods exist among accountants. Some accountants hold that each interim period should *stand alone* as a basic accounting period; they conclude, therefore, that the results of operations for each interim period should be determined in the same manner as if the interim period were an annual period. Under this *discrete* view of an interim period, deferrals, accruals, and estimations at the end of each interim period are determined by following essentially the same principles and judgments that apply to annual periods.

Other accountants view each interim period as essentially an *integral* part of the annual period. Under this view, deferrals, accruals, and estimations at the end of each interim period are affected by judgments made at the interim date as to results of operations for the balance of the annual period. Thus, an expense item that might be considered as falling wholly within an annual accounting period could be allocated among interim periods on the basis of estimated time, sales volume, productive activity, or some other basis.

As a result of the problems just described, some companies issued interim financial statements reporting significant quarterly and year-to-date income for the first three quarters, but full-year statements that reported substantial net losses. The SEC filed complaints against several companies for failure to make adequate adjustments for accruals and deferrals of revenue and expenses on an interim basis and for failing to make appropriate adjustments on an interim basis for amortization, depreciation, and inventory obsolescence. In response to SEC complaints and general pressure from the financial and investing community, the APB issued *APB Opinion No. 28* in May 1973.

FASB ASC Topic 280, Interim Reporting

The basic objective of the standard was “to clarify the application of accounting principles and reporting practices to interim financial information, including interim financial statements and summarized interim financial data of publicly traded companies issued for external reporting purposes.” The Board also concluded that “*each interim period should be viewed primarily as an integral part of an annual period.*” The Board also took the position that financial statements for each interim period should be based on the same accounting practices that are used for the preparation of annual financial statements. The current standard presents guidelines for the presentation of revenue, costs associated with revenue, all other costs and expenses, and income tax provisions.

Revenue Revenue from products sold or services performed should be recognized as earned during an interim period on the same basis as that used for the full year. In addition, business with material seasonal variations should disclose the seasonal nature of their activities.

Costs Associated with Revenue Costs and expenses that are associated directly with or allocated to the products sold or to the services rendered for annual reporting purposes should be similarly treated for interim reporting purposes. However, the following are acceptable alternatives for inventory costing:

1. Estimated gross profit rates may be used by some companies to determine the cost of goods sold during interim periods, or they may use methods other than those used for year-end inventories. Companies using these methods should disclose the method used in the interim report and any significant adjustments that result from reconciliations with the annual physical inventory.
2. Companies using the LIFO method may encounter a liquidation of base period inventories at an interim date that is expected to be replaced by the end of the annual period. In these cases, cost of goods sold should be charged with the expected replacement cost of the liquidated LIFO base.
3. Inventory losses from market declines should be recognized in the interim period in which the decline occurs. Subsequent recoveries of these losses in interim periods should be recognized as gains to the extent of losses previously recognized in interim periods of the same fiscal period. However, market declines that are expected to be temporary within the fiscal year need not be recognized.

To illustrate, assume that Drex Company, which uses the FIFO inventory method, had 18,000 units in inventory at the beginning of the year at a FIFO cost per unit of \$6. No purchases were made during the year. Information concerning quarterly sales and end-of-quarter realizable value follows:

<i>Quarter</i>	<i>Sales in Units</i>	<i>End-of-Quarter Units on Hand</i>	<i>End-of-Quarter Realizable Value</i>
1	3,000	15,000	\$6.30
2	3,500	11,500	5.80
3	2,500	9,000	6.10
4	<u>5,000</u>	4,000	5.50
Total	<u>14,000</u>		

Assuming that the market decline in the second quarter was not expected to be temporary, cost of sales for the four quarters would be:

<i>Quarter</i>	<i>Computation of Cost of Goods Sold</i>	<i>Cost of Goods Sold</i>	
		<i>Quarter</i>	<i>Cumulative</i>
1	Sold 3,000 units @ \$6	\$18,000	\$18,000
2	Sold 3,500 units @ \$6 Plus write-down of ending inventory of 11,500 units to realizable value [11,500 × (\$6.00 – \$5.80)]	\$21,000 +2,300	23,300 41,300
3	Sold 2,500 units @ \$5.80 Less write-down recovery on ending inventory of 9,000 units [9,000 × (\$6.00 – \$5.80)]	14,500 (1,800)	12,700 54,000
4	Sold 5,000 units @ \$6 Plus write-down of ending inventory of 4,000 units to realizable value [(4,000 × (\$6.00 – \$5.50)]	30,000 +2,000	32,000 86,000

Because each interim period is considered an integral part of an annual period, the cumulative cost of goods sold (\$86,000) should equal the amount that would be computed if the lower-of-cost-or-realizable value method were applied on an annual basis. Thus, we can verify as follows:

<i>Units Sold During Year</i>		<i>FIFO Cost/Unit</i>	<i>Amount</i>
14,000	×	\$6.00	\$84,000
Add: Write-down of ending inventory to the lower of cost or realizable value (4,000 × \$.50)			<u>2,000</u>
Total cost of goods sold for the year			<u>\$86,000</u>

This procedure also has the effect of determining the cumulative cost of goods sold at the end of any quarter within the year.

4. Companies that use standard cost for determining inventory and product cost should generally follow the procedures in reporting variances that are used for the fiscal year. Purchase price and volume variances that are expected to be absorbed by the end of the annual period should ordinarily be deferred at interim reporting dates. Unplanned purchase price and volume variances, however, should be reported at the end of the interim period by the procedures used at the end of the fiscal year.

All Other Costs and Expenses The Board concluded that, in accounting for costs and expenses that are not allocated to products sold or to services rendered, the following standards should apply:

1. Costs and expenses other than product costs should be charged to income in interim periods as incurred, or be allocated among interim periods based on an estimate of time expired, benefit received or activity associated with the periods. Procedures adopted for assigning specific cost and expense items to an interim period should be consistent with the bases followed by the company in reporting results of operations at annual reporting dates. However, when a specific cost or expense item charged to expense for annual reporting purposes benefits more than one interim period, the cost or expense item may be allocated to those interim periods.
2. Some costs and expenses incurred in an interim period cannot be readily identified with the activities or benefits of other interim periods and should be charged to the interim period in which incurred. Disclosure should be made as to the nature and amount of such costs unless items of a comparable nature are included in both the current interim period and in the corresponding interim period of the preceding year.
3. Arbitrary assignment of the amount of such costs to an interim period should not be made.
4. Gains and losses that arise in any interim period similar to those that would not be deferred at year-end should not be deferred to later interim periods within the same fiscal year.

Provision for Income Taxes Accounting for income taxes in interim financial statements can be very complex for a company with such items as operating loss carrybacks or carryforwards, capital gains and losses, and other similar items. Our treatment here will cover the basic issue of interim provision of income taxes.

IN
THE
NEWS

In a study examining the predictive ability of SFAS No. 131 versus SFAS

No. 14, the predictive ability of the geographic sales reported by SFAS No. 131 exceeds that of SFAS No. 14. In addition, the requirement that companies report revenues for the country of domicile and for each "material" country has enhanced the predictive ability of the segment data.⁸

⁸ *Journal of International Accounting Research*, "The Predictive Ability of Geographic Segment Disclosures by U.S. Companies: SFAS No. 131 versus SFAS No. 14," by Bruce Behn, Nancy Nichols, and Donna Street, vol. 1, 2002, pp. 31–44.

The basic technique for computing income tax provisions for interim financial statements is described in FASB ASC subtopic 740–270 (Income Taxes—Interim Reporting). At the end of each interim period the company should make its best estimate of the effective tax rate expected to be applicable for the full fiscal year. The rate so determined should be used in providing for income taxes on a current year-to-date basis. The effective rate should reflect anticipated tax credits, foreign tax rates, percentage depletion, and other available tax planning alternatives. However, in arriving at this effective tax rate no effect should be included for the tax related to significant unusual or extraordinary items that will be separately reported or reported net of their related tax effect in reports for the interim period or for the fiscal year.

To illustrate the basic procedures, assume that during 2012 Drex Company had actual first-quarter earnings of \$150,000 and expected to have full-year earnings of about \$500,000. On the basis of its full-year earnings projection, Drex Company estimated that its combined state and federal tax rate would be 30%. Assume further that Drex Company estimated that it would have permanent differences between accounting income and taxable income during the year of \$20,000 for penalties for environmental violations and a dividend exclusion of \$50,000. On the basis of this information, Drex Company would compute its estimated effective income tax rate for the year as follows:

Estimated income before taxes	\$500,000
Add: Nondeductible penalties	20,000
Less: Dividends exclusion	<u>(50,000)</u>
Estimated taxable income	<u>\$470,000</u>
Estimated combined income tax payable ($\$470,000 \times 30\%$)	<u>\$141,000</u>
Estimated effective combined tax rate ($\$141,000/\$500,000$)	<u>28.2%</u>

This estimated rate is used to determine the income tax provision for the first quarter. Drex Company would, therefore, make the following entry:

Income Tax Expense ($\$150,000 \times 28.2\%$)	42,300	
Income Tax Payable		42,300

Now assume that during the second quarter of 2017 Drex Company had actual earnings of \$170,000, and that estimated total income for the year is \$600,000. Estimated permanent differences remain the same as projected during the first quarter. Using this new information, Drex Company would again compute an estimated combined federal and state tax rate for the year.

Estimated income before taxes	\$600,000
Less: Net permanent differences ($\$50,000 - \$20,000$)	<u>(30,000)</u>
Estimated taxable income	<u>\$570,000</u>
Estimated combined income tax payable ($\$570,000 \times 30\%$)	<u>\$171,000</u>
Estimated effective combined tax rate ($\$171,000/\$600,000$)	<u>28.5%</u>

The new estimated tax rate is used to compute the estimated year-to-date income tax provision, and the provision required for the second quarter as indicated here:

Cumulative income for the first two quarters ($\$150,000 + \$170,000$)	\$320,000
Estimated effective tax rate	<u>$\times 28.5\%$</u>
Cumulative tax provision needed	91,200
Less: Tax provided in first quarter	<u>42,300</u>
Tax provision for second quarter	<u>\$ 48,900</u>

Drex Company would make the following tax provision entry for the second quarter:

Income Tax Expense	48,900	
Income Tax Payable		48,900

Note that the new estimated effective tax rate is *not* applied retroactively; that is, the first-quarter results are not restated. Tax expense reported in the second quarter interim income statement would be \$48,900, and the year-to-date tax expense and tax payable would be reported in the year-to-date income statement and statement of financial position at \$91,200. The procedures for the third-quarter would duplicate those followed for the second quarter, taking new information and estimates into consideration. It should also be noted that the treatment provided in FASB ASC paragraph 250-10-45-13, and just illustrated, is entirely consistent with the normal treatment afforded a change in estimate under the provisions of FASB ASC paragraph 250-10-45-17; that is, changes in estimates are treated currently and prospectively, not retroactively.

The preceding illustration assumed that there were no temporary differences. If temporary differences existed, they would have no effect on the computation of the combined effective tax rate, but would affect the tax expense and the tax liability recorded. For example, if there were an excess of tax depreciation over book depreciation during the first quarter amounting to \$40,000, the first-quarter tax entry would be modified as follows:

Income Tax Expense	42,300	
Income Tax Payable [.282(\$150,000 – \$40,000)]		31,020
Deferred Income Tax Liability (.282 × \$40,000)		11,280

Interim Operating Losses When an interim operating loss gives rise to an expected income tax benefit, an asset is created to recognize the benefit. For example, if the loss for the interim or year-to-date period is expected to be offset by operating profit later in the same fiscal period, a tax benefit is traceable to the interim or year-to-date loss. In this case, the asset should be reduced by a valuation allowance if it is “more likely than not” that some or all of the benefit may not be realized. Clearly this criterion is one of the more subjective the FASB has required, and its implementation is thus subject to managerial discretion (and auditor review).

Accounting Changes in Interim Periods

Change in Estimate A change in estimate should be accounted for in the interim period in which the change is made. No restatement of previously reported interim information should be made, but the effect on earnings of a change in estimate made in a current interim period should be reported in the current and subsequent interim periods, if material in relation to any period presented, and should continue to be reported as long as necessary to avoid misleading comparisons.

The standards include all voluntary accounting changes and accounting changes where a new accounting pronouncement does not include specific transition provisions. Current GAAP require retrospective application to financial statements of prior periods where practical. If not practical, the statement requires that the new statement be applied to the earliest period that is practical. If one of the prior year’s financial statements being presented cannot be adjusted, an adjustment should be made to the beginning balance of retained earnings and not included in income.

Minimum Disclosures in Interim Reports

Because the amount of financial information disclosed in interim reports varies widely, the standards established minimum disclosures as follows:

- a. Sales or gross revenues, provision for income taxes, extraordinary items (including related income tax effects), and net income.
- b. Basic and diluted earnings-per-share data for each period presented determined in accordance with the provisions of FASB ASC topic 260 (Earnings per Share).
- c. Seasonal revenue, costs, or expenses.
- d. Significant changes in estimates or provisions for income taxes.
- e. Disposal of a segment of a business and unusual, or infrequently occurring items.
- f. Contingent items.
- g. Changes in accounting principles or estimates.
- h. Significant changes in financial position.

Overall, the APB and FASB have made a significant effort to improve the quality of interim financial reports. However, considerable controversy still exists and appears to center around the APB's assumption that an interim period should be accounted for as an integral part of the annual period.

SUMMARY

- 1 **Understand the need for disaggregated financial data.** To aid in evaluating prospective investments and the risk of those investments, financial statement users must assess the uncertainty surrounding the timing and amounts of expected cash flows. When a firm engages in activities in several industries or geographic areas, analysis and the prediction of future cash flows become more complicated because different segments may have different rates of profitability, growth opportunities, and types of risk.
- 2 **Describe the basic requirements of public companies in reporting segmental data.** FASB requires all public companies to report information about the countries in which they earn revenues and hold assets, about major customers, and about revenues for each product and service, even when *some* of the information is not used by the firm in its operating decisions. In general, FASB implemented a management approach, focusing on the way in which management organizes segments internally to make operating decisions and to assess performance.
- 3 **Determine an operating segment.** Operating segments are determined using a modified management approach. An operating segment is a component of an enterprise that may earn revenues and incur expenses, about which the chief operating decision maker regularly evaluates separate financial information in deciding how to allocate resources and in assessing performance.
- 4 **Define a reportable segment.** A reportable segment is a segment considered to be significant to an enterprise's operations; specifically, one that has passed one of three 10% tests or has been identified as being reportable through other criteria (aggregation, for example). The three 10% tests relate to combined external and internal revenues, reported profit or loss, and assets.
- 5 **Identify the information to be presented for each reportable segment.** The information presented includes: general information; information about segment operating profit or loss; information about segment assets; information about the bases for measurement; a reconciliation of segment amounts to the consolidated amounts for revenue, profit or loss, assets, and other significant items; interim disclosures; and enterprisewide disclosures regarding products or services, geographic areas, and major customers.
- 6 **Explain when and what types of geographic data must be reported.** Geographic disclosures are required on an enterprisewide basis unless the company's reportable segments have been defined based on geographic area. When required, firms must report revenues from external customers and long-lived assets attributable to their domestic operations and foreign operations.
- 7 **Explain when information about major customers must be reported.** If 10% or more of the revenue of a firm is derived from sales to any single customer, that fact and the amount

of revenue from each such customer must be disclosed. Also, if 10% or more of the revenue is derived from sales to the federal government, a state government, a local government, or a foreign government, that fact and the amount of revenue must be disclosed. These disclosures are required even if the firm has only one reportable segment.

- 8** *Describe current requirements for companies to report interim information.* Publicly owned companies are generally required to file some type of quarterly report as part of the agreement with the stock exchanges that list their stock. In addition, the SEC requires public companies to file Form 10-Q with the Commission within 45 days after the end of each of the first three quarters of the fiscal year.

- 9** *Indicate some problems with interim reporting and the authoritative position on the issue.* The seasonal nature of operations in many industries can cause wide fluctuations in revenues, expenses, and net income from one interim period to another. The relatively short time period available to determine interim results and the added cost of determining accurate figures for accruals, deferrals, and inventories encouraged the use of a variety of estimation techniques, some of which proved to be highly inaccurate. Two conflicting views of the nature of interim periods are: each period is *discrete* and should *stand alone* as a basic accounting period; or each interim period is an *integral* part of the annual period. In FASB ASC paragraph 270–10–45–1, the Board supported the integral view.

Supplemental Appendix 14A, “GE Segmental Disclosures, 2013 Annual Report” is available from your instructor.

TEST YOUR KNOWLEDGE SOLUTIONS

- 14.1**
- | | |
|-------------------------|---------------------------------|
| 1. Segments A, C, and D | 3. Segments A and C |
| 2. Segments A and C | 4. Three (Segments A, C, and D) |

QUESTIONS

- LO 1** 1. For what types of companies would segmented financial reports have the most significance? Why?
- LO 1** 2. Why do financial statement users (financial analysts, for example) need information about segments of a firm?
- LO 3 LO 4** 3. Define the following:
 (a) Operating segment.
 (b) Reportable segment.
- LO 4** 4. Describe the guidelines to be used in determining (a) what constitutes an operating segment, and (b) whether a specific operating segment is a significant segment.
- LO 5** 5. List the three major types of enterprisewide information disclosures required by *SFAS No. 131* [ASC 280], and explain how the firm’s designation of reportable segments affects these disclosures.
- LO 5** 6. What segmental disclosures are required, if any, for interim reports?
- LO 2** 7. What type of disclosure is required of a firm when the major portion of its operations takes place within a single reportable segment?
- LO 5** 8. List the types of information that must be presented for each reportable segment of a company under the rules of *SFAS No. 131* [ASC 280].
- LO 5** 9. Describe the methods that might be used to disclose reportable segment information.
- LO 6** 10. What types of information must be disclosed about foreign operations under *SFAS No. 131* [ASC 280–10–50–40]?
- LO 6** 11. How are foreign operations defined under *SFAS No. 131* [ASC 280]?
- LO 6** 12. If the operations of a firm in some foreign countries are grouped into geographic areas, what factors should be considered in forming the groups?
- LO 7** 13. When must a firm present segmental disclosures for major customers? What is the reason for this requirement?
- LO 9** 14. What is the purpose of interim financial reporting?
- LO 9** 15. Some accountants hold the view that each interim period should stand alone as a basic accounting period, whereas others view each interim period as essentially an integral part of the annual period. Distinguish between these views.
- LO 9** 16. Describe the basic procedure for computing income tax provisions for interim financial statements.
- LO 9** 17. Describe how changes in estimates should be treated in interim financial statements.
- LO 9** 18. What are the minimum disclosure requirements established ASC 270 for interim financial reports?
- LO 9** 19. What is the general rule regarding the treatment of costs and expenses associated directly with revenues for interim reporting purposes?

Business Ethics

SMC Inc. operates restaurants based on various themes, such as Mex-delight, Chinese for the Buffet, and Steak-it and Eat-it. The Steak-it and Eat-it restaurants have not been performing well recently, but SMC prefers not to disclose these details for fear that competitors might use the information to the detriment of SMC. The restaurants are located in various geographical locations, and management currently measures profits and losses and asset allocation by restaurant concept. However, when preparing the segmental

disclosures, the company reports the segment information by geographical location only. The company recently hired you to review the financial statements.

1. What disclosures should the company report for segment purposes?
2. The company's CEO believed that the rules are vague and that the company could easily support its decision to disclose the segment data by geographic regions. What would you recommend to the CEO and how would you approach the issues?

ANALYZING FINANCIAL STATEMENTS

AFS14-1 Segmental Disclosures

In the Appendix to this chapter, found from your instructor, the partial segmental disclosures for General Electric (GE) are provided.

1. How does GE organize and present its segment data?
2. Compute the following ratios for 2011, 2012, and 2013 for each segment reported.
 - a. Segment profit percentage = (segment profit/segment revenue)
 - b. Segment asset turnover = (segment revenue/segment assets)
3. Compute the growth rate for each segment for revenues and assets from 2008 to 2010. For example, the formula for revenue growth rate is:

$$\text{Growth rate in revenues} = \frac{\text{Revenues for 2013}}{\text{Revenues for 2011}} - 1$$

4. Evaluate each segment's performance using the computations from questions 2 and 3. Which segment performed the best and which segment performed the worst?
5. What percentage of GE's total revenues and assets are based outside the United States? Can you determine from the disclosures whether the trend is toward more or less globalization? Comment on the trend to the extent feasible.

AFS14-2 Eli Lilly Interim Reports

On April 18, 2011, Eli Lilly and Co. reported first quarter profits for 2011 of \$.95 per share. Analysts projected earnings to be \$1.16 or \$1.17 per share. However, Lilly reported non-GAAP earnings per share of \$1.24. Lilly states that non-GAAP results are presented in order to provide additional insights into the underlying trends in the company's business. Lilly's stock price on Friday, April 15, was \$35.99. Early Monday morning, the price fell to \$35.40 (a 1.6% drop), but recovered slightly to close at \$35.60.

Other Information:

On January 11, 2011, Lilly announced a strategic alliance with Boehringer Ingelheim to jointly develop and commercialize a portfolio of diabetes compounds currently in mid- and late-stage development. Under the terms of the agreement, Lilly will make a one-time payment to Boehringer Ingelheim of 300 million euros. Lilly expects 2011 earnings dilution of approximately \$.45 for 2011 earnings and approximately \$.27 per share for the one-time payment.

One of Lilly's best-selling drugs, Zyprexa, will lose patent protection in October 2011. Another product, Cymbalta, will face generic competition in the next three years.

Required:

Read Lilly's first-quarter earnings release (<http://investor.lilly.com/financials.cfm>). (Note: Under financial information, click on "quarterly results." Then click on "Lilly Reports First-Quarter 2011 Results.")

1. Using GAAP, examine Lilly's gross margin in dollars and as a percentage of sales for the current quarter versus the previous quarter. Is this a positive trend?

2. Using GAAP and non-GAAP measures, examine Lilly's operating profit in dollars and as a percentage of sales. Which items does Lilly exclude from earnings in computing non-GAAP operating earnings? Do you agree that these items should be excluded in evaluating the earnings of Lilly?
3. Do you think that the analyst's forecast included or excluded these items?
4. How do you explain the drop in Lilly's stock price?
5. The financial report includes a listing of key products and their growth in revenues in 2011, as well as a summary of some of the reasons. The prior year includes a similar listing and summary. Comment on the change from 2010 to 2011 by product, and briefly discuss the underlying factors responsible for the most significant shifts.

AFS14-3 Cracker Barrel

In its financial reports, Cracker Barrel states that their stores represent a single, integrated operation with two related substantially integrated product lines. The operating expenses of the restaurant and retail product lines of a Cracker Barrel store are shared and are indistinguishable in many respects. Accordingly, the Company manages its business on the basis of one reportable operating segment. All of the Company's operations are located within the United States.⁹ Total revenue was comprised of the following at:

	2017	2016	2015
Restaurant	\$2,351,212	\$2,323,199	\$2,269,610
Retail	<u>575,077</u>	<u>589,152</u>	<u>572,674</u>
Total revenue	\$2,926,289	\$2,912,351	42,842,284

In a statement provided to *NashvillePost.com*, Cracker Barrel execs said their financial reporting practices comply with Securities and Exchange Commission requirements and were actually the subject of a note from the regulators in the fall of 2003. The company responded to that inquiry soon after and the SEC indicated it was satisfied with the explanation given. However, as one critic contended: "In the final analysis, you are either not properly measuring the restaurant and retail businesses, and thus you are not properly managing them, or you are measuring/managing them properly but failing to report both operating segments to your owners."¹⁰

As outlined in Topic 280 of the FASB Codification, two or more operating segments may be aggregated for reporting purposes even though they may be individually material, if aggregation is consistent with the objectives and basic principles of Topic 280, if they exhibit similar economic characteristics, and if the segments are similar in each of the following areas:

- The nature of the products and services;
- The nature of the production processes;
- The type or class of customer for their products and services;
- The distribution methods for their products or services; and
- If applicable, the nature of the regulatory environment in which they operate.

Required:

1. In your opinion, does CB have two reportable segments? Why or why not?
2. Management often stresses that employee compensation cannot be separated between the restaurant and retail stores. Is this a legitimate reason not to report them as separate reporting units, in your opinion? Why or why not? Defend your answer.

⁹ [https://www.gaapdynamics.com/insights/blog/2016/12/27/segment-reporting-\(asc-280\)-where-companies-are-getting-it-wrong/!](https://www.gaapdynamics.com/insights/blog/2016/12/27/segment-reporting-(asc-280)-where-companies-are-getting-it-wrong/)

¹⁰ *NashvillePost.com*, "Top investor laments Cracker Barrel's 'low road in accounting disclosure'," by Geert De Lombaerde, August 25, 2011.

EXERCISES

EXERCISE 14-1 Operating Profit Test LO 4

Pong Industries' operations involve four operating segments, A, B, C, and D. During the past year, the operating profit (loss) of each segment was

<i>Segment</i>	<i>Operating Profit (Loss)</i>
A	\$(600)
B	100
C	900
D	(700)

Required:

Applying the operating profit or loss test, determine which of the segments are reportable segments.

EXERCISE 14-2 Revenue Test LO 4

Mane Company operates in five identifiable segments, V, W, X, Y, and Z. During the past year, sales to unaffiliated customers and intersegment sales for each segment were as follows:

<i>Segment</i>	<i>Sales to Nonaffiliates</i>	<i>Intersegment Sales</i>	<i>Total Sales</i>
V	\$2,000	\$ 400	\$2,400
W	280	20	300
X	100	600	700
Y	1,100	—0—	1,100
Z	350	25	375
Total	<u>\$3,830</u>	<u>\$1,045</u>	<u>\$4,875</u>

Required:

Applying the revenue test, determine which of the segments are reportable segments.

EXERCISE 14-3 Significance Tests LO 4

Twodor Company is involved in four separate industries. Selected financial information concerning Twodor's involvement in each of the four industries is presented below:

	<i>Industry Segment</i>				<i>Total</i>
	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	
Sales to nonaffiliates	\$ 80,000	\$20,000	\$24,000	\$12,200	\$136,200
Intersegment sales	<u>130,000</u>	<u>84,000</u>	<u>12,000</u>	<u>3,800</u>	<u>229,800</u>
Total revenue	210,000	104,000	36,000	16,000	366,000
Operating profit (loss)	(17,400)	12,000	1,500	(600)	(4,500)
Identifiable assets	222,000	110,500	28,000	26,000	386,500

Required:

Using all tests, determine which of the industry segments are reportable segments and explain how nonreportable segments (if any) should be reported.

EXERCISE 14-4 Allocating Common Costs to Segments

The following information concerns the operations of Blane Company for the year ended December 31, 2019.

	<i>(In Thousands of Dollars)</i>		
	<i>General Office</i>	<i>Segment A</i>	<i>Segment B</i>
Net sales (operating revenue)		\$60,000	\$99,000
Cost of goods sold		27,200	35,600
Allocable expenses		12,600	10,800
General corporate expenses	\$15,000		

	<i>(In Thousands of Dollars)</i>		
	<i>General Office</i>	<i>Segment A</i>	<i>Segment B</i>
Payroll dollars	9,200	34,800	18,200
Average net book value of tangible capital assets and inventories	5,200	70,000	54,500

Required:

Determine the operating profit (loss) for each of Blane's two segments for 2019.

EXERCISE 14-5 Provision for Taxes—Interim LO 9

LAX Inc. has the following income before income tax and estimated effective annual income tax rates for the first three quarters of 2019.

<i>Quarter</i>	<i>Income Before Income Tax Provision</i>	<i>Estimated Effective Annual Tax Rate at End of Quarter</i>
1st	\$70,000	32%
2nd	50,000	32%
3rd	40,600	38%

Required:

What should be LAX's income tax provision in the third-quarter income statement?
(AICPA adapted)

EXERCISE 14-6 Amounts on Quarterly Reports LO 9

The following information is available for Bailey Company for 2019:

- On January 2, 2014, Bailey paid property taxes amounting to \$60,000 on its plant and equipment for the calendar year 2019. In late March 2019 Bailey made major repairs to its machinery amounting to \$66,000. These repairs will benefit the remainder of the calendar year's operations.
- An inventory loss of \$150,000 from market decline occurred in August 2014. Bailey recorded this loss in August 2019 after its June 30 quarterly report was issued. None of this loss had been recovered by the end of 2019.
- At the end of July 2019, Bailey sold some equipment with a book value of \$22,000 for \$32,500.

Required:

State the dollar amounts that should appear in Bailey Company's March 31, June 30, September 30, and December 31, 2019, quarterly financial statements to report:

- Property taxes.
- Major repairs to machinery.
- Inventory loss from market decline.
- The gain or loss on sale of equipment.

(AICPA adapted)

EXERCISE 14-7 Inventory and Quarterly Reports LO 9

Day Company, which uses the FIFO inventory method, had 254,000 units in inventory at the beginning of the year at a FIFO cost per unit of \$30. No purchases were made during the year. Quarterly sales information and two sets of end-of-quarter replacement cost figures follow:

<i>Quarter</i>	<i>Unit Sales</i>	<i>End-of-Quarter Replacement Cost</i>	
		<i>Case A</i>	<i>Case B</i>
1	100,000	\$29	\$25
2	30,000	22	27
3	42,500	18	19
4	30,500	22	27

The market decline in the first quarter under Case A was expected to be temporary, whereas under Case B the decline was expected to be nontemporary. Declines in other quarters were expected to be permanent.

Required:

Determine cost of goods sold for the four quarters under each case and verify the amounts by computing cost of goods sold using the lower-of-cost-or-market method applied on an annual basis.

EXERCISE 14-8 Provision for Taxes—Quarterly Entries LO 10

Spur Company's actual earnings for the first two quarters of 2019 and its estimate during each quarter of its annual earnings are:

Actual first-quarter earnings	\$ 400,000
Actual second-quarter earnings	510,000
First-quarter estimate of annual earnings	1,350,000
Second-quarter estimate of annual earnings	1,420,000

Spur Company estimated its permanent differences between accounting income and taxable income for 2014 as:

Environmental violation penalties	\$ 25,000
Dividend income exclusion	180,000

These estimates did not change during the second quarter. The combined state and federal tax rate for Spur Company for 2019 is 42%.

Required:

Prepare journal entries to record Spur Company's provisions for income taxes for each of the first two quarters of 2019.

EXERCISE 14-9 Multiple Choice LO 4 LO 5 LO 9

Select the best answer for each of the following.

- Which of the following is *not* a consideration in segment reporting for diversified companies?
 - Consolidation policy.
 - Defining the segments.
 - Transfer pricing.
 - Allocation of joint costs.
- Cream Company operates in three different industries, each of which is appropriately regarded as a reportable segment. Segment No. 1 contributed 60% of Cream Company's total sales. Sales for Segment No. 1 were \$450,000 and traceable costs were \$200,000. Total common costs for Cream were \$300,000. Cream allocates common costs on the basis of the ratio of a segment's sales to total sales, an appropriate method of allocation. What should be the operating profit presented for Segment No. 1 for the year?
 - \$270,000.
 - \$70,000.
 - \$180,000.
 - \$250,000.

3. The profitability information that should be reported for each reportable segment of a business enterprise consists of
 - a. An operating profit or loss figure consisting of segment revenues less traceable costs but *not* allocated common costs.
 - b. An operating profit or loss figure consisting of segment revenues less allocated common costs but *not* traceable costs.
 - c. An operating profit or loss figure consisting of segment revenues less traceable costs and allocated common costs.
 - d. Segment revenues only.
4. In financial reporting for segments of a business enterprise, the operating profit or loss of a segment should include
 - a. Revenue from other segments.
 - b. Federal income taxes.
 - c. Interest expense even though the segment's operations are *not* principally of a financial nature.
 - d. Any of the above, *if* it is included in the measures reviewed by the chief operating decision maker.
5. A company that uses the LIFO method of inventory pricing finds at an interim reporting date that there has been a partial liquidation of the base period inventory level. The decline is considered temporary and the partial liquidation will be replaced before year-end. The amount shown as inventory at the interim reporting date should
 - a. Be shown at the actual level, and cost of sales for the interim reporting period should reflect the decrease in the LIFO base period inventory level.
 - b. *Not* give effect to the LIFO liquidation, and cost of sales for the interim reporting period should reflect the decrease in the LIFO base period inventory level.
 - c. *Not* give effect to the LIFO liquidation, and cost of sales for the interim reporting period should include the expected cost of replacement of the liquidated LIFO base.
 - d. Be shown at the actual level, and the decrease in inventory level should *not* be reflected in the cost of sales for the interim reporting period.
6. Which of the following is an inherent difficulty in determination of the results of operations on an interim basis?
 - a. Costs expended in one interim period may benefit other periods.
 - b. Depreciation on an interim basis is a partial estimate of the actual annual amount.
 - c. Cost of sales reflects only the amount of product expense allocable to revenue recognized as of the interim date.
 - d. Revenues from long-term construction contracts accounted for by the percentage-of-completion method are based on annual completion, and interim estimates may be incorrect.
7. In considering interim financial reporting, how did the Accounting Principles Board conclude that such reporting should be viewed?
 - a. As useful only if activity is evenly spread throughout the year so that estimates are unnecessary.
 - b. As a "special" type of reporting that need *not* follow generally accepted accounting principles.
 - c. As reporting of an integral part of an annual period.
 - d. As reporting of a basic accounting period.
8. Which of the following methods of inventory valuation is allowable at interim dates but *not* at year-end?
 - a. Estimated gross profit rates.
 - b. Retail method.
 - c. Specific identification.
 - d. Weighted average.

PROBLEMS

PROBLEM 14-1 Significance Tests—Segmental Reporting **LO 4**

Bacon Industries operates in seven different segments. Information concerning the operations of these segments for the most recent fiscal period follows:

Operating Segment	Revenue		Operating Profit (Loss)	Identifiable Assets
	Total	Intersegment		
1	\$ 4,200	\$ 800	\$ (600)	\$ 7,000
2	6,000	1,200	2,000	8,800
3	51,000	7,000	2,100	35,400
4	48,000	—0—	8,800	37,600
5	13,000	—0—	3,200	14,000
6	64,500	3,400	4,000	52,000
7	12,000	2,000	(3,000)	16,400

Required:

Determine which of the segments must be treated as reportable segments.

PROBLEM 14-2 Significance Tests—Segmental Reporting **LO 4**

Pacheco Industries is comprised of four separate profit centers, which are distributed throughout the United States. Relevant data for each profit center are summarized for 2019:

	Profit Center (in Thousands)				Total
	A	B	C	D	
Sales to nonaffiliates	\$3,600	\$8,700	\$1,500	\$1,200	\$15,000
Intersegment sales	1,500	2,400	300	3,000	7,200
Operating profit (loss) before joint expense allocation	840	1,500	240	(60)	2,520
Identifiable assets	7,200	18,000	2,400	2,400	30,000
Labor hours worked	2,700	5,700	1,500	2,100	12,000

You determine that intersegment sales are distributed as follows:

Seller	Buyer				Total
	A	B	C	D	
A	\$—0—	\$1,200	\$150	\$150	\$1,500
B	1,200	—0—	600	600	2,400
C	150	150	—0—	—0—	300
D	1,800	1,050	150	—0—	3,000
Total	\$3,150	\$2,400	\$900	\$750	\$7,200

Common costs of \$2,400,000 were incurred during 2019. Management believes that total labor hours worked during the year provides a reasonable basis for allocation of these costs.

In each situation described below, an operating segment is comprised of different combinations of profit centers. Thus, the “AB” operating segment consists of profit centers “A” and “B.” Consider the following five combinations of operating segments:

1. AB, CD
2. AB, C, D
3. A, B, CD
4. A, B, C, D
5. A, BD, C

Required:

- A. For each combination listed, determine which operating segments are reportable segments. Apply all required tests and indicate the results of each test separately.
- B. For each combination given, indicate if the reportable segments determined in (A) above collectively represent a “substantial portion” of Pacheco Industries’ total operations, applying the 75% revenue test.

PROBLEM 14-3 Issues in Segmental Reporting LO 1 LO 4

Perez Industries, a publicly held corporation, consists of several companies, each of which provides an array of products and services to unaffiliated customers. In your opinion, each of these companies qualifies as a separate operating segment.

The corporation is in the process of completing its first-year financial statements. Although the directors of Perez Industries wish to comply with the provisions of *SFAS No. 131* [ASC 280], they believe that disclosing each individual segment would result in an unwieldy and cumbersome set of financial statements. For this reason, they request that when you prepare these statements, you keep the identified segments to the minimum number that would ensure compliance with *SFAS No. 131* [ASC 280].

Required:

- A. To what extent does the management of Perez Industries have a choice in deciding whether an operating segment must be reported?
- B. The directors of Perez Industries presumably feel that too much disclosure of financial information will impair the overall utility of the financial statements. What are the arguments against segmental disclosures? What flexibility, if any, does the FASB allow that could invalidate this criticism? Explain.
- C. Explain the needs for segment reporting. Why do consolidated financial statements fail to meet these needs?
- D. Relate the concept of comparability to the required accounting treatment for intersegment transactions. What arguments would favor *excluding* the effect of intersegment transfers?

PROBLEM 14-4 Comprehensive Segmental Reporting LO 4 LO 5

Branson Industries conducts operations in five major industries, A, B, C, D, and E. Financial data relevant to each industry for the year ending December 31, 2019, are as follows:

	<i>(In Thousands)</i>				
	<i>United States</i>			<i>Canada</i>	
	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>
Sales	\$57,000	\$120,000	\$880,000	\$50,000	\$ 83,000
Cost of goods sold	20,000	75,000	400,000	9,400	49,000
Administrative expenses	18,000	26,000	152,000	12,000	8,000
Selling expenses	7,000	44,000	172,000	12,600	20,000
Total cost and expense	<u>45,000</u>	<u>145,000</u>	<u>724,000</u>	<u>34,000</u>	<u>77,000</u>
Operating profit	<u>\$12,000</u>	<u>\$(25,000)</u>	<u>\$156,000</u>	<u>\$16,000</u>	<u>\$ 6,000</u>
Identifiable assets	\$50,000	\$95,000	\$600,000	\$98,000	\$240,000
Depreciation and amortization expense	6,400	10,700	76,000	12,200	26,400
Capital expenditures	5,600	8,000	39,000	20,000	25,000

Included in the sales of segments C and E are intersegment sales of \$120,000 and \$40,000, respectively. Corporate offices have assets of \$95,000 and incurred general corporate expenses of \$76,000. All corporate assets are located in the United States and depreciation on corporate assets was \$10,000. No single customer represents more than 10% of sales. There is no intercompany

inventory in beginning or ending inventory. The intersegment sales are included in the measures reviewed by the chief operating decision maker, as are the capital expenditures and depreciation and amortization.

Required:

- A. Which industry segments should be separately reported in the segment report, assuming that Branson defines its operating segments based on major industry (product/services)? Justify your answer.
- B. Prepare a report to disclose required segment information under *SFAS No. 131* [ASC 280]. Include the enterprisewide disclosures.

PROBLEM 14-5 Segmental Reconciliation LO 4 LO 5

Bismac Industries is a diversified company whose operations are conducted in five product lines, L, M, N, O, and P. Segmented financial information is to be included with the December 31, 2019 annual report. Financial information pertaining to each segment for 2019 is as follows:

	<i>L</i>	<i>M</i>	<i>N</i>	<i>O</i>	<i>P</i>
Sales	\$40,000	\$ 85,000	\$600,000	\$50,000	\$48,000
Cost of sales	15,000	45,000	275,000	22,000	29,000
Interest expense	4,000	11,000	50,000	4,000	1,000
Depreciation expense	5,000	8,000	54,000	6,000	5,000
Selling expense	8,000	32,000	140,000	9,000	10,000
Total cost and expense	<u>32,000</u>	<u>96,000</u>	<u>519,000</u>	<u>41,000</u>	<u>45,000</u>
Operating profit (loss)	<u>\$ 8,000</u>	<u>\$(11,000)</u>	<u>\$ 81,000</u>	<u>\$ 9,000</u>	<u>\$ 3,000</u>
Identifiable assets	\$30,000	\$ 48,000	\$320,000	\$45,000	\$95,000

Additional Information:

1. In addition to the identifiable assets listed, the general corporate office has assets of \$90,000 on December 31, 2019, and incurred unallocated amounts related to corporate headquarters of interest expense \$1,000, depreciation expense \$2,000.
2. Included in the sales of segment P are \$15,000 of sales made to segment N during the year. None of these goods remains in the ending inventory of segment N on December 31, 2019. There were no capital expenditures during the year.
3. No single customer represented more than 10% of sales.

Required:

- A. Determine which of the five segments must be treated as reportable segments and indicate the basis for your decision. Assume segments are defined based on product line.
- B. Prepare a financial report by segments that is reconciled to consolidated data.

PROBLEM 14-6 Quarterly Income Tax Entries LO 9

Actual quarterly earnings and quarterly estimates of annual earnings for Sloan Company for the year ended December 31, 2019 are as follows:

<i>Quarter</i>	<i>Actual Quarterly Earnings</i>	<i>Quarterly Estimates of Annual Earnings</i>
1	\$95,000	\$400,000
2	85,000	370,000
3	92,000	370,000
4	96,000	N/A

The combined state and federal tax rate for 2019 is 30%. Sloan Company estimated it would have permanent differences between accounting income and taxable income during 2019. Each quarter's estimate of these annual differences is provided in the following table:

<i>Estimate at End of Quarter</i>	<i>Estimated Permanent Differences</i>	
	<i>Penalty for Pollution</i>	<i>Dividend Exclusion</i>
1	\$14,000	\$40,000
2	14,000	40,000
3	14,000	50,000

The actual amount of permanent differences for 2019 were environmental penalties, \$14,000 dividend exclusion, \$55,000.

Required:

Prepare journal entries to record Sloan Company's 2019 quarterly income tax provisions.

PROBLEM 14-7 Various Interim Reporting Cases LO 9

The following statement is an excerpt from ASC 270-10-45-1, 2 [paragraphs 9 and 10 of *APB Opinion No. 28*, "Interim Financial Reporting"]:

"Interim financial information is essential to provide investors and others with timely information as to the progress of the enterprise. The usefulness of such information rests on the relationship that it has to the annual results of operations. Accordingly, the Board has concluded that each interim period should be viewed primarily as an integral part of an annual period.

In general, the results for each interim period should be based on the accounting principles and practices used by an enterprise in the preparation of its latest annual financial statements unless a change in an accounting practice or policy has been adopted in the current year. The Board has concluded, however, that certain accounting principles and practices followed for annual reporting purposes may require modification at interim reporting dates so that the reported results for the interim period may better relate to the results of operations for the annual period."

Required:

Listed below are six independent cases on how accounting facts might be reported on an individual company's interim financial reports. For each case, state whether the method proposed to be used for interim reporting would be acceptable under generally accepted accounting principles applicable to interim financial data. Support each answer with a brief explanation.

- A. Reed Company wrote inventory down to reflect lower of cost or market in the first quarter of 2019. At year-end the market value exceeds the original acquisition cost of this inventory. Consequently, management plans to write the inventory back up to its original cost as a year-end adjustment.
- B. Greenfield Company realized a large gain on the sale of investments at the beginning of the second quarter. The company wants to report one-third of the gain in each of the remaining quarters.
- C. Dole Company has estimated its annual audit fee. They plan to prorate this expense equally over all four quarters.
- D. Fur Company was reasonably certain they would have an employee strike in the third quarter. As a result, they shipped heavily during the second quarter but plan to defer the recognition of the sales in excess of the normal sales volume. The deferred sales will be recognized as sales in the third quarter when the strike is in progress. Fur Company management thinks this is more nearly representative of normal second- and third-quarter operations.
- E. REXX Company takes a physical inventory at year-end for annual financial statement purposes. Inventory and cost of sales reported in the interim quarterly statements are based on estimated gross profit rates, because a physical inventory would result in a cessation of operations. REXX Company does have reliable perpetual inventory records.
- F. Shelley Company is planning to report one-fourth of its pension expense in each quarter. (*CMA adapted*)

PARTNERSHIPS: FORMATION, OPERATION, AND OWNERSHIP CHANGES

CHAPTER CONTENTS

- 15.1 PARTNERSHIP DEFINED
- 15.2 REASONS FOR FORMING A PARTNERSHIP
- 15.3 CHARACTERISTICS OF A PARTNERSHIP
- 15.4 PARTNERSHIP AGREEMENT
- 15.5 ACCOUNTING FOR A PARTNERSHIP
- 15.6 SPECIAL PROBLEMS IN ALLOCATION OF INCOME AND LOSS
- 15.7 FINANCIAL STATEMENT PRESENTATION
- 15.8 CHANGES IN THE OWNERSHIP OF THE PARTNERSHIP
- 15.9 SECTION A: ADMISSION OF A NEW PARTNER (NOT A BUSINESS COMBINATION)
- 15.10 SECTION B: ADMISSION OF A NEW PARTNER THAT QUALIFIES AS A BUSINESS COMBINATION: GAAP REQUIRES GOODWILL METHOD
- 15.11 SECTION C: WITHDRAWAL OF A PARTNER

LEARNING OBJECTIVES

- 1 Describe the characteristics of a general partnership, a limited partnership, and a joint venture.
- 2 List some important items to be included in the partnership agreement.
- 3 Understand the differences between partnerships' and corporations' equity accounts in the balance sheet.
- 4 Explain the purpose of the partners' drawing accounts and capital accounts.
- 5 Prepare journal entries to form a partnership using the bonus and the goodwill methods.
- 6 Describe some common agreements used to allocate partnership net income or loss.
- 7 Explain why salary allowances and interest allowances are used in allocating partnership profits and losses.
- 8 Describe the methods used to record partnership changes when a new partner is admitted or when a partner withdraws from the partnership.
- 9 Describe the rationale behind the goodwill method in accounting for changes in partnership membership.
- 10 Differentiate between situations in which it is consistent with current GAAP to record goodwill in the event of a partnership change and those where it is not.

"Sustainability can be a 2 + 2 = 5 (or even 50) game. To achieve outstanding triple bottom line performance, new types of economic, social, and environmental partnership are needed. Long-standing enemies must shift from mutual subversion to new forms of symbiosis. The resulting partnerships will help each partner perform traditional tasks more efficiently, while providing a platform from which to reach toward goals that none of the partners could hope to achieve on his own."¹

¹ *Environmental Quality Management*, "Partnerships from Cannibals with Forks: The Triple Bottom Line of 21st-Century Business," by John Elkington, Autumn 1998, p. 37.

In the United States, over 3,000,000 businesses are organized as partnerships.² The majority of these do not publish GAAP-based financial statements. The next two chapters deal exclusively with accounting and reporting problems associated with the partnership form of business organization. These chapters cover the complete life cycle of a partnership from its formation and operation to its liquidation. Partnerships are covered in this text because they are a common form of business organization. They are popular because they permit the pooling of limited resources, are easy to form (no special governmental approval is required), and may have certain tax advantages. Because partnerships are common, accountants are often called on to account for, and serve in, an advisory capacity to partnerships. Although many of the accounting concepts applicable to a sole proprietorship or a corporation are also applicable to partnerships, some aspects of partnership formation, operation, and liquidation require additional consideration. The unique aspects of accounting for a partnership are the focus of these chapters. Illustration 15-1 presents a summary of statistics for partnerships in the United States from 2014.

Accounting for a partnership is influenced by the agreement made among the partners and by the appropriate state statutes. Partnerships operate within the legal framework of the state in which they are organized and the statutes may vary from state to state. In order to illustrate statutory provisions, the Uniform Partnership Act (UPA) is integrated throughout the partnership chapters because it, or some modification thereof, is the partnership law that has been adopted by the majority of the states. An in-depth study of the legal aspects of partnerships is generally contained in the typical business law course.

ILLUSTRATION 15-1

Partnership Statistics, 2014

<i>Year 2014</i>	<i>Number of partnerships</i>	<i>% of Industries</i>	<i>Number of partners</i>	<i>% of Industries</i>
All Industries	3,611,255	100.0	27,714,478	100.0
Agriculture, forestry, fishing, and hunting	143,516	4.0	456,700	1.6
Mining	31,489	0.9	2,526,857	9.1
Utilities	5,046	0.1	163,591	0.6
Construction	142,632	3.9	412,324	1.5
Manufacturing	66,775	1.8	836,615	3.0
Wholesale trade	82,392	2.3	815,366	2.9
Retail trade	168,627	4.7	660,347	2.4
Transportation and warehousing	46,650	1.3	3,119,120	11.3
Information	42,168	1.2	173,729	0.6
Finance and insurance	334,546	9.3	6,634,114	23.9
Real estate and rental and leasing	1,816,889	50.3	7,887,184	28.5
Professional, scientific, and technical services	219,798	6.1	810,461	2.9
Management of companies (holding companies)	32,529	0.9	114,390	0.4
Administrative and support and waste management and remediation services	66,433	1.8	167,211	0.6
Educational services	28,821	0.8	69,862	0.3
Health care and social assistance	85,027	2.4	374,499	1.4
Arts, entertainment, and recreation	73,874	2.0	473,766	1.7
Accommodation and food services	138,213	3.8	516,694	1.9
Other services	85,640	2.4	279,902	1.0

Adapted from *Statistics of income Bulletin*, Partnership Returns, Fall 2017 U.S. Internal Revenue Service.

² U.S. Census Bureau, 2012, p. 491.

15.1 PARTNERSHIP DEFINED

A partnership is defined by the UPA as “an association of two or more persons to carry on as co-owners a business for profit.”³ Persons in this definition include individuals, partnerships, corporations, and other associations. Not only are corporations sometimes partners, but also partnerships can be shareholders in a corporation.

In some cases, it may be difficult to determine whether a partnership has been formed or whether an individual is a partner in a business arrangement. To determine the existence of a partnership, it may be helpful to look for the following three attributes: (1) there must be an agreement, either expressed or implied, between two or more persons; (2) the business must be operated for the purpose of making a profit; and (3) members of the firm must be co-owners of the business. Co-ownership involves the right of each partner to share in the profits of the business, to participate in the management of the business, and to hold an interest in properties conveyed to the partnership. These rights are shared equally unless agreed to otherwise in the partnership agreement.

15.2 REASONS FOR FORMING A PARTNERSHIP

The prospective owner(s) of a business should consider the various attributes of the different forms of business organizations before selecting the one that they believe best meets their organizational objectives and personal goals. A form suitable for one set of business objectives may not be appropriate for another. It is possible for a firm to start as a proprietorship and, as the business and personal environments change, to move to a partnership form, and ultimately, to incorporate.

One of the major advantages of a partnership is that it permits the pooling of capital and other resources without the complexities and formalities of a corporation. A partnership is easier and less costly to establish than a corporation and is generally not subject to as much governmental regulation. Furthermore, the partners may be able to operate with more flexibility because they are subject neither to the control of a board of directors nor to outside shareholders. There may also be certain tax advantages to a partnership, discussed later.



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Chip Bell, senior partner with Performance Research Associates in Dallas, compares partnering to dancing. He suggests six steps to great partnerships:

- **Focus**, or prepare to partner. There should be a clear commitment to some purpose.
- **Audition**, or pick great partners. Auditions are about discovery and disclosure. Be open for warning cues.
- **Rehearse**, or get the partnership in shape. Work the plan, ignoring opposition or objections.
- **Dance**, or keep the magic in motion. Great partnerships keep going and growing.
- **Hurt**, or manage the pain. Great dances are rarely flawless, and the capacity to bend and continue in the face of adversity makes for resilience.
- **Bow out**, or know when to call it curtains.⁴

³ UPA, Section 6.

⁴ Adapted from *Dance Lessons: Six Steps to Great Partnerships in Business and Life*, by Chip Bell and Heather Shea (St. Paul, MN: Highbridge Company, 1998). Also see Executive Excellence, “Steps to Great Partnerships,” by Chip Bell and Heather Shea, March 1999, pp. 5–6.

15.3 CHARACTERISTICS OF A PARTNERSHIP

LO 1 Characteristics of a general partnership.

Some partnership characteristics may make it more difficult for a partnership to raise capital than for a corporation. Partnerships are thus most common in comparatively small businesses, professional organizations, such as medical clinics or an accounting practice, and some limited projects undertaken to accomplish a single goal, such as an oil and gas exploration project or the purchase of a parcel of real estate for investment purposes. However, there is no limit to the size or number of partners in a firm. For example, in the large international CPA firms, the number of partners is in the thousands and revenue is in the millions of dollars.

One distinctive characteristic of a partnership is its advantageous federal income tax treatment. A partnership is treated as a “flow through” entity from a federal income tax perspective and as such, income is not subject to taxation at the partnership level. A partnership must file an information return with the IRS in which income or loss is allocated to the individual partners. A partner’s respective share of the income or loss is then reported on his or her individual income tax return, whether distributed by the partnership or not.

General Partnership

In a general partnership, each member is a general partner within the firm. That is, there is no “limited partner” in the organization. The following are characteristics of a general partnership.

Mutual Agency Every general partner is an agent of both the partnership and every other partner. Thus, a partner can bind the other partners to a contract if he or she is acting within the apparent scope of the business. Outside parties transacting with a partner can assume the partner has the power to bind the partnership unless they are informed otherwise. Outside parties should be aware, however, that for certain acts, such as the assignment of partnership property, unanimous consent of the partners is required.

Right to Dispose of a Partnership Interest A capital interest in a general partnership is a personal asset of the individual partner that can be sold or disposed of in any legal way. However, the UPA, recognizing the highly personal relationship of the partners, provides that a purchaser of another partner’s interest does not have the right to participate in management unless he or she is accepted by all the partners. The new partner is entitled to the profit allocation acquired and, in the event of liquidation, to receive whatever assets the selling partner would have received had he or she continued in the partnership.

Unlimited Liability In a *general partnership*, each partner is jointly and severally liable for the debts and obligations of the partnership. This means that in the case of liquidation, the creditors of the partnership, if not satisfied from assets of the partnership, can look to each partner’s personal resources for recovery of unsatisfied claims. Jointly and severally means that a creditor can seek recovery from all the partners or can proceed against one or more of them separately.

Limited or Uncertain Life A general partnership may be dissolved for a number of reasons, including the death of a partner, the bankruptcy of an individual partner, the withdrawal of a partner from the partnership, or a judgment by a court that a partner is unsound of mind and incapable of performing his or her partnership duties.

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“Partnerships aren’t for everyone. They require an investment of

energy and demand vulnerability. And partnerships diminish the protection of anonymity. They are poor associations in which to hide. Partnership means working onstage, not backstage. Done well, partnerships work at amplifying disclosure and enhancing exposure.”⁵

⁵ *Executive Excellence*, “Steps to Great Partnerships,” by Chip Bell and Heather Shea, March 1999, pp. 5–6.

The characteristics just discussed underline the importance of careful selection of the individuals to be associated in a general partnership. In particular, mutual agency and unlimited liability are distinctive features of a general partnership that could result in extensive personal liability resulting from the acts of other partners.

A popular form of general partnership known as a **limited liability partnership (LLP)** addresses the issue of unlimited liability by granting partners personal protection from partnership obligations arising from the actions of other partners. However, partners are still held personally liable for their own actions and those of others under their authority.



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A big surprise to many tax practitioners came at the end of 2015 with the enactment by Congress of new partnership audit rules in the Bipartisan Budget Act (BBA) of 2015. These rules expanded the power of the IRS in dealing with partnership audits. Under the 2015 Act, the IRS can now not only assess and collect tax from partners individuals (as before) but also assess and collect tax from the partnership itself (for audits of tax years beginning on or after January 1, 2018).⁶

Limited Partnership

LO 1 Characteristics of a limited partnership.

In a **limited partnership**, one or more of the partners are general partners and one or more are limited partners. While general partners manage the firm and are personally liable for obligations of the partnership, limited partners invest capital only and limit their liability for partnership obligations to the amount of their investment. In return, limited partners give up the right to participate in the management of the firm.

The limited partnership form of organization is selected when the general partners want to raise capital without giving up management control of the business. It is also an attractive form when the tax benefits associated with a partnership are desired, but the investors do not want to assume personal liability for the obligations of the partnership. For these reasons, the limited partnership form is often used for professional sports franchises and offerings of partnership interests made to the public for the purpose of carrying out a specific business plan, such as real estate ventures or oil and gas exploration projects.

Joint Ventures

LO 1 Characteristics of a joint venture.

A **joint venture** is an arrangement entered into by two or more parties to accomplish a single or limited purpose for the mutual benefit of the members of the group, often to earn a profit. For example, a firm in one country may enter into an agreement with a firm of another country to pool their resources to construct an automobile manufacturing plant, or two or more firms may enter into an arrangement to develop a new product that requires complementary technological knowledge. Thus, the life of the joint venture is limited to that of the undertaking, which may be of short- or long-term duration.

The relationship between the parties in the arrangement is generally governed by a written agreement. A distinguishing characteristic of the agreement is that each joint venturer participates directly or indirectly in the overall management of the resources. Accordingly, major decisions require the consent of the ownership group.

Joint ventures are commonly organized as corporations or partnerships. If organized as a corporation, the investment in the joint venture generally must be accounted for using

⁶ *Journal of Accountancy*, “State Issues with the New Federal Partnership Audits,” by Eileen Sherr and Steven Wlodychak, March 2017.

the equity method in accordance with the provisions of *Accounting Principles Board Opinion No. 18*.⁷ As a corporation, a joint venture is governed by corporate law. If the arrangement is a partnership joint venture, interpretations of *Opinion No. 18* indicate that many of the provisions of that opinion are appropriate in accounting for the investment.⁸ In general, partnership law applies to a partnership joint venture, but the authority of a joint venturer is limited to a greater extent than that of a general partner. For example, as a general rule, one party to the arrangement is not an agent of the other parties.

15.4 PARTNERSHIP AGREEMENT

LO 2 Important items in a partnership agreement.

A partnership is a voluntary association based on the contractual agreement between or among legally competent persons. The contract between the parties is called the *partnership agreement*, *partnership contract*, or *articles of partnership*. The partnership agreement generally contains provisions related to the nature of the business, operating policies, and the relations between the partners in operating and terminating the business. In the contract, the partners should clearly express their intention, and the document should cover all aspects of operating the partnership. If there are subsequent disputes and the partners are unable to reach a satisfactory agreement, it may be necessary to resort to litigation.

The partnership agreement should reflect fully the precise intentions of the parties and be as unambiguous as possible. The agreement should include the following important points:

1. The name of the firm and identity of the partners.
2. The nature, purpose, and scope of the business.
3. The effective date of organization.
4. The length of time the partnership is to operate.
5. Location of the place of business.
6. Provision for the allocation of profit and loss.
7. Provision for salaries and withdrawals of assets by partners.
8. The rights, duties, and obligations of each partner such as the amount of time each partner will spend on business activities, and whether each partner is a general or limited partner.
9. Authority of each partner in contract situations.
10. Procedures for admitting a new partner.
11. Provisions that specify how operations are to be conducted and how the various partners' interests are to be satisfied on the withdrawal or the death of a partner.
12. Procedures for the arbitration of disputes.
13. Fiscal period of the partnership.
14. Identification and valuation of initial asset investments and the specification of capital interest that each partner is to receive.
15. Situations that may cause the dissolution of the partnership and provisions for terminating or continuing the business.

⁷ *Opinion of the Accounting Principles Board No. 18*, "The Equity Method of Accounting for Investments in Common Stock" (New York: AICPA, 1971). [ASC 323]

⁸ *Accounting Interpretations of APB Opinion No. 18* (New York: AICPA, 1972), par. 2. [ASC 323–30–15–3]

16. Accounting practices to be followed, such as depreciation policies, the sequence of closing procedures, and whether the cash or accrual basis is to be used in measuring net income.
17. Whether or not an audit is to be performed.

Some of the items listed will be discussed in more detail in later sections.

The law does not specify the form of the agreement. Although it may be oral, it is a good business practice to have the agreement in writing for the protection of the individual partners. A written agreement tends to reduce the number of disagreements resulting from misunderstandings and “loss of memory.”

Legally, the partners have a great deal of flexibility in drafting an agreement among themselves, but they must recognize that the UPA specifies certain rights of and obligations to outside parties that may not be avoided by the individual partners. For example, as noted previously, the UPA (Section 15) imposes unlimited liability on each general partner for partnership debts and obligations. A provision in a partnership agreement that exempts a general partner from this obligation would be superseded by the provision in the UPA.

In drafting the agreement, the partners should seek both legal and accounting assistance to assure that their rights are protected and to help anticipate and avoid as many points of conflict as possible. If there are later disputes related to the relations among the partners, most provisions set out in the UPA control only if the partners have failed to make an express agreement, or if the partners are unable to reach a mutually satisfying agreement. For example, in the absence of an agreement concerning how to share profits, the UPA provides that profits are to be shared equally. Differences arising from ordinary matters may be decided by a majority vote of the partners [UPA, Section 18(H)].



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The Greatest Show on Earth

William Cameron Coup organized a show in 1869 that staged simultaneous performances in two rings. He later formed a partnership with P. T. Barnum, and in 1871 they opened “The Greatest Show On Earth” in Brooklyn, N.Y. About ten years later, Barnum went into partnership with James Anthony Bailey, another American showman and one of the best organizers in the business, and with two other impresarios. Eventually, however, Barnum and Bailey became sole partners, with their circus giving simultaneous shows in three rings.⁹

Capital Interest versus Profit Interest

In preparing the partnership agreement, the partners must recognize that there is a distinction between a partner’s capital interest and his or her interest in income and losses subsequently reported by the partnership. A partner’s *capital interest* is a claim against the net assets of the partnership as shown by the balance in the partner’s capital account; an *interest in income and loss* determines how the partner’s capital interest will increase or decrease as a result of subsequent operations. The partners may agree that an individual partner is to receive a one-third capital interest in the partnership, but the same partner’s interest in income and loss may be equal to, greater than, or less than one-third.

⁹ From *Funk and Wagnalls’ New Encyclopedia*, Cambridge, MA: Funk and Wagnalls, Corp., 1996. *Infopedia*, SoftKey Multimedia Inc., 1996.

15.5 ACCOUNTING FOR A PARTNERSHIP

LO 3 Partnerships' equity versus shareholders' equity.

For accounting purposes, a partnership is considered a separate economic and accounting entity. The assets, liabilities, and residual capital interest, as well as the transactions and events that affect the accounts of the partnership, are areas of interest that require a separate accounting to provide information to the partners and other interested parties. Separation of these activities from the personal transactions of the individual partners is necessary in order to evaluate the performance of the partnership. This does not mean that other forms of statements cannot be prepared for other purposes. For example, a general partner has unlimited liability to the creditors of the partnership. Accordingly, the creditors may require information concerning the personal assets and debt position of individual partners, as well as the financial statements of the firm.

There is significantly more freedom in choosing a partnership accounting method than for other types of organizations, such as a corporation. While it is generally assumed that accounting for a partnership basically adheres to the same generally accepted accounting principles as accounting for a proprietorship or a corporation, it should be noted that small or specialized partnerships may utilize either cash basis or tax basis accounting as opposed to GAAP. Since partnerships are required to submit informational returns to the IRS that help determine individual partners' federal income tax, tax-based accounting may provide these partnerships with added convenience over GAAP-based accounting. While these varying methods are acceptable, this text will assume GAAP-based partnership accounting.

The primary difference in accounting for the different forms of organization is in the recording and reporting of capital transactions. A corporation's equity section reports the different sources of capital (for example, the issue of capital stock, additional paid-in capital from various sources, and retained earnings). Because each share of common stock has the same proportional interest in net income, dividends, voting rights, and assets in liquidation as any other share of the same class of stock, a separate capital account for each shareholder is not needed. However, in the case of a partnership, the capital interest in assets of each partner can vary. In addition, the partners' interest in net income or loss can vary and may not be proportional to their respective capital interests. As a result, the relationship of the partners' capital interest will change over time. To report the interest of each partner, a partnership's equity section normally consists of two accounts for each partner: one capital account and one drawing account.

LO 4 Drawing and capital accounts.

Practice varies as to which of the two accounts is changed by capital transactions. Generally, investments and withdrawals of assets considered to be other than temporary are recorded in the capital account. The drawing account is typically debited to record withdrawals of assets in anticipation of profitable operations or payments of personal expenses of a partner from partnership assets. It is common practice to close the income summary account to either the drawing account or the capital account. The drawing account may be closed periodically to the capital account. The various sources of capital may thus be combined into one account. In this text, the income summary account and each partner's drawing account will be closed to the appropriate partners' capital accounts.

To illustrate the entries, assume that Ed Bell and Jane Peters operate a partnership in which they each originally contributed \$25,000 cash. In the current year, income

of \$60,000 is to be allocated equally and each partner withdraws \$1,000 per month or \$12,000 a year. The entries follow:

At the beginning of the partnership:

Cash	50,000	
Bell, Capital		25,000
Peters, Capital		25,000
To form the partnership.		

Each month to record withdrawals:

Bell, Drawing	1,000	
Peters, Drawing	1,000	
Cash		2,000
To record monthly withdrawals.		

At the end of the period:

Income Summary	60,000	
Bell, Capital		30,000
Peters, Capital		30,000
To close the income summary account.		
Bell, Capital	12,000	
Peters, Capital	12,000	
Bell, Drawing		12,000
Peters, Drawing		12,000
To close the partners' drawing accounts.		

Generally, the same accounting concepts are used to determine net income for proprietorships, partnerships, and corporations. There are, however, several differences. First, because a partnership is not subject to income tax, no income tax expense is reported in the income statement. Second, interest on capital investment and salaries to partners have traditionally been treated as allocations of net income, rather than as expenses of the business. This practice is considered appropriate under the proprietary theory view of the firm in which all transactions with the owners are viewed as capital transactions. In other words, no revenue or expense should be recognized in transactions with the partners. Also, since the partners are owners of the business, the interest and salaries may not represent objectively determined amounts.

In addition to the transactions discussed before that affect a partner's capital interest, an individual partner may also lend cash to the partnership that may be accounted for as a liability of the partnership. A partner may also borrow cash from the partnership with the intention of repaying the loan to the partnership. In contrast to capital transactions, such as the withdrawal of assets as part of a profit allocation, an advance to a partner is accounted for as a receivable of the partnership, provided that the receivable satisfies the normal tests of collectibility. Generally accepted accounting standards should also be followed in accounting for, and disclosing, receivables from officers or members of a firm.

Recording the Formation of a Partnership

Assets invested in the partnership, any debts assumed by the partnership, and the capital interest each partner is to receive should be specified in the partnership agreement. A listing of partnership assets is important, because creditors of the partnership must

satisfy their claims from partnership assets before seeking recovery of unpaid claims from the personal assets of individual partners.

Assets invested in the partnership can be either cash or noncash assets, such as a patent, land, or equipment. Noncash assets invested in the partnership are properly recorded at fair values on the date of investment.¹⁰ Liabilities assumed by the partnership should also be recorded at their fair values.

Once the partners agree as to the identification and valuation of assets being invested, liabilities being assumed by the partnership, and the capital interest that each partner is to receive, the assets, liabilities, and equities are recorded on the books of the partnership. To illustrate, assume that the following items are being invested to form WY Partnership:

	<i>Agreed Fair Values</i>	
	<i>Investment by Wright</i>	<i>Investment by Young</i>
Cash	\$10,000	\$10,000
Inventory	10,000	—
Land	—	20,000
Building	—	40,000
Equipment	<u>20,000</u>	<u>—0—</u>
Totals	40,000	70,000
Mortgage on building assumed by the partnership	<u>—0—</u>	<u>20,000</u>
Net assets invested	<u>\$40,000</u>	<u>\$50,000</u>

The journal entry to record the initial investment, assuming that Wright and Young agree that each partner is to receive a capital credit equal to the fair value of the net assets each partner invested, is as follows:

Cash	20,000	
Inventory	10,000	
Land	20,000	
Building	40,000	
Equipment	20,000	
Mortgage Payable		20,000
Wright, Capital		40,000
Young, Capital		50,000

LO 5 Recording the formation of a partnership.

A problem results if the sum of the agreed net asset values does not equal the negotiated capital interest or if the agreement is unclear. For example, there are several possible interpretations of an agreement that each partner is to receive an equal capital interest. Two possible types of entries, the bonus method and the goodwill method, might be used to record the formation. It should be recognized that application of the goodwill method at formation, though intuitively appealing, is not consistent with current GAAP. GAAP requires goodwill to be recorded only in the instance of a business combination as described in Chapters 2 through 5. The goodwill method, as described below, may be used for internal purposes but not for GAAP-based financial

¹⁰ FASB ASC paragraph 845-10-30-1.

statements.¹¹ Partnership agreements that may be categorized as business combinations are addressed later in this chapter. Assuming the facts in the preceding paragraph, these entries are as follows:

	<i>I</i> <i>Bonus Method</i>	<i>II</i> <i>Goodwill Method</i>
Cash	20,000	20,000
Inventory	10,000	10,000
Land	20,000	20,000
Building	40,000	40,000
Equipment	20,000	20,000
Intangible Asset*	—	10,000
Mortgage Payable	20,000	20,000
Wright, Capital	45,000	50,000
Young, Capital	45,000	50,000

*Generally referred to as partnership goodwill.

Under the *bonus* method, there is a capital interest transfer of \$5,000 from Young to Wright to equalize the capital balances. Such an entry is made if Young recognizes that Wright is contributing something to the firm other than tangible assets, but the partners are reluctant to recognize an intangible asset, or a value for it cannot be determined objectively. Under the *goodwill* method, if equal capital interests are to be given to each partner, Wright's capital is increased by \$10,000. This is accomplished by recognizing an intangible asset of \$10,000 with a corresponding increase in the credit to the capital account of Wright. It is assumed that Wright is contributing something of value to the partnership that is intangible in nature, and which could not be specifically identified. The value assigned to the intangible asset could have been more than \$10,000. Young may also be contributing an intangible asset to the partnership in addition to the tangible assets identified and valued. Unless the intangible is specifically identifiable, such as a patent, it should probably *not* be recognized. It is difficult to justify the recognition of an unspecified intangible such as goodwill on the books of a *new* partnership that does not have an established earnings record.

Allocation of Net Income or Net Loss

The partners should include in the articles of partnership a provision indicating how income and losses are to be allocated. The profit and loss agreement determines how much each partner's interest in the firm increases or decreases as a result of operations. Often one of the major problems of accounting for a partnership is to determine the intent of the partners as indicated in the partnership agreement. The partners have much flexibility in the area. However, to avoid disagreement and potential litigation, the profit and loss agreement should be explicitly stated. In the absence of an agreement, courts have generally concluded that the intent of the parties was to allocate profits and losses equally. If a provision for profits, but not losses, is included in the agreement, the courts have generally concluded that losses should be allocated in the same ratio that profits are allocated. Therefore, the partnership agreement should state whether losses are to be allocated differently than profits.

¹¹ *Issues in Accounting Education*, Vol. 29, No. 4, "Applying the New Accounting for Business Combinations and Intangible Assets to Partner Admissions," by Hugo Nurnberg, 2014.

The objective of the profit and loss agreement should be to reward the individual partners for their contributions of resources to the partnership. Some of the more common agreements are based on some combination of the following:

LO 5 Allocating net income or loss.

1. A fixed ratio.
2. A ratio based on capital balances.
3. Interest on capital investment.
4. An allocation for time or managerial talent devoted to the partnership operation, either in the form of a fixed salary allocation or a bonus as a percentage of income.

Partnerships have a number of allocation possibilities and sometimes use several of the following strategies to allocate income or losses. Unless otherwise stated, income for the period is assumed to be \$20,000 in the following examples.

Fixed Ratio One of the simplest agreements is for each partner to be allocated profit or loss each period on the basis of an equal percentage or some other specified ratio. For example, Adams and Brown may agree that profit and loss are to be allocated in the ratio 7:3. A profit of \$20,000 would be allocated \$14,000 to Adams and \$6,000 to Brown. The entry to close the Income Summary account would take the following form:

Income Summary	20,000	
Adams, Capital		14,000
Brown, Capital		6,000

Note that the allocation determines the increase in each partner's interest in net assets resulting from operations. It has nothing to do with the withdrawals of assets by partners, which are recorded as debits to the capital or drawing accounts.

Unless stated otherwise, a loss of \$20,000 would also be allocated using a 7:3 ratio. If this is not the intent of the partners, a separate loss agreement should be stipulated.

Capital Balances Assets invested in the partnership are important resources. The allocation of profits on the basis of the ratio of capital balances may result in an equitable allocation of profits when the operation of the partnership requires little of the partners' time, such as the operation of an apartment building in which there is a hired manager. To avoid conflicts, the capital ratio should be based upon the capital balance at a specific point in time, such as the amount of original investment, beginning-of-year balances, on average, or end-of-year balances. Allocations based on beginning and ending balances could be inequitable. For example, if the allocation ratio is based on ending balances, a partner could make a large capital investment at the end of the year. To avoid such abuse, partners may want to specify restrictions or use a weighted-average capital balance.

Assuming that the ratio is based on beginning capital balances and that Adams and Brown had balances of \$60,000 and \$40,000, respectively, the net income of \$20,000 would be allocated as follows:

	<i>Capital Investment</i>	<i>Net Income Allocation</i>
Adams	\$ 60,000	$(\$60,000/\$100,000) \times \$20,000 = \$12,000$
Brown	40,000	$(\$40,000/\$100,000) \times \$20,000 = 8,000$
	\$100,000	\$20,000

Net income allocation based on a weighted-average capital investment ratio is computed in Illustration 15-2. The weighted average is computed by multiplying the various capital balances that each partner maintained during the year by the fraction of the year that a particular capital balance was maintained. The \$20,000 net income is allocated on the basis of the ratio of the weighted-average capital investment.

The allocation of a loss on the basis of the ratio of capital balances would mean that Adams, who has invested the most capital, would absorb the greatest amount of the loss, which may be considered an unreasonable allocation. If this is the case, the partners may want to stipulate a different ratio for the allocation of losses.

Interest on Capital Investment Using the ratio of capital balances as the basis for allocation of profit assumes that invested capital is the most important resource of the partnership. However, in many profit-making organizations, other important resources should also be recognized. To accomplish this and still provide an equitable allocation, the partners may want to provide for interest on capital investment and allocate the remaining income on some other basis. Such a provision may also provide an incentive for additional capital to be invested, if necessary. The agreement should specify a minimum:

1. The interest rate,
2. The proper capital balance (beginning, ending, or average),
3. How remaining profits should be allocated, and
4. Whether or not interest should still be allocated in case of loss or in case profits are less than the agreed interest allocation.

ILLUSTRATION 15-2

Computation of Weighted-Average Capital Balances

	(A)	(B)	(C)	(D)
	<i>Increase (Decrease) in Capital</i>	<i>Cumulative Capital Balance</i>	<i>Fraction of Year in Months</i>	<i>Weighted Average (B) × (C)</i>
Adams, Capital				
January 1 Beginning Balance		\$60,000	3/12	\$15,000
April 1 Added \$30,000 Investment	\$ 30,000	90,000	3/12	22,500
July 1 Withdrew \$10,000	(10,000)	80,000	6/12	40,000
Weighted-Average Capital Balance				<u>\$77,500</u>
Brown, Capital				
January 1 Beginning Balance		40,000	9/12	\$30,000
October 1 Withdrew \$10,000	\$(10,000)	30,000	3/12	7,500
Weighted-Average Capital Balance				<u>\$37,500</u>
Weighted-Average Investment				
Adams	\$ 77,500	<i>Net Income Allocation</i>		
Brown	<u>37,500</u>	(\$77,500/\$115,000) × \$20,000 =		\$13,478
	<u>\$115,000</u>	(\$37,500/\$115,000) × \$20,000 =		6,522
				<u>\$20,000</u>

LO 7 Using interest allowances in allocating profits and losses.

Frequently, the interest allocation is based on weighted-average capital investment. To illustrate, assume the average investment in Illustration 15-2. Interest is then computed on this amount. Assuming a net income of \$20,000, an 8% rate of interest, and that any remaining profit is to be divided equally, the profit (or loss, if negative) is allocated as follows:

<i>Interest Allocation</i>	<i>Adams</i>	<i>Brown</i>	<i>Total</i>
$\$77,500 \times .08 =$	\$ 6,200		\$ 6,200
$37,500 \times .08 =$		<u>\$3,000</u>	<u>3,000</u>
Total interest allocated	6,200	3,000	9,200
Remainder shared equally	<u>5,400</u>	<u>5,400</u>	<u>10,800</u>
Total to be allocated	<u>\$11,600</u>	<u>\$8,400</u>	<u>\$20,000</u>

LO 7 Using Salary allowance in allocating profits and losses.

Salary The partners may provide, as part of the profit and loss formula, a salary allowance in recognition of personal services rendered by a partner. The amount by which net income exceeds the salary allowances may then be divided by any ratio agreed upon by the partners. For example, if Adams devotes full time to the business activity and Brown spends a limited amount of time, the partnership agreement may specify that Adams is allowed a salary of \$1,000 per month and that the remaining income is to be divided on the basis of the ratio of the beginning capital balances (\$60,000 and \$40,000, respectively). The allocation would be as follows:

	<i>Adams</i>	<i>Brown</i>	<i>Total</i>
Salary allowance	\$12,000	\$—	\$12,000
Remainder			
$(\$60,000/\$100,000) \times \$8,000$	4,800	}	
$(\$40,000/\$100,000) \times \$8,000$			<u>3,200</u>
	<u>\$16,800</u>	<u>\$3,200</u>	<u>\$20,000</u>

A salary agreement is considered a part of the profit and loss allocation formula and may be made independent of the agreement between the partners as to the right to withdraw cash or other assets from the partnership. The withdrawal of cash reduces the partner's capital interest (debit to the drawing account) but plays no part in the allocation of net income. Since the term **salary** is normally understood to mean a cash payment for services received, it is important that the partners specify their intentions as to an allocation of profit or permission to withdraw assets.

Bonus Instead of basing the salary allocation on a fixed amount, the partners may provide for a bonus arrangement as a percentage of income or some other basis. Since a number of interpretations can result, the partners should explicitly state the basis to be used in calculating the bonus. Some possibilities based on net income are:

1. Net income before any allocation of income to partners (for example, before interest on capital, salaries to partners, and any bonus).
2. Net income after other income allocations, but before subtracting the bonus.
3. Net income after subtracting the bonus, but before subtracting the other allocations.
4. Net income after subtracting the bonus and other allocations from net income.

Calculation of the bonus in the first two alternatives is straightforward. To illustrate alternatives 3 and 4, assume that net income is \$24,000, and a bonus of 20% is to be

paid to Adams. Also, interest of \$4,000 and \$2,000 is to be allocated to Adams and Brown, respectively, and any remainder is to be allocated equally. The bonus and a proof of the calculation are as follows:

	<i>Alternative 3</i>		<i>Alternative 4</i>
Bonus	= .2(\$24,000 – Bonus)	Bonus	= .2(\$24,000 – \$6,000 – Bonus)
Bonus	= \$4,800 – .2Bonus	Bonus	= .2(\$18,000 – Bonus)
1.2 Bonus	= \$4,800	Bonus	= \$3,600 – .2Bonus
Bonus	= \$4,000	1.2 Bonus	= \$3,600
		Bonus	= \$3,000

Proof:

	<i>Alternative 3</i>		<i>Alternative 4</i>
Net income	\$24,000		\$24,000
Bonus	4,000		3,000
Interest			6,000
Income subject to bonus	<u>\$20,000</u>		<u>\$15,000</u>
	Bonus = .2(\$20,000)		Bonus = .2(\$15,000)
	Bonus = \$4,000		Bonus = \$3,000

Insufficient Income to Cover Allocation

In some cases, the partnership net income may be less than the interest and/or salary provided for in the partnership agreement. If the partners fail to provide for such an occurrence in the profit and loss formula, the established practice is to allocate the interest and/or salary as if sufficient income had been earned. The amount by which the salary and/or interest exceeds the net income is allocated to the individual partners in their agreed ratio for allocating residual income. For example, assume that Adams and Brown agree to divide profits as follows:

1. Salary: Adams, \$4,000; Brown, \$2,000.
2. Interest: 8% on average capital balances (see Illustration 15-2).
3. Remainder: To be divided equally.

A net income of \$11,000 would be allocated as follows:

	<i>Adams</i>	<i>Brown</i>	<i>Total</i>
Salary	\$ 4,000	\$ 2,000	\$ 6,000
Interest	<u>6,200</u>	<u>3,000</u>	<u>9,200</u>
	10,200	5,000	15,200
Excess allocation (\$11,000 – \$15,200)	<u>(2,100)</u>	<u>(2,100)</u>	<u>(4,200)</u>
Income allocation	<u>\$ 8,100</u>	<u>\$ 2,900</u>	<u>\$11,000</u>

The entry to close the Income Summary account is:

Income Summary	11,000	
Adams, Capital		8,100
Brown, Capital		2,900

As will be shown in the next section, this procedure produces the same results as if each partner's salary and interest had been treated as an expense in the determination of the partnership net income or loss.

In the case of a loss of \$20,000, the allocation would be as follows:

	<i>Adams</i>	<i>Brown</i>	<i>Total</i>
Salary	\$ 4,000	\$ 2,000	\$ 6,000
Interest	<u>6,200</u>	<u>3,000</u>	<u>9,200</u>
	10,200	5,000	15,200
Excess allocation (−\$20,000 − \$15,200)	<u>(17,600)</u>	<u>(17,600)</u>	<u>(35,200)</u>
Loss allocation	<u>\$ (7,400)</u>	<u>\$(12,600)</u>	<u>\$(20,000)</u>

To avoid such an allocation, the partners may elect to state an alternative allocation in the articles of partnership. Once again, this situation indicates the need for careful planning in drafting the partnership agreement.

TEST YOUR KNOWLEDGE 15.1

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

Multiple Choice

- Bob and Tom form a partnership on January 1, 2019. Bob contributes \$50,000, while Tom contributes \$100,000 cash and a building worth \$200,000. The building is subject to a mortgage of \$40,000, which is

assumed by the partnership. They agree to share profits and losses equally. Tom's capital account on January 1, 2019, should be:

- \$300,000
- \$280,000
- \$155,000
- \$260,000

15.6 SPECIAL PROBLEMS IN ALLOCATION OF INCOME AND LOSS

Salaries and Interest as an Expense

In the foregoing illustrations, salaries and interest were accounted for as an allocation of net income, rather than as an expense in the determination of net income. However, the partners may find the income statement more useful for evaluating the operating performance of the partnership if either or both salary and interest allocations were treated as an expense in the determination of net income. If the salary levels and interest rates are reasonable for the resources provided, the income statement for the partnership may be more comparable to income statements of nonpartnership forms of organization. To illustrate, assume that the partnership reported net income of \$11,000 before the interest and salaries of the partners. The partners are to be allocated salaries and interest as follows:

	<i>Adams</i>	<i>Brown</i>
Salary	\$4,000	\$2,000
Interest	6,200	3,000

The partners agree to allocate residual income and loss evenly. Journal entries to record the salaries and interest would be:

Salary Expense	6,000	
Adams, Capital		4,000
Brown, Capital		2,000
Interest Expense	9,200	
Adams, Capital		6,200
Brown, Capital		3,000

Net loss for the period after salaries and interest would be \$4,200, computed as follows:

Net income before salaries and interest		\$11,000
Less: Salary expense	\$6,000	
Less: Interest expense	<u>9,200</u>	<u>15,200</u>
Net loss		<u>\$ 4,200</u>

After the revenue and expense accounts are closed, Income Summary would have a debit balance of \$4,200, which would be allocated evenly to the partners as agreed. The following entry would be recorded to close the income summary account:

Adams, Capital	2,100	
Brown, Capital	2,100	
Income Summary		4,200

Changes in the capital accounts are presented here:

Adams, Capital			
From Income Summary	2,100	Salary entry	4,000
		Interest entry	6,200
		Net change in capital	8,100
Brown, Capital			
From Income Summary	2,100	Salary entry	2,000
		Interest entry	3,000
		Net change in capital	2,900

This procedure results in the same change in the capital accounts as if the salaries and interest were considered an allocation of profit. (See the previous illustration where profits were insufficient to cover salary and interest allocations.) The method of reporting that is selected should be the one that provides the most useful information to the partners. Since the normal practice is to recognize salaries and interest as an allocation of profit, any such amounts treated as an expense should be adequately disclosed so the statement reader can properly evaluate the operating performance of the firm.

Adjustment of Income of Prior Years

Errors may occur in accounting for partnership operations, such as failure to accrue or defer expenses or revenue, errors in the inventory count or pricing, or errors in the calculation or amortization of fixed assets. Problems in the allocation of profit and loss can result if (1) errors are discovered that occurred in specific prior years, and (2) the partners have altered the profit and loss agreement since the period in which the error occurred. In a corporation, an error correction is accounted for as an adjustment to the beginning retained earnings balance. However, in a partnership the correction is allocated to the individual partners' capital accounts. The allocation should be based on the profit and loss agreement in effect during the period of the error.

Other allocation problems may arise, such as market changes in assets being held for investment purposes that occur before a change in the allocation formula, or an adjustment for bad debts that cannot be attributed to any specific period. There is no clear-cut answer to such problems. Litigation can be avoided by providing for the treatment of such potential problems in the partnership agreement.

15.7 FINANCIAL STATEMENT PRESENTATION

The income statement, balance sheet, and statement of cash flows for a partnership presented in conformity with GAAP are prepared in much the same manner as they are for a corporation. The following is a list of some of the differences in partnership reporting:

1. On the balance sheet or in a supplementary schedule, changes in partner's equity during the year should be disclosed.¹²
2. Partners' salary allowances are generally recognized as an allocation of net income, not as an expense in the determination of net income.
3. There is no income tax expense. The partners report their share of the partnership income or loss for the period on their individual income tax returns.
4. Interest paid to a partner on a loan balance is recognized as an expense. Interest allowance on capital investment is considered an allocation of profit.

A statement of changes in partners' capital is prepared to disclose changes in the interest of each partner during the year as shown in Illustration 15-3. For some

ILLUSTRATION 15-3

AB Partnership Statement of Partners' Capital for the Year Ended December 31, 2019

	<i>Adams</i>	<i>Brown</i>	<i>Total</i>
Capital Balance, January 1	\$ 60,000	\$40,000	\$100,000
Add: Additional Investment	30,000	—0—	30,000
Net Income Allocation	<u>16,800</u>	<u>3,200</u>	<u>20,000</u>
	106,800	43,200	150,000
Less: Withdrawals	<u>10,000</u>	<u>10,000</u>	<u>20,000</u>
Capital Balance, December 31	<u>\$ 96,800</u>	<u>\$33,200</u>	<u>\$130,000</u>

¹² This disclosure is usually not made when the number of partners is very large. For example, some accounting firms have thousands of partners.

external reporting purposes, such detail may not be considered necessary. The partnership capital, for example, may be reported as one amount, and the capital balance of each partner may be disclosed in a supplementary schedule or not disclosed at all.

Because many partnerships do not publish GAAAP-based financial statements, the following sections present a number of cases and presentations that are useful for internal reporting and measurement but not compliant with current GAAP, as we interpret it. We also present GAAP-based cases and presentations, with the two clearly distinguished.

15.8 CHANGES IN THE OWNERSHIP OF THE PARTNERSHIP

The UPA (Section 29) defines *dissolution* as “the change in the relation of the partners caused by any partner ceasing to be associated in the carrying on as distinguished from the winding up of the business.” The partnership dissolution may be voluntary (for example, mutual agreement by the partners) or involuntary (for example, bankruptcy of an individual partner or the partnership itself). Although dissolution means the end of a specific relationship among the partners, it does not automatically result in the termination of business activity. For example, in some forms of dissolution, such as the bankruptcy of the partnership, the partnership operations are eventually terminated and the partnership ceases to exist. In other cases of dissolution the partnership may be dissolved, but the remaining partners may continue the normal operations of the partnership without any visible interruptions of the firm’s operations.

In this chapter we consider the accounting problems associated with changes in the ownership of a continuing partnership. The changes that will be considered result from (1) admission of a new partner by the purchase of an interest directly from one or more current partners, which is frequently referred to as an assignment of a partnership interest, (2) admission of a new partner by investing assets in the partnership, and (3) withdrawal of a partner as a result of retirement or death. Unless precluded from doing so in the partnership agreement, generally a partner may insist on liquidation of the partnership in these forms of dissolutions. Because the going-concern value of the business is usually greater than its liquidation value, the partners may provide in the partnership agreement that such changes in the relations of the partners do not dissolve the partnership. Dissolution of the partnership in which operations are eventually terminated will be covered in the next chapter.

Valuation—A Central Issue

When there is a change in the membership of the partnership, the problem of assigning a fair value to the firm arises. For example, if a partner withdraws from the partnership and there are no express provisions in the partnership agreement for determining the settlement, an equitable payment for his or her interest must be negotiated among the existing partners. Similarly, before admission, an incoming partner must negotiate with the existing partners an equitable purchase price for the interest he or she acquires. The settlement or purchase price is based on a number of factors, one of which is the fair values of the partnership assets. However, the fair values of the partnership assets are generally not reflected on the partnership books. In accordance with

LO 9 Rationale behind the goodwill method.

generally accepted accounting standards, partnership assets are recorded at cost, and subsequent increases in their market value are not recognized.

One approach is to first revalue assets and liabilities to their fair values and record any identifiable unrecorded assets and liabilities before recording the admission or withdrawal of a partner. In addition, the settlement price paid to a withdrawing partner or the purchase price paid by a new partner may be used to infer a value for the firm as a whole. Any difference between the value of the firm implied by the payment and the fair value of the net assets may be assigned to an intangible asset frequently referred to as partnership goodwill. An increase or decrease in net assets is allocated to the appropriate partners in their profit or loss ratio. Under this approach, the use of fair values provides an equitable measure of each partner's capital interest in the partnership. Furthermore, when a new partner is admitted, failure to recognize fair values will result in unrecorded value changes realized later being allocated in the profit- and loss-sharing ratio unless a separate provision is made. An unrecorded increase in value would benefit the new partner, whereas an unrecorded decrease would be a detriment. Revaluation of assets and liabilities is supported on the basis that, in dissolution, the old partnership is dissolved and a new entity is formed.

In practice, some accountants are reluctant to recognize a change in the value of an asset, even though there may be objective evidence that a specific asset is undervalued. They argue that recording an increase in fair value for external reporting purposes is not in accordance with generally accepted accounting practice and that economic substance should take precedence over legal form. That is, even though the partnership may be legally dissolved, the economic substance of some types of dissolution is that the business activity continues without interruption. Proponents of this method would retain the historical cost carrying value, and either prescribe in the agreement that unrecorded changes in value will not be shared with a new partner when realized, or will require a disproportionately high capital investment in relation to the new partner's income-sharing percentage. In this chapter, the revaluation of assets is shown as one of the approaches to recording changes in ownership because it is commonly advocated as an acceptable alternative and its use has some merit.

The FASB Codification makes virtually no mention of partner admissions and discusses goodwill only in the context of business combinations.

However, partner admissions often qualify as business combinations, as the new partner brings in his or her own clientele, tangible assets, etc. (i.e., a business). FASB defines **a business combination** as a transaction or other event in which an acquirer obtains control of one or more businesses (ASC 805-10-20). The acquirer is specified as an entity and not an individual.

Therefore, in the context of partnerships, we interpret these standards as consistent with goodwill being recorded under GAAP when the incoming partner contributes a business, one that meets the definition above (not just a group of assets), to an existing partnership. Whether goodwill is recorded on the incoming business or on the existing partnership depends on whether or not the new partner gains control. The reason is that FASB requires an entity to be identified as the acquirer. If the existing partners retain control, then the existing partnership would be viewed as the acquirer, and goodwill would be measured and recorded, if any, on the incoming business. On the other hand, if the incoming partner gains control, then that partner would be the acquirer and the assets of the existing partnership would be revalued to fair values, with goodwill being measured and recorded, if any, on the existing entity (this is referred to as a reverse acquisition).

In the following paragraphs (Section A), we first describe partner admissions that do not qualify as a business combination. We then, in Section B, describe those in

which the new partner brings in a functioning business, i.e., a business combination. A **business** is defined as consisting of inputs and processes with the ability to produce outputs (ASC 805-10-55), and as being conducted for the purpose of providing a return to its owners, members, or participants (ASC 805-10-20).

Methods of Recording Changes in the Membership of the Partnership

Two methods are frequently used to record changes in partnership membership:

LO 8 Recording partnership changes.

- 1. The bonus method.** When this method is used, the assets of the partnership are increased by the amount of the assets invested by the partner being admitted. Any difference between the assets invested and the credit to the new partner's capital account is adjusted to the capital accounts of the other partners involved in the negotiations. If a partner withdraws from a partnership, the partners may agree to settle his or her capital interest by permitting the withdrawal of partnership assets. If the bonus method is used to record the withdrawal, the difference between the recorded value of the assets withdrawn and the debit to the withdrawing partner's capital account is adjusted to the capital accounts of the remaining partners.
- 2. The goodwill method.** When this method is used, a new asset is recorded that is based on the difference between the value implied by the amount of consideration negotiated in the admission or withdrawal of a partner and the values reported in the partnership books.
- 3.** This method is consistent with GAAP only when the change qualifies as a business combination. We present it, nonetheless, because it may be useful for internal purposes. We label it as non-GAAP to distinguish these instances from those that qualify as business combinations.

Whether the bonus method or goodwill method is used, unrecorded changes in the value of existing assets and liabilities that are objectively determinable may be recorded before the change in membership is recorded.

As will be demonstrated, if certain limited conditions related to the profit and loss agreement are satisfied, the bonus and goodwill methods will produce the same result. If these conditions are met, the use of the bonus method precludes the problem of recording an intangible asset.

The bonus and goodwill methods are used for either **admission of a new partner** or the **withdrawal of a partner**, described in the following sections A and B.

15.9 SECTION A: ADMISSION OF A NEW PARTNER (NOT A BUSINESS COMBINATION)

An individual may acquire an interest in a partnership: (1) by purchasing all or part of an interest directly from one or more existing partners (this transaction occurs outside the partnership and represents a transfer of assets between individuals), or (2) by being admitted as an additional partner on the investment of assets in the firm. Generally, the individual invests cash and/or other assets (for example, land, patent rights, equipment, marketable securities). A new partner could be admitted, however, by contributing a

resource such as managerial talent. Because accountants ordinarily do not record such assets, unless the partners agree to transfer capital to the new partner's account, he or she will begin with a zero capital balance.

Assignment of an Interest by an Existing Partner

LO 8 Methods to record partnership changes.

A partner is entitled to sell his or her interest in the firm, but no partner can be forced to accept a new member to the partnership. The UPA (Section 27) provides that the purchasing party acquire only the right to receive profits and assets in the event of liquidation to which the selling partner would otherwise be entitled. The purchaser does not acquire the right to participate in management unless all remaining partners agree to grant this right. The mere act of selling an interest does not dissolve the partnership, because the overall relation of the partners is not changed.

In the following illustrations, it is assumed that the partnership currently consists of two partners, Alan Adams and Bill Brown, with respective capital interests of \$60,000 and \$40,000. Adams and Brown share income and losses in the ratio of 6:4. Both partners agree to the admission of a new partner.

Acquisition of Interest by Payment to One Partner If an individual acquires an interest in a partnership by making payment directly to an existing partner, the interest acquired is recorded in a new capital account by transferring a corresponding amount equal to the percentage interest acquired from the selling partner's capital account. For example, assume that Adams sold one-half of his interest in the firm to Carol Call for \$36,000. The only entry necessary on the partnership books is to record the transfer of capital interest from the selling partner to the capital account established for the new partner. The entry is:

Adams, Capital (.50 × \$60,000)	30,000	
Call, Capital		30,000

The following should be noted:

1. Since this is a personal transaction between the two individuals, the entry is the same regardless of the amount paid by Call directly to Adams.
2. Net assets and equities of the firm are not changed as a direct result of the transaction, since the sale was negotiated outside the partnership. However, as noted earlier, the partners may choose to revalue assets and liabilities.
3. The amount of capital transferred to Call is equal to Adams' recorded capital multiplied by the percentage interest in Adams' capital acquired by Call.
4. Call now has a capital interest of 30% (\$30,000 of total interest of \$100,000), but her profit interest does not have to equal this percentage.

A simplified balance sheet after the admission of Call would be as follows:

Net assets	\$100,000	Adams, Capital	\$ 30,000
		Brown, Capital	40,000
		Call, Capital	30,000
Total	\$100,000	Total	\$100,000

Acquisition of an Interest by Payment to More Than One Partner If Call had purchased a 30% interest from each partner for \$36,000, the entry would be:

Adams, Capital (.30 × \$ 60,000)	18,000	
Brown, Capital (.30 × \$ 40,000)	12,000	
Call, Capital (.30 × \$100,000)		30,000

The observations outlined before when the purchase was made from one partner apply in this case as well. Furthermore, this entry has no effect on how the cash payment made by Call is to be distributed to Adams and Brown outside the partnership. The amount and distribution of cash is a negotiated transaction between individuals and does not affect the partnership accounts unless the amount is used as a basis for the revaluation of the firm.

Goodwill Implied by the Purchase Price (Non-GAAP approach) In the foregoing examples, the amount paid by Call to gain admission to the firm was ignored in recording the transfer of interest. This procedure is often referred to as the bonus method. Some argue that the payment of \$36,000 for a \$30,000 interest in the partnership indicates that the firm has assets that are unrecorded or undervalued. Therefore, for internal purposes, the “goodwill method” may be used. The assumption is that the negotiated purchase price took into consideration such factors as the fair values of the firm’s assets, the present value of the firm’s liabilities, and the valuation of the firm on the basis of future prospects. Thus, the payment can be used to approximate the value of the firm. The following illustration, though intuitive, is not consistent with current GAAP, as it records goodwill in the absence of a “business combination.” If Call is willing to pay \$36,000 for a 30% interest in the firm, then the implied value of the partnership net assets is \$120,000 ($\$36,000 \div .30$). Net assets and capital should be increased by \$20,000 from the recorded amounts of \$100,000. Since this represents an unrecorded increase in the value of the firm’s assets, the increase in assets of \$20,000 is allocated to Adams and Brown in their profit-sharing ratio. To the extent that the excess cannot be assigned to specific identifiable recorded assets, the remaining amount is recorded as partnership goodwill. Assuming that the book values of assets and liabilities equal their fair values, the entries to record the increase in assets and admission of Call are as follows:

Goodwill	20,000	
Adams, Capital (.60 × \$ 20,000)		12,000
Brown, Capital (.40 × \$ 20,000)		8,000
Adams, Capital (.30 × \$ 72,000)	21,600	
Brown, Capital (.30 × \$ 48,000)	14,400	
Call, Capital (.30 × \$120,000, also equal to cash paid)		36,000

This results in account balances as presented in Illustration 15-4.

Comparison of Bonus and Non-GAAP Goodwill Methods In the illustration, Call is credited with a 30% interest in the firm under the bonus and the goodwill methods. To assist the partners in making a decision between the two methods, it may be helpful to demonstrate the effects of the two methods on their respective capital balances. If the firm were forced to liquidate, the goodwill would probably be of no value and, therefore, would represent a loss to the partnership.

ILLUSTRATION 15-4**Schedule of Account Balances**

	<i>Net Assets</i>	+	<i>Goodwill</i>	=	<i>Capital</i>				
					<i>Adams</i>	+	<i>Brown</i>	+	<i>Call</i>
Book Values	\$100,000	+	\$ —0—	=	\$(60,000)	+	\$(40,000)	+	\$ —0—
Record Goodwill			<u>20,000</u>		<u>(12,000)</u>		<u>(8,000)</u>		<u>—0—</u>
	100,000	+	20,000	=	(72,000)	+	(48,000)	+	—0—
Transfer of Capital					<u>21,600</u>		<u>14,400</u>		<u>(36,000)</u>
Balance after Admission of Call	<u>\$100,000</u>	+	<u>\$20,000</u>	=	<u>\$(50,400)</u>	+	<u>\$(33,600)</u>	+	<u>\$(36,000)</u>

*In this chapter, () means that an account has a credit balance or a credit posted to an account.

The bonus and goodwill methods will yield the same result if two conditions related to the new profit and loss agreement are met. These are:

1. The new partner's profit-sharing percentage must be equal to his or her percentage interest in capital. In this illustration, Call received a capital interest of 30%. Her profit-sharing ratio must be 30%.
2. The old partner's profit-sharing ratio in the new partnership must be relatively the same as it was in the old partnership. Thus, if Call is to receive 30% of the profit in the new partnership, Adams and Brown must receive the remaining 70%. To be in the same relative ratio of 6:4, Adams must receive 42% ($.6 \times .70$) of profits, and Brown must receive 28% ($.4 \times .70$). The two methods are equivalent if, after recording goodwill impairment, the account balances are the same as they would be under the bonus method. The balances for each method are presented in Illustration 15-5.

The two methods will also yield the same results if the bonus method is used and the unrecorded assets (\$20,000) are ultimately realized and allocated to the partners in the ratio of 42:28:30.

ILLUSTRATION 15-5**Schedule of Account Balances**

<i>Goodwill Method</i>	<i>Net Assets</i>	+	<i>Goodwill</i>	=	<i>Capital</i>				
					<i>Adams</i>	+	<i>Brown</i>	+	<i>Call</i>
Balances after recording goodwill and admitting Call	\$100,000	+	\$ 20,000	=	\$(50,400)	+	\$(33,600)	+	\$(36,000)
Impairment of goodwill			(20,000)						
\$20,000 × .42					8,400				
20,000 × .28							5,600		
20,000 × .30									6,000
Totals	<u>\$100,000</u>	+	<u>\$—0—</u>	=	<u>\$(42,000)</u>	+	<u>\$(28,000)</u>	+	<u>\$(30,000)</u>
<i>Bonus Method</i>									
Balances after recording admission of Call	<u>\$100,000</u>	+	<u>\$—0—</u>	=	<u>\$(42,000)</u>	+	<u>\$(28,000)</u>	+	<u>\$(30,000)</u>

Acquisition of an Interest by Investing Assets (Not a Business Combination)

An individual may obtain a partnership interest in capital and future income by investing something of value to the firm. These assets may include such intangibles as customer lists, unique manufacturing processes, and even trained staff (ASC 350-30-25-4). We initially assume, however, that these assets do not constitute a functioning business, as defined by FASB. If assets are invested, the admission is recorded by debiting the assets invested and adjusting the net capital interest in the firm by a corresponding amount. It is important that the assets invested be fairly valued. Any gain or loss recognized on sales subsequent to recording the admission will be allocated on the basis of the new profit and loss formula.

Three situations can exist when an individual invests assets in a firm:

1. Book value of the capital interest acquired is equal to the fair value of the assets invested.
2. Book value of the capital interest acquired is less than the fair value of the assets invested.
3. Book value of the capital interest acquired is greater than the fair value of the assets invested.

The book value of the capital interest acquired is computed as follows:

$$\left(\begin{array}{l} \text{Capital balances of} \\ \text{existing partners} \end{array} + \begin{array}{l} \text{Investment of} \\ \text{new partner} \end{array} \right) \times \begin{array}{l} \text{Percentage} \\ \text{interest acquired} \\ \text{by new partner} \end{array} = \begin{array}{l} \text{Book value} \\ \text{of capital} \\ \text{interest acquired} \end{array}$$

To illustrate the three situations, assume that Adams and Brown have capital interests of \$40,000 and \$30,000, respectively. Assume further that, unless stated otherwise, the book values of the recorded assets and liabilities of the firm equal their fair values. Profits are shared in the ratio of 6:4. Call is to be admitted to the partnership, after which the profit ratio is to be 4:4:2. For simplicity, we will assume in all cases that Call invests cash.

Case 1: Book Value Acquired Is Equal to Assets Invested Assume that Adams, Brown, and Call agree that Call is to invest \$35,000 for a one-third capital interest in the partnership. The book value of Call's interest is equal to the assets invested and is computed as follows:

$$(\$70,000 + \$35,000) \times 1/3 = \$35,000$$

The entry to record the admission of Call is simply:

Cash	35,000	
Call, Capital		35,000

Adams' and Brown's capital accounts remain unchanged at \$70,000, which represents the remaining two-thirds interest in the firm. Call's capital account properly reflects a one-third interest of \$35,000. It should be noted that the ratio of the capital balance of 40:30:35 does not equal the agreed profit and loss ratio 4:4:2.

Case 2: Book Value Acquired Is Less Than Assets Invested Assume now that Call is to invest \$50,000 for a one-third capital interest in the firm. Book value of the interest acquired is:

$$(\$70,000 + \$50,000) \times 1/3 = \$40,000$$

In this case, the amount invested exceeds the book value interest acquired by \$10,000. There could be a number of explanations for Call's willingness to pay this \$10,000 excess. It could be that, as a result of a profitable and favorable outlook for the firm's operations, Adams and Brown are in a strong bargaining position.

The accounting problem is to record the admission of Call in accordance with the negotiated intentions of the parties involved. Obviously, if Call's capital account is credited with \$50,000, her interest would exceed one-third of the partnership's total capital. Either the bonus method or the goodwill method can be used to record the admission so that Call will end up with a one-third capital interest.

Bonus Method When the bonus method is used, the excess of the amount invested over the book value interest received is considered a bonus to the existing partners. In this example, Call invested \$10,000 more than the capital interest received. The \$10,000 bonus is allocated to the old partners on the basis of their profit and loss ratio, since this is an increase in partnership assets. The entry to admit Call is:

Cash	50,000	
Adams, Capital (.6 × \$ 10,000)		6,000
Brown, Capital (.4 × \$ 10,000)		4,000
Call, Capital ((1/3) × \$120,000)		40,000

Adams and Brown now have capital balances of \$46,000 and \$34,000 for a total capital interest of \$80,000, which is a two-thirds interest in total capital of \$120,000. Call has the remaining one-third interest of \$40,000.

The assets of the partnership may have been revalued before the admission of a new partner was recorded. The bonus method is frequently used when the parties do not want to record an intangible asset. Notice in the entry to record the admission that the assets are increased only by the amount invested. Any difference between the capital credit for Call and the cash invested is an adjustment to the capital accounts of Adams and Brown.

Goodwill Method (Not GAAP) Call may negotiate that she is to receive a capital credit equal to her investment. If Call is to receive a capital credit of \$50,000 for a one-third interest, the total capital interest implied by this contract is \$150,000. Adams and Brown must have the remaining two-thirds interest, or \$100,000. Since their current balances of \$70,000 represent their interest in the net assets, assets and capital appear to be understated by \$30,000.¹³ Assuming that the specific assets and liabilities are fairly valued, this understatement is recognized as goodwill attributable to the old partners and is allocated to Adams and Brown on the basis of their current profit and loss ratios. The journal entry is:

Goodwill	30,000	
Adams, Capital (.60 × \$30,000)		18,000
Brown, Capital (.40 × \$30,000)		12,000

¹³ An alternate way to calculate goodwill is: Net value of firm implied by contract of \$150,000 minus \$120,000 (capital balances of Adams and Brown plus Call's investment) equals goodwill of \$30,000.

The entry to record the admission of Call is:

Cash	50,000	
Call, Capital		50,000

Net Assets Undervalued Had the net assets not been fairly valued as assumed here, the excess payment by Call could mean that specific assets of the firm are undervalued, or that partnership liabilities are overstated. If so, the specific assets (whether tangible or identifiable intangible assets) and liabilities of the partnership could be adjusted instead of creating a goodwill account. However, the specific accounts should not be adjusted in the absence of objective evidence that there are unrecorded changes in value.

Case 3: Book Value Acquired Is Greater Than Assets Invested Assume that Call is to invest \$20,000 for a one-third capital interest in the firm. Book value of the interest acquired is:

$$(\$70,000 + \$20,000) = \$90,000 \times (1/3) = \$30,000$$

In this case, the book value interest acquired exceeds the value of the assets invested by Call, which could imply that assets are overvalued ($(1/3)$ (company value) = \$20,000; or, company value = \$60,000), or that for some reason, Adams and Brown are willing to grant Call a capital credit greater than the amount of assets she is investing. In some cases, for example, a partnership may be in need of operating capital and the partners may be willing to sacrifice their interest in existing assets to acquire the cash; or it could be that Call is bringing some particularly needed talent or reputation to the partnership.

In this case, as in Case 2, the admission could be recorded either by the bonus method or by the goodwill method. Under either method, Call will end up with a one-third interest in the net assets of the firm.

Bonus Method When the bonus method is used, assets are not increased above what the new partner is investing. If Call is to receive a \$30,000 capital credit on investment of \$20,000, then a bonus of \$10,000 is being granted to Call. This bonus is allocated to reduce Adams' and Brown's capital in their agreed profit and loss ratio. The following entry reflects the bonus to Call and a resulting one-third interest in the total capital of \$90,000:

Cash	20,000	
Adams, Capital (.60 × \$10,000)	6,000	
Brown, Capital (.40 × \$10,000)	4,000	
Call, Capital		30,000

Adams and Brown now have capital balances of \$34,000 and \$26,000, respectively, for a total of \$60,000, or a two-thirds interest.

Goodwill Method (Not GAAP) If Adams and Brown are unwilling to reduce their capital accounts on the admission of Call, then an alternative to the bonus method is to compute and record the goodwill implicit in the agreement. Since Adams' and Brown's capital interests are to remain unchanged, the old partners' capital balances are used as the base to compute the value of the firm. If their interest represents a

two-thirds interest in the net assets of the new partnership, then a three-thirds interest in the firm is \$105,000 (or $\$70,000 \div 2/3$), of which Call is to receive a capital credit of \$35,000 ($(1/3) \times \$105,000$). The \$15,000 difference between the capital credit of \$35,000 and Call's investment of \$20,000 is goodwill. The entry to record the admission of Call is:

Cash	20,000	
Goodwill	15,000	
Call, Capital		35,000

The entry recognizes that the new partner is investing cash and is bringing an intangible asset to the partnership. The amount recorded is based on the value implied by the partners' agreement.

Net Assets Overvalued The payment of \$20,000 by Call for a larger capital interest may provide evidence that the recorded value of the firm's net assets does not reflect fair values and that the use of the bonus method or the creation of a goodwill account is an effort to avoid a reduction in net assets. The \$20,000 invested by Call for a one-third interest could be used to impute a value for the partnership's net assets after the admission of Call of only \$60,000.¹⁴ The journal entries to revalue the assets and admit Call are as follows:

Adams, Capital	18,000	
Brown, Capital	12,000	
Assets ($\$70,000 + \$20,000 - \$60,000$)		30,000
Cash	20,000	
Call, Capital		20,000

Account balances that result from the admission of Call for the three alternatives discussed are given in Illustration 15-6. Subsequent events alone can indicate which method should have been used to record the admission. An examination of one of a number of events that could result will emphasize the importance of the initial asset valuation. Assume that the bonus method was used to record the admission of Call and

ILLUSTRATION 15-6

Schedule of Account Balances

<i>Debit</i>	<i>Bonus Method</i>	<i>Goodwill Method</i>	<i>Overvalued Net Assets</i>
Net Assets	\$90,000	\$105,000	\$60,000
<i>Credits</i>			
Adams, Capital	\$34,000	\$ 40,000	\$22,000
Brown, Capital	26,000	30,000	18,000
Call, Capital	<u>30,000</u>	<u>35,000</u>	<u>20,000</u>
Totals	<u>\$90,000</u>	<u>\$105,000</u>	<u>\$60,000</u>

¹⁴ The implied value of \$60,000 compared to the total recorded value of net assets of \$90,000 ($\$40,000 + \$30,000 + \$20,000$), including Call's investment, suggests that recorded assets are overvalued by \$30,000.

that the assets were overvalued and subsequently sold at a loss of \$30,000. The agreed profit and loss ratio is 4:4:2. After this transaction, the partners' capital balances are as follows:

	<i>Adams</i>	<i>Brown</i>	<i>Call</i>
Balance after admission of Call	\$(34,000)	\$(26,000)	\$(30,000)
Share of \$30,000 loss	<u>12,000</u>	<u>12,000</u>	<u>6,000</u>
	<u>\$(22,000)</u>	<u>\$(14,000)</u>	<u>\$(24,000)</u>

The selection of the bonus method as opposed to reducing overvalued assets results in a gain in Call's capital relative to Brown's. Additional comparisons of the three methods assuming various other subsequent events could be developed.

TEST YOUR KNOWLEDGE 15.2

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

Richard, Dave, and Luke have been operating a magazine stand for several years. They share profits and losses equally, and each has a \$50,000 capital balance. They decided to admit a new partner, Craig. Craig is to receive a 25% interest in the partnership.

1. Determine the amount of cash that Craig must pay if the partners do not wish to recognize any goodwill or bonus.
2. Determine Craig's initial capital balance if he contributes \$60,000 cash and the bonus method is applied.
3. Determine Craig's initial capital balance if he contributes \$60,000 cash and the goodwill method is applied.

15.10 SECTION B: ADMISSION OF A NEW PARTNER THAT QUALIFIES AS A BUSINESS COMBINATION: GAAP REQUIRES GOODWILL METHOD

LO 10 We next consider the situation wherein the new partner brings not just a group of assets, but a functioning business to an existing partnership. This qualifies as a business combination or, possibly, as a "reverse acquisition" business combination if the new partner obtains control.

When the Partnership Is the Acquirer

Here we assume the managing partners of the original partnership retain control of the combined entity. This is a conventional acquisition, with the target or acquiree identified as the incoming business of the new partner.

The assets and liabilities of the new partner, including any intangibles, should be valued at their fair value or the new partner's capital interest, whichever is more objectively determinable. Assume Partnership AB consists of two partners sharing profits in a 3:1 ratio (B = 75%, A = 25%).

Case A: Transaction with no Change of Control of Partnership. Partner C buys a 30% interest from the partnership by bringing in a business.

	Partnership AB		Entering Partner C's Business	
	Book Value	Fair Value	Book Value	Fair Value
Cash	15,000	15,000	25,000	25,000
Accounts Receivable	20,000	20,000	50,000	50,000
PPE	158,000	178,000	90,000	100,000
Accounts Payable	(13,000)	(13,000)	(15,000)	(15,000)
Capital A	(45,000)			
Capital B	(135,000)			
Capital C			(150,000)	
Net Asset Value	180,000	200,000	150,000	160,000
Fair Value of Entering Business				160,000

PRINCIPLE: When there is a business combination of the partnership with a business contributed by an entering partner and the entering partner is allocated a non-controlling capital interest, the contributed business is revalued to fair value and the natural (or negotiated) capital interest is recognized with changes to original partners' capital accounts, if needed.

NOTE: Because it is a business combination, goodwill, if any, should be recognized on the business contributed by an entering noncontrolling partner.

Original partnership assets remain at their book values. In this instance, no goodwill is recorded because the fair value of the entering business equals the fair value of the net assets.

Cash	25,000
Accounts Receivable	50,000
PPE	100,000
Accounts Payable	15,000
Capital, C	160,000
To put entering business on the books of Partnership, using FVs	
Capital, C	58,000
Capital, A	14,500
Capital, B	43,500
To adjust to negotiated capital balance	

Capital of Partnership after adding entering business: $180,000 + 160,000 = 340,000$

Capital interest of C: $340,000 \times 30\% = 102,000$

Adjustment to Capital C: $160,000 - 102,000 = 58,000$

Adjustment to Capital A: $25\% \times 58,000 = 14,500$

Adjustment to Capital B: $75\% \times 58,000 = 43,500$

Since the new partner C is bringing a business with a fair value greater than C's capital in the combined entity, this implies goodwill in the original partnership, but no goodwill in the entering business. Since the original partnership is the acquirer, no goodwill will be recorded under GAAP. If the goodwill were part of the entering business, then GAAP would require it to be recorded.

Case B: Transaction with Change of Control of Business Partner C buys a 60% interest from the partnership. Partners A and B share profits in a 3:1 ratio

	Partnership AB		Entering Partner C's Business	
	Book Value	Fair Value	Book Value	Fair Value
Cash	15,000	15,000	50,000	50,000
Accounts Receivable	20,000	20,000	100,000	100,000
PPE	158,000	178,000	180,000	200,000
Accounts Payable	(13,000)	(13,000)	(30,000)	(30,000)
Capital A	(45,000)			
Capital B	(135,000)			
Capital C			(300,000)	
Net Asset Value	180,000	200,000	300,000	320,000
Fair Value of Entering Business				400,000

PRINCIPLE: Because of a change in control, we identify Partner C as the acquirer and AB as the acquiree. When there is a business combination of the partnership with a business contributed by an entering partner, and the entering partner is allocated a controlling capital interest, the contributed business remains at book value and the original partnership is revalued to fair value, including recognition of goodwill. Adjustments to fair value accrue to the original partners proportionately. Capital accounts are adjusted to recognize negotiated capital interest. Partner C's business is entered in the books of the combined entity at book value.

NOTE: Because it is a business combination, goodwill should be recognized on the original business, if any, under GAAP.

When the new partner is admitted by a reverse acquisition, as here, the admission is recorded on the books of the original partnership (even though the "acquirer" is the new partner). Goodwill to the original partnership may be calculated as the difference between the fair value of the partnership as a whole and the fair value of the identifiable net assets prior to admission. The adjustments to fair value of assets and goodwill should be allocated to the original partners' capital accounts.

Any difference between the new partner's capital account and C's agreed-upon share of 60% is a bonus either to or from partners A and B.

FV of entering business of \$400,000, which enables us to calculate the implied value of the partnership.

$\$400,000/0.60 = \$666,667$, implied value of partnership after combination

$\$666,667 - 400,000 = \$266,667$, implied value of original partnership

$\$266,667 - 200,000 = \$66,667$, goodwill in original partnership

Goodwill	66,667	
PPE	20,000	
Capital, A		21,667
Capital, B		65,000
To adjust assets of original partnership, including recording of goodwill.		

Cash	50,000	
Accounts Receivable	100,000	
PPE	180,000	
Accounts Payable		30,000
Capital, C		300,000
To record new business at book value.		
Capital, A	10,000	
Capital, B	30,000	
Capital, C		40,000
To adjust C's capital balance to 60% of recorded assets of \$200,000 + \$300,000 + \$66,667.		

Case C: No Change of Control, GAAP-Based Goodwill Next, assume the same facts as Case A except that the new business is valued at \$200,000, \$40,000 more than the fair value of identifiable assets. Because the new business is the acquirer, goodwill is recorded on the books of the acquirer as follows:

Cash	25,000	
Accounts Receivable	50,000	
PPE	100,000	
Goodwill	40,000	
Accounts Payable		15,000
Capital, C		200,000

The capital of the combined entity is $\$180,000 + 200,000 = \$380,000$

Capital interest of C: $\$380,000 \times 30\% = \$114,000$

Adjustment to Capital, C: $\$200,000 - 114,000 = \$86,000$ decrease

Adjustment to Capital, A: $\$86,000 \times 25\% = \$21,500$ increase

Adjustment to Capital, B: $\$86,000 \times 75\% = \$64,500$ increase

Capital, C	86,000	
Capital, A		21,500
Capital, B		64,500

15.11 SECTION C: WITHDRAWAL OF A PARTNER

IN THE NEWS

A buy/sell agreement can mandate that the exiting partner or heirs, in the case of death, sell his or her interest to the remaining owners, who are legally bound to buy the interest according to an agreed-upon method of valuation. It can also designate which partner becomes the buyer and which the seller if it comes to that end.¹⁵

A partner cannot be prevented from withdrawing from a partnership by the other partners. Although some complex legal issues are involved, the partnership agreement may specify conditions for withdrawal and provisions for computing the settlement. If a settlement is not specifically provided for in the partnership agreement, Section 42 of the UPA states that “he or his legal representative ... may have the value of this interest ascertained and shall receive as an ordinary creditor an amount equal to the value of this interest.”

If a partner withdraws in violation of the partnership agreement and without approval of the remaining partners, he is entitled only to his interest in the firm without consideration of goodwill. In such a case, the withdrawing partner is liable for damages sustained by the remaining parties for his breach of the partnership agreement. A partner who is forced to withdraw from a partnership is entitled to compensation for his full interest including goodwill.

¹⁵ *Forbes*, “Planning for Divorce,” by Leigh Gallagher, 3/22/99, pp. 94–95.

LO 8 Changes in partnership.**IN
THE
NEWS**

Bad things can happen if an outsider makes a bid for a piece of the

company—the lead partner's share, say, but not everyone else's. You don't want to be forced to work alongside an incompetent heir or a crook. Solution: The buy/sell agreement dictates that an outsider cannot buy a majority interest without offering to buy out everyone else on the same terms. Alternatively, it might provide that the remaining partners have a right of first refusal on any shares being sold.¹⁶

In the following examples, it is assumed that the partners mutually agree to the withdrawal such that: (1) the withdrawing partner may elect to sell his interest to an outside party; (2) the withdrawing partner may elect to sell his interest to one or more of the remaining partners; or (3) the partners may mutually agree to transfer partnership assets to the withdrawing partner for his interest in the firm. Case 1 has been discussed earlier and need not be reviewed again. The same considerations apply to Case 2, if negotiated outside the partnership. In Case 3 the partnership agreement may include requirements for determining the settlement price. In most cases the capital account does not reflect the current value of the partner's interest. To be equitable the fair values of the assets and liabilities need to be determined. It may be necessary to recognize unrecorded assets, correct the accounts for errors, or reflect changes in estimates such as the book value of depreciable assets. In the absence of a specific agreement, the partners may have to negotiate a settlement price at the date of withdrawal. Determination of an equitable value may be very difficult. The agreed settlement price may be equal to, greater than, or less than the book value interests of the withdrawing partner.

To illustrate the accounting for the withdrawal of a partner by transferring firm assets, assume a partnership consisting of three partners, Adams, Brown, and Call, with capital balances of \$30,000, \$40,000, \$30,000, and a profit and loss ratio of 5:3:2. Any agreed asset and liability revaluations have already been recorded.

Payment to a Retiring Partner

Payment in Excess of Book Value to a Withdrawing Partner Assume now that Adams is withdrawing from the partnership and the partners have mutually agreed that he is to receive payment of \$40,000. The partners may agree to use the bonus method or the goodwill method to record the withdrawal.

Bonus Method If the bonus method is used, the remaining partners are charged with the amount of the payment that exceeds the book value of the retiring partner's capital balance. The amount of the bonus paid to the retiring partner is commonly allocated to the remaining partners on the basis of their relative profit and loss ratio (in this case the relative ratio of Brown to Call is 3:2). Support for this method is based on the cost principle. The bonus method may also be justified when the remaining partners are simply anxious to get rid of a partner for various reasons. Any recognition of goodwill is difficult to justify in the absence of an arm's-length transaction. The entry to record the withdrawal would be as follows:

Adams, Capital	30,000	
Brown, Capital	6,000	
Call, Capital	4,000	
Liability to Adams		40,000

RELATED CONCEPTS

The rationale for the bonus method is the historical cost principle and the absence of an arm's-length transaction. The rationale for the goodwill method is that formation of a new entity should be based on fair values.

Goodwill Method (Not GAAP) The goodwill method is used if (1) Brown and Call do not agree to a reduction in their capital balances; (2) the partners made specific provisions in the partnership agreement on how the withdrawal is to be recorded; or (3) the partners agree that an intangible asset should be recognized. If the partnership has been profitable, the firm as a whole may be worth more than the fair value of the net assets. Once again, the goodwill method is supported on the basis that a new entity

¹⁶ *Forbes*, "Planning for Divorce," by Leigh Gallagher, 3/22/99, pp. 94–95.

is being formed and the accounts of the new entity should be based on fair values. One alternative is to calculate the implied goodwill from the price paid to the retiring partner. In our example, Adams receives a \$10,000 excess payment over his capital balance. Since Adams' capital account is increased by 50% of any increase in assets, then a \$10,000 excess payment implies a total goodwill of \$20,000. The entries are:

Goodwill	20,000	
Adams, Capital		10,000
Brown, Capital		6,000
Call, Capital		4,000
Adams, Capital	40,000	
Liability to Adams		40,000

Some argue that, in accordance with the cost basis, only the goodwill of \$10,000 that has been purchased should be recorded (called the partial goodwill method) and the entry should be:

Goodwill	10,000	
Adams, Capital		10,000
Adams, Capital	40,000	
Liability to Adams		40,000

Others would contend that the basis for recognizing goodwill should be “all or nothing at all.”

It is probably difficult to justify recognition of any goodwill. If the goodwill is related to Adams, it will not exist if he withdraws. However, as discussed before, if the goodwill is based on past operations, the withdrawal may provide the objective evidence necessary to recognize it in the partnership accounts.

Payment of Less Than Book Value to a Withdrawing Partner A partner who is anxious to dispose of his or her interest in the partnership may agree to accept less than his or her book value interest in the partnership. The partner may do so for a number of reasons, such as (1) he or she may view the future of the company negatively, (2) he or she may need operating capital for personal reasons, or (3) the business association may no longer be acceptable to the partner and, in his or her opinion, a forced liquidation of the firm might be detrimental to his or her interest. In such cases, use of the bonus method is justified, since the settlement may not be based on the economic value of the firm.

To illustrate, assume that Adams withdraws from the ABC Partnership and agrees to settle his \$30,000 interest for \$25,000. A bonus of \$5,000 accrues to the remaining partners. The common practice is to allocate the bonus on the basis of their relative profit and loss ratio of 3:2. The entry would be:

Adams, Capital	30,000	
Brown, Capital		3,000
Call, Capital		2,000
Liability to Adams		25,000

A payment to Adams that is less than his capital interest may be an indication that assets are overvalued. Assets should be written down to fair values if it is determined

that they are overvalued and that the settlement price is based on the net assets' fair value. In particular, if goodwill was previously recorded, an agreement to accept a payment that is less than the partner's book value interest may provide evidence that the intangible is overstated. Accordingly, the intangible should be reduced by the difference between the settlement price and the capital interest being retired. Assuming that assets are overvalued by \$10,000, the sequence of entries becomes:

Adams, Capital	5,000	
Brown, Capital	3,000	
Call, Capital	2,000	
Asset		10,000
Adams, Capital	25,000	
Liability to Adams		25,000

Reducing the assets to fair value provides an equitable starting point for the new partnership formed by Brown and Call. As long as Brown and Call share profits in the same relative ratio, they will be indifferent as to the method used. However, it is more informative and conceptually preferred for the recorded asset values to reflect fair values if such values can be determined.

Death of a Partner

While historically under the UPA a partnership was dissolved by the death of a partner, recent changes now allow the partnership to continue operating by mandating a buyout of the deceased partner's interest.

Determining a partner's equity interest in the firm can result in disagreements between the surviving partners and the executor of the estate. To avoid litigation, the articles of partnership should contain procedures for determining a deceased partner's current equity in the partnership and the method of settlement. In the absence of specific provisions, the surviving partners and the executor of the estate must negotiate a settlement. To determine a partner's equity interest at the time of death, the assets and liabilities normally are adjusted to current values and the accounts are closed to determine the net income or loss earned since the end of the last fiscal period.

The partnership agreement may provide that the interest is to be settled by distributing partnership assets to the estate or the estate may receive payment by selling the interest to an outside party or to one or more of the surviving partners as individuals. Entries to record both types of settlements were presented in earlier sections of this chapter.

SUMMARY

- 1 *Describe the characteristics of a general partnership, a limited partnership, and a joint venture.* In a general partnership, the partners can bind the partnership into contracts, and the partnership interest is similar to a personal asset that can be sold. General partners are personally liable for the debts of the partnership, while a limited partner is only liable for the amount invested in the partnership. A joint venture occurs when two or more parties (agents) enter into an arrangement to pursue a specific purpose.
- 2 *List some important items to be included in the partnership agreement.* Important items to include in the partnership agreement are the name of the partnership, the identity of the partners, the effective date and the length of operations, the provision for allocating profits and losses, provisions for salaries and withdrawals, contracting authorities, procedures for admitting a new partner, and procedures for dissolution of the partnership.

- 3** *Understand the differences between partnerships' and corporations' equity accounts in the balance sheet.* In a corporation, amounts contributed by the owners (i.e., stockholders) are recorded in capital stock accounts. In addition, any income or loss earned by the corporation is reported in retained earnings. Dividends are considered a distribution of earnings and thus reduce retained earnings. In a partnership, amounts contributed by the owners (i.e., partners) are recorded in the partners' capital accounts. Any income or loss earned by the partnership is allocated to the partners' capital accounts. If a partner takes money out of the partnership, a drawing account is often used.
- 4** *Explain the purpose of the partners' drawing accounts and capital accounts.* In general, the partners' capital accounts are for permanent investments and should be updated periodically for withdrawals. Drawing accounts are often used in anticipation of earnings or to pay for personal expenses. Drawing accounts record withdrawals during the year and are closed to the partners' capital accounts at year-end.
- 5** *Prepare journal entries to form a partnership using the bonus and the goodwill methods.* A choice between the bonus and the goodwill methods for recording the formation of a partnership is needed if the amounts contributed by each partner do not agree with the amount of capital to be credited to each partner (for example, one partner contributes 40% of the assets but is to be given a 50% interest). For example, suppose that Bob and Ed enter into a partnership. Bob contributes \$40 cash and Ed contributes \$60. Yet each is to be given an equal interest. The journal entries under the bonus and goodwill methods are as follows:

<i>Bonus Method</i>		
Cash	\$100	
Bob, Capital		\$50
Ed, Capital		\$50
<i>Goodwill Method</i>		
Cash	\$100	
Intangible Asset	\$ 20	
Bob, Capital		\$60
Ed, Capital		\$60

Under the bonus method, the total amount contributed is allocated to all partners in accordance with their agreed-upon capital share (equally in this illustration, resulting in a transfer of \$10 from Ed to Bob). Under the goodwill method, Bob is assumed to be contributing an intangible asset to the firm. Since Ed contributed \$60 and Bob only \$40, an intangible asset of \$20 is recorded to increase Bob's capital to \$60.

- 6** *Describe some common agreements used to allocate partnership net income or loss.* Common agreements to allocate

partnership net income or loss include using (1) fixed ratios, (2) a ratio based on the partners' capital balances, (3) an implicit interest rate based on the partners' capital accounts (such as 10% of the year-end capital balance), and (4) various amounts that represent salaries or bonuses. In addition, the agreement must specify how any excess or deficit after an original allocation is divided among the partners.

- 7** *Explain why salary allowances and interest allowances are used in allocating partnership profits and losses.* Interest allowances are often used as an incentive for capital to be invested and stay invested in the partnership. If a partner withdraws money from the partnership, that partner will receive a lower amount of interest and thus a smaller allocation of total profits. If the partner contributes more funds, that partner will receive a higher allocation. Similarly, a salary allowance is a common method to reward partners providing services to the partnership for their efforts.
- 8** *Describe the methods used to record partnership changes when a new partner is admitted or when a partner withdraws from the partnership.* When a new partner is admitted, the new partner can purchase the interest from an existing partner or contribute additional assets to the partnership. As when a partnership is formed, either the bonus or the non-GAAP goodwill method may be used if the amount contributed does not agree with the amount of capital to be credited to the new partner. Upon the withdrawal of a partner, the same procedures are applied. If the amount paid to the withdrawing partner is more or less than the partner's existing capital balance, either the bonus or the goodwill method can be used. In this case, the withdrawing partner's final capital balance must equal the amount paid.
- 9** *Describe the rationale behind the goodwill method in accounting for changes in partnership membership.* Under the goodwill method of accounting for changes in partnership membership, the capital interest assigned to the new or withdrawing partner implies a certain value for the firm. Since records are maintained on historical cost, differences in net asset values are likely. In addition, significant intangible assets may have been created by the partnership over time. The goodwill method assumes that the assigned capital interest provides a basis for total firm valuation.
- 10** *Differentiate between situations in which it is consistent with current GAAP to record goodwill in the event of a partnership change and those where it is not.* The goodwill method described above (LO 9), though useful for internal purposes and not without theoretical merit, is only consistent with current GAAP when the admission of a new partner qualifies as a business combination, i.e., when the new partner bring in a business.

TEST YOUR KNOWLEDGE SOLUTIONS

15.1 1. d

- 15.2 1. $(150,000 \div .75) = 200,000$ less existing capital of 150,000 = \$50,000 cash contribution.
 2. $(150,000 + 60,000) = 210,000 \times .25 = \$52,500$ capital balance.
 3. $(\$60,000 \div .25) = \$240,000$ total capital implied $\times .25 = \$60,000$ capital balance.

QUESTIONS

- LO 1** 1. Describe the tax treatment of partnership income.
- LO 4** 2. Distinguish between a partner's interest in capital and his interest in the partnership's income and losses. Also, make a general distinction between a partner's capital account and his drawing account.
- LO 1** 3. Explain why a partnership is viewed in accounting as a "separate economic entity."
- LO 6** 4. What are some of the methods commonly used in allocating income and losses to the partners?
- LO 7** 5. Explain the distinction between the terms "withdrawals" and "salaries."
- LO 5** 6. List some of the alternative methods of calculating a bonus that may appear in a partnership agreement.
- LO 8** 7. What is meant by dissolution and what are its causes?
- LO 8, LO 10** 8. Discuss the methods used to record changes in partnership membership. Clarify when the goodwill method may be useful for internal purposes but is not consistent with GAAP, and when the goodwill method is appropriate under GAAP.
- LO 8** 9. Differentiate between the admission of a new partner through assignment of an interest and through investment in the partnership.
- LO 8** 10. Under what two conditions will the bonus and goodwill methods of recording the admission of a partner yield the same result?
- LO 8** 11. Describe the circumstances where neither the goodwill nor the bonus method should be used to record the admission of a new partner.
12. How might a partner withdrawing in violation of the partnership agreement and without the consent of the other partners be treated? What about a partner who is forced to withdraw? **LO 8**

Business Ethics

Many companies with defined benefit plans are curtailing or eliminating the plans altogether. With a defined benefit plan, the company guarantees some set amount (or formula-determined payment) when the employee retires. Because most pension assets are invested in the stock market, whether a pension plan is fully funded often depends on the strength of the stock market. Because of this volatility, companies often find themselves unexpectedly in a position where they must either increase funding or disclose significant underfunding. Because of this, many companies simply reduce or eliminate the plan. Consider the pension plan of Golden Years Company (GYC). Historically, GYC has been a great company to work for, with strong employee benefits. GYC's pension liability is approximately \$15 million. However, recently the company has been experiencing minor financial troubles in a decreasing stock market and, consequently, announced the termination of the pension plan in an effort to save costs. However, the pension plan was fully funded by \$9 million (the fair value of assets exceeded the expected liability).

1. How does the firm reconcile the trade-off between financial performance and the responsibility to its employees?

EXERCISES

EXERCISE 15-1 Partnership Formation: Bonus and Goodwill Methods **LO 5**

John, Jeff, and Jane decided to engage in a real estate venture as a partnership. John invested \$100,000 cash and Jeff provided office equipment that is carried on his books at \$82,000. The partners agree that the equipment has a fair value of \$110,000. There is a \$30,000 note payable remaining on the equipment to be assumed by the partnership. Although Jane has no physical assets to invest in the partnership, both John and Jeff believe that her experience as a real estate appraiser is a valuable skill needed by the partnership and is a basis for granting her a capital interest in the partnership.

Required:

Assuming that each partner is to receive an equal capital interest in the partnership,

- Record the partnership formation under the bonus method.
- Record the partnership formation under the goodwill method, and assume a total goodwill of \$90,000.
- Discuss the appropriateness of using either the bonus or goodwill methods to record the formation of the partnership.

EXERCISE 15-2 Partnership Transactions and Capital Statements **LO 5** **LO 6**

Tom and Julie formed a management consulting partnership on January 1, 2019. The fair value of the net assets invested by each partner follows:

	<i>Tom</i>	<i>Julie</i>
Cash	\$13,000	\$12,000
Accounts receivable	8,000	6,000
Office supplies	2,000	800
Office equipment	30,000	—
Land	—	30,000
Accounts payable	2,000	5,000
Mortgage payable	—	18,800

During the year, Tom withdrew \$15,000 and Julie withdrew \$12,000 in anticipation of operating profits. Net profit for 2019 was \$50,000, which is to be allocated based on the original net capital investment.

Required:

- A. Prepare journal entries to:
1. Record the initial investment in the partnership.
 2. Record the withdrawals.
 3. Close the Income Summary and Drawing accounts.
- B. Prepare a statement of changes in partners' capital for the year ended December 31, 2014.

EXERCISE 15-3 Allocation of Income or Loss LO 6

Jones, Silva, and Thompson form a partnership and agree to allocate income equally after recognition of 10% interest on beginning capital balances and monthly salary allowances of \$2,000 to Jones and \$1,500 to Thompson. Capital balances on January 1 were as follows:

Jones	\$40,000
Silva	25,000
Thompson	30,000

Required:

Calculate the net income (loss) allocation to each partner under each of the following independent situations.

1. Net income for the year is \$99,500.
2. Net income for the year is \$38,300.
3. Net loss for the year is \$15,100.

EXERCISE 15-4 Allocation of Net Loss LO 6

Mary and Nancy invested \$80,000 each to form a partnership. Mary has been authorized a salary of \$20,000, while Nancy's salary is \$25,000. Each partner is to receive 10% on the original capital investment. The profit and loss agreement stipulates that any remaining income or loss is to be divided equally. The partnership had a net loss of \$20,000 this year.

Required:

Prepare the journal entry to record the allocation of the net loss for the year. Show supporting computations.

EXERCISE 15-5 Bonus Agreement LO 6

On January 1, 2019, Tony and Jon formed T&J Personal Financial Planning with capital investments of \$480,000 and \$340,000, respectively. The partners wanted to draft a profit and loss agreement that would reward each individual for the resources invested in the partnership. Accordingly, the partnership agreement provides that profits are to be allocated as follows:

1. Annual salaries of \$42,000 and \$66,000 are granted to Tony and Jon, respectively.
2. In addition to the salary, Jon is entitled to a bonus of 10% of net income after salaries and bonus but before interest on capital investments is subtracted.

3. Each partner is to receive an interest credit of 8% on the original capital investment.
4. Remaining profits are to be allocated 40% to Tony and 60% to Jon.

On December 31, 2019, the partnership reported net income before salaries, interest, and bonus of \$188,000.

Required:

Calculate the 2019 allocation of partnership profit.

EXERCISE 15-6 Profit Distribution and Capital Statements LO 6

Hill, Jones, and Vose have been partners throughout 2019. Their average balances for the year and their balances at the end of the year before closing the nominal accounts are as follows:

<i>Partner</i>	<i>Average Balances</i>	<i>Balances 12/31/19</i>
Hill	\$97,500	\$70,000
Jones	27,300	21,800
Vose	14,250	11,700*

*Debit balance.

The income for 2019 is \$108,000 before charging partners' salary allowances and before payment of interest on average balances at the agreed rate of 5% per annum. Annual salary allocations are \$12,000 to Hill, \$9,600 to Jones, and \$8,800 to Vose. The balance of income is to be allocated at the rate of 60% to Hill, 10% to Jones, and 30% to Vose.

It is intended to distribute cash to the partners so that, after credits and allocations have been made as indicated in the preceding paragraph, the balances in the partners' accounts will be proportionate to their residual profit-sharing ratios. None of the partners is to invest additional cash, but they wish to distribute the lowest possible amount of cash.

Required:

Prepare a schedule of partners' accounts, showing balances at the end of 2019 before closing, the allocations of the net income for 2019, the cash distributed, and the closing balances.

(AICPA adapted)

EXERCISE 15-7 Partner Admission LO 8

Phil Phoenix and Tim Tucson are partners in an electrical repair business. Their respective capital balances are \$90,000 and \$50,000, and they share profits and losses equally. Because the partners are confronted with personal financial problems, they decided to admit a new partner to the partnership. After an extensive interviewing process they elect to admit Don Dallas into the partnership.

Required:

Prepare the journal entry to record the admission of Don Dallas into the partnership under each of the following conditions:

1. Don acquires one-fourth of Phil's capital interest by paying \$30,000 directly to him.
2. Don acquires one-fifth of each of Phil's and Tim's capital interests. Phil receives \$25,000 and Tim receives \$15,000 directly from Don.
3. Don acquires a one-fifth capital interest for a \$60,000 cash investment in the partnership. Total capital after the admission is to be \$200,000.
4. Don invests \$40,000 for a one-fifth interest in partnership capital. Implicit goodwill is to be recorded, consistent with the non-GAAP use of the goodwill method for internal purposes.

EXERCISE 15-8 Adjusting Entries for Partner Admission LO 8

Bill and Jane share profits and losses in a 70:30 ratio. Mike is to be admitted into a partnership upon the investment of \$14,000 for a one-third capital interest. Account balances for Bill and Jane on June 30, 2019 just before the admission of Mike are as follows:



	<i>Debit</i>	<i>Credit</i>
Cash	\$ 6,000	
Accounts Receivable	9,000	
Notes Receivable	2,000	
Merchandise Inventory	12,000	
Prepaid Insurance	500	
Accounts Payable		\$ 9,500
Bill, Capital		12,000
Jane, Capital		8,000
	<u>\$29,500</u>	<u>\$29,500</u>

It is agreed that for purposes of establishing the interests of the former partners, the following adjustments shall be made:

1. An allowance for doubtful accounts of 2% of the accounts receivable is to be established.
2. The merchandise inventory is to be valued at \$10,000.
3. Accrued expenses of \$600 are to be recognized.
4. Prepaid insurance is to be valued at \$300.
5. The bonus method is to be used to record the admission of Mike.

Required:

Prepare the entries to adjust the account balances in establishing the interests of Bill and Jane and to record the investment by Mike.

EXERCISE 15-9 Partner Admission LO 8

Beth, Steph, and Linda have been operating a small gift shop for several years. After an extensive review of their past operating performance, the partners concluded that the business needed to expand in order to provide an adequate return to the partners. The following balance sheet is for the partnership prior to the admission of a new partner, Mary.

Cash	\$160,000
Other Assets	<u>640,000</u>
	\$800,000
Liabilities	<u>\$200,000</u>
Beth, Capital (40%)	265,000
Steph, Capital (40%)	215,000
Linda, Capital (20%)	<u>120,000</u>
	<u>\$800,000</u>

Figures shown parenthetically reflect agreed profit-and-loss sharing percentages.

Required:

Prepare the necessary journal entries to record the admission of Mary in each of the following independent situations. Some situations may be recorded in more than one way.

1. Mary is to invest sufficient cash to receive a one-sixth capital interest. The parties agree that the admission is to be recorded without recognizing goodwill or bonus.
2. Mary is to invest \$160,000 for a one-fifth capital interest.
3. Mary is to invest \$160,000 for a one-fourth capital interest.
4. Mary is to invest \$160,000 for a 40% capital interest.

EXERCISE 15-10 Multiple Choice LO 6 LO 8

Select the best answer for each of the following.

1. Jon and Joe formed a partnership on July 1, 2019, and invested the following assets:

	<i>Jon</i>	<i>Joe</i>
Cash	\$65,000	\$125,000
Realty		250,000

The realty was subject to a mortgage of \$25,000, which was assumed by the partnership. The partnership agreement provides that Jon and Joe will share profits and losses in the ratio of one-third and two-thirds, respectively. Joe's capital account at July 1, 2019, should be

- (a) \$375,000
- (b) \$366,667
- (c) \$285,000
- (d) \$350,000

2. On July 1, 2019, Mary and Jane formed a partnership, agreeing to share profits and losses in the ratio of 4:6, respectively. Mary invested a parcel of land that cost her \$40,000. Jane invested \$50,000 cash. The land was sold for \$60,000 on July 1, 2019, four hours after formation of the partnership. How much should be recorded in Mary's capital account on formation of the partnership?

- (a) \$8,000
- (b) \$24,000
- (c) \$60,000
- (d) \$20,000

3. The partnership agreement of Tami, Julie, and Kim provides for annual distribution of profit or loss in the following order:

- Tami, the managing partner, receives a bonus of 15% of profit.
- Each partner receives 10% interest on average capital investment.
- Residual profit or loss is divided equally.

The average capital investments for 2019 were:

Tami	\$100,000
Julie	200,000
Kim	300,000

How much of the \$94,500 partnership profit for 2019 should be allocated to Tami?

- (a) \$10,000
- (b) \$20,000
- (c) \$30,950
- (d) \$14,175

4. Tom and Jim are partners who share profits and losses in the ratio of 3:2, respectively. On August 31, 2019, their capital accounts were as follows:

Tom	\$ 80,000
Jim	<u>50,000</u>
	<u>\$130,000</u>

On that date they agreed to admit John as a partner with a one-third interest in the capital and profits and losses, for an investment of \$50,000. The new partnership will begin with a total capital of \$180,000. Immediately after John's admission, what are the capital balances of the partners?

	<u>Tom</u>	<u>Jim</u>	<u>John</u>
(a)	\$60,000	\$60,000	\$60,000
(b)	\$73,333	\$46,667	\$60,000
(c)	\$74,000	\$46,000	\$60,000
(d)	\$80,000	\$50,000	\$50,000

5. On June 30, 2019, the balance sheet for the partnership of Al, Carl, and Paul, together with their respective profit and loss ratios, were as follows:

Assets, at Cost	<u>\$180,000</u>
Al, Loan	\$ 9,000
Al, Capital (20%)	42,000
Carl, Capital (20%)	39,000
Paul, Capital (60%)	<u>90,000</u>
Total	<u>\$180,000</u>

Al has decided to retire from the partnership. By mutual agreement, the assets are to be adjusted to their fair value of \$220,000 at June 30, 2019. It was agreed that the partnership would pay Al \$61,200 cash for Al's partnership interest, including Al's loan, which is to be repaid in full. No goodwill is to be recorded. After Al's retirement, what is the balance of Carl's capital account?

- (a) \$36,450.
- (b) \$39,000.
- (c) \$46,450.
- (d) \$47,000.

(AICPA adapted)

6. Assume the same facts as in (5) above except that the bonus method is used. What is the balance of Carl's capital account, assuming the assets are NOT adjusted to fair value?
- (a) \$35,200.
 - (b) \$39,000.
 - (c) \$46,450.
 - (d) \$47,000.

EXERCISE 15-11 Multiple Choice **LO 1** **LO 2** **LO 6**

Select the best answer for each of the following.

- Which of the following is *not* a characteristic of a partnership?
 - (a) Limited life.
 - (b) Mutual agency.
 - (c) Limited liability.
 - (d) Right to dispose of partnership interest.
- The articles of partnership need not include which of the following?
 - (a) Location of the place of business.
 - (b) Allocation of profit/loss.
 - (c) Procedures for admitting a new partner.
 - (d) Fiscal period of the partnership.
 - (e) All of the above should be included.
- The High and Low partnership agreement provides special compensation to High for managing the business. High receives a bonus of 15% of partnership net income before salary and bonus, and also receives a salary of \$45,000. Any remaining profit or loss is to be allocated equally. During 2019, the partnership had net income of \$50,000 before the bonus and salary allowance. As a result of these distributions, Low's equity in the partnership would
 - (a) Increase.
 - (b) Not change.
 - (c) Decrease the same as High's.
 - (d) Decrease.
- The allocation of an error correction should be based on the profit and loss agreement in effect when
 - (a) The error was made.
 - (b) The error was corrected.

- (c) The error was discovered.
 - (d) The allocation should always be made equally.
5. If there is a provision for allocation of profits but not losses in the partnership agreement, courts have generally concluded that
 - (a) Losses should not be allocated to the capital accounts, but matched against future earnings.
 - (b) Losses should be allocated using the same approach as allocation of profits.
 - (c) Losses should be allocated equally.
 - (d) Losses should be allocated according to the ratio of balances in the capital accounts.
 6. Partners E and F share profits and losses equally after each has been credited in all circumstances with annual salary allowances of \$15,000 and \$12,000, respectively. Under this agreement, E will benefit by \$3,000 more than F in which of the following circumstances?
 - (a) Only if the partnership has earnings of \$27,000 or more for the year.
 - (b) Only if the partnership does not incur a loss for the year.
 - (c) In all earnings or loss situations.
 - (d) Only if the partnership has earnings of at least \$3,000 for the year.

EXERCISE 15-12 **Income Allocation with Bonus LO 6**

The partnership agreement of ABC Associates provides that income should be allocated in the following manner:

1. Each partner receives interest of 20% of beginning capital.
2. Sue receives a salary of \$25,000 and Josh receives a salary of \$21,000.
3. Josh also receives a bonus of 10%.
4. Residual—divided equally.

The partnership's net income for 2019 was \$90,000. Beginning capital balances were Sue, \$30,000; Josh, \$40,000.

Required:

Prepare a schedule to allocate the net income under each of the following independent situations:

- A. Bonus is to be based on income before any profit allocation to partners for interest and salary.
- B. Bonus is to be based on income after subtracting the bonus, but before allocation to partners for interest and salary.
- C. Bonus is to be based on income after subtracting the bonus, interest, and salary.

EXERCISE 15-13 **Partner Withdrawal LO 8**

Kazma, Folkert, and Tucker are partners with capital account balances of \$30,000, \$75,000, and \$45,000, respectively. Income and losses are divided in a 4:4:2 ratio. When Tucker decided to withdraw, the partnership revalued its assets from \$225,000 to \$252,000, which represented an increase in the value of inventory of \$8,000 and an increase in the value of land of \$19,000. Tucker was then given \$15,000 cash and a note for \$40,000 for his withdrawal from the partnership.

Required:

- A. Prepare the journal entry to record the revaluation of the partnership's assets.
- B. Prepare the journal entry to record the withdrawal using the following independent methods.
 1. Bonus.
 2. Partial goodwill.
 3. Full goodwill amount.

PROBLEMS

PROBLEM 15-1 Profit Allocation LO 6

Day and Night formed an accounting partnership in 2019. Capital transactions for Day and Night during 2019 are as follows:

<i>Date</i>	<i>Transaction</i>	<i>Amount</i>
Day		
1/1	Beginning balance	\$75,000
4/1	Withdrawal	18,750
6/1	Investment	37,500
11/1	Investment	18,750
Night		
1/1	Beginning balance	\$37,500
7/1	Investment	18,750
10/1	Withdrawal	9,375

Partnership net income for the year ended December 31, 2019; is \$68,400 before considering salaries or interest.

Required:

Determine the amount of profit that is to be allocated to Day and Night in accordance with each of the following independent profit-sharing agreements:

- Day and Night failed to provide a profit-sharing arrangement in the articles of partnership and fail to compromise on an agreement.
- Net income is to be allocated 60% to Day and 40% to Night.
- Net income is to be allocated in the ratio of ending capital balances.
- Net income is to be allocated in the ratio of average capital balances.
- Interest of 15% is to be granted on average capital balances, salaries of \$15,000 and \$8,250 are to be allocated to Day and Night, respectively, and the remainder is to be divided equally.

PROBLEM 15-2 Income Allocation and Capital Statements LO 6

Dave, Brian, and Paul are partners in a retail appliance store. The partnership was formed January 1, 2019, with each partner investing \$45,000. They agreed that profits and losses are to be shared as follows:

- Divided in the ratio of 40:30:30 if net income is not sufficient to cover salaries, bonus, and interest.
- A net loss is to be allocated equally.
- Net income is to be allocated as follows if net income is in excess of salaries, bonus, and interest.

(a) Monthly salary allowances are:

Dave	\$3,500
Brian	2,500
Paul	1,500

- (b) Brian is to receive a bonus of 8% of net income before subtracting salaries and interest, but after subtracting the bonus.

(c) Interest of 10% is allocated based on the beginning-of-year capital balances.

(d) Any remainder is to be allocated equally.

Operating performance and other capital transactions were as follows.

Year- End	Net Income (Loss)	Capital Transactions					
		Dave		Brian		Paul	
		Investment	Withdrawals	Investment	Withdrawals	Investment	Withdrawals
12/31/19	\$(5,400)	\$15,000	\$17,000	\$15,000	\$7,000	\$6,000	\$3,200
12/31/20	27,000	—0—	17,000	—0—	7,000	6,000	3,200
12/31/21	120,000	—0—	19,000	—0—	9,000	6,000	3,200

Required:

- A. Prepare a schedule of changes in partners' capital accounts for each of the three years.
- B. Prepare the journal entry to close the income summary account to the partners' capital accounts at the end of each year.

PROBLEM 15-3

Conversion from Cash to Accrual Basis LO 8

The partnership of Cain, Gallo, and Hamm engaged you to adjust its accounting records and convert them uniformly to the accrual basis in anticipation of admitting Kerns as a new partner. Some accounts are on the accrual basis and some are on the cash basis. The partnership's books were closed at December 31, 2019, by the bookkeeper, who prepared the general ledger trial balance that appears as follows:

**Cain, Gallo, and Hamm
General Ledger Trial Balance
December 31, 2014**

	Debit	Credit
Cash	\$ 15,000	
Accounts Receivable	40,000	
Inventory	30,000	
Land	9,000	
Buildings	50,000	
Allowance for Depreciation of Buildings		\$ 6,000
Equipment	56,000	
Allowance for Depreciation of Equipment		6,000
Goodwill	5,000	
Accounts Payable		56,000
Allowance for Future Inventory Losses		8,000
Cain, Capital		37,000
Gallo, Capital		60,000
Hamm, Capital		32,000
Totals	<u>\$205,000</u>	<u>\$205,000</u>

Your inquiries disclose the following:

1. The partnership was organized on January 1, 2018. No provision was made in the partnership agreement for the allocation of partnership profits and losses. During 2018, profits were allocated equally among the partners. The partnership agreement was amended, effective January 1, 2019, to provide for the following profit and loss ratio: Cain, 40%; Gallo, 40%; and Hamm, 20%. The amended partnership agreement also stated that the accounting records were to be maintained on the accrual basis and that any adjustments necessary for 2018 should be allocated according to the 2019 profit allocation agreement.

2. The following amounts were not recorded as prepayments or accruals.

	<i>December 31</i>	
	<u>2019</u>	<u>2018</u>
Prepaid insurance	\$700	\$ 800
Advances from customers	900	1,500
Accrued interest expense	—	450

The advances from customers were recorded as sales in the year the cash was received.

3. In 2019, the partnership recorded a provision of \$8,000 for anticipated declines in inventory prices. You convinced the partners that the provision was unnecessary and should be removed from the books.
4. The partnership charged equipment purchased for \$4,400 on January 1, 2019, to expense. This equipment has an estimated life of 10 years and an estimated salvage value of \$400. The partnership depreciates its capitalized equipment using the declining balance method at twice the straight-line depreciation rate.
5. The partners agreed to establish an allowance for doubtful accounts at 2% of current accounts receivable and 5% of past-due accounts. At December 31, 2018, the partnership had \$54,000 of accounts receivable, of which only \$4,000 was past due. At December 31, 2019, 20% of accounts receivable was past due, of which \$4,000 represented sales made in 2018 and was considered collectible. The partnership had written off uncollectible accounts in the year the accounts became worthless as follows:

	<i>Accounts Written Off In</i>	
	<u>2019</u>	<u>2018</u>
2019 accounts	\$ 800	—
2018 accounts	1,000	\$250

6. Goodwill was recorded on the books in 2019 and credited to the partners' capital accounts in the profit and loss ratio in recognition of an increase in the value of the business resulting from improved sales volume. The partners agreed to write off the goodwill before admitting the new partner.

Required:

Prepare a worksheet showing the adjustments and the adjusted trial balance for the partnership on the accrual basis at December 31, 2019. All adjustments affecting income should be made directly to partners' capital accounts. Supporting computations should be in good form. (Do not prepare formal financial statements or formal journal entries.)

(AICPA adapted)

PROBLEM 15-4 Partner Admission LO 8

Brown and Coss have been operating a tax accounting service as a partnership for five years. Their current capital balances are \$92,000 and \$88,000, respectively, and they share profits in a 60:40 ratio. Because of the growth in their tax business, they decide that they need a new partner. Moore is admitted to the partnership, after which the partners agree to share profits 40% to Brown, 35% to Coss, and 25% to Moore.

Required:

Prepare the necessary journal entries to admit Moore in each of the following independent conditions. If the information is such that both the bonus and goodwill methods are appropriate for internal purposes, record the admission using both methods.

1. Moore invests \$90,000 in cash and receives a one-third capital interest.
2. Moore invests \$120,000 cash for a 45% capital interest. Total capital after his admission is to be \$300,000.
3. Moore agrees to invest \$120,000 cash for a one-third capital interest, but will not accept a capital credit for less than his investment.
4. Moore invests \$40,000 cash for a one-fourth capital interest. The partners agree that assets and the firm as a whole should not be revalued.
5. Moore invests \$35,000 cash for a one-fifth capital interest. The partners agree that total capital after the admission of Moore should be \$225,000.
6. Moore invests land in the partnership as a site for a new office building. The land, which originally cost Moore \$90,000, now has a current market value of \$150,000. Moore is admitted with a one-third capital interest.
7. Moore is admitted to the partnership by purchasing a 30% capital interest from each partner. A payment of \$35,000 is made outside the partnership and is split between Brown and Coss.

PROBLEM 15-5 Adjusting Entries for Partner Admission LO 8

The CAB Partnership, although operating profitably, has had a cash flow problem. Unable to meet its current commitments, the firm borrowed \$34,000 from a bank giving a long-term note. During a recent meeting, the partners decided to obtain additional cash by admitting a new partner to the firm. They feel that the firm is an attractive investment, but that proper management of their liquid assets will be required. Meyers agrees to invest cash in the firm if her chief accountant can review the accounting records of the partnership.

The balance sheet for CAB Partnership as of December 31, 2019, is as follows:

<i>Assets</i>	
Cash	\$ 8,000
Accounts Receivable	33,600
Inventory (at cost)	35,750
Land	27,000
Building (net of depreciation)	41,600
Equipment (net of depreciation)	27,250
Total	<u>\$173,200</u>
<i>Liabilities and Capital</i>	
Accounts Payable	\$ 32,450
Other Current Liabilities	6,750
Long-Term Note (8% due 2013)	34,000
Cox, Capital	37,500
Andrews, Capital	25,000
Bennet, Capital	37,500
Total	<u>\$173,200</u>

The review of the accounts resulted in the accumulation of the following information:

1. Approximately 5% of the accounts receivable are uncollectible. The old partnership had been using the direct write-off method of accounting for bad debts.
2. Current replacement cost of the inventory is \$41,250.
3. The market value of the land based on a current appraisal is \$65,000.
4. The partners had been using an unreasonably long estimated life in establishing a depreciation policy for the building. On the basis of sound value (current replacement cost adjusted for use), the value of the building is \$32,750.
5. There are unrecorded accrued liabilities of \$3,275.

The partners agree to recognize the foregoing adjustments to the accounts. Cox, Andrews, and Bennet share profits 40:30:30. After the admission of Meyers, the new profit agreement is to be 30:20:30:20. Meyers is to receive a 25% capital interest in the partnership after she invests sufficient cash to increase the total capital interest to \$150,000. Because of the uncertainty of the business, no goodwill is to be recognized before or after Meyers is admitted.

Required:

- A. Prepare the necessary journal entries on the books of the old partnership to adjust the accounts.
- B. Record the admission of Meyers.
- C. Prepare a new balance sheet giving effect to the foregoing requirements.

PROBLEM 15-6 Adjusting Entries for Partner Withdrawal LO 8

The December 31, 2019, balance sheet of the Datamation Partnership is shown below.

**Datamation Partnership
Balance Sheet
December 31, 2019**

<i>Assets</i>	
Cash	\$ 80,000
Accounts Receivable	80,000
Inventory	62,000
Equipment	290,000
Total Assets	\$512,000
<i>Liabilities and Partners' Equity</i>	
Accounts Payable	\$ 60,000
Notes Payable to Dave, 8% dated September 1, 2019	22,000
Dave, Capital	220,000
Allen, Capital	110,000
Matt, Capital	100,000
Total Liabilities and Partners' Equity	\$512,000

Dave, Allen, and Matt share profits and losses in the ratio of 50:30:20. The inventory on December 31 has a fair value of \$68,000; accrued interest on the note payable to Dave is to be recognized as of December 31. The book values of all the other accounts are equal to their fair values. Allen withdrew from the partnership on December 31, 2019.

Required:

Prepare the journal entry or entries to record the withdrawal of Allen, given each of the following situations. Assume that the **bonus** method is used to account for the withdrawal.

1. Allen receives \$36,624 cash and a \$75,000 note from the partnership for his interest.
2. Matt purchases Allen's interest for \$110,000.
3. The partnership gives Allen \$35,000 cash and equipment with a book value and a fair value of \$90,000 for his interest.
4. The partnership gives Allen \$100,000 cash for his interest.
5. Allen sells one-fourth of his interest to Dave for \$40,000 and three-fourths to Matt for \$90,000.

PROBLEM 15-7 Partner Withdrawal and New Profit-Loss Ratio LO 6 LO 8

Neal, Palmer, and Ruppe are partners in a real estate company. Their respective capital balances and profit-sharing ratios are as follows:

<i>As of December 31, 2019</i>		
<i>Partners</i>	<i>Capital Balance</i>	<i>Profit-Sharing Ratio</i>
Neal	\$250,000	4
Palmer	150,000	3
Ruppe	100,000	3

Neal wishes to withdraw from the partnership on January 1, 2020, Palmer and Ruppe have agreed to pay Neal \$300,000 from the partnership assets for his 50% capital interest. This settlement price was based on such factors as capital investments, sales performance, and earning capacity.

Palmer and Ruppe must decide whether to use the bonus method or the goodwill method (recognize total goodwill implied by the payment) to record the withdrawal, and they wish to compare the results of using the two methods.

Required:

Prepare a comparison of capital balances using the bonus and goodwill methods (and writing off goodwill implied due to subsequent impairment), assuming that

1. The new profit and loss ratio is in the same relative ratio as that existing before Neal's withdrawal.
2. The profit and loss ratio is changed to 3:2. Palmer is particularly interested in these results, because he feels that his present contribution of time and capital is better reflected by this new profit and loss ratio.

PROBLEM 15-8 Comprehensive Partnership Problem LO 5 LO 6 LO 8

COMPREHENSIVE

Brian Snow and Wendy Waite formed a partnership on July 1, 2018 Brian invested \$20,000 cash, inventory valued at \$15,000, and equipment valued at \$67,000. Wendy invested \$50,000 cash and land valued at \$120,000. The partnership assumed the \$40,000 mortgage on the land.

On June 30, 2019, the partnership reported a net loss of \$24,000. The partnership contract specified that income and losses were to be allocated by allowing 10% interest on the original capital investment, salaries of \$15,000 to Brian and \$20,000 to Wendy, and the remainder to be divided in the ratio of 40:60.

On July 1, 2019, Alan Young was admitted into the partnership with a \$70,000 cash investment. Alan was given a 30% interest in the partnership because of his special skills. The partners elect to use the bonus method to record the admission. Any bonus should be divided in the old ratio of 40:60.

On June 30, 2020, the partnership reported a net income of \$150,000. The new partnership contract stipulated that income and losses were to be divided in a fixed ratio of 20:50:30.

On July 2, 2020, Brian withdrew from the partnership for personal reasons. Brian was given \$40,000 cash and a \$60,000 note for his capital interest.

Required:

Prepare journal entries for each of the following events. Show computations.

1. Formation of the partnership.
2. Distribution of the net loss for the first year.
3. Admission of Alan into the partnership.
4. Distribution of the net income for the second year.
5. Withdrawal of Brian from the partnership.

PROBLEM 15-9 Partner Admission Where New Partner Brings a Business LO 10

Partner C buys a 60% interest from the partnership by bringing her business to combine with that of AB. Partners A and B share profits in a 3:1 ratio.

	<i>Partnership AB</i>		<i>Entering Partner C's Business</i>	
	<i>Book Value</i>	<i>Fair Value</i>	<i>Book Value</i>	<i>Fair Value</i>
Cash	15,000	15,000	50,000	50,000
Accounts Receivable	20,000	20,000	100,000	100,000
PPE	158,000	178,000	180,000	200,000
Accounts Payable	(13,000)	(13,000)	(30,000)	(30,000)
Capital A	(45,000)			
Capital B	(135,000)			
Capital C			(300,000)	
Net Asset Value	180,000	200,000	300,000	320,000
Fair Value of Entering Business				320,000

Required:

- A. Does this admission qualify as a business combination under GAAP?
- B. Determine which business is to be identified as the acquirer and which as the acquiree. Calculate the goodwill, if any, to be recorded on the books of the combined entity.
- C. Prepare journal entries to record the entering business on the books of AB, including the adjustments to the capital accounts of all 3 partners, if needed.

PARTNERSHIP LIQUIDATION

CHAPTER CONTENTS

- 16.1 STEPS IN THE LIQUIDATION PROCESS
- 16.2 PRIORITIES OF PARTNERSHIP AND PERSONAL CREDITORS
- 16.3 SIMPLE LIQUIDATION ILLUSTRATED
- 16.4 INSTALLMENT LIQUIDATION
- 16.5 INCORPORATION OF A PARTNERSHIP

LEARNING OBJECTIVES

- 1 Describe the steps used to distribute available partnership assets in liquidation under the Uniform Partnership Act (UPA).
- 2 List the order of priority for each class of creditors in partnership liquidation under the UPA.
- 3 Prepare a liquidation schedule to settle debts and allocate assets.
- 4 Prepare a “safe payment approach” liquidation schedule.
- 5 Describe the four steps in the preparation of an advance plan for the distribution of cash in a partnership liquidation.
- 6 Prepare the journal entries to incorporate a partnership.

IN THE NEWS

“While the IRS has long had authority to audit partnerships, until the Bipartisan Budget Act of 2015 was enacted, it could only assess and collect tax from partners individually. The new rules, when fully implemented and applicable to all partnerships for audits of tax years beginning on or after January 1, 2018, will allow the IRS to assess and collect tax from the partnership itself.”¹

“Long before your business partnership is dissolved, the handling of the breakup or transfer of ownership should be planned. Astonishingly, 80% of new businesses fail to spell out the mechanism for a divorce. Why? The very idea introduces a seed of suspicion into an otherwise happy union.”²

In the preceding chapter, dissolution of a partnership in which the business affairs were continued without interruption was discussed. In this chapter, we will consider dissolutions in which the partnership is terminated. The phase of partnership operations that begins after dissolution and ends with the termination of partnership activities is referred to as “winding up the affairs.” During this period the partnership’s unfinished business is completed, some of the firm’s noncash assets may be converted

¹ *Journal of Accountancy*, “State Issues with the New Federal Partnership Audits,” by Eileen Sherr and Steven Wlodychak, March 2017.

² *Forbes*, “Planning for Divorce,” by Leigh Gallagher, 3/22/99, pp. 94–95.

into cash (realization), liabilities are settled to the extent possible, and any remaining assets are distributed to the partners in settlement of their residual interest. These events may occur over a relatively short period of time (for example, there may be a lump-sum sale of the assets, and the liabilities may be assumed by the purchaser or discharged with the cash received), or over a period of several years if the assets are sold individually as the business affairs are gradually terminated.

In the first part of this chapter, we will assume that all noncash assets are converted into cash before any assets are distributed to creditors and partners; this procedure is referred to as a *simple liquidation*. In the second part of the chapter, we assume instead that noncash assets are sold in installments and cash is distributed to the various equity interests as it becomes available.

During the liquidation process, the accountant can provide service to the partners in a number of areas. He or she may assist in preparing financial statements and providing guidance to the partners to ensure that the liquidation proceeds in accordance with legal requirements and the partnership agreement. Much of the accounting for partnership liquidations depends on interpretation of the partnership agreement and the legal provisions governing partnership liquidation. The accountant needs to be familiar with pertinent statutory provisions, which may include the UPA and federal and state bankruptcy laws. In addition, for the protection of all parties concerned, it is advisable to seek legal counsel.

16.1 STEPS IN THE LIQUIDATION PROCESS

LO 1 Steps in the liquidation process.

The first step in the liquidation process is to compute any net income or loss up to the date of dissolution. The closing process should be completed and, as part of it, any net income or loss should be allocated to the partners in accordance with their profit and loss agreement.

In the next step of the liquidation process, assets that are not acceptable for distribution in their present form are converted into cash. If the sales price of an asset is greater than (less than) the recorded book value, there is a gain (loss) from the sale. Procedurally, gains and losses on the realization of assets may be collected in one account and then closed to the capital accounts of the individual partners. The allocation of realization gains or losses should be based on the residual profit and loss ratio, unless specific provisions for such allocation are made in the partnership agreement.³ The rationale for this procedure is that since the changes in asset values are the result of risk assumed by the partnership, the gain or loss should be shared in the agreed profit and loss ratio. In addition, it may be difficult to separate gains and losses that result from liquidation from the under- or overstatement of book values that results from accounting policies followed in prior years. For example, a gain on the sale of an item of equipment could reflect the fact that the firm had used a conservative depreciation policy and recorded excessive depreciation in prior years. Other adjustments could result from the failure to recognize changes in market values in the appropriate year. Furthermore, any agreement as to interest and salaries in the income allocation formula is ignored when allocating realization gains and losses. The use of the

³ Section 18 of the UPA provides a list of rights and duties of partners, “subject to any agreement between them.” Section 18(a) provides that “each partner must contribute toward the losses, whether of capital or otherwise, sustained by the partnership according to his share in the profits.”

residual ratio is justified, since interest and salaries are income allocations for time and resources devoted to the normal operating activities of a going concern and are not directly associated with changes in fair values of assets.

The last step is to distribute the available assets to creditors and partners. Section 40(b) of the Uniform Partnership Act (UPA) provides that

The liabilities of the partnership shall rank in order of payment, as follows:

- (I) Liabilities to creditors other than partners,
- (II) Liabilities to partners other than for capital and profits (such as loans),
- (III) Liabilities to partners in respect of capital,
- (IV) Liabilities to partners in respect of profits.

According to this ranking, firm creditors are the first to be paid from partnership assets. In determining the rights of various creditors to payment, liabilities are classified as those that are secured, partially secured, and unsecured, with some unsecured having priority. Bankruptcy laws dictate which of the partnership creditors are to be paid as cash becomes available. However, since this decision would have no impact on the total unpaid claims of the partnership, we will view the pool of creditors as if it were one unsecured obligation and will treat any cash payment as a reduction in total liabilities.

The UPA then provides for an order of payment that ranks partnership obligations to a partner ahead of asset distribution to a partner for capital investment. However, if a partner has a debit capital balance and has lent money to the partnership, it is legally permissible to offset the loan balance against the debit capital balance. The courts have recognized that this “right of offset” is necessary in order to avoid the potential inequity of distributing cash to a partner to satisfy an outstanding loan balance when the partner has either a debit capital balance, or potential for a debit capital balance. A debit capital balance is considered an asset of the partnership.⁴ If the partner is unable to honor this obligation to the partnership by contributing additional assets, and for some reason cannot be forced to do so, the debit capital balance is allocated as a realization loss to the remaining partners in their relative profit and loss ratio. The residual claims of the remaining partners are reduced, as is the amount of cash they will receive.

Items III and IV are generally combined into one balance because of the practical problem of separating them. In other words, after several years of operation, a partner’s capital investments, withdrawals, and income and loss elements may become combined into one balance and difficult to separate if the income summary account is closed to the capital accounts of each partner. In settling a partner’s claim against the partnership, the partners may agree to the distribution of noncash assets. If so, the carrying value of the asset should be adjusted to fair value and the amount of the adjustment allocated to all the partners in accordance with the partnership agreement. The fair value of the distributed asset is then charged against the proper capital account.

IN
THE
NEWS

“If a farm family partnership is not salvageable,

the best procedure may be to negotiate a business ‘divorce’ as quickly as possible. Dissolution will require a mediator or attorney and, unfortunately, it won’t be cheap. Competent lawyers and mediators cost money. Still the family members’ desire to save on professional fees shouldn’t lock them into a waltz toward inevitable financial and emotional ruin.”⁵

⁴ Section 40(a) of the UPA defines the assets of a partnership as including not only the partnership property, but also the contributions of partners necessary for the payment of all liabilities specified in section 40(b). Section 40(b) specifies that amounts owing to creditors and to partners for loans, capital, and profits are liabilities of a partnership.

⁵ *Successful Farming*, Iowa edition, “Can Their Problem Be Solved?” by Donald Jonovic, May/June 1997, p. 65, copyright Meredith Corporation.

16.2 PRIORITIES OF PARTNERSHIP AND PERSONAL CREDITORS

LO 2 Order of priority for each class of creditors.

The UPA (Section 15) provides that partners are jointly liable for all contracts and other obligations of the partnership. This means that creditors of a partnership that are not paid in full from distribution of partnership assets must bring legal action against all the partners together to enforce their unsettled claims. Partners are jointly and severally liable for obligations that arise out of a tort and breach of trust committed by a partner while acting within the scope of the partnership business. **Joint and several** means that legal action may be brought against all the partners together or against any one or more of the partners in separate suits. A number of states have enacted legislation eliminating the distinction, and in those jurisdictions both contract and tort actions are joint and several. This latter approach, which permits suits against all (joint) or less than all (several) of the partners, is followed in this chapter. Conversely, personal creditors of an individual partner can seek recovery of payment from personal assets of the respective partner, and under certain conditions from partnership assets. Recognition of the rights of these two groups of creditors and the classification of assets into personal and partnership categories is referred to as **marshaling of assets**. The order of priority concerning the availability of assets for each class of creditors in states that have adopted the UPA is as follows:

- A. Partnership assets
 1. Partnership creditors.
 2. Personal creditors that did not recover their claims in full from personal assets. Recovery from partnership assets is limited to the extent that the partner has a credit interest in the partnership assets.
- B. Personal assets
 1. Personal creditors.
 2. Partnership creditors who were not satisfied from partnership assets. Such claims may be made against an individual partner regardless of whether the partner has a debit or credit equity interest in the partnership.
 3. Claims of the partnership against the partner by nature of a deficit equity interest.

Because of the foregoing rules, the reader should recognize the importance of properly recording all partnership assets, liabilities, and capital interest of each partner.

To illustrate the marshaling of assets rules, assume that ABCD Partnership reports the following balance sheet after the sale of all noncash assets:

<i>Debits</i>		<i>Credits</i>	
Cash	\$ 50,000	Liabilities	\$ 75,000
Bill Baker, Capital	15,000	Alice Amos, Capital	15,000
Carol Carter, Capital	35,000	Don Davis, Capital	10,000
Total	\$100,000		\$100,000

The partners share profits and losses equally. The personal and partnership status of each partner is as follows:

Partner	Personal			Partnership
	Assets	Liabilities	Assets Greater Than (Less Than) Liabilities	Capital Balance (Cr.) Dr.
Alice Amos	\$20,000	\$50,000	\$(30,000)	\$(15,000)
Bill Baker	33,000	30,000	3,000	15,000
Carol Carter	90,000	40,000	50,000	35,000
Don Davis	40,000	10,000	30,000	(10,000)

The personal assets of each partner must be applied to the settlement of his or her personal liabilities before personal assets can be used to satisfy any partnership claims. Thus, the maximum amount that the partnership creditors and other partners could recover from the personal assets is \$83,000 (\$3,000 + \$50,000 + \$30,000). Because the personal liabilities of Amos exceed her personal assets, partnership claims cannot be enforced against her personal assets even though she has a credit interest in the partnership. However, her unsettled personal creditors in the amount of \$30,000 can look for full or partial settlement of their claims from final distribution of partnership assets in settlement of her capital interest. At this time, the partnership has a claim of \$15,000 and \$35,000 against Baker and Carter, respectively. Baker, however, will have only \$3,000 left for investment in the partnership to reduce his capital deficit. Carter has sufficient personal assets to satisfy her personal liabilities and invest in the partnership to cover her share of partnership losses. Davis is personally solvent and has a credit capital interest in the partnership.

The liquidation of the partnership is summarized in Illustration 16-1. Although formal journal entries are not shown, they would be recorded in a journal in accordance with the tabular arrangement summarized in the liquidation schedule. The steps in the liquidation process may proceed in any order as long as the rights of the partners, partnership creditors, and personal creditors are recognized. In this example, the following sequence of events occurs.

ILLUSTRATION 16-1

Marshaling of Assets

	Schedule of Partnership Liquidation					
	Cash	Liabilities	Capital and Loan Balances			
Amos 1/4			Baker 1/4	Carter 1/4	Davis 1/4	
Balance before cash distributions	50,000	(75,000)*	(15,000)	15,000	35,000	(10,000)
Investment by Baker	3,000			(3,000)		
	53,000	(75,000)	(15,000)	12,000	35,000	(10,000)
Allocation of Baker's deficit			4,000	(12,000)	4,000	4,000
	53,000	(75,000)	(11,000)	—0—	39,000	(6,000)
Payment to creditors	(53,000)	53,000				
	—0—	(22,000)	(11,000)	—0—	39,000	(6,000)
Investment by Carter	39,000				(39,000)	
	39,000	(22,000)	(11,000)	—0—	—0—	(6,000)
Payment to creditors	(22,000)	22,000				
	17,000	—0—	(11,000)	—0—	—0—	(6,000)
Payment to partners	(17,000)		11,000			6,000
	—0—	—0—	—0—	—0—	—0—	—0—

* In this chapter, () means that an account has a credit balance or a credit posted to an account.

1. Baker invests \$3,000 in the partnership and his remaining deficit of \$12,000 is a liquidation loss that is allocated to the remaining partners in their relative profit and loss ratio, one-third each. (Note that because Carter has sufficient assets to cover her share of additional losses, \$4,000 loss is allocated to her, even though she currently has a deficit capital balance.)
2. Cash of \$53,000 is distributed to the creditors.
3. The partnership creditors obtain judgment against Carter. (The creditors could have proceeded to recover their claims from any solvent partner individually, including Davis, who has a credit capital interest, or from the partners jointly.) Since Carter has a personal net asset position of \$50,000, she will invest an additional \$39,000 in the partnership, \$22,000 of which will go to partnership creditors and \$17,000 to the other partners.
4. The cash is distributed first to liquidate partnership liabilities and then to satisfy partner's capital interests.

Observe that the cash distribution to partners is based on their capital balances, not their profit and loss ratio. The unpaid personal creditors of Amos have a claim against her \$11,000 partnership distribution.

If, in the illustration above, Carter was able to invest only \$20,000 from her personal assets and Davis as well as Amos are personally insolvent, then the creditors and partners Amos and Davis would have unrecoverable losses of \$19,000 as shown next.

	<i>Cash</i>	<i>Liabilities</i>	<i>Amos</i>	<i>Baker</i>	<i>Carter</i>	<i>Davis</i>
From Illustration 16-1	—0—	(22,000)	(11,000)	—0—	39,000	(6,000)
Investment by Carter	20,000				(20,000)	
Payment to creditors	<u>(20,000)</u>	<u>20,000</u>				
	<u>—0—</u>	<u>(2,000)</u>	<u>(11,000)</u>	<u>—0—</u>	<u>19,000</u>	<u>(6,000)</u>

16.3 SIMPLE LIQUIDATION ILLUSTRATED

LO 3 Preparing a liquidation schedule.

In a simple liquidation, all of a partnership's noncash assets are converted into cash and the resulting gain or loss allocated before any distribution is made to the creditors and to the partners. To illustrate the accounting for a simple liquidation, assume that the condensed balance sheet of ABC Partnership that follows was prepared just before the liquidation:

<i>Assets, Liabilities, and Capital</i>			
Cash	\$ 20,000	Liabilities	\$ 70,000
Noncash Assets	180,000	Carter, Loan	10,000
		Alice Amos, Capital (50%)	80,000
		Bill Baker, Capital (30%)	30,000
		Carol Carter, Capital (20%)	<u>10,000</u>
Total	<u>\$200,000</u>	Total	<u>\$200,000</u>

TEST YOUR KNOWLEDGE 16.1

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

The trial balance for the ABC Partnership before bankruptcy is as follows:

<u>Cash</u>	<u>Noncash Assets</u>	<u>Liabilities</u>
\$20,000	\$200,000	\$30,000
<u>A Capital</u>	<u>B Capital</u>	<u>C Capital</u>
\$100,000	\$60,000	\$30,000

The partners share profits and losses in the ratio 40:40:20.

1. If the noncash assets are sold for \$100,000 cash, determine the amount of cash, if any, that partner A will receive upon liquidation.
2. If the noncash assets are sold for \$50,000 cash and assuming that partners with a deficit balance cannot contribute additional assets, determine the amount of cash, if any, that partner A will receive upon liquidation.

16.4 INSTALLMENT LIQUIDATION

Instead of the immediate conversion of noncash partnership assets to cash under a simple liquidation, it is sometimes advantageous for a partnership to extend the conversion over several months. For example, in certain types of businesses, such as land development, more cash may be generated if a company completes construction projects it has started. In other situations, the partnership may receive a greater cash price for the noncash assets if they are not sold at a forced liquidation. If the liquidation extends over a period of time, the partners will probably prefer that cash be distributed as it becomes available. If partners are to receive cash in installments before the total liquidation losses and the total cash available are known, safeguards must be taken to protect the interests of the creditors and the respective interest of each partner. In addition, the individual in charge of the liquidation must use safeguards to avoid potential liability for wrongful distributions. The remainder of this chapter focuses on the problems associated with a liquidation in installments and the general rules governing such liquidations. Once again, many of the procedures followed are necessary to satisfy legal requirements and to protect the person in charge of the liquidation and the residual partners' interests.

Safe Payment Approach

In computing how cash is to be distributed to the partners before all assets are disposed of, care must be taken to ensure that the partners' remaining capital balances will be adequate to absorb any potential loss. However, at this point, the amount of cash to be generated from the sale of noncash assets and the resulting gain or loss is not known. Therefore, the partners should view each cash distribution as if it were the final distribution.

One approach used to calculate a safe cash distribution is based on three assumptions:

1. A loan to or from an individual partner will be combined with the respective partner's capital account to determine his or her net interest in the partnership assets.
2. The remaining noncash assets will not provide any additional cash. In other words, the maximum potential loss is equal to the book value of noncash assets. (This assumption will be modified later in the chapter.)

3. A partner with a debit balance in his or her capital account will be unable to pay amounts owed to the partnership (that is, each partner is personally insolvent).

LO 4 Safe payment approach.

The result of applying these assumptions is that cash will not be distributed to a partner whose capital account balance (including loan balance and drawing account) is insufficient to absorb his or her share of potential losses either from the write-off of assets or from the failure of a deficit partner to cover a debit capital balance. Of course, no partner should receive cash until the liabilities have been liquidated or provided for through the retention of adequate cash.

Computation of Safe Payment before Each Distribution To illustrate the safe payment approach when a partnership is liquidated in installments, assume that the following condensed balance sheet was prepared before the partners' agreement to liquidate the partnership.

Cash	\$ 10,000	Liabilities	\$ 28,000
Noncash Assets	100,000	Alice Amos, Capital (30%)	34,000
		Bill Baker, Capital (50%)	30,000
		Carol Carter, Capital (20%)	<u>18,000</u>
Total	<u>\$110,000</u>	Total	<u>\$110,000</u>

The partners' income- and loss-sharing percentages are stated in parentheses. The noncash assets were converted into cash over a period of time as follows:

	<i>Sales Price</i>	<i>Book Value</i>	<i>(Loss)</i>
Sale No. 1	\$20,000	\$30,000	(10,000)
Sale No. 2	15,000	25,000	(10,000)
Sale No. 3	10,000	30,000	(20,000)
Sale No. 4	2,000	10,000	(8,000)
Sale No. 5	—0—	5,000	(5,000)

The realization of the partnership assets and liquidation of the partnership are summarized in Illustration 16-3. A safe payment schedule is prepared *each time cash is to be distributed*. After the first sale of assets and all creditors have been paid, \$2,000 cash remains to be distributed to partners. Schedule I in Illustration 16-3 demonstrates how the \$2,000 will be distributed. In this case, the assumption that the remaining noncash assets of \$70,000 are worthless results in a debit balance in Baker's capital account. Another assumption is that all partners are personally insolvent. Therefore, the hypothetical deficit is allocated to the remaining partners with credit balances on the basis of their relative profit and loss ratio: 3/5 to Amos, 2/5 to Carter. This allocation results in a hypothetical debit balance in Carter's capital account, which is assigned to Amos. Thus, if \$2,000 is paid to Amos, this will leave her with a capital balance sufficient to absorb her share of the potential remaining losses. Amos will not be required to make an additional investment in the partnership unless significant amounts of unrecorded liabilities are discovered or significant amounts of liquidation expenses are incurred. But if it became necessary for Amos to make an additional investment, the other two partners would also be required to do so.

After the second sale of assets, \$15,000 cash is available for distribution. The allocation of the \$15,000 is shown in schedule II of Illustration 16-3. Note that, if the fair value of the remaining assets is zero, Baker's capital balance of \$20,000 would be inadequate to absorb his share of the losses, which would be \$22,500 ($\$45,000 \times .50$). Accordingly, at this time, Baker does not receive any of the cash to be distributed,

since he could end up with a debit capital balance. After the third cash distribution, the partners' capital balances are in their profit and loss ratio of 3:5:2. Once their capital interests are in accordance with the profit and loss ratio, any subsequent distribution of assets will be based on the profit and loss ratio. Note that each partner's capital account is now sufficient to absorb the final potential loss of \$5,000.

A safe payment schedule is prepared to compute the amount of cash to be distributed and to determine which partner(s) will receive cash. The series of computations is not recorded in the accounts, since they are based upon certain assumed events that have not yet occurred. Only the actual transactions as they occur, such as the sale of assets and distribution of cash, are recorded in the accounts.

Additional Losses, Discovery of Liabilities, and Liquidation Expense Up to this point in this chapter, all available cash was distributed to (1) the partnership's creditors who were recorded on the partnership books or (2) the partners. In the calculation of a safe payment, it was assumed that the potential loss was equal to the book value of the remaining noncash assets. In addition, no liquidation expenses were incurred. As the liquidation proceeds, some liabilities that had not been recorded previously may be reported. These creditors have claims that must be satisfied from the available cash before payments are made to partners for their capital interest.

Certain expenses, such as the reasonable cost of carrying out the liquidation, have priority over payments to creditors. Furthermore, the disposal cost of assets may exceed the proceeds from the sale of the assets so that the resulting loss is greater than the assets' recorded book value. Such items can be considered in the safe payment schedule by adding the estimated liquidation expenses, disposal cost, and unrecorded liabilities to the book value of noncash assets. To illustrate, assume the facts presented in Illustration 16-3 except that it is estimated that added expenses of \$1,000 will be incurred in completing the liquidation. The safe payment calculation for the first cash distribution would be modified as follows:

	<i>Amos</i>	<i>Baker</i>	<i>Carter</i>
Capital and loan balances	(31,000)	(25,000)	(16,000)
Allocation of potential losses (\$70,000 + \$1,000)	<u>21,300</u>	<u>35,500</u>	<u>14,200</u>
Balances	(9,700)	10,500	(1,800)
Allocation of Baker's potential deficit	<u>6,300</u>	<u>(10,500)</u>	<u>4,200</u>
Balances	(3,400)	—0—	2,400
Allocation of Carter's potential deficit	<u>2,400</u>	—	<u>(2,400)</u>
Safe payment	<u>(1,000)</u>	<u>—0—</u>	<u>—0—</u>

As can be seen, the effect of the adjustment is to hold back cash equal to the estimated expenses, which results in a corresponding reduction in the cash distributed to Amos.

Advance Plan for the Distribution of Cash

LO 5 Four steps in an advance plan.

In the preceding illustration, a safe payment to each partner was calculated before each cash distribution. This process was necessary until the capital accounts were in the profit-and-loss-sharing ratio. Although this method is feasible, it is more informative and efficient to prepare an advance schedule that specifies the order in which each partner will participate and the amount of cash each partner will receive as it becomes available for distribution. For example, from such a schedule, the personal creditors of an insolvent partner would be able to compute how much cash would have to be generated from the sale of the partnership assets before any cash is distributed to the insolvent partner.

ILLUSTRATION 16-3**Schedule of Partnership Realization and Liquidation****Installment Liquidation**

	<i>Cash</i>	<i>Other Assets</i>	<i>Liabilities</i>	<i>Capital and Loan Balances</i>		
				<i>Amos .3</i>	<i>Baker .5</i>	<i>Carter .2</i>
Balance before realization	10,000	100,000	(28,000)	(34,000)	(30,000)	(18,000)
Sale of assets	<u>20,000</u>	<u>(30,000)</u>		<u>3,000</u>	<u>5,000</u>	<u>2,000</u>
	30,000	70,000	(28,000)	(31,000)	(25,000)	(16,000)
Payment to creditors	<u>(28,000)</u>		<u>28,000</u>			
	2,000	70,000	—0—	(31,000)	(25,000)	(16,000)
Payment to partners						
Safe payment Schedule I (below)	<u>(2,000)</u>			<u>2,000</u>		
	—0—	70,000	—0—	(29,000)	(25,000)	(16,000)
Sale of assets	<u>15,000</u>	<u>(25,000)</u>		<u>3,000</u>	<u>5,000</u>	<u>2,000</u>
	15,000	45,000	—0—	(26,000)	(20,000)	(14,000)
Payment to partners						
Safe payment Schedule II (below)	<u>(15,000)</u>			<u>11,000</u>		<u>4,000</u>
	—0—	45,000	—0—	(15,000)	(20,000)	(10,000)
Sale of assets	<u>10,000</u>	<u>(30,000)</u>		<u>6,000</u>	<u>10,000</u>	<u>4,000</u>
	10,000	15,000	—0—	(9,000)	(10,000)	(6,000)
Payment to partners						
Safe payment Schedule III (below)	<u>(10,000)</u>			<u>4,500</u>	<u>2,500</u>	<u>3,000</u>
	—0—	15,000	—0—	(4,500)	(7,500)	(3,000)
Sale of assets	<u>2,000</u>	<u>(10,000)</u>		<u>2,400</u>	<u>4,000</u>	<u>1,600</u>
	2,000	5,000	—0—	(2,100)	(3,500)	(1,400)
Payment to partners	<u>(2,000)</u>			<u>600</u>	<u>1,000</u>	<u>400</u>
	—0—	5,000	—0—	(1,500)	(2,500)	(1,000)
Write-off of assets		<u>(5,000)</u>		<u>1,500</u>	<u>2,500</u>	<u>1,000</u>
	—0—	—0—	—0—	—0—	—0—	—0—

Schedule I**Computation of Safe Payments**

	<i>Amos .3</i>	<i>Baker .5</i>	<i>Carter .2</i>
Capital and loan balances	(31,000)	(25,000)	(16,000)
Allocation of potential loss—\$70,000	<u>21,000</u>	<u>35,000</u>	<u>14,000</u>
	(10,000)	10,000	(2,000)
Allocation of Baker's potential deficit	<u>6,000</u>	<u>(10,000)</u>	<u>4,000</u>
	(4,000)	—0—	2,000
Allocation of Carter's potential deficit	<u>2,000</u>		<u>(2,000)</u>
Safe payment	<u>(2,000)</u>	<u>—0—</u>	<u>—0—</u>

Schedule II**Computation of Safe Payments**

	<i>Amos .3</i>	<i>Baker .5</i>	<i>Carter .2</i>
Capital and loan balances	(26,000)	(20,000)	(14,000)
Allocation of potential loss—\$45,000	<u>13,500</u>	<u>22,500</u>	<u>9,000</u>
	(12,500)	2,500	(5,000)
Allocation of Baker's potential deficit	<u>1,500</u>	<u>(2,500)</u>	<u>1,000</u>
Safe payment	<u>(11,000)</u>	<u>—0—</u>	<u>(4,000)</u>

Schedule III**Computation of Safe Payments**

	<i>Amos .3</i>	<i>Baker .5</i>	<i>Carter .2</i>
Capital and loan balances	(9,000)	(10,000)	(6,000)
Allocation of potential loss—\$15,000	<u>4,500</u>	<u>7,500</u>	<u>3,000</u>
Safe payment	<u>(4,500)</u>	<u>(2,500)</u>	<u>(3,000)</u>

To illustrate the procedures for the preparation of an advance cash distribution plan, assume the set of facts employed in Illustration 16-3. The objective of the procedure is to derive the order and the amount of cash that should be distributed to each partner such that no partner receiving a cash distribution will have to make an additional investment in the firm. Such a distribution plan will bring the balances of the partners' capital accounts into their profit and loss ratio as soon as possible. The rationale for this procedure is that once the capital balances are in the profit and loss ratio, no one partner is in any better position than any other partner to absorb losses.

Steps in the development of an advance cash distribution plan are presented in Illustration 16-4 and explained below.

ILLUSTRATION 16-4**Preparation of an Advance Plan for the Distribution of Cash**

<i>Step 1</i>						
	<i>Amos</i>	<i>Baker</i>	<i>Carter</i>			
Capital balances	\$ 34,000	\$ 30,000	\$18,000			
Loan balances	—	—	—			
Net capital interest	<u>\$ 34,000</u>	<u>\$ 30,000</u>	<u>\$18,000</u>			
Profit and loss ratio	.30	.50	.20			
<i>Step 2</i>						
Loss necessary to reduce net capital balance to zero	\$113,333	\$ 60,000	\$90,000			
Order of cash distribution	1	3	2			
<i>Step 3</i>						
	<i>Loss Absorption Potential</i>			<i>Asset Distribution</i>		
	<i>Amos</i>	<i>Baker</i>	<i>Carter</i>	<i>Amos</i>	<i>Baker</i>	<i>Carter</i>
Profit and loss ratio	.30	.50	.20	.30	.50	.20
Loss absorption potential	\$113,333	\$60,000	\$90,000			
Net capital interest				\$34,000	\$30,000	18,000
Distribution to Amos to reduce her capital interest so that her loss absorption potential is the same as Carter's ($\$113,333 - \$90,000 = \$23,333$) \times .30	23,333			7,000		
Balances after distribution to Amos	90,000	60,000	90,000	27,000	30,000	18,000
Distribution to Amos and Carter to reduce their capital interest so that their loss absorption potential is the same as Baker's ($\$90,000 - \$60,000 = \$30,000$) \times .30 ($\$90,000 - \$60,000 = \$30,000$) \times .20	30,000		30,000	9,000		6,000
Balances after distribution to Amos and Carter	<u>60,000</u>	<u>60,000</u>	<u>60,000</u>	<u>18,000</u>	<u>30,000</u>	<u>12,000</u>
Remainder of asset distributions				.30	.50	.20
<i>Step 4</i>						
<i>Cash Distribution Plan</i>						
<i>Order of Cash Distribution</i>	<i>Liabilities</i>	<i>Amos</i> .3	<i>Baker</i> .5	<i>Carter</i> .2		
1. First \$28,000	100%					
2. Next \$7,000		100%				
3. Next \$15,000		60%		40%		
4. Remainder		30%	50%	20%		

Step 1 Determine the net capital interest of each partner by combining the balance in the partner's capital account with obligations to or receivables from the partner.

	<i>Amos</i>	<i>Baker</i>	<i>Carter</i>
Capital balance	\$34,000	\$30,000	\$18,000
Loan balance	<u>—0—</u>	<u>—0—</u>	<u>—0—</u>
Net capital interest	<u>\$34,000</u>	<u>\$30,000</u>	<u>\$18,000</u>

Step 2 Determine the order in which the partners are to participate in cash distributions. The objective of this step is to provide an order of cash distribution in which the ratio of the partners' capital interest will eventually be equal to their profit and loss ratio. Once this is accomplished, all partners will have an equal ability to absorb their share of partnership losses. Several approaches can be used to accomplish this objective. One systematic approach is to determine the loss absorption potential of each partner by dividing the net capital interest of each partner by his or her respective profit and loss ratio.

	<i>Amos</i>	<i>Baker</i>	<i>Carter</i>
Net capital interest	\$ 34,000	\$30,000	\$18,000
Profit and loss ratio	.30	.50	.20
Loss absorption potential	\$113,333	\$60,000	\$90,000
Order of cash distribution	1	3	2

This computation determines the maximum amount of loss each partner is capable of absorbing and provides a basis for ranking the partners in terms of each partner's capital interest relative to his or her loss ratio. The partner with the largest loss absorption potential has the ability to absorb a greater share of losses before his or her capital account would be reduced to a zero balance. Thus, Amos will receive the first distribution of assets after the creditors' claims have been satisfied. The partner with the lowest loss absorption potential (Baker) will be the last partner to participate in the distribution of assets from the partnership.

Step 3 In Step 2, the order in which each partner is to participate in cash distributions was determined. The next step is to compute the amount of cash each partner is to receive as it becomes available for distribution. The objective is to determine the **amount** of cash to distribute to each partner to bring the ratios of their capital interests in the partnership into alignment with their profit and loss ratios. One way to do this is to consider the loss absorption potential computed in Step 2. It was determined in Step 2 that Amos is in the strongest position relative to the other partners and is to receive the first cash distribution. Amos is capable of absorbing her share of \$113,333 in losses, which is \$23,333 greater than the loss potential of Carter (\$113,333 – \$90,000), who is the next partner to participate in cash distributions. However, Amos must absorb only 30% or \$7,000 ($\$23,333 \times .30$) of such potential losses. Thus, a payment to Amos of \$7,000 reduces her loss absorption potential to Carter's (the next closest loss potential) level ($\$34,000 - \$7,000 = \$27,000 / .30 = \$90,000$). Amos and Carter now have the same absorption potential for future losses. Also, note that a payment of \$7,000 to Amos brings her capital interest into a ratio of 3:2 to that of Carter (\$27,000:\$18,000), which is the same as their relative profit and loss ratio.

The next step in the process is to bring the loss absorption potential of Amos and Carter into balance with that of Baker, who is the last partner to participate in the

distribution of cash. Using the same rationale, Amos and Carter are now capable of absorbing losses of \$30,000 (\$90,000 – \$60,000) greater than Baker. Since they must absorb 30% and 20% of the losses, respectively, the distribution to each partner is computed as follows:

$$\text{To Amos: } \$30,000 \times .30 = \$9,000$$

$$\text{To Carter: } \$30,000 \times .20 = \$6,000$$

Of the next \$15,000, Amos is to receive \$9,000 and Carter is to receive \$6,000. Now all partners' capital balances are in the same ratio as their profit and loss sharing ratio.⁶

Step 4 A cash distribution plan is then prepared as follows:

<i>Order of Cash Distribution</i>	<i>Liabilities</i>	<i>Amos</i>	<i>Baker</i>	<i>Carter</i>
1. First \$28,000	100%			
2. Next \$7,000		100%		
3. Next \$15,000		60%		40%
4. Remainder		30%	50%	20%

The first \$28,000 available is, of course, paid to the creditors. Cash may be held back from distribution if it is anticipated that unrecorded liabilities will be discovered or if additional liquidation expenses will be incurred. The distribution of cash in excess of this reserve amount proceeds as determined. Amos will receive all of any additional cash up to \$7,000. Additional cash in excess of \$7,000 and up to \$22,000

⁶ An alternative method of determining the amount to be distributed at each level is to compute the capital account balances needed by each partner so as to bring the partners' capital balances into their agreed profit- and loss-sharing ratio. This approach is simpler in certain cases, but the approach in the text is more systematic when there are numerous partners. The alternative works by bringing the ratio of the partners' capital account balances into their profit- and loss-sharing ratio in the order in which the partners are to participate in the distribution. In this case, the first step is to compute what the capital account balance of Amos should be so that her capital balance is in the profit- and loss-sharing ratio with that of Carter (3:2). This can be computed as follows:

$$\begin{aligned} \text{Let } X &= \text{desired capital balance} \\ \frac{\text{Loss ratio of Amos}}{\text{Loss ratio of Carter}} &= \frac{X}{\text{Capital balance of Carter}} \\ \frac{3}{2} &= \frac{X}{\$18,000} \\ 2X &= \$54,000 \\ X &= \$27,000 \end{aligned}$$

Since Amos has a capital balance of \$34,000, it would take a distribution of \$7,000 to reduce the balance to \$27,000. The next level of payments should reduce the capital balances of Amos and Carter in such a way that their capital balances will be in the loss ratio to that of Baker, which is 3:5 and 2:5, respectively.

$$\begin{aligned} \frac{3}{5} &= \frac{X}{\$30,000} & \frac{2}{5} &= \frac{X}{\$30,000} \\ 5X &= \$90,000 & 5X &= \$60,000 \\ X &= \$18,000 & X &= \$12,000 \end{aligned}$$

A distribution of \$9,000 to Amos (\$27,000 – \$18,000) and \$6,000 to Carter (\$18,000 – \$12,000) will produce capital balances in the ratio of 3:5:2 (\$18,000:\$30,000:\$12,000).

ILLUSTRATION 16-5

Cash Distribution per Advance Plan

	<i>Liabilities</i>	<i>Amos</i>	<i>Baker</i>	<i>Carter</i>	<i>Total</i>
First Distribution: \$30,000					
First—\$28,000	\$28,000				\$28,000
Next—\$2,000		\$2,000			2,000
	<u>\$28,000</u>	<u>\$2,000</u>	<u>—</u>	<u>—</u>	<u>\$30,000</u>
Second Distribution: \$15,000					
First—\$5,000 (Remainder of \$7,000 level)		\$ 5,000			\$ 5,000
Next—\$10,000		6,000		\$4,000	10,000
	<u>—</u>	<u>\$11,000</u>	<u>—</u>	<u>\$4,000</u>	<u>\$15,000</u>
Third Distribution: \$10,000					
First—\$5,000 (Remainder of \$15,000 level)		\$ 3,000		\$2,000	\$ 5,000
Next—\$5,000		1,500	\$2,500	1,000	5,000
	<u>—</u>	<u>\$ 4,500</u>	<u>\$2,500</u>	<u>\$3,000</u>	<u>\$10,000</u>
Last Distribution: \$2,000					
First—\$2,000	<u>—</u>	<u>\$ 600</u>	<u>\$1,000</u>	<u>\$ 400</u>	<u>\$ 2,000</u>

is distributed 60:40 to Amos and Carter. After \$22,000 (\$15,000 + \$7,000) has been distributed to the partners, the capital accounts are in the desired profit and loss ratio of 3:5:2. Any further distributions to the partners are made according to the profit and loss ratio.

The advance distribution plan developed before will yield the same cash distribution as the process of computing a safe payment each time cash is available. As proof, in Illustration 16-5, the advance plan for distributing cash as developed in Illustration 16-4 is applied to determine the cash distribution in Illustration 16-3. Even though both methods produce the same results, the advance plan is more informative to both personal and partnership creditors, and to the partners. Interested parties now know the order in which individual partners will receive cash and the amounts that each may receive at each stage of the distribution process.

One requirement that must be satisfied in the development of the advance plan is that the partners must share income in the same ratio that they share losses. If this were not the case, the potential amount of a new loss would need to be computed after every allocation to the partners' capital accounts. This occurs because the allocation of liquidation gains alters the order of cash distribution computed in the advance plan. To illustrate, assume that Amos, Baker, and Carter, with capital balances of \$45,000, \$24,000, and \$20,000, respectively, share losses in the ratio of 5:3:2, but share income in the ratio of 3:5:2. The order of cash distribution based on the ratio of losses would be as follows:

	<i>Amos</i>	<i>Baker</i>	<i>Carter</i>
Net capital interest	\$45,000	\$24,000	\$ 20,000
Loss ratios	.50	.30	.20
Loss absorption potential	\$90,000	\$80,000	\$100,000
Order of cash distribution	2	3	1

Now assume that the partnership realizes a \$50,000 gain. The allocation of the gain in the ratio of 3:5:2 and computation of the order of cash distribution follow:

	<i>Amos</i>	<i>Baker</i>	<i>Carter</i>
Net capital interest	\$(45,000)	\$(24,000)	\$(20,000)
Allocation of \$50,000 gain	<u>(15,000)</u>	<u>(25,000)</u>	<u>(10,000)</u>
Net capital interest	<u>\$(60,000)</u>	<u>\$(49,000)</u>	<u>\$(30,000)</u>
Loss ratios	.50	.30	.20
New loss absorption potential	\$120,000	\$163,333	\$150,000
New order of cash distribution	3	1	2

In this illustration an allocation of the \$50,000 gain moved Baker from being the last partner to receive cash to being the first partner to receive cash.

It is also necessary to recompute an advance plan if a certain classification of losses is shared in a different ratio from the one used in preparing the advance plan, or if adjustments are made to the capital balances in other than the loss ratio. For example, assume that it has been discovered that a cash withdrawal by a partner had been expensed instead of debited to his drawing account. The correction of the error would modify the loss absorption potential of that partner. If such adjustments occur frequently, then the computation of a safe payment may be less time-consuming and easier to use than the development of an advance cash distribution plan.

TEST YOUR KNOWLEDGE 16.2

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

losses in the ratio 60:40. The partnership has \$15,000 in liabilities. Prepare a cash distribution plan.

Short Answer

1. The capital balances for partners A and B are \$120,000 and \$60,000, respectively. They share profits and

16.5 INCORPORATION OF A PARTNERSHIP

LO 6 Incorporation of a partnership.

After a partnership has been operating for a period of time, the partners may find that the partnership form of business is no longer satisfactory. The corporation, with its limited liability, continuity of existence, and ability to raise needed resources, may become more attractive. Upon incorporation, the assets and liabilities are transferred to the corporation and the partners receive capital stock in settlement of their interests. The partnership accounts should be restated to fair values to assure that the partners receive an equitable distribution of stock for their interests.

The partnership books may be retained for use by the corporation, or a new set of books may be established.

Retention of Partnership Books by Corporation

Assuming that the partnership books are used by the corporation, the steps to record the incorporation are as follows:

1. Assets and liabilities are adjusted to fair value. Frequently, a valuation adjustment account is created to accumulate the gains and losses.

2. The valuation adjustment account is closed to the partners' capital accounts in accordance with their profit and loss ratio.
3. The partners' capital accounts are closed upon the transfer of capital stock. Since the books are retained, offsetting credits are made to Capital Stock at par value for the number of shares issued. If the debit to partners' capital accounts exceeds the credit to Capital Stock, the difference is a credit to Additional Paid-in Capital.

To illustrate, assume that AB Partnership is to incorporate. The new corporation is authorized to issue 5,000 shares of \$10 par value stock. Book values of the partnership accounts and fair values for the assets are determined to be:

	<i>Book Value</i>		<i>Fair Values</i>
	<i>Debit</i>	<i>Credit</i>	
Cash	\$ 5,000		\$ 5,000
Accounts Receivable	4,000		3,600
Inventory	5,000		7,000
Land	10,000		15,000
Equipment (net of depreciation)	6,000		5,000
Accounts Payable		\$ 7,000	
Notes Payable		10,000	
Art, Capital		8,000	
Beck, Capital		5,000	
Total	<u>\$30,000</u>	<u>\$30,000</u>	

Other facts are: (1) Liabilities are assumed to be fairly valued; (2) Art and Beck share profits equally; (3) Art and Beck are to receive par value stock equal to their adjusted ending capital balances. The journal entries to incorporate are:

(1) Inventory	2,000	
Land	5,000	
Equipment		1,000
Accounts Receivable		400
Valuation Adjustment		5,600
(2) Valuation Adjustment	5,600	
Art, Capital		2,800
Beck, Capital		2,800
(3) Art, Capital	10,800	
Beck, Capital	7,800	
Capital Stock—\$10 par		18,600

New Books Established by Corporation

If the corporation establishes a new set of books, then all accounts on the partnership books will end with a zero balance. The only difference as compared to the illustration above is that on receipt of the stock, asset and liability accounts are closed on the partnership books and transferred to the corporation. To balance the entry, an asset account is created for the capital stock received in the amount of \$18,600. This balance should also equal the sum of the balances in the remaining capital accounts. The entry to record the distribution of the capital stock is:

Art, Capital	10,800	
Beck, Capital	7,800	
Capital Stock (from Corporation)		18,600

The corporation records the assets received and the liabilities assumed on the new books at the net cost of the stock issued (\$18,600), which is also equal to the adjusted value of the net assets on the partnership books. A credit of \$18,600 to balance the entry is made to capital stock issued.

SUMMARY

- 1 *Describe the steps used to distribute available partnership assets in liquidation under the Uniform Partnership Act (UPA).* The first step in the liquidation process is to compute any net income or loss up to the date of dissolution. The closing process should be completed and any net income or loss allocated to the partners in accordance with their profit and loss agreement. Next the assets that are not acceptable for distribution in their present form are converted into cash, and any gains or losses realized are allocated as specified in the partnership agreement (usually according to the profit and loss ratio). Finally, the available assets are distributed to creditors and partners.
- 2 *List the order of priority for each class of creditors in partnership liquidation under the UPA.* The liabilities are settled in the following order: (1) those owing to creditors other than partners, (2) those owing to partners other than for capital and profits, (3) those owing to partners in respect to capital, and (4) those owing to partners in respect to profits.
- 3 *Prepare a liquidation schedule to settle debts and allocate assets.* The liquidation schedule begins with a listing, generally in columns, of the partnership's assets, liabilities, and partners' capital balances. Any additional investments made by individual partners are recorded first, including those made by partners with debit balances and those resulting from a judgment of partnership creditors against individual partners. Cash is distributed first to liquidate partnership liabilities and then to satisfy partners' capital interests. The cash distribution is based on the partners' capital balances, not their profit and loss ratios.
- 4 *Prepare a "safe payment approach" liquidation schedule.* To calculate a safe cash distribution, the following three assumptions may be made: (1) A loan to or from an individual partner is combined with the partner's capital balance to determine his or her interest in the partnership assets. (2) The remaining noncash assets will not provide any additional cash (the worst-case scenario). (3) Any partner with a debit balance is assumed unable to pay the amounts owed to the partnership. The result of applying these assumptions is that cash will not be distributed to any partner whose capital balance is insufficient to absorb his or her share of potential losses.
- 5 *Describe the four steps in the preparation of an advance plan for the distribution of cash in a partnership liquidation.* Determine the net capital interest of each partner by combining the balance in the partner's capital account with any obligations to, or receivables from, that partner. Determine the order in which the partners are to participate in cash distributions. Compute the amount of cash each partner is to receive as it becomes available for distribution. Prepare a cash distribution plan. This plan will yield the same distribution as a safe payment plan computed each time cash becomes available, but it is more informative to both creditors and partners, as they know the plan in advance.
- 6 *Prepare the journal entries to incorporate a partnership.* Assets and liabilities are adjusted to fair values, often using a valuation adjustment account to accumulate gains and losses. The valuation adjustment account (or gains/losses) is closed to the partners' capital accounts in accordance with their profit and loss ratios. The partners' capital accounts are closed upon the transfer of capital stock. Since the books are retained, offsetting credits are made to the capital stock account at par for the number of shares issued. If the debit to partners' capital accounts is greater than the credit to the capital stock account, the difference is credited to additional paid-in capital.

TEST YOUR KNOWLEDGE SOLUTIONS

- 16.1 1. Partner A will receive \$60,000 cash.
2. Partner A will receive \$40,000 cash.

16.2

<i>Order of Cash Distribution</i>	<i>Liabilities</i>	<i>A (.6)</i>	<i>B (.4)</i>
1. First \$15,000	100%		
2. Next \$30,000		100%	
3. Remainder		60%	40%

QUESTIONS

- LO 1** 1. Why are realization gains or losses allocated to partners in their profit and loss ratios?
- LO 3** 2. In what manner should the final cash distribution be made in partnership liquidation?
- LO 2** 3. Why does a debit balance in a partners' capital account create problems in the UPA order of payment for a partnership liquidation?
- LO 2** 4. Is it important to maintain separate accounts for a partner's outstanding loan and capital accounts? Explain why or why not.
- LO 5** 5. Discuss the possible outcomes in the situation where the equity interest of one partner is inadequate to absorb realization losses.
- LO 3** 6. During a liquidation, at which point may cash be distributed to any of the partners?
- LO 3** 7. What is "marshaling of assets"?
- LO 3** 8. To what extent can personal creditors seek recovery from partnership assets?
- LO 4** 9. In an installment liquidation, why should the partners view each cash distribution as if it were the final distribution?
- LO 4** 10. Discuss the three basic assumptions necessary for calculating a safe cash distribution. How is this safe cash distribution computed?
- LO 4** 11. How are unexpected costs such as liquidation expenses, disposal costs, or unrecorded liabilities covered in the safe distribution schedule?
12. What is the objective of the procedures used for the preparation of an advance cash distribution plan? **LO 5**
13. What is the "loss absorption potential"? **LO 5**
14. In what order must partnership assets be distributed? **LO 2**

Business Ethics

You and two of your former college friends, Freeman and Oxyman, formed a partnership called FOB, which builds and installs fabricated swimming pools. The business has been operating for 15 years and has become one of the top swimming pool companies in the area. Typically, you have been providing the on-site estimates for the pools, while your partners do most of the on-site construction. While visiting one of the sites, you hear a conversation between one of your partners and a customer. Your partner is explaining that the cost will increase by \$10,000 because of unexpected rock removal. You are a bit surprised by this, since you had tested the area for rocks. Later, back at the office, you review the core-sample results done on that job, which did not reveal any rock. You decide to talk to the partner when he returns to the office. When the partner returns to the office, he is arguing with someone from a local bank concerning an outstanding personal loan.

1. What do you see as your duty with respect to the partnership?
2. What should you do? Explain your reasoning.

EXERCISES

EXERCISE 16-1 Simple Liquidation **LO 3**

The CPA Partnership operated by Cook, Parks, and Argo is being liquidated. A balance sheet prepared at this stage in their liquidation process is presented below.

Cash	\$40,000	Liabilities	\$25,000
Other Assets	50,000	Parks, Loan	10,000
		Cook, Capital	30,000
		Parks, Capital	10,000
		Argo, Capital	15,000
Total	<u>\$90,000</u>	Total	<u>\$90,000</u>

The partners share profits and losses 30% (Cook), 50% (Parks), and 20% (Argo). The partners are all personally insolvent.

Required:

- A. The partners wish to distribute the \$40,000 in cash. Record in journal entry form the distribution of the available cash.
- B. Record in journal entry form the completion of the liquidation process, assuming that the other assets of \$50,000 are sold for \$15,000.

EXERCISE 16-2 Simple Liquidation LO 3

John, Jake, and Joe are partners with capital accounts of \$90,000, \$78,000, and \$64,000 respectively. They share profits and losses in the ratio of 30:40:30. When the partners decide to liquidate, the business has \$70,000 in cash, noncash assets totaling \$260,000, and \$98,000 in liabilities. The noncash assets are sold for \$270,000, and the creditors are paid.

Required:

- A. Prepare a schedule of partnership liquidation.
- B. Prepare journal entries to record each of the following transactions.
- (1) The sale of the noncash assets.
 - (2) The payment to the creditors.
 - (3) The distribution of cash to the partners.

EXERCISE 16-3 Cash Distribution Schedule LO 3

The unsuccessful partnership of the Jones Brothers is about to undergo liquidation. They have asked you to estimate the amount of cash that each brother will receive. They share profits and losses equally.

Cash	\$ 22,000	Liabilities	\$ 35,000
Noncash Assets	110,000	Doug, Capital	55,000
		Dave, Capital	50,000
		Dan, Capital	(8,000)
	<u>\$132,000</u>		<u>\$132,000</u>

Both Doug and Dave are personally solvent, but Dan is not. They estimate that they will receive \$65,000 from the sale of the noncash assets.

Required:

Prepare a schedule to estimate the amount of cash each brother will receive.

EXERCISE 16-4 Cash Distribution Schedule LO 3

The ABC Partnership is in the process of liquidation. The account balances prior to liquidation are given below:

<i>Debits</i>		<i>Credits</i>	
Cash	\$ 72,000	Liabilities	\$ 40,000
Amos, Drawing	10,000	Boone, Loan	8,000
Boone, Drawing	15,000	Childs, Loan	25,000
Childs, Drawing	20,000	Amos, Capital	49,000
Operating Loss	21,000	Boone, Capital	18,000
Liquidation Loss	<u>12,000</u>	Childs, Capital	<u>10,000</u>
	<u>\$150,000</u>		<u>\$150,000</u>

The partners share profits in the following ratio: Amos, 1/5; Boone, 2/5; Childs, 2/5.

Required:

Prepare a schedule showing the calculations of the distribution of cash under the Uniform Partnership Act, assuming that all three partners have personal liabilities in excess of their personal assets.

EXERCISE 16-5 Partnership Liquidation—Safe Payment Approach LO 4

Following is the balance sheet of the BDO Partnership:

Cash	\$ 10,000	Liabilities	\$ 18,000
Accounts Receivable	40,000	Brink, Capital	45,000
Inventory	30,000	Davis, Capital	27,000
Equipment	60,000	Olsen, Capital	50,000
	<u>\$140,000</u>		<u>\$140,000</u>

The partners share income 40:40:20, respectively. Assume that 70% of the receivables are collected and that inventory with a book value of \$15,000 is sold for \$10,000. All cash available at this time is to be distributed.

Required:

Determine the proper distribution of cash, using the safe payment approach.

EXERCISE 16-6 Partnership Liquidation with Personal Asset Information LO 3

Pete, Tom, and Zack have operated a laundromat for 10 years. The partners, who share profits 4:3:3, respectively, decide to liquidate the partnership. The firm's balance sheet just before the partners sell the other assets for \$30,000 is as follows:

<i>Assets</i>		<i>Liabilities and Capital</i>	
Cash	\$ 15,000	Liabilities	\$ 42,000
Other Assets	110,000	Pete, Capital	55,000
		Tom, Capital	14,000
		Zack, Capital	14,000
	<u>\$125,000</u>		<u>\$125,000</u>

The personal status of each partner just before liquidation is as follows:

	<i>Personal Assets</i>	<i>Personal Liabilities</i>
Pete	\$55,000	\$80,000
Tom	30,000	10,000
Zack	30,000	50,000

The partnership operates in a state that has adopted the Uniform Partnership Act.

Required:

- Determine the amount of cash each partner will receive in liquidation and how much cash each partner must invest in the firm, given their personal positions.
- Determine the amounts that the personal creditors will receive from personal assets and any distribution from the partnership.

EXERCISE 16-7 Multiple Choice LO 3 LO 4

Select the best answer for each of the following items:

- In accordance with the marshaling of assets provision of the Uniform Partnership Act, rank the following liabilities of a partnership in order of payment.
 - \$20,000 loan from B. Barry who is a partner.
 - \$30,000 of profits from the last year of operations.
 - \$3,000 payable to a supplier.
 - \$100,000 in capital balances of the partners.

- (a) 2,3,4,1.
 (b) 4,2,1,3.
 (c) 3,1,4,2.
 (d) 3,1,2,4.
2. Personal assets are first allocated to partnership creditors and then to personal creditors.
- (a) This statement is true.
 (b) True if partner has debit balance in his/her capital account.
 (c) This statement is false.
3. The following condensed balance sheet is presented for the partnership of Lisa, Lori, and Lucy, who share profits and losses in the ratio of 5:3:2, respectively:

Cash	\$ 80,000	Liabilities	\$140,000
Other Assets	280,000	Lisa, Capital	100,000
		Lori, Capital	100,000
		Lucy, Capital	20,000
Total	<u>\$360,000</u>	Total	<u>\$360,000</u>

The partners agreed to liquidate the partnership after selling the other assets. If the other assets are sold for \$160,000, how much should Lisa receive upon liquidation?

- (a) \$37,500
 (b) \$38,500
 (c) \$40,000
 (d) \$100,000
- Questions 4 and 5 are based on the following balance sheet for the partnership of Allen, Bob, and Cecil:

Cash	\$ 20,000	Liabilities	\$ 50,000
Other Assets	180,000	Allen, Capital (40%)	37,000
		Bob, Capital (30%)	65,000
		Cecil, Capital (30%)	48,000
	<u>\$200,000</u>		<u>\$200,000</u>

Figures shown parenthetically reflect agreed profit and loss sharing percentages.

4. If the firm, as shown on the original balance sheet, is dissolved and liquidated by selling assets in installments, the first sale of noncash assets having a book value of \$90,000 realizes \$50,000, and all cash available after settlement with creditors is distributed, the respective partners would receive (to the nearest dollar)
- (a) Allen, \$8,000; Bob, \$6,000; Cecil, \$6,000.
 (b) Allen, \$6,667; Bob, \$6,667; Cecil, \$6,666.
 (c) Allen, \$0; Bob, \$10,000; Cecil, \$10,000.
 (d) Allen, \$0; Bob, \$18,500; Cecil, \$1,500.
5. If the facts are as in item 4 above except that \$3,000 cash is to be withheld, the respective partners would then receive (to the nearest dollar)
- (a) Allen, \$6,800; Bob, \$5,100; Cecil, \$5,100.
 (b) Allen, \$5,667; Bob, \$5,667; Cecil, \$5,666.
 (c) Allen, \$0; Bob, \$8,500; Cecil, \$8,500.
 (d) Allen, \$0; Bob, \$17,000; Cecil, \$0.

(AICPA adapted)

EXERCISE 16-8 Multiple Choice LO 2 LO 3 LO 6

Select the best answer for each of the following items. Questions 1 and 2 are based on the following condensed balance sheet for the partnership of Caine, Davis, and Jones.

Cash	\$ 90,000	Accounts Payable	\$220,000
Other Assets	820,000	Jones, Loan	40,000
Caine, Receivable	40,000	Caine, Capital	300,000
		Davis, Capital	200,000
		Jones, Capital	<u>190,000</u>
Total	<u>\$950,000</u>	Total	<u>\$950,000</u>

The partners share income and loss in the ratio of 5:3:2, respectively.

- Assume that the assets and liabilities are fairly valued in the balance sheet and the partnership decides to admit Kuman as a new partner with a one-fourth capital interest. No goodwill or bonus is to be recorded. How much should Kuman invest in cash or other assets?
 - \$172,500.
 - \$175,000.
 - \$230,000.
 - \$233,333.
- Assume that instead of admitting a new partner, the partners decide to liquidate the partnership. If the other assets are sold for \$600,000, how much of the available cash should be distributed to Caine?
 - \$170,000.
 - \$150,000.
 - \$190,000.
 - \$300,000.
- A, B, C, and D are partners sharing profits and losses equally. The partnership is insolvent and is to be liquidated. The status of the partnership and each partner is as follows:

	<i>Partnership Capital Balance</i>	<i>Personal Assets (Exclusive of Partnership Interest)</i>	<i>Personal Liabilities (Exclusive of Partnership Interest)</i>
A	\$15,000 Credit	\$100,000	\$40,000
B	10,000 Credit	30,000	60,000
C	20,000 Debit	80,000	5,000
D	30,000 Debit	1,000	28,000

Assuming the Uniform Partnership Act applies, the partnership creditors

- Must first seek recovery against C because he is personally solvent and he has a negative capital balance.
- Will not be paid in full regardless of how they proceed legally because the partnership assets are less than the claims of the partnership creditors.
- Will have to share B's interest in the partnership on a pro-rata basis with B's personal creditors.
- Have first claim to the partnership assets before any partner's personal creditors have rights to the partnership assets.

4. If a partner with a debit capital balance during liquidation is insolvent, the following results:
 - (a) The partner must borrow money to invest in the partnership.
 - (b) The partnership will give the partner cash to the extent of the partners' debit balance.
 - (c) The partner's debit balance will be allocated to the other partners.
 - (d) None of the above.

5. If a partnership is undergoing a transformation to a corporation, which of the following is a result?
 - (a) Assets and liabilities are adjusted to fair value.
 - (b) The net assets are distributed to the partners in their profit and loss ratio.
 - (c) The partners receive stock in the new corporation.
 - (d) Both (a) and (c) are correct.

EXERCISE 16-9 Rights of Various Parties LO 3

Q, R, S, and T are partners, sharing profits and losses 40%:20%:20%:20%, respectively. After sale of firm assets and payment of the available cash to the partnership creditors, a partnership trial balance and the personal status of each partner are as follows:

<i>Partnership Trial Balance</i>		<i>Personal Status Exclusive of Partnership Interest</i>		
<i>Debit</i>	<i>Credit</i>	<i>Partner</i>	<i>Assets</i>	<i>Liabilities</i>
Creditors	\$ 2,000			
Q, Capital	500	Q	\$15,000	\$10,000
R, Capital	7,500	R	8,000	20,000
S, Capital	\$ 6,000	S	15,000	4,000
T, Capital	4,000	T	6,000	8,000
	<u>\$10,000</u>			
				<u>\$10,000</u>

The partnership operates in a state that has adopted the Uniform Partnership Act.

Required:

- A. What are the rights of the partnership creditors on the unpaid balance of \$2,000?
- B. What are the rights of the individual creditors of each partner?
- C. Assuming that Q pays the partnership creditors, prepare a schedule to show how the settlement by the partners will be completed.
- D. Indicate the amount of assets that will be available to the personal creditors of R after the settlement by the partners.
- E. Indicate the amount of assets that will be available to the personal creditors of T after the settlement by the partners.

EXERCISE 16-10 Rights of Various Parties LO 3

The trial balance for the MAD Partnership is as follows just before declaring bankruptcy.

<i>Cash</i>	<i>Other Assets</i>	<i>Liabilities</i>	<i>Matt Loan</i>	<i>Matt Capital</i>	<i>Allen Capital</i>	<i>Dave Capital</i>
\$20,000	\$100,000	=	\$18,000	\$10,000	\$44,000	\$30,000
					\$18,000	

Partners share profits in the ratio 45:30:25.

Required:

- A. Prepare a schedule to show how available cash would be distributed to the partners after creditors are paid in full. State which partner would receive the first cash available and at what point and to what degree each of the remaining partners would participate in cash distributions.
- B. Cash of \$30,000 is available to partners after the creditors have been paid in full. Prepare the general journal entry to record the distribution of \$30,000.

PROBLEMS**PROBLEM 16-1 Simple Liquidation LO 3**

The Discount Partnership is being liquidated. The current balance sheet is shown here.

**Discount Partnership
Balance Sheet
January 14, 2019**

<i>Assets</i>	
Cash	\$ 25,000
Other assets	120,000
Total assets	\$145,000
<i>Liabilities and Partners' Equity</i>	
Accounts payable	\$ 40,000
Dawson, capital	31,000
Feeney, capital	65,000
Hardin, capital	9,000
Total liabilities and partners' equity	\$145,000

Dawson, Feeney, and Hardin share profits and losses in a 30:40:30 ratio.

Required:

- A. Prepare a schedule of partnership liquidation for each of the following three independent cases.
- (1) The noncash assets are sold for \$60,000, and any partner with a deficit is unable to eliminate any of the deficit.
 - (2) The noncash assets are sold for \$60,000, and any partner with a deficit is able to invest cash equal to the amount of the deficit.
 - (3) The noncash assets are sold for \$50,000, and any partner with a deficit is able to invest up to \$8,000 cash in the partnership.
- B. Prepare all necessary journal entries for case 2 above.

PROBLEM 16-2 Installment Liquidation LO 4

Nelson, Parker, and Rice are partners who share profits 4:3:3, respectively. Parker decides that it would be more profitable for him to operate as a sole proprietor. Nelson and Rice are in agreement that life would be more rewarding if Parker were to enter into direct competition with them. Nelson and Rice make repeated attempts to acquire Parker's interest in the partnership. Unable to reach an agreement, the partners mutually agree that their association

should be dissolved. A condensed balance sheet before realization of assets shows the following balances:

<i>Assets</i>		<i>Liabilities and Capital</i>	
Cash	\$ 5,000	Liabilities	\$20,000
Other Assets	60,000	Nelson, Capital	20,000
		Parker, Capital	12,000
		Rice, Capital	13,000
Total	<u>\$65,000</u>	Total	<u>\$65,000</u>

Asset realization is accomplished in four stages as follows:

<i>Stage</i>	<i>Sales Price</i>	<i>Book Value</i>
1	\$16,000	\$12,000
2	12,000	10,000
3	10,000	20,000
4	2,000	18,000

The partners prefer that cash be distributed as soon as it is available.

Required:

Prepare a summary in columnar form of the partnership realization and liquidation. You should prepare supporting schedules of safe payments before each cash distribution.

PROBLEM 16-3 Installment Liquidation LO 4

Hann, Murphey, and Ryan have operated a retail furniture store for the past 30 years. Their business has been unprofitable for several years, since several large discount furniture stores opened in their sales territory. The partners recognize that they will be unable to compete with the larger chain stores and decide that since all the partners are near retirement, they should liquidate their business before it is necessary to declare bankruptcy. Account balances just before the liquidation process began were as follows:

Cash	\$ 10,000	Liabilities	\$110,000
Other Assets	218,000	Hann, Capital	50,000
		Murphey, Capital	42,000
		Ryan, Capital	26,000
	<u>\$228,000</u>		<u>\$228,000</u>

The partners share profits in the ratio of 5:3:2, respectively.

Rather than selling all the assets in a forced liquidation and incurring selling expenses, the partners agree that some of the noncash assets may be withdrawn in partial settlement of their capital interest. The partners agree that if the market value of a withdrawn asset is less than book value, the difference should be allocated to all partners in their loss ratio. If market value is greater than book value, the asset is to be adjusted to its market value before recording the withdrawal. All the partners are personally solvent and can make additional cash investment in the partnership up to \$20,000 each. The following is a schedule of transactions that occurred during 2019 in the liquidation process.

- March 15, 2019 During liquidation sale, noncash assets with a book value of \$90,000 were sold for \$80,000.
- March 16, 2019 Sold accounts receivable with a book value of \$30,000 to a factory for \$26,000.
- March 16, 2019 Paid all recorded partnership creditors.

March 18, 2019	Distributed all but \$1,000 of available cash to partners.
March 19, 2019	Murphey withdrew from inventory furniture with a book value of \$10,000 and a market value of \$13,000 to satisfy part of his capital interest.
March 21, 2019	Sold remainder of inventory with a book value of \$50,000 to a discount furniture store for \$30,000 cash.
March 25, 2019	Assigned for \$12,000 cash the remaining term of the lease on the warehouse. The lease was accounted for as an operating lease.
March 25, 2019	Distributed all available cash to partners.
April 1, 2019	Hann agreed to accept two vehicles with a book value of \$10,000 and a market value of \$8,000 in partial settlement of his capital interest.
April 5, 2019	All remaining assets were sold for \$4,000.
April 6, 2019	Received additional cash from partners with debit capital balances.
April 6, 2019	Distributed available cash to partners.

Required:

Prepare a schedule of partnership realization and liquidation in accordance with the sequence of the foregoing events. Compute a safe payment to support your cash distribution to partners.

PROBLEM 16-4 Simple Liquidation with Personal Asset Information LO 3

Mary, Paula, and Ray have operated a retail store for 20 years. The partners share profits and losses in the ratio of 4:3:3, respectively. The partnership is unable to meet its obligations and the partners decide to liquidate the partnership. The firm's balance sheet just before the partners sell the other assets for \$20,000 is as follows.

<i>Assets</i>		<i>Liabilities and Partners' Equities</i>	
Cash	\$ 10,000	Liabilities	\$ 40,000
Other Assets	100,000	Mary, Capital	50,000
		Paula, Capital	10,000
		Ray, Capital	10,000
	<u>\$110,000</u>		<u>\$110,000</u>

After the sale of the noncash assets, the personal assets and liabilities of each partner are determined to be the following:

	<i>Personal Assets</i>	<i>Personal Liabilities</i>
Mary	\$50,000	\$80,000
Paula	30,000	10,000
Ray	30,000	50,000

The partnership operates in a state that has adopted the Uniform Partnership Act.

Required:

- Determine the amount of cash each partner will receive in liquidation and how much cash each partner must contribute to the firm, given their personal positions.
- Determine the amounts that the personal creditors will receive from personal assets and any distribution from the partnership.

PROBLEM 16-5 Advance Cash Distribution Plan LO 5**Part A**

Baker, Strong, and Weak have called on you to assist them in winding up the affairs of their partnership. You are able to gather the following information.

1. The trial balance of the partnership at June 30, 2019, is as follows.

	<i>Debit</i>	<i>Credit</i>
Cash	\$ 6,000	
Accounts Receivable	22,000	
Inventory	14,000	
Plant and Equipment (net)	99,000	
Baker, Advance	12,000	
Weak, Advance	7,500	
Accounts Payable		\$ 17,000
Baker, Capital		67,000
Strong, Capital		45,000
Weak, Capital		31,500
Total	<u>\$160,500</u>	<u>\$160,500</u>

2. The partners share profits and losses as follows: Baker, 40%; Strong, 40%; and Weak, 20%.
3. The partners are considering an offer of \$100,000 for the accounts receivable, inventory, and plant and equipment as of June 30. The \$100,000 would be paid to the partners in installments, the number and amounts of which are to be negotiated.

Required:

Prepare an advance cash distribution plan as of June 30, 2019. Prepare a schedule to show how the potential cash (\$106,000) would be distributed as it becomes available.

Part B

Assume the facts in Part A except that the partners liquidate in stages instead of accepting the offer of \$100,000. Cash is distributed to the partners at the end of each month.

A summary of the liquidation transactions follows.

July

\$16,500—collected on accounts receivable; balance is uncollectible.

\$10,000—received for the entire inventory.

\$ 1,000—liquidation expenses paid.

\$ 8,000—cash retained in the business at the end of the month.

August

\$ 1,500—liquidation expenses paid.

As part payment of his capital interest, Weak accepted a piece of special equipment that he developed that had a book value of \$4,000. The partners agreed that a value of \$10,000 should be placed on the machine for liquidation purposes.

\$ 2,500—cash retained in the business at the end of the month.

September

\$75,000—received on sale of remaining plant and equipment.

\$ 1,000—liquidation expenses paid.

No cash retained in the business.

Required:

Prepare a schedule of cash payments as of September 30, 2019, showing how the cash was actually distributed. Use the advance cash distribution plan developed in Part A where appropriate.

(AICPA adapted)

PROBLEM 16-6 Statement of Changes in Partners' Capital and Liquidation LO 3

Mark Malone, Pete Patton, and Sally Spencer formed a partnership on January 1, 2019. Their original capital investments (all cash) were \$140,000, \$160,000, and \$100,000, respectively. During the first year of operations, Mark withdrew \$30,000, and the partnership reported a net income of \$60,000. The partnership agreement stipulates that all income and losses are to be divided in the ratio of the original capital investments.

At the beginning of the second year, the partners decided to liquidate the business because of a disagreement. The assets and liabilities on January 2, 2020, were as follows: Cash, \$37,000; Accounts Receivable, \$129,000; Inventory, \$188,000; Land, \$85,000; Building (net), \$180,000; Furniture and Fixtures (net), \$30,000; Accounts Payable, \$74,000; and Mortgage Payable, \$145,000. The inventory was sold for three-quarters of its book value, the furniture and fixtures brought in \$10,000, and \$92,000 of the accounts receivable were collected. The remaining receivables were uncollectible. After the losses were allocated according to the partnership agreement and the accounts payable were paid in full, Pete accepted the land and building at book value and assumed the mortgage payable at book value as partial settlement of his capital interest. The cash balance was then distributed to the partners.

Required:

- A. Prepare a statement of changes in partners' capital for the year ended December 31, 2019.
- B. Prepare the journal entries to close the Drawing and Income Summary accounts for 2019.
- C. Prepare a schedule of partnership liquidation.
- D. Prepare the journal entries to record the liquidation activities.

PROBLEM 16-7 Incorporation of a Partnership LO 6

Jan and Sue have engaged successfully as partners in their law firm for a number of years. Soon after their state's incorporation laws are changed to allow professionals to incorporate, the partners decide to organize a corporation to take over the business of the partnership.

The after-closing trial balance for the partnership is as follows:

**After-Closing Trial Balance
December 31, 2019**

	<i>Debit</i>	<i>Credit</i>
Cash	\$15,000	
Accounts Receivable	32,400	
Allowances for Uncollectibles		\$ 2,000
Prepaid Insurance	800	
Office Equipment	30,200	
Accumulated Depreciation		12,600
Jan, Loan (outstanding since 2006, at 5%)		6,400
Jan, Capital (50%)		29,400
Sue, Capital (50%)		28,000
	\$78,400	\$78,400

Figures shown parenthetically reflect agreed profit- and loss-sharing ratios.

The partners have hired you as an accountant to adjust the recorded assets and liabilities to their market values and to close the partners' capital accounts to the new corporate capital stock. The corporation is to retain the partnership's books, and the assets of the partnership should be taken over by the corporation in the following amounts:

Cash	\$15,000
Accounts receivable	32,400
Allowance for uncollectibles	2,900
Prepaid insurance	800
Office equipment	16,000

Jan's loan is to be transferred to her capital account in the amount of \$6,600.

Required:

- A. Prepare the necessary journal entries to express the agreement described.
- B. Prepare the entries to record the issuance of shares to Jan and Sue, assuming the issuance of 400 shares (par value \$100) of stock to Jan and Sue.

PROBLEM 16-8 Discussion Case with Ethical Issue LO 6

Alan Norwood is currently a senior associate with the law firm of Butler, Starns, and Madden (BSM). His compensation currently includes a salary of \$155,000, and benefits valued at \$5,000. BSM is considered among the strongest of local firms, with assets of \$10 million (cash \$2,000,000, and accounts receivables \$8,000,000), liabilities of \$7.5 million, and 11 partners.

Alan anticipates admission to the partnership on July 1 of this year. The senior managing partner, Jane Butler, has had preliminary discussions with Alan in which the senior partner proposed the following:

1. A 5% interest in BSM capital and profits in recognition of Alan's commitment to the firm and in exchange for a capital investment by Alan of \$150,000. This 5% interest would be acquired from the other partners.
2. Alan's compensation will consist of a monthly withdrawal of \$18,000 and benefits valued at \$5,000 annually. Monthly withdrawals approximate firm profits, but any unpaid profits will be distributed as a bonus to Alan after the end of each partnership year.

On March 1, only one month prior to Alan's final negotiation meeting for entry into the partnership, Mary, one of the junior associates, discreetly informed Alan that the firm was drawing up documents for Hugh Starns' retirement. Hugh has a 5% interest in the firm's capital and profits with a book value of \$125,000. The partners have agreed upon a \$75,000 cash settlement of the interest held by Mr. Starns. (Of the other 10 partners, numbers 1 through 9 hold 10% interests, and number 10 holds a 5% interest).

Required:

- A. Assume Mr. Starns retires with his \$75,000 settlement, and Alan is admitted to the partnership as proposed.
 - (1) Prepare journal entries to record the retirement and admission.
 - (2) Discuss the factors Alan needs to consider in evaluating whether he has improved his annual compensation from the firm. Although this is not a tax course, include a discussion of the various tax issues.
 - (3) Should Alan be concerned regarding the impending retirement and settlement of Mr. Starns' capital account assuming Alan is confident that he will be able to match the revenue-generating ability of Mr. Starns?
- B. Assume instead that Alan is so disturbed by the impending departure of Mr. Starns that he decides to join Mary, the junior associate, in leaving the firm to form their own law partnership. Both Alan and Mary feel confident that during their tenures at BSM they have developed such good working relationships with their clients that the majority of their clients will follow them to the new firm.
 - (1) Should Alan and Mary have any hesitation in quietly recruiting BSM clients to "follow them" to the new law firm?
 - (2) Can the partners of BSM prevent such recruiting of clients based on the claim that these clients are BSM "property"?

- C. Assume instead that the firm encounters difficulties from which it is unable to recover, and in April, the decision is made to liquidate the firm. It is discovered that Mr. Starns has (in violation of the partnership agreement) taken draws which reduced firm cash and his capital account by \$130,000. However, BSM owes Mr. Starns \$10,000 for a separate loan made to the firm some 10 years ago. As of May 1, the firm had unallocated profits of \$25,000, and cash had also increased by \$25,000.
- (1) Assuming that the provisions of UPA Section 40(b) are adhered to strictly, prepare entries to record the distributions. Assume that Mr. Starns is insolvent.
 - (2) If the other 10 partners are aware that Starns' capital account will take on a debit balance, can they rightfully hold repayment of the balance due to Starns for the \$10,000 loan contingent on his reimbursement of his capital account's debit balance? Does this violate UPA Section 40(b)? On what basis can the partners justify their action (if challenged)?

INTRODUCTION TO FUND ACCOUNTING

CHAPTER CONTENTS

- 17.1 CLASSIFICATIONS OF NONBUSINESS ORGANIZATIONS
- 17.2 DISTINCTIONS BETWEEN NONBUSINESS ORGANIZATIONS AND PROFIT-ORIENTED ENTERPRISES
- 17.3 FINANCIAL ACCOUNTING AND REPORTING STANDARDS FOR NONBUSINESS ORGANIZATIONS
- 17.4 FUND ACCOUNTING
- 17.5 COMPREHENSIVE ILLUSTRATION—GENERAL FUND
- 17.6 FINANCIAL ACCOUNTING AND REPORTING STANDARDS FOR NONBUSINESS ORGANIZATIONS

LEARNING OBJECTIVES

- 1 Distinguish between a nonbusiness organization and a profit-oriented enterprise.
- 2 Explain the role of fund accounting.
- 3 Distinguish among the concepts of revenues, expenses, and expenditures as used in profit-oriented entities and as used for expendable fund entities.
- 4 Understand the classification of revenues and other resource inflows for fund accounting.
- 5 Understand the classification of expenditures and other resource outflows for fund accounting.
- 6 Describe the critical events in the use of financial resources of an expendable fund.
- 7 Explain how capital expenditures are recorded in an expendable fund.
- 8 Understand the role of a general fund.
- 9 Contrast the consumption and the purchases methods of accounting for inventories (and other prepaid items).

For the twentieth consecutive year, the Government Accountability Office (GAO) issued a disclaimer of opinion (inability to express an opinion) on the accrual-based government financial statements of the United States. Material weaknesses in internal control over financial reporting prevented the GAO (Government Accountability Office) from expressing an opinion on the accrual-based consolidated financial statements. For about 38% of the federal government's reported total assets as of September 30, 2017, these entities were unable to issue complete financial statements. However, 20 of the 24 governmental agencies received clean opinions on their 2017 financial statements, up from only 6 agencies that received clean reports in 1996. The Department of Defense (DOD) received a disclaimer and the Department of Housing and Urban Development received a qualified opinion (indicating most matters have been dealt with adequately, but there are a few exceptions). This is an improvement over 2010, when four of the 24 agencies, including the Department of Homeland Security, received either disclaimers or qualified opinions. The GAO mentioned that disclaimers were issued to the DOD because of

material weakness in internal control, preventing the GAO from determining whether property, plant, and equipment and inventory were properly recorded.

In contrast to the prior chapters in the textbook, the federal government's financial statements are not governed by the FASB and fall under the category of nonbusiness organizations. This is the focus of the three remaining chapters of the textbook.

Accounting for nonbusiness organizations is referred to as **fund accounting**. Nonbusiness organizations are economic entities that are organized to provide a socially desirable service without regard to financial gain. In contrast, business enterprises are designed to earn a return on investment for equity investors, operate in a competitive market, and face liquidity concerns.

The purpose of this chapter is to introduce the reader to fund accounting concepts and procedures. However, it is first necessary to present a brief introduction to the types and characteristics of organizations that use fund accounting concepts.

17.1 CLASSIFICATIONS OF NONBUSINESS ORGANIZATIONS

Nonbusiness organizations may be separated into five major classifications, as follows:

1. *Governmental units.* Governmental units include federal, state, and local governmental entities. Local governmental units include counties, townships, municipalities, school districts, and special districts. Special districts include organizational units such as port authorities, industrial development districts, sanitation districts, and soil and water conservation districts.
2. *Hospitals and other health care providers.*
3. *Colleges and universities.*
4. *Voluntary health and welfare organizations.* Voluntary health and welfare organizations are organizations that derive their revenue from voluntary contributions of the general public to be used for purposes connected with health, welfare, or community services. Examples of such organizations include heart associations, family planning councils, mental health associations, and foundations for the blind.
5. *All other nonbusiness organizations.* Other nonbusiness organizations take a variety of forms. They include such organizations as trade associations (Electrical Contractors Association), professional associations (State Society of Certified Public Accountants), performing arts organizations (the Tennessee Performing Arts Center), museums, religious organizations, and research and scientific organizations.

17.2 DISTINCTIONS BETWEEN NONBUSINESS ORGANIZATIONS AND PROFIT-ORIENTED ENTERPRISES

LO 1 Nonbusiness organizations versus profit-oriented enterprises.

The most obvious characteristic that distinguishes a *nonbusiness* organization from a *profit-oriented* enterprise is the absence of a primary goal to earn a profit. The services performed by nonbusiness organizations are based on social need rather than on the profit motive. Thus, their financial statements are sometimes referred to as ***not-for-profit***, or ***nonprofit, financial statements***. Other characteristics of nonbusiness organizations also distinguish them from profit-oriented enterprises. For example, persons who contribute



"The government is like a baby's alimentary canal, with a

healthy appetite at one end and no responsibility at the other."—Ronald Reagan¹

resources to a nonbusiness organization do not receive equity interests in the net assets of the organization. Nonbusiness organizations seldom finance their operations through charges to the individuals benefiting from the service. Thus, they must rely on political action (for example, tax levies) or fund-raising campaigns to sustain their activities and replenish their financial resources.

In addition, tax levies and voluntary contributions cannot be justified based on the value of the nonbusiness organization's services to the individuals contributing the money. Those who contribute resources to nonbusiness organizations do not necessarily benefit proportionately or at all from the services provided by such organizations. Because of these characteristics, the net income concept cannot be used to measure the effectiveness of the management of resources dedicated to nonbusiness objectives. Therefore, the income determination model of accounting is generally not applicable to such organizations.

In profit-oriented enterprises, net income functions as an implicit regulator in the sense that (1) in the long run, the organization must operate profitably to survive and (2) in the short run, failure to operate profitably will affect management's decisions and actions and perhaps whether management will be replaced. In the absence of this implicit regulator, stringent controls are often imposed to regulate the allocation and utilization of the financial resources of nonbusiness organizations. Such controls may be legally imposed (as in the case of governmental activities) or they may be imposed through formal action of the governing board.

Restrictions or limitations on the use of resources may be directly imposed by the individuals or groups that contribute such resources. For example, most nonbusiness organizations receive gifts, grants, or endowments that are only used for specific purposes designated by the donor, such as construction of buildings, research activities, scholarships, operation of parks, recreation programs, or the acquisition of land. In addition, the donor may stipulate that the principal of the gift remain intact and that only the income on the invested principal can be used for the purposes designated by the donor.

In order to account for these legally imposed, externally imposed, and self-imposed restrictions or limitations on the utilization of their resources, nonbusiness organizations have generally adopted the concepts of fund accounting. In essence, an organization that uses fund accounting separates the assets, liabilities, and residual equity (known as a fund balance) into distinct funds organized for specific activities or objectives. In fund accounting, each fund consists of a self-balancing set of accounts and constitutes a separate accounting entity created and maintained for a specific purpose. Accounting for the inflow and outflow of resources of each fund is designed so that they can be compared with the approved or stipulated resource flows for that fund.

17.3 FINANCIAL ACCOUNTING AND REPORTING STANDARDS FOR NONBUSINESS ORGANIZATIONS

The potential users of the financial reports of nonbusiness organizations include taxpayers, contributors, grantors, creditors, employees, managers, directors and trustees, service beneficiaries, financial analysts and advisers, brokers, underwriters, economists,

¹ Quoted in *New York Times Magazine*. From *The Merriam-Webster Dictionary of Quotations*, Merriam-Webster, Inc.: 1996. *Infopedia*, SoftKey Multimedia Inc., 1996.



"It was once said that the moral test of government is how that government

treats those who are in the dawn of life, the children; those who are in the twilight of life, the elderly; and those who are in the shadows of life—the sick, the needy and the handicapped."—Hubert H. Humphrey²

taxing authorities, regulatory authorities, legislators, the financial press and reporting agencies, labor unions, trade associations, researchers, teachers, and students.

Unlike for-profit organizations and depending on the type of nonbusiness organization, the accounting standards are not established by one unique standard-setting body.

Until 1980, the Financial Accounting Standards Board (FASB) and its predecessor bodies gave little, if any, attention to standards of reporting for nonbusiness organizations. In 1980, however, the FASB issued *Statement of Financial Accounting Concepts No. 4*, "Objectives of Financial Reporting by Nonbusiness Organizations." In that statement, the Board identified providers such as members, taxpayers, contributors, and creditors as the most important users for purposes of establishing external financial reporting objectives for nonbusiness organizations.

In 1984, the Governmental Accounting Standards Board (GASB) was created. Like those of the FASB, the operations and financing of the GASB are overseen by the Financial Accounting Foundation. The GASB is responsible for establishing financial accounting standards for all state and local governmental bodies, and the FASB is responsible for establishing financial accounting standards for all other nonbusiness organizations. Accounting and reporting standards for governmental units are described and illustrated in this chapter and in Chapter 18. Accounting and reporting standards for nongovernment nonbusiness organizations are described and illustrated in Chapter 19.

Illustration 17-1 indicates the standard-setting body (the GASB or the FASB) primarily responsible for determining the accounting standards for various types of nonbusiness organizations. Having two separate bodies establishing accounting standards can be confusing for users of the financial statements. For instance, the financial statements of a state university, such as the University of Tennessee, are prepared using GASB rules, while a private university, such as Vanderbilt University, prepares its financial statements under the guidance of the FASB. Currently, there are significant accounting differences in rules between the FASB and the GASB. It is important for users of not-for-profit financial statements to have an understanding of the standards provided by both the GASB and the FASB. In this chapter and Chapter 18, the GASB rules are illustrated for governmental units; in Chapter 18, the hierarchy of generally

ILLUSTRATION 17-1

Financial Accounting Standards for Nonbusiness Organizations



² Excerpt from a 1977 speech. From *The Merriam-Webster Dictionary of Quotations*, Merriam-Webster, Inc.: 1996. *Infopedia*, SoftKey Multimedia Inc., 1996.

accepted reporting standards for governmental entities is described; and in Chapter 19, the FASB's standards for other nonbusiness organizations are presented.

The Federal Accounting Standards Advisory Board (FASAB) issued Statement of Federal Financial Accounting Standards 36, "Reporting Comprehensive Long-Term Fiscal Projections for the U.S. Government," on September 28, 2009. This standard has been given the title of the "sustainability project." FASAB is responsible for promulgating accounting standards for the U.S. government. Given the recent variability of the economy, readers of the financial statements of the federal government are interested in assessing whether future budgetary resources will be sufficient to sustain public services and to meet obligations as they become due (such as Medicare and Social Security). The FASAB believes that such an assessment is an important objective of financial reporting for the government. Thus, prospective information about receipts and spending are required. In addition, the impact of these receipts and spending on debt must be disclosed.

Specifically, the new standard requires:

1. A basic financial statement in the consolidated financial report of the U.S. government presenting for all the activities of the federal government:
 - a. The present value of projected receipts and noninterest spending under current policy without change
 - b. The relationship of these amounts to projected Gross Domestic Product (GDP)
 - c. Changes in the present value of projected receipts and noninterest spending from the prior year
2. Required Supplementary Information (RSI) that explains and illustrates
 - a. The projected trends in:
 - (1) The relationship between receipts and spending
 - (2) Deficits or surpluses
 - (3) Treasury debt held by the public as a share of GDP
 - b. Possible results using alternative scenarios
 - c. The likely impact of delaying corrective action when a fiscal gap exists
3. Disclosures that explain and illustrate:
 - a. The assumptions underlying the projections
 - b. Factors influencing trends
 - c. Significant changes in the projections from period to period

GASB CONCEPTUAL FRAMEWORK

The GASB has issued five statements on the conceptual framework:

<i>Concepts Statement No. 1:</i>	"Objectives of Financial Reporting"
<i>Concepts Statement No. 2:</i>	"Service Efforts and Accomplishments Reporting"
<i>Concepts Statement No. 3:</i>	"Communication Methods in General Purpose External Financial Reports That Contain Basic Financial Statements"
<i>Concepts Statement No. 4:</i>	Elements of Financial Statements
<i>Concepts Statement No. 5:</i>	Service Efforts and Accomplishments Reporting—an amendment of <i>GASB Concepts Statement No. 2</i>
<i>Concepts Statement No. 6:</i>	Measurement of Elements of Financial Statements

In the first concepts statement, the stated objectives of financial reporting are:

- a. To assist in meeting the government's duty to be publicly accountable by providing information for users to assess if current-year revenues are sufficient to pay for current-year services.
- b. To determine if the government's resources are obtained and used in accordance with legal or contractual requirements.

Financial reporting should allow users to evaluate operating results by providing information about the sources and uses of resources and how the government's activities are financed. In addition, information should be provided about the impact of operations on the financial position of the government.

Concepts Statement No. 2 develops the objective of clarifying the reporting of service efforts and accomplishments (SEA); it also identifies its elements and characteristics. The objective of SEA reporting is to provide more complete information about a governmental entity's performance than can be provided by the traditional financial statements. The elements of SEA reporting include categories of output and outcome indicators as well as efficiency and cost outcome indicators. SEA information should focus primarily on measures of service accomplishments and measures of the relationships between service efforts and service accomplishments. SEA information also should meet the characteristics of relevance, understandability, comparability, timeliness, consistency, and reliability.

In *Concepts Statement No. 3*, a conceptual basis for determining the methods to present information within general-purpose external financial reports is provided. Communication methods include recognition in basic financial statements, disclosure in the footnotes, and presentation of supplementary information (whether required or not). This Concepts Statement also addresses the necessary elements for the effective communication of relevant and reliable messages within financial reports. This includes a clarification of the roles and responsibilities of the preparer, the user, and the GASB for the effective communication of information.

In *Concepts Statement No. 4*, seven elements of *Statements of Financial Position* are defined. These are:

- *Assets*—resources with present service capacity that the entity presently controls
- *Liabilities*—present obligations to sacrifice resources or future resources that the entity has little or no discretion to avoid
- *A deferred outflow of resources*—a consumption of net resources by the entity that is applicable to a future reporting period
- *A deferred inflow of resources*—an acquisition of net resources by the entity that is applicable to a future reporting period
- *Net position*—the residual of all other elements presented in a statement of financial position
- *Outflow of resources*—a consumption of net resources by the entity that is applicable to the reporting period
- *Inflow of resources*—an acquisition of net resources by the entity that is applicable to the reporting period

In *Concepts Statement No. 5*, four sections of *Concept Statement No. 2* were modified and one section was deleted. *Concept No. 2* deals with service efforts and accomplishment reporting.

Concepts Statement No. 6 addresses the measurement of elements of financial statements. The statement addresses the initial amount assigned when an asset was acquired or a liability incurred and the amount assigned if an asset or liability is remeasured as of the financial statement date. The four measurement attributes include historical cost, fair value, replacement cost, and settlement amount. The concepts statement addresses circumstances when one measurement attribute is more appropriate than the others.

The Structure of Fund Balance Sheets—Deferred Inflow/Outflow of Resources While Concept Statement No. 4 defined deferred outflows/inflows, no prior standard provided any guidance on these elements. GASB Statements No. 63 and 65 changed this and the structure of governmental balance sheets. GASB Statement No. 63 provided a standard format to incorporate deferred inflows/outflows. Deferred outflows are reported in a separate section following assets, while deferred inflows are reported in a separate section following liabilities. Thus, for government-wide balance sheet and government funds similar to business enterprises, assets plus deferred outflows less liabilities and deferred inflows equal net position. For all remaining government funds, assets plus deferred outflows less liabilities and deferred inflows equal fund balance. Net position replaces the term net assets, and the use of the term deferred is restricted for use in labeling deferred inflow/outflows of resources. Intuitively, deferred outflows are similar to deferred charges and deferred inflows are similar to unearned revenues.



IN
THE
NEWS

The U.S. Postal Service (USPS) continues to be in poor financial condition, with a reported net loss of \$2.7 billion in fiscal year 2017, its 11th consecutive year of net losses totaling \$65.1 billion over the period. USPS's business model continues to put it at risk of not being able to sufficiently fund its services and financial obligations.³

17.4 FUND ACCOUNTING

LO 2 The role of fund accounting.

Fund accounting is designed primarily to meet internal reporting and control objectives; thus fund accounting may not be sufficient in itself to meet the objectives of financial reporting by nonbusiness organizations. Nevertheless, it does provide a basis for determining the fiscal responsibility and status of the organization and the compliance of administrators with the approved or stipulated receipt and utilization of financial resources. Therefore, fund accounting is an important means of meeting several of the accounting, control, and reporting objectives of most nonbusiness organizations.

Fund entities may be classified in a number of different ways. For example, they may be classified as expendable fund entities, fiduciary fund entities, and proprietary fund entities. ***Expendable fund entities*** are the funds most closely associated with basic fund accounting concepts, while ***proprietary fund entities*** are the nonbusiness funds that are most similar to business entities. ***Fiduciary funds entities*** are used to follow the activities in which the government acts as an agent or trustee for resources that belong to others, such as employee pension plans.

³ Source: GAO, U.S. Postal Service's Financial Viability—High Risk Issue, accessed February 9, 2018, http://www.gao.gov/key_issues/us_postal_service_financial_viability/issue_summary.

Expendable Fund Entities

Expendable fund entities consist of net *financial resources* that are dedicated to a specified use. Thus, separate expendable fund entities are established based on the purpose for which financial resources may or must be used. Examples of funds set up for specific purposes include a capital projects fund created to account for new highway construction or a debt service fund created to account for interest and principal payments on long-term debt. Thus within a government, many funds are established. For instance, the city of Nashville reports 20 individual governmental funds, eight of which are considered major funds with the remaining funds aggregated for presentation.

LO 3 Differences in applications of revenues, expenses, and expenditures.

Financial resources consist of cash and claims to cash such as receivables and investments in marketable securities. The difference between the financial resources of an expendable fund entity and claims against those resources is referred to as the fund balance. Thus, the statement of financial position, or balance sheet, for an expendable fund entity reflects the financial resources of the fund, the claims against those resources, and the fund balance. Typically, assets and liabilities are not subdivided into current and noncurrent assets and liabilities. At a particular time the fund balance represents the net financial resources that are available for expenditure for the specified purposes or objectives for which the fund was created.

The financial resources of an expendable fund entity are not intended to be maintained intact. Ordinarily it is intended that they will be expended annually or over some other specified time period in order to carry out the objectives for which the fund was created. The measurement focus is on the flow of current financial resources in contrast to proprietary fund accounting, where the measurement focus is on the flow of economic resources.

The relevant measures of the operations of expendable fund entities are not, therefore, revenue, expense, and net income, but rather increases in fund resources, decreases in fund resources, and the change in the fund balance. The accounting model for the operating statement of an expendable fund entity is:

$$\begin{array}{r}
 \text{Financial resources inflows (by source)} \\
 - \text{Financial resources outflows (by function)} \\
 \hline
 = \text{Change in fund balance}
 \end{array}$$

Thus, increases in fund resources include not only revenues, but also items such as proceeds from debt issuances and transfers from other funds. Decreases in fund resources include expenses, other expenditures, and transfers to other funds. However, the term “expense” as defined under GAAP is typically not used with fund accounting. Instead the term “expenditure” includes expenses as well as other items giving rise to cash (or other resource) outlays, without regard to timing or the matching with revenue that is an integral part of income determination under GAAP. Conversely, expenses may include items that are not current expenditures because of the timing of the outlay. The operating results of expendable fund entities are thus measured in terms of inflow, outflow, and balances of net current financial resources assigned to the fund. The appropriate operating statement for such entities is essentially a statement of changes in net financial resources. To provide a basis for comparison, both budgeted and actual resource flows may be presented in the operating statement or in related schedules. Later in this chapter, we describe the

modified accrual basis commonly used in fund accounting, and the need for accrual-based reporting under *GASB Statement No. 34*.

In summary, in accounting for expendable funds, the emphasis is changed from matching revenues and expenses to a comparison of the *actual* inflows and outflows of financial resources with *stipulated* or *approved* resource flows. The objective in accounting for expendable fund entities is to measure the extent to which management has *complied* with the regulations or restrictions that govern the use of expendable fund resources. A secondary objective is to assist management with such compliance.

Restricted and Unrestricted Fund Entities

Expendable fund entities may be further classified as restricted or unrestricted. This classification is usually applicable to nonbusiness organizations other than governmental units. The unrestricted expendable fund entity includes the net current financial resources of the nonbusiness organization that are available to carry out the primary or general activities of the organization at the discretion of the governing board. Current financial resources that are restricted by donors or other outside agencies for specific current operating purposes are included in restricted expendable fund entities. The term “restricted” refers to *resources that bear a legal restriction as to use imposed by parties outside the organization*. The primary purpose of this distinction is to assist in the determination of the current financial resources that are available for use at the discretion of the governing board and those over which the governing board has little, if any, discretion as to use because of *externally* imposed restrictions. As illustrated in Chapter 19, most nonbusiness organizations other than governmental units have one unrestricted fund and one or more restricted funds.

Proprietary Fund Entities

Proprietary fund entities are used to account for the activities of nonbusiness organizations that are similar to those of business enterprises. Proprietary funds are classified either as enterprise funds or internal service funds. Enterprise funds report on any activity for which a fee is charged to external users for goods and services while internal service funds provide services to other funds, departments, or agencies within the government. Many nonbusiness organizations engage in quasi-commercial activities. The operation of an electric or water utility by a municipality and the rental of real estate by a religious organization are examples of such activities. Accordingly, even though these activities are accounted for in separate fund entities, relevant accounting measurements and reports are similar to those applicable to profit-oriented enterprises and focus on the determination of net income, financial position, and cash flows. The city of Nashville reports three major proprietary funds; two of these are Enterprise funds (the Department of Water and Sewage Services and District Energy Systems) and an Internal Service Fund (providing service to other agencies of the government such as fleet management, information systems, etc.)

The accounting model for the statement of financial position of a proprietary fund entity is as follows:

$$\text{Assets} + \text{Deferred outflows of resources} = \text{liabilities} + \text{Deferred inflows of resources} + \text{Net Position}$$

The accounting model for the statement of revenues, expenses, and changes in fund net position of a proprietary fund entity is presented as follows using the all-inclusive format:

	Operating revenues
	Less: operating expenses
=	<hr style="width: 100%; border: 0.5px solid black;"/> Operating income
	Plus (minus): nonoperating revenues and expenses
	<hr style="width: 100%; border: 0.5px solid black;"/> Income before contributions and transfers
	Plus (minus): Contributions and transfers
=	Increases (decreases) in net position
	Plus: net position—beginning of period
=	<hr style="width: 100%; border: 0.5px solid black;"/> Net position—end of period

Fiduciary Fund Entities

Fiduciary funds include four types of funds: Pension trust funds, investment trust funds, private-purpose trust funds, and agency funds. Trust funds are funds where the government acts as trustee for an individual or organization. An example of a trust fund might be a pension trust fund in which the fund accounts for the accumulation of resources for pension benefit payments to employees, police, and firefighters of the city. An agency fund accounts for resources of various taxes, bonds, and other receipts held for individuals, outside organizations, and/or other funds.

The city of Nashville reports two fiduciary funds; the Pension (and other employee benefit) Trust funds (used to account for the assets and liabilities held by the government to provide retirement and disability benefits for employees and retirees) and an Agency Fund (used for various activities such as funds held by the Sheriff's Department for inmates, funds held by the Planning Commission for performance bonds for contractors).

Budgetary Fund Entities (Governmental Funds)

Governmental funds include 5 types of funds: the general fund (illustrated in this chapter), special revenue funds, capital project funds, debt service funds, and permanent funds (these latter 4 types are illustrated in Chapter 18). In the traditional compliance model of reporting on the operations of governmental units, actual and approved (or stipulated) inflows and outflows of resources are compared. Approved resource flows are incorporated into annual budgets. In some instances the budget for an expendable fund entity is so important (often because of legal requirements) to management control of fund resources that entries for budgeted revenues and expenditures are recorded in the books. Fund entities in which the budget is formally incorporated into the accounting records are sometimes referred to as *budgetary funds*. (This is illustrated later in the chapter.)

The preparation, use, and importance of budgets for governmental units cannot be overemphasized. The annual budget for a governmental unit is usually prepared by the executive branch of the governmental unit. It is then presented to the legislative branch for consideration and enactment. In the case of annually levied taxes such as property taxes, adoption of budgeted revenue amounts may require the enactment of enabling

legislation. In the case of continually levied taxes such as sales taxes and income taxes, no new legislation authorizing the tax is ordinarily required for the adoption of the budgeted amounts of revenue.

When budgeted expenditures are enacted into law, they are referred to as **appropriations**. Appropriations represent the maximum expenditures that are authorized by the legislature. As such, they represent (by budget category) amounts that cannot be legally exceeded unless subsequently amended by the legislative body. Accordingly, the accounting system must provide administrators of governmental units with timely information as to actual expenditures and allowable expenditures (appropriations) by budget category. In addition, financial reports must be prepared in such a way that the legislature or its representatives can determine that the spending limits authorized by it have not been exceeded. The approved budget may, therefore, be formally recorded in the accounting records of the appropriate fund(s). Such formal budgetary account integration is useful in assisting in the control and administration of fund resources.

Basis of Accounting

The basic financial statements of a government include two sections; government-wide financial statements and fund financial statements. Government-wide financial statements report on all the nonfiduciary activities of the government and provide both short- and long-run information about the financial status of the government. In addition to reporting the government funds statements on a modified accrual basis, a **government-wide Statement of Activities** and a **government-wide Statement of Net Position** are required.⁴ The government-wide financial statements are prepared using the economic resources measurement concept and the accrual basis of accounting (this is also appropriate for proprietary and fiduciary fund entities.).

Governmental fund (expendable funds) financial statements are reported using the current financial resources concept and the **modified accrual basis** of accounting. Financial resources of an expendable fund entity include cash, receivables, and securities that can be converted into cash. Revenues are recognized when they are measurable and available. Revenues are available when they are collectible within the current period or soon enough to pay liabilities of the current period. Governments are required to disclose the length of time used to define “available for use” for purposes of defining revenues. The cash basis of accounting is not appropriate. Under the modified accrual approach, it is not sufficient for an economic event to occur to affect the operating statement. **Instead, the related cash flow must occur within a period short enough to have an effect on current spendable resources.** In other words, revenues must be both measurable and available to liquidate liabilities of the current period.

The term “expenditure” rather than “expense” is used for governmental funds. Expenditures are recorded when a liability is incurred, similar to accrual accounting. However, because governments generally do not attempt to allocate costs to periods benefited and because some expenditures of the expendable fund entities are not recognized in the period in which they are incurred, the term **modified accrual accounting** is also used. Therefore, expenditures are recognizable when an event is expected to use current spendable resources (rather than future resources).

RELATED CONCEPTS

Government-wide financial statements are presented on an accrual basis. Accrual accounting better assists users in assessing whether the costs of services were shifted to future periods. Also, this information assists users in determining whether a government's *financial* position has improved or deteriorated.

⁴ Governmental Accounting Standards Board (GASB), *GASB Statement No. 34*, “Basic Financial Statements—and Management’s Discussion and Analysis—for State and Local Governments” (Norwalk, CT: June 1999).

Before proceeding further, it is useful to contrast the concepts of revenue, expense, and expenditure as they are used in relation to profit-oriented entities and to expendable fund entities.

Profit-Oriented Entities (Income Determination)

Revenues—increases in net assets resulting from the sale of goods or services.

Expenses—costs of resources used to produce current period revenues.

Unusual, Infrequent, and Extraordinary Items—Extraordinary items are items that are *both* unusual in nature and infrequent of occurrence; they are reported net of taxes. Items that are either unusual or infrequent, but not both, are shown on a separate line, if material, but are not shown net of taxes.

Expendable Fund Entities

Revenues—any increase in (source of) net current financial resources *other than* increases from *other financing sources* (as defined below).

Expenditures—any decrease in (use of) net current financial resources *other than* decreases from *other financing uses* (as defined below); or the amount of financial resources expended during the period to carry out the operations and activities of the fund entity.

Other Financing Sources and Uses (and Transfers)—proceeds from debt issuances and transfers of financial resources to and from other funds.

Special and Extraordinary Items—Extraordinary items are both unusual in nature and infrequent of occurrence. Special items are significant transactions within the control of management that are either unusual or infrequent.

In the remainder of this chapter, fund accounting concepts are developed within the framework of state and local governmental units.

IN THE NEWS

Do you ever wonder how long it takes to issue the financial reports after the year ends? When the GASB reviewed the reports for 50 states, for the largest hundred counties and localities, and for the 50 largest independent school districts and special districts for the periods 2006 through 2008, the results were astounding, and not in a good way. The average time between year-end and issue date was a full six months for the largest local and county governments and school districts, and state governments took even longer—nearly seven months. Two percent of the largest governments took over a year. Special districts rated the best, with their average around four months.

For smaller governments, the Board drew a random sample and found an average of 8 months between year-end and date of issuance for smaller county governments and an average of 6 months for smaller local governments, similar to their larger counterparts. Smaller special districts were a bit slower than larger special districts, coming in at an average of 6 months, while smaller independent schools were about 6 weeks faster than their larger counterparts. Overall, nearly half of the smaller governments examined issued reports within 6 months, with about 7% taking over a year.⁵

Classification of Revenues

LO 4 Classification of revenues.

Revenues are classified by fund and by major revenue source. Major sources of revenue for state and local governmental units are summarized in Illustration 17-2. As shown, the number of sources of revenue available to governmental units is impressive when

⁵ Research brief, “The Timeliness of Financial Reporting by State and Local Governments Compared with the Needs of Users,” www.gasb.org.

ILLUSTRATION 17-2**Major Sources of Revenue for State and Local Governmental Units**

Property taxes	Grants from federal, state, or local government units
Income taxes	Shared revenues from federal, state, or local government units
Sales and excise taxes	
Gift and inheritance taxes	Payments in lieu of taxes from federal, state, or local government units
Fines and penalties	Interest earned on loans and investments
Gifts and donations	
Forfeits	
Licenses and permits	
Sales of property	
Charges for services	

compared with those available to business enterprises. The City of Nashville reports ten major sources of revenue on its Statement of Revenue, Expenditures, and Changes in Fund Balances with property taxes accounting for 57% of its total revenue for the year ending June 30, 2016. The City of Atlanta reported nine major sources of revenue with property taxes accounting for only around 32% of its total revenue.

Other Financing Sources

Debt Issue Proceeds Governmental units may finance their operations through the issuance of bonds or other debt instruments. Although debt issue proceeds are sometimes classified as revenue of a particular fund entity, they are *not revenue* from the point of view of the issuing governmental unit because of the offsetting debt. Accordingly, debt issue proceeds should be classified separately from revenue for purposes of financial reporting. Debt issue proceeds are accounted for as “other financing sources.”

Transfers of Resources from Other Funds Transfers of resources from other fund entities within an organization do not represent an increase in the expendable financial resources of the organization as a whole. Accordingly, even though they represent an increase in the financial resources of the recipient fund entity, they should ordinarily *be classified separately from revenue* for financial reporting purposes. Interfund operating transfers are accounted for as “other financing sources,” or “uses.”

Recognition of Revenue

In accounting for profit-oriented enterprises, revenue is ordinarily not recognized until (1) a transaction has taken place (that is, the amount of revenue can be objectively measured) and (2) the earnings process is complete or substantially complete. Criterion 2 is not applicable to expendable fund entities. The revenue-recognition criteria for expendable fund entities can be stated as follows: ***In accounting for expendable fund entities, revenue is ordinarily not recognized until (1) it can be objectively measured and (2) it is available to finance expenditures of the current period.***

Many sources of fund revenue do not meet the criteria of measurability and availability until they are received in cash. On the other hand, significant amounts of revenue (for example, property taxes, pledges, regularly billed charges for routine

services, and some types of grants) meet both criteria and are recognized as revenue prior to the receipt of cash. The application of these criteria to several significant sources of revenue of governmental units may be illustrated as follows.

Property Taxes Property taxes usually meet both criteria when levied. The amount of property tax is precisely determinable when levied and the amount of uncollectible taxes ordinarily can be reasonably estimated on the basis of previous experience. Thus, the amount of property tax revenue is objectively determinable at the time the taxes are levied. Ordinarily, taxes are also considered to be *available* in the period levied, even though they are collectible in a period subsequent to the levy, because (1) they provide a basis for obtaining cash resources through the issuance of tax anticipation notes⁶ and (2) they are usually collectible early in the subsequent period and thus are available to finance current period operations.

Income Tax and Sales Tax Self-assessed taxes such as the income tax and the sales tax usually are not objectively measurable or available until the tax returns are filed with payment. Where the tax returns have been filed but payment is delayed, revenue should be recognized when the returns are filed, assuming that a reasonable estimate can be made of noncollectible amounts, if any. In addition, sales taxes held by merchants may be recognized as revenue before they are received by the fund entity if the measurability and availability criteria are met.

Fines and Forfeits The amounts of fines, forfeits, inspection charges, parking meter receipts, and so on, are not objectively determinable or available until assessed or collected and are, therefore, not normally recognized as revenue until collected.

Sales of Property The entire amount of proceeds from the sale of property is treated as revenue at the time of sale because expendable assets are increased and are available to finance current expenditures in the same manner as any other revenues.

Pledges and Grants A pledge to contribute resources is considered revenue at the time it is made, so long as a reasonable estimate of uncollectible pledges can be made and there is no restriction on the time period in which the pledged resources can be expended. Grants may or may not be recognized as revenue at the time the grant is authorized. If the grant is dependent on the performance of services, or if the expenditure of funds is the prime factor for determining the eligibility for the grant funds, revenue should not be recognized until the time the services are performed or the expenditures are made. Grants that are not dependent on performance or expenditure of funds should be recognized in the period in which they are authorized.

Classification of Expenditures and Other Resource Outflows

As mentioned earlier, an expenditure is any decrease in net current financial resources other than transfers to other funds. Thus expenditures are not matched to the production of current revenues as are expenses for profit-seeking enterprises. Expenditures may be classified by fund, by function and/or activity, by organizational unit, by character (nature

⁶ Tax anticipation notes are notes or warrants issued in anticipation of the collection of taxes and are usually retireable only from the proceeds of the tax levy whose collection they anticipate.

⁷ *Financial Report of the United States* (with a foreword by Representative Jim Cooper), Nelson Current, 2006.

IN THE NEWS

Did the U.S. deficit increase or decrease in 2005? The answer to

this question depends on how you measure the deficit. The commonly used definition (and the one used by President Bush) is based on cash accounting and is often quoted as being \$318.5 billion. Under this measure the deficit decreased for 2005. However, using the accrual basis (which is required of private-sector firms), the deficit was \$760 billion, which was significantly worse than the \$600 billion deficit in the prior year.⁷

LO 5 Classification of expenditures.

ILLUSTRATION 17-3**Functional Classification of Expenditures for State and Local Governmental Units**

<i>General Government</i>	<i>Health and Welfare</i>
Legislative	
Judicial	<i>Recreation—Cultural</i>
Executive	Playgrounds
Elections	Swimming pools
Financial administration	Golf courses
	Parks
	Libraries
<i>Public Safety</i>	
Police	
Fire	<i>Urban Redevelopment and Housing</i>
Inspection	
<i>Public Works</i>	<i>Economic Development and Assistance</i>
Highways and streets	
Sanitation	

of the expenditure), or by object class. Since different classifications serve different purposes, multiple classification of expenditures is usually recommended. For example, the various classifications might be illustrated as follows:

- Function—Public Safety
- Organizational Unit—Fire Department or Police Department
- Activity—Drug Control
- Character—Current Operating
- Object Class—Supplies or Salaries

Classification by Function and Activity Typical functional classifications of expenditures for state and local governmental units are presented in Illustration 17-3. Classification by function refers to the broad purposes for which expenditures are made. Classification by activity refers to the specific types of work performed to accomplish such purposes. For example, public safety is a major function of a municipality. The **function** of public safety may be divided into **subfunctions** such as police protection, fire protection, and protective inspection. The subfunction of police protection can be classified into **activities** such as criminal investigation, vice control, patrol, custody of prisoners, and crime laboratory.

Functional and activity classifications are particularly important and are the classifications ordinarily recommended for published financial reports. In addition, as noted by the National Council on Governmental Accounting:

Activity classification is particularly significant because it facilitates evaluation of the economy and efficiency of operations by providing data for calculating expenditures per unit of activity. That is, the expenditure requirements of performing a given unit of work can be determined by classifying expenditures by activities and providing for performance measurement where such techniques are practicable. These expenditure data, in turn, can be used in preparing future budgets and in setting standards against which future expenditure levels can be evaluated. Further, activity expenditure data provide a convenient starting point for calculating total

ILLUSTRATION 17-4**Classification of Expenditures by Object Class**

<i>Personal Services</i>	Printing and publications
Salaries	Repairs and maintenance
Employee health and retirement benefits	Insurance
Payroll taxes, etc.	Miscellaneous
<i>Supplies</i>	
Office supplies	<i>Capital Expenditures</i>
Operating supplies	Land
Small tools	Buildings
<i>Other</i>	Improvements
Professional services	Machinery and equipment
Telephone and telegraph	Motor vehicles
Travel	Furniture and furnishings
Rental (equipment, buildings, machinery)	Office machines
Postage and shipping	

and/or unit expenses of activities where desired, e.g., for “make or buy” and “do or contract out” decisions. Current operating expenditures (total expenditures less those for capital outlay and debt service) may be adjusted by depreciation and amortization data ... to determine activity expense.⁸

Classification by Organizational Unit and by Object Class Classification of expenditures by organizational unit is important for management, control, and internal reporting purposes including responsibility accounting. Classification of expenditures by organizational unit is based on the departments, divisions, bureaus, or other administrative units that make expenditures to carry out their designated functions. Examples include police department, attorney general’s office, corporation commission, city planning, and the like. Each organizational unit may have responsibility for several functions or activities. In some instances a function or activity may cross organizational unit lines.

Classification of expenditures by object class identifies what is acquired in return for the expenditure (i.e., the types of items purchased or services obtained). Typical object classifications are presented in Illustration 17-4. Classification by object is useful primarily for internal management and may be omitted from published financial reports.

Transfers to Other Funds

Transfers of resources to other fund entities within an organization do not represent decreases in the expendable financial resources of the organization as a whole. Accordingly, even though they represent a decrease in the financial resources of a particular

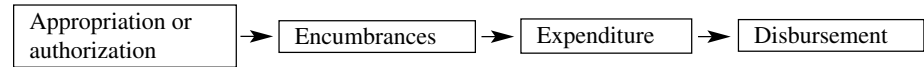
⁸ National Council on Government Accounting, *Statement 1: Governmental Accounting and Financial Reporting Principles* (Chicago: Municipal Finance Officers Association of the United States and Canada, 1979), pp. 16–17.

fund, they ordinarily should be classified separately from expenditures for financial reporting purposes.

Recognition of Expenditures

LO 6 Critical events in the use of financial resources.

An expenditure is one of four critical events in the use of the financial resources of an expendable fund entity. The sequence of events is as follows:



Appropriation Appropriations represent the maximum amount of expenditures that entities are authorized to spend. Administrators are responsible for expending fund resources only in the amounts and for the purposes prescribed in the appropriations act. In the case of governmental units, administrators are held strictly accountable for the provisions of the appropriation act, and stiff penalties are provided by law for those who fail to follow them. Thus, an important function of financial statements is to let administrators know how they stand relative to their appropriation authority. Furthermore, accounting safeguards must be in place to prevent the misuse of fund resources.

Encumbrance Since the amount of an appropriation cannot be legally exceeded, the placing of purchase orders and the signing of contracts are critical events in controlling the expenditures of expendable fund entities. The financial resources of a fund are said to be encumbered when a transaction is entered into that requires performance by another party before the governmental unit becomes liable to perform its part of the transaction by spending financial resources. An encumbrance reduces the remaining portion of appropriations encumbered and is formally recorded in the accounting records. Thus, at any particular time the accounting records will reflect management's remaining available appropriation authority as follows:

$$\text{Appropriations} - (\text{Encumbrances} + \text{Expenditures}) = \text{Unencumbered balance}$$

The unencumbered balance is the amount of resources that can still be obligated or expended without exceeding the legal or authorized limit.

Encumbrances are recorded as follows:

Purchase Order (Encumbrance)

(1)	Encumbrance (appropriately classified)	10,000	
	Fund Balance (appropriately classified)		10,000
	To record an order for goods in the amount of \$10,000.		

Expenditures An expenditure is a decrease in fund resources or an increase in fund liabilities that occurs when the vendor or supplier performs on a contract or purchase order and goods or services are received. Expenditures are recognized in the accounting period in which the fund liability is incurred, except for unmatured interest on long-term debt, which is recognized when due, and certain compensated absences and claims and judgments, which are recognized when obligations are expected to be liquidated with expendable available resources. Thus, an expenditure and a corresponding liability or cash disbursement is recorded at the time goods or

services are received or at the time funds are granted to an authorized recipient. When the goods ordered in (1) above are received, the following entries are made:

Receipt of Goods (Expenditure)

(2) Expenditures (appropriately classified)	12,000	
Vouchers Payable		12,000
To record the receipt of goods invoiced at \$12,000.		
(3) Fund Balance (appropriately classified)	10,000	
Encumbrance		10,000
To remove the encumbrance recorded in (1) for goods received and recorded as an expenditure in (2).		

In this case, the goods cost \$2,000 more than was estimated when the order was placed.

Disbursements Disbursements represent the payment of cash for expenditures. Such payments may precede the expenditure (an advance), coincide with the expenditure (a direct payment), or follow the expenditure (the payment of a liability). The payment for the goods purchased in (2) above is recorded as follows:

Payment of Goods

(4) Vouchers Payable	12,000	
Cash		12,000
To record payment of vouchers payable.		

Encumbrances and expenditures are classified on the same basis (by fund, function, organizational unit, activity, character, or object class) as appropriations. The effect on appropriation control of incorporating appropriations, encumbrances, and expenditures into the accounting records is demonstrated in Illustration 17-5 for an imaginary budget line item number 103.

In Illustration 17-5, it is assumed that the appropriation for budget category 103 is \$50,000 and that the amount of expenditures in this category prior to the entries illustrated above was \$15,000. The effects of entries (1), (2), (3), and (4) on the subsidiary ledger card for budget category 103 are to reduce the unencumbered balance by \$12,000 (the amount of the actual expenditure). The most important thing to note is that at any particular time, information is available to administrators concerning their unexpended and unused appropriation authority.

LO 7 Capital expenditures.

Capital Expenditures In accounting for profit-oriented enterprises, capital expenditures are recorded as assets and are distinguished from expenses. The costs of such assets are recognized in the operating statements (income statement) of such enterprises through depreciation.

ILLUSTRATION 17-5

Subsidiary Ledger Control Card for One Budget Category

Function: Sanitation; Activity: Sanitary Sewer Cleaning; Object: Operating Supplies

Budget Line 103	(A) Appropriation	(B) Encumbrance	(C) Expenditure	(D) Total (B) + (C)	(E) Unencumbered Balance (A) - (D)
Prior Balance	\$50,000	\$ —	\$15,000	\$15,000	\$35,000
Purchase Order [entry (1)]		10,000		10,000	(10,000)
Balance	50,000	10,000	15,000	25,000	25,000
Expenditure [entries (2) & (3)]		(10,000)	12,000	2,000	(2,000)
Balance	\$50,000	\$ —	\$27,000	\$27,000	\$23,000

In accounting for an expendable fund entity, capital expenditures, like other expenditures, are treated as an outflow of financial resources. The assets acquired do not represent expendable financial resources but rather reflect the purposes for which financial resources have been used. Thus, they are not recorded or reported as assets of the fund entity. This treatment is consistent with the primary purpose of fund accounting, which is to provide accounting control over the collection and expenditure of financial resources and to assure that no violations of authorized limits on expenditures occur. The operating statements of expendable fund entities are therefore designed to reflect *all* the sources and uses of its financial resources. The position statement of the expendable fund entity is designed to present the status of its *financial resources*, the related liabilities, and the *net financial resources* available for subsequent appropriation and expenditure. This emphasis on the status and flow of net financial resources requires that capital expenditures be treated the same as any other classification of expenditures and that they not be reflected as assets of the fund entity. This is not to say that controls are not maintained over fixed assets acquired by means of expendable fund resources. The organization establishes records and controls beyond the records of the expendable fund entity. Accounting for and reporting on fixed assets is illustrated in Chapter 18 for governmental units and in Chapter 19 for nongovernment nonbusiness organizations. General capital assets are assets associated with and arising from governmental activities. Although they are not reported as assets in government funds, they are reported as assets in government-wide statements required under *GASB Statement No. 34* (illustrated in the next chapter).

Depreciation is not accounted for in the records of an expendable fund entity for the same reason that fixed assets are excluded from the records of such entities. However, depreciation is recognized in the government-wide statement of assets and statement of activities. As stated previously, expenditures, not expenses, are generally measured in accounting for expendable fund entities. Acquisitions of fixed assets require the *use* of financial resources and are accounted for as expenditures. Proceeds from the sale of fixed assets *provide* financial resources and are accounted for as revenues. Depreciation expense is neither a source nor a use of the financial resources of an expendable fund entity, and thus is not properly recorded in the accounts of such entities. Inclusion of depreciation expense in the operating statement of an expendable fund entity would confuse two fundamentally different measurements—expenditures and expense—and would result in misleading inferences relative to the operating activities of the expendable fund entity. This does not mean that the concept or measurement of depreciation is not important from the point of view of the organization as a whole. Indeed, if meaningful cost/benefit analysis is to be attempted for a particular activity, the operating expenditures of the activity must be adjusted for depreciation to determine total activity cost. For this reason, depreciation expense is required on the government-wide statements (see Chapter 18). However, the primary objective of fund accounting is not to provide information relative to the costs and benefits of activities but to control the collection and expenditure of financial resources. Accounting for and reporting on depreciation are further discussed in Chapter 18 for state and local governmental units and in Chapter 19 for nongovernment nonbusiness organizations.

Fund Balance and Classification

GASB Statement No. 54 significantly changed how fund balances are reported on governmental fund financial statements. A fund balance is reported from the perspective of the underlying resources within the fund balance. Fund balances are determined using a

hierarchy of fund balance classifications based upon the extent to which governments are bound by constraints on resources reported in the funds.

GASB Statement No. 54 does not affect the government-wide or accrual-based statement presentations, and it does not change the amount of total fund balance on any fund statements.

The fund balance classifications apply to all governmental funds—general funds, special revenue funds, debt service funds, capital projects funds, and permanent funds.

<i>Classification</i>	<i>Definition</i>
Nonspendable	This classification includes amounts that cannot be spent because they are either: <ol style="list-style-type: none"> 1. Not in a spendable form (inventories or prepaid items) 2. Legally or contractually required to be maintained intact (principal of a permanent fund)
Restricted	This fund balance is reported as restricted when constraints placed on the use of resources are either: <ol style="list-style-type: none"> 1. Externally imposed by creditors (such as debt covenants), grantors, contributors, or laws and regulations of other governments. 2. Imposed by law through constitutional provisions or enabling legislation (state constitutions or the federal government).
Committed	Amounts that can only be used for specific purposes subject to constraints imposed by formal action of the state's highest level of decision-making authority (the State Legislature) are reported as committed fund balance (for instance, these might be imposed by an ordinance of the City Council).
Assigned	For the general fund, amounts constrained for the intent to be used for a specific purpose by a governing board or by a body or official that has been delegated authority to assign amounts. (For instance, the Chief Financial Officer may recommend assignment of fund balances subject to approval of the City Council.) Amounts reported as assigned should not result in a deficit in unassigned fund balance. <p style="margin-left: 40px;">For all governmental funds other than the general fund, any remaining positive amounts not classified as nonspendable, restricted, or committed.</p>
Unassigned	This is the residual classification for the general fund. The net resources of the general fund in excess of nonspendable, restricted, committed, and assigned fund balances (a surplus fund balance) are classified as unassigned fund balance. The general fund is the only governmental fund that can have a positive unassigned fund balance. <p style="margin-left: 40px;">In all other governmental funds, the excess of nonspendable, restricted, and committed fund balances over total fund balance (a deficit fund balance) is classified as unassigned.</p>

Governments should establish a policy on the order in which unrestricted resources are used when any of these amounts are available for expenditure. If a government does not establish a policy, the default approach assumes that committed amounts should be reduced first, followed by the assigned amounts, and then the unassigned amounts. For instance, the City of Atlanta states their policy in footnote D to the financial statements as: Fund expenditures are from restricted fund balance to the extent of the restricted fund revenue followed by committed then assigned and unassigned fund balance.

Reporting a negative (deficit) *restricted*, *committed*, or *assigned* balance is not permitted. If the total fund balance is negative, the negative fund balance is assigned to the unassigned fund balance.

A positive (surplus) *assigned* fund balance cannot result in a negative (deficit) *unassigned* fund balance. If this occurs, reduce the *assigned* fund balance. If the *assigned* fund balance is not sufficient to absorb the negative amount, reduce any *committed* fund balance and then any *restricted* fund balance. If these balances are not sufficient to absorb the negative amount, report the net fund balance (deficit) as *unassigned* with all other categories (*restricted*, *committed*, and *assigned*) showing a zero balance.

Governments must disclose, either on the face of the statement or in the notes, the nonspendable fund balance by type, the restricted fund balance by purpose, and the commitments and assignments by major purpose. In supplemental Appendix A to this chapter (available from your instructor), the City of Atlanta divides their fund balance into the following categories:

Fund Balances:

Nonspendable	5,941
Restricted	744,874
Committed	47,208
Assigned	8,537
Unassigned	<u>119,122</u>
Total fund balances	<u>925,682</u>

Encumbrances and Fund Balance

At the end of the year, the fund balance constraint specific to encumbrances (not yet incurred) referred to as “reserved for encumbrances” is no longer reported as a part of the fund balance. Instead, the encumbered funds should be classified in the restricted, committed or assigned category based on the constraints placed on them. The City of Atlanta reports prior year encumbrances of the general fund as part of the *assigned* fund balance.

Recording Budgeted and Actual Revenue and Expenditures

Consider an expendable fund with a beginning balance of \$100,000 in the fund balance. For the year, revenues and appropriations for expenditures were estimated to be \$800,000 and \$780,000, respectively. During the year, commitments for expenditures were \$775,000 and revenues were \$850,000. Notice that commitments were within the appropriation limit of \$780,000 and that commitments were less than the expected revenues. However, for the year, actual expenditures were \$600,000. (These expenditures were related to \$605,000 worth of commitments for expenditures.) The following seven journal entries reflect the information recorded in the fund. The statement of changes in fund balance for the expendable fund entity is presented in Illustration 17-6.

In the first journal entry, the difference between budgeted revenue (\$800,000) and budgeted expenditures (\$780,000 of appropriations) is recorded as an increase or decrease in the unassigned fund balance (\$20,000). In this case, since estimated revenues exceed estimated expenditures, the difference increases the fund balance by \$20,000. In addition to this entry, postings would be made to subsidiary accounts for each source of revenue and each appropriation expenditure category.

(1) Estimated Revenue (classified)	800,000	
Appropriations (classified)		780,000
Fund Balance—Unassigned		20,000
To record budgeted revenues and expenditures adopted by legislative body or governing board.		

ILLUSTRATION 17-6**Condensed Financial Statements of Expendable Fund Entity
Balance Sheet—January 1, 2019**

Net Financial Resources (Assets minus Liabilities)	<u>\$100,000</u>
Fund Balance—Unassigned	<u>\$100,000</u>

**Statement of Changes in Fund Balance
For Period Ended December 31, 2019**

	<i>Budget</i>	<i>Actual</i>	<i>Actual Over (under) Budget</i>
Fund Balance—1/1	\$100,000	\$100,000	\$0
Revenue	<u>800,000</u>	<u>850,000</u>	<u>50,000</u>
Total Resources Available	<u>\$900,000</u>	<u>\$950,000</u>	<u>\$50,000</u>
Appropriations	780,000		
Expenditures (current year)		<u>600,000</u>	
Total Resources Expended or Committed	<u>780,000</u>	<u>600,000</u>	<u>(180,000)</u>
Fund Balance—12/31	<u>\$120,000</u>	<u>\$350,000</u>	<u>\$230,000</u>

Balance Sheet—December 31, 2019

Net Financial Resources (Assets minus Liabilities)	<u>\$350,000</u>
Fund Balance:	
Assigned (List encumbrances outstanding by purpose)	\$170,000
Unassigned	<u>\$180,000</u>
	<u>\$350,000</u>

The second journal entry records the revenue recognized for the year. As commitments are made, encumbrances are recorded. The third journal entry records encumbrances. These amounts would then be posted to the various appropriation expenditure subsidiary accounts. This posting provides information as to the amount of each appropriation category that remains available for encumbrance or expenditure. In this third journal entry, the credit for encumbrances, in the general fund, will usually be to Fund Balance-Assigned. However, based on the level of constraint placed on the expenditure, this amount could be credited to restricted or committed fund balance as well. Some cities have decided to credit the amount to a 'reserve for encumbrance' account. The GASB no longer permits this account to be displayed as part of fund balance; thus, if this account is used, it can be reclassified into the appropriate fund balance classification.

(2) Receivables or Cash	850,000	
Revenue (classified)		850,000
To record revenues recognized during the year.		

(3) Encumbrances (classified)	775,000	
Fund Balance—Assigned (Encumbrances)		775,000
To record commitments made against appropriations (<i>\$775,000 is an assumed amount</i>).		

Two journal entries are required to record expenditures for goods or services that have been previously encumbered. One entry is needed to record the actual expenditure amount, and one entry is needed to reverse the encumbrance made when the commitment was recorded. Since the amount expended will not necessarily equal the amount encumbered, the dollar amounts in the two entries may

not be the same. The reversal of the encumbrance is for the amount of the original encumbrance, which is assumed to be \$605,000 in this example. The amount of expenditure is for the approved invoice price of the goods or services received.

(4a) Expenditures (classified)	600,000	
Vouchers Payable or Cash		600,000
To record receipt of encumbered goods and services.		
(4b) Fund Balance—Assigned (Encumbrances)	605,000	
Encumbrances		605,000
To remove encumbrances on goods and services that have been recorded as expenditures and reverse the amount recorded into fund balance (<i>\$605,000 is an assumed figure</i>).		

Two closing entries are needed. The first closing entry is used to close actual revenues and estimated revenues against fund balance-unassigned. The excess of actual revenue over (under) budgeted revenue is recorded as an increase (decrease) in the unassigned fund balance. (Note that all subsidiary revenue and expenditure accounts would also be closed.)

(5) Revenue	850,000	
Estimated Revenue		800,000
Fund Balance—Unassigned		50,000
To close budgeted and actual revenue accounts.		

The second closing entry is to close the appropriations account against expenditures and the amount of outstanding commitments remaining in the encumbrance account. The excess (short) of appropriations over (under) expenditures minus (plus) encumbrances is recorded as an (a) increase (decrease) in the fund balance-unassigned. The balance of encumbrances at year-end is matched against appropriations because, although they are not expenditures, encumbrances do represent commitments made against the current year's appropriations and therefore represent the use of the appropriation authority of the current year. Notice that there should be a balance in the fund balance-assigned account (equal to the remaining balance in the encumbrance account) which is carried forward to the next year.

(6) Appropriations	780,000	
Expenditures		600,000
Encumbrances (\$775,000 – \$605,000)		170,000
Fund balance—Unassigned		10,000
To close appropriations, expenditures, and encumbrances accounts.		

As mentioned earlier, the entry to record encumbrances, under prior standards, would have been to record a reserve for encumbrance account. GASB no longer permits governments to display a reserve account as part of fund balance. In this textbook, we have assumed the offsetting entry to encumbrance for the general fund is to increase Fund Balance—Assigned. Notice that after the closing entry (6) is recorded, encumbrances have a zero balance, but the Fund Balance-Assigned account has a remaining \$170,000 balance representing encumbrances outstanding at the end of the year. The GASB requires the balance to be included in either the restricted, committed, or assigned classification of fund balance along with the stated purpose. In general, only the general fund will report encumbrances in assigned fund balance and only to the extent that unassigned fund balance remains positive. If the constraint placed on the outstanding encumbrance is either restricted or committed, an adjusting entry would be needed to reclassify the fund balance from assigned to either restricted or committed.

The balance in the fund balance may be calculated as follows:

	<i>Fund Balance</i>		
	<i>Unassigned</i>	<i>Assigned</i>	<i>Total</i>
Fund Balance—January 1, 2019	\$100,000	\$ —0—	\$100,000
Excess of estimated revenue over appropriations—entry (1)	20,000		20,000
Excess of actual revenue over estimated revenue—entry (5)	50,000		50,000
Excess of Appropriations over expenditures and encumbrances—entry (6)	10,000		10,000
Excess of Total Encumbrances over Total Encumbrances expended—entries (3)&(4)	<u> </u>	<u>170,000</u>	<u>170,000</u>
Fund Balance—December 31, 2019	\$180,000	\$170,000	\$350,000

The \$170,000 balance in the assigned fund balance account at December 31, 2019, represents the estimated amount of the net financial resources of the fund entity needed in the next year to pay the obligations authorized in the current year's appropriation. Thus, it represents a restriction on the availability of fund resources for future appropriation rather than a liability and is properly considered as a reserved portion of the total fund balance. Note that the increase in the *total* fund balance (\$100,000 to \$350,000, or \$250,000 in this example) is always equal to the excess of *actual* revenues (\$850,000; inflows of net financial resources) over *actual* expenditures (\$600,000; outflows of net financial resources).

In the next year, the remaining balance in the Fund Balance—Assigned from encumbrances will be charged by means of a separate expenditures account with the actual expenditures arising from the year-end commitments that are incurred in the subsequent year. A difference between the amount encumbered at the end of the year and the actual amount of the related expenditures that are incurred in the subsequent year is debited or credited to the unassigned fund balance.

Suppose that in 2020, the fund incurs \$160,000 of expenditures on these commitments. The entries to record the expenditures would be:

Expenditures—2019	160,000	
Cash		160,000

There is not a second entry to reverse the encumbrance account, since the encumbrance account for 2019 was closed at the end of 2019. Thus at the end of 2020, this expenditure account is closed against the Fund Balance—Assigned account of \$170,000. This closing entry is:

Fund Balance—Assigned (encumbrances—2019)	170,000	
Expenditure—2019		160,000
Fund Balance—Unassigned		10,000

Encumbrances resulting from the issuance of purchase orders as a result of normal purchasing activity approved by appropriate officials will be classified as Fund Balance—Assigned. The City of Atlanta, classifies \$8.5 million of encumbrances as Fund Balance—Assigned. In the City of Atlanta's footnotes, it is stated that "Encumbrances are commitments to unfilled purchase orders or unfilled contracts. Funds have been committed to a specific order, but the goods or services have not been billed or received." The \$8.8 million reported as fund balance assigned includes contract services, supplies, capital, and other.

TEST YOUR KNOWLEDGE 17.1

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

Short Answer

- 1 On January 1, 2019, Stale City reported an unassigned fund balance of \$50,000. During the year,

estimated revenues were \$400,000 and actual revenues were \$425,000. Appropriations for the year were \$350,000, while expenditures were \$250,000 and encumbrances outstanding at December 31, 2019, were \$80,000. Compute the unassigned fund balance at December 31, 2019.

**IN
THE
NEWS**

In 2009, the U.S. will have its second “trillion-dollar deficit,” with 2008’s deficit being the first. However, the budget deficit for 2008 was officially reported as being \$455 billion. How is this possible? Just borrow money from the Social Security trust fund, record it as an “intragovernmental transfer” and exclude it from the calculation of the deficit. Corporate managers have gone to jail for less than this.⁹

17.5 COMPREHENSIVE ILLUSTRATION—GENERAL FUND**LO 8** Understanding the general fund.

The General Fund of Model City is now used to illustrate the principles of fund accounting developed in this chapter.

The general fund of a municipality is used to account for most of the current operations of a municipality other than those required to be accounted for in other funds. It is established at the inception of the municipality and is continued as long as the municipality exists. A government never reports more than one general fund. Other government funds are established to account for specific municipality activities, such as a capital projects fund to build new highways or a debt services fund to service debt and interest payments. The general ledger trial balance of the General Fund of Model City on January 1, 2014, is as follows:

**Model City
The General Fund
General Ledger Trial Balance
January 1, 2019**

Cash		\$ 45,000
Certificates of Deposit		100,000
Property Tax Receivable		<u>190,000</u>
Total Debits		<u>\$335,000</u>
Estimated Uncollectible Taxes		\$ 20,000
Vouchers Payable		65,000
Fund Balance:		
Assigned Fund Balance (encumbrances – 2018)	155,000	
Unassigned Fund Balance	<u>95,000</u>	
Total Fund Balance		<u>250,000</u>
Total Credits		<u>\$335,000</u>

⁹ WSJ, February 17, 2009, “A Short History of the National Debt,” by John Gordon.

The budget adopted by the City Council for the General Fund for the fiscal year ending December 31, 2019, is presented in summary form below.

**Model City
The General Fund
2019 Fiscal-Year Budget**

Estimated Revenue	
Licenses and Permits	\$ 188,250
Property Tax	1,158,750
State Grant—Education	300,000
Charges for Services	135,000
Interest Revenue	6,000
Proceeds from Sales of Equipment	<u>78,000</u>
Total	<u>\$1,866,000</u>
Appropriations	
Public Safety	516,000
General Government	293,500
Highways and Streets	135,500
Sanitation	75,000
Health	148,500
Cultural—recreation	88,500
Education	<u>687,000</u>
Total	<u>\$1,944,000</u>
Excess of Appropriations over Estimated Revenue	(\$78,000)
Transfer from Enterprise Fund	150,000
Less Transfers to: Debt Service Fund	(96,000)
Excess (deficiency) of Revenue and Transfers from Other Funds over Appropriations and Transfers to Other Funds	<u>(\$24,000)</u>

Summary entries to record the activities and transactions of the General Fund during 2019 are presented below. Remember, each entry to these general ledger control accounts also requires detailed postings by appropriate classifications to the related subsidiary accounts. The assignment to specific subsidiary accounts of amounts credited to revenue or appropriations and of amounts debited to encumbrances, expenditures, or estimated revenue is shown in parentheses for these summary entries.

(1)	Estimated Revenue	1,866,000	
	Fund Balance—Unassigned	78,000	
	Appropriations		1,944,000
	To record budgeted revenue and expenditures.		
(2)	Due from Enterprise Fund	150,000	
	Transfers from Other Funds		150,000
	To record authorization for transfer of resources from other fund entities incorporated in budget adopted by City Council.		

For financial reporting purposes, transfers of resources from other fund entities of the same organization are distinguished from revenue of the recipient fund entity. Interfund transfers are properly recognized (accrued) in the period in which they are authorized. Control over authorized transfers from other fund entities may be achieved by recording them as a receivable at the beginning of the year for which they are authorized (budgeted).

(3)	Transfer to Other Funds	96,000	
	Due to Debt Service Fund		96,000
	To record authorization for transfer of resources to another fund entity incorporated in budget adopted by city council.		

Although authorized transfers to other fund entities may be viewed as appropriation expenditures from the point of view of the General Fund entity, for purposes of financial reporting they are distinguished from expenditures. Control over authorized transfers to other fund entities may be achieved by recording them as liabilities at the beginning of the period for which they are authorized (budgeted).

(4)	Property Tax Receivable	1,287,500	
	Estimated Uncollectible Taxes		128,750
	Revenue		1,158,750
	To record property taxes at time they are levied.		

The estimate for uncollectible taxes is determined on the basis of collection policy and prior years' experience. It is recorded as a direct reduction of revenue, however, rather than as an expenditure, since the failure to collect taxes is not an outflow of net financial resources. Accordingly, there is no appropriation for the amount of estimated uncollectible taxes and it is, therefore, properly accounted for as a reduction of revenue rather than as an expenditure.

(5)	Other Receivables	80,000	
	Revenue		80,000
	To record billings for routine services.		
(6)	Expenditures—2018	148,000	
	Vouchers Payable		148,000
	To record receipt of goods and services ordered in 2018 and originally authorized for \$155,000.		

A separate expenditure control account (and subsidiary ledger) is used to record expenditures during the current year that were encumbered (authorized) in the prior year. At the end of the year, this expenditure account will be closed out and any difference taken to the fund balance unassigned [see entry (26) below].

(7)	Encumbrances	1,291,000	
	Fund balance—Assigned		1,291,000
	To record encumbrances (commitments) on goods and services ordered during current year.		
(8)	Cash	1,281,000	
	Property Tax Receivable		1,201,000
	Other Receivables		80,000
	To record collection of \$170,500 of property taxes levied in 2018 and \$1,030,500 of property taxes levied in 2019, and to record collection of \$80,000 in other receivables.		
(9)	Estimated Uncollectible Taxes	19,500	
	Property Tax Receivable		19,500
	To record write-off of uncollected 2018 property taxes authorized by City Council ($\$190,000 - \$170,500 = \$19,500$).		
(10)	Cash	221,000	
	Revenue		221,000
	To record collection of licenses, permits, fees, service charges, etc.		

(11)	Expenditures	1,050,000	
	Vouchers Payable		1,050,000
	Fund balance—Assigned	1,100,000	
	Encumbrances		1,100,000
	To record receipt of goods and services that had been previously encumbered [entry (7) above] in the amount of \$1,100,000.		
(12)	Expenditures	210,000	
	Vouchers Payable		210,000
	To record receipt of goods and services that had <i>not</i> been previously encumbered.		

Not all expenditures go through the encumbrance process. Encumbrances are formally recognized in the accounts only when there is an extended period of time between the date the commitment is made and the date the expenditure is incurred. For example, routine payroll expenditures are not encumbered.

(13)	Receivable from State Government	275,000	
	Revenue		275,000
	To record municipal education grant authorized by state legislature.		

The amount of revenue recognized is based on an approved grant application filed with the Department of Education and is not dependent on the future performance of specific services or specified expenditures of financial resources.

(14)	Encumbrances	250,000	
	Fund balance—Assigned		250,000
	To record a contract to acquire office furnishings and equipment.		
(15)	Cash	100,000	
	Due from Enterprise Fund		100,000
	To record receipt of a cash transfer from the Enterprise Fund.		
(16)	Expenditures	250,000	
	Vouchers Payable		250,000
	Fund balance—Assigned	250,000	
	Encumbrances		250,000
	To record receipt of office equipment and furnishings and to remove encumbrance.		

Capital expenditures, like other expenditures, represent the approved utilization of the financial resources of the General Fund and therefore are recorded as expenditures and not as assets in the records of the General Fund. However, general capital assets (and related depreciation expense) are required to be reported in the government-wide financial statements.

(17)	Vouchers Payable	1,650,000	
	Cash		1,650,000
	To record payment of liabilities.		
(18)	Cash	87,250	
	Revenue		87,250
	To record proceeds from sale of used furniture and equipment.		

IN THE NEWS

Under *GASB Statement No. 34*, a government-wide Statement of Activities prepared on an accrual basis is required, in addition to the funds statements prepared on the modified accrual basis. One entry that is affected is the sale of an asset such as entry (18) above. The proceeds from the sale of an asset are not reported as revenue; instead the difference between the carrying value of the asset (after considering depreciation) and the cash received is reported as a gain or loss on the government-wide statement of activities.¹⁰

¹⁰ Governmental Accounting Standards Board (GASB), *GASB Statement No. 34*, “Basic Financial Statements—and Management’s Discussion and Analysis—for State and Local Governments” (Norwalk, CT: June 1999).

Since the proceeds from the sale of Model City assets constitute expendable financial resources, they are recorded as revenue by the recipient general fund.

(19)	Cash	275,000	
	Receivable from State Government		275,000
	To record collection of grant from state legislature.		
(20)	Due to Debt Service Fund	96,000	
	Cash		96,000
	To record authorized transfers of cash to other Model City fund entities.		
(21)	Certificates of Deposit	6,000	
	Revenue		6,000
	To record interest earned on certificates of deposit that has been reinvested in the certificates.		
(22)	Estimated Uncollectible Taxes	76,000	
	Property Tax Receivable		76,000
	To record write-off of 2019 property taxes authorized by City Council.		
(23)	Expenditures	200,000	
	Cash (to internal service fund)		200,000
	To record interfund services provided by the internal service fund.		

Summary of Expendable Fund Entries

1. At the beginning of the period, estimated revenues are debited against appropriations (estimated expenditures), with the difference recorded to Fund Balance—Unassigned.
2. At the beginning of the period, transfers to and from other funds are recorded against “due from” or “to other funds.”
3. During the period, revenues are recorded against an increase in assets (i.e., against receivables, cash, etc.).
4. During the period, when the firm makes a commitment for goods or services, the account encumbrances is debited and Fund Balance—Assigned is credited. (Encumbrances are future expenditures.)
5. During the period, when goods that have been ordered (and encumbered) are received or contracted services are performed, two entries are prepared:
 - a. Expenditures are debited against a decrease in assets or an increase in liabilities. This may or may not equal the amount of the original encumbrance.
 - b. When the expenditure is recorded, the entry to record the encumbrance (item 4 above) is reversed. (This may or may not be equal to the actual expenditure.)
6. Purchases of capital assets are recorded in the same manner as any expenditure. An expenditure is debited and either cash or a liability is credited.
7. Gross proceeds from the sale of capital assets are recorded as revenues.

In 2004, GASB issued *Statement 45*, “Accounting and Financial Reporting for Post-Employment Benefits Other Than Pensions” (OPEB). This statement requires that local governments report OPEB on an accrual basis rather than on a “pay-as-you-go” basis. OPEB might include such health benefits (including spouses) as dental, vision, or life insurance. The dollar amount of the liability included on the financial statements can be incredibly significant and underlies the potential cost to local governments. For instance, in one extreme example, for the city of Duluth, this liability amounted to \$180 million, which was twice the total annual budget of the city.¹¹

¹¹ *FedGazette*, Federal Reserve Bank of Minneapolis, May 2006.

Preclosing Trial Balance The transactions summarized in the journal entries above are reflected in the December 31, 2019, general ledger trial balance for the General Fund of Model City presented below.

**Model City
The General Fund
General Ledger Trial Balance
December 31, 2019**

	<i>Dr.</i>	<i>Cr.</i>
Cash	\$ 63,250	
Certificates of Deposit	106,000	
Property Taxes Receivable	181,000	
Due from Enterprise Fund	50,000	
Estimated Revenue	1,866,000	
Expenditures	1,710,000	
Encumbrances	191,000	
Transfers to Other Funds (debt service)	96,000	
Expenditures—2018	148,000	
Estimated Uncollectible Taxes		\$ 53,250
Vouchers Payable		73,000
Fund Balance—Assigned (191,000 + 155,000)		346,000
Fund Balance—Unassigned		17,000
Appropriations		1,944,000
Revenue		1,828,000
Transfer from Other Funds (enterprise fund)		150,000
Total	\$4,411,250	\$4,411,250

Closing Entries December 31, 2019, closing entries for the General Fund are as follows:

(24)	Fund Balance—Unassigned	38,000	
	Revenue	1,828,000	
	Estimated Revenue		1,866,000
	To close out actual and budgeted revenue accounts.		
(25)	Appropriations	1,944,000	
	Expenditures (for 2019)		1,710,000
	Encumbrances		191,000
	Fund Balance—Unassigned		43,000
	To close out appropriations and current year's expenditures and encumbrances accounts.		

Note that the Fund Balance—Assigned includes \$191,000 of encumbrances.

(26)	Fund Balance—Assigned	155,000	
	Expenditures—2018		148,000
	Fund Balance—Unassigned		7,000
	To close out expenditures for goods and services <i>ordered</i> and encumbered in prior year. See entry (6).		
(27)	Transfers from Other Funds	150,000	
	Fund Balance—Unassigned		54,000
	Transfers to Other Funds		96,000
	To close out interfund transfers to the unassigned fund balance.		

Summary of Closing Entries for Expendable Funds

1. Revenues are closed against estimated revenues. The difference is recorded in unassigned fund balance.
2. Recall that appropriations are approved expenditures for the year. Appropriations are closed against expenditures (actual for the current year) and encumbrances (current year commitments). Any difference is reported in the Fund Balance—Unassigned. Recall that the expenditures made for prior year's encumbrances are closed against Fund Balance—Assigned.
3. Transfers to and from other funds are closed against the Fund Balance—Unassigned.

Financial Statements

The two basic statements prepared for expendable fund entities are (1) a balance sheet and (2) a statement of revenue, expenditures, and changes in fund balance. Revenue should be classified by major sources and expenditures by major functions in the statement of revenue, expenditures, and changes in fund balance. In addition, comparative information for the prior year should be presented both in that statement and in the balance sheet. For the general fund, these statements are presented in Illustrations 17-7 and 17-8.

For budgetary fund entities, a financial statement that compares budgeted and actual operating results should also be prepared. Budgeted comparison statements should be presented as required supplementary information (RSI). The purpose of budgetary comparison reporting is to show whether resources were obtained and used in accordance with the entity's legally adopted budget. Since amounts encumbered (encumbrances) against the current year's appropriation authority (budget) must be treated in the same manner as expenditures in budgeted statements, the "actual" data may be different from those presented in accordance with generally accepted accounting principles in the statement of revenue, expenditures, and other changes in fund balance. In that case, the difference between the budgetary basis and generally accepted accounting principles should be explained in the notes to the financial

ILLUSTRATION 17-7

Model City
The General Fund
Balance Sheet
December 31, 2019 and 2018

<i>Assets</i>	<i>2019</i>	<i>2018</i>
Cash	\$ 63,250	\$ 45,000
Certificate of Deposit	106,000	100,000
Property Tax Receivable (less allowance for uncollectible amounts, 2019—\$53,250; 2018—\$20,000)	127,750	170,000
Due from Other Funds	50,000	—
Total	<u>\$347,000</u>	<u>\$315,000</u>
<i>Liabilities and Fund Balance</i>		
Vouchers Payable	\$ 73,000	\$ 65,000
Fund Balance		
Assigned	191,000	155,000
Unassigned	83,000	95,000
Total Fund Balance	<u>274,000</u>	<u>250,000</u>
Total Liabilities and Fund Balances	<u>\$347,000</u>	<u>\$315,000</u>

ILLUSTRATION 17-8
Statement of Revenues, Expenditures, and Changes in Fund Balance
The General Fund
for Years Ended December 31, 2019, and December 31, 2018

	2019	2018
Revenues		
Property Taxes	1,158,750	1,105,000
Licenses and Permits	170,500	175,000
State Grant—education	275,000	250,000
Charges for Services	130,500	130,000
Interest	6,000	—
Total Revenue	<u>1,740,750</u>	<u>1,660,000</u>
Expenditures		
Public Safety	480,000	360,000
General Government	289,000	175,000
Highways and Streets	128,000	130,000
Sanitation	70,000	71,000
Health	141,000	132,000
Cultural—recreation	80,000	82,000
Education	670,000	640,000
Total Expenditures	<u>1,858,000</u>	<u>1,590,000</u>
Excess (deficiency) of Revenues over Expenditures	<u>(117,250)</u>	<u>70,000</u>
Other Financing Sources (Uses)		
Operating Transfers In—Enterprise Fund	150,000	—
Operating Transfers Out—Debt Service Fund	<u>(96,000)</u>	<u>(60,000)</u>
Total Other	<u>54,000</u>	<u>(60,000)</u>
Special Items		
Proceeds from Sales of Equipment	<u>87,250</u>	<u>—</u>
Net Change in Fund Balance	24,000	10,000
Fund Balance—Beginning	<u>250,000</u>	<u>240,000</u>
Fund Balance—Ending	<u>274,000</u>	<u>250,000</u>

statements. An example of the Budgetary Comparison Schedule is shown in Illustration 17-9 and the Budget-to-GAAP Reconciliation schedule is shown in Illustration 17-10.

Analysis of the Financial Statements The balance sheet of the General Fund can be used to assess the short-term financing needs of the government and perhaps the ability to meet these needs. In Illustration 17-7, note that total assets equal \$347,000 and that payables related to expenditures are \$73,000. However, the fund balance is composed of \$191,000 assigned for encumbrances. This is the amount of the fund balance set aside for commitments made by the government prior to the end of the year. Thus only \$83,000 is available for general purposes for the next year ($\$347,000 - 73,000 - 191,000 = \$83,000$).

The statement of revenues, expenditures, and changes in fund balance (Illustration 17-8) focuses on cash and other current resources that flow in and out of the government. Approximately 66.6%—of revenues come from property taxes. The largest expenditure is due to education, which comprises about 36% of total expenditures.

ILLUSTRATION 17-9
**Model City
 Budgetary Comparison Schedule
 General Fund
 for the Year Ended December 31, 2019**

	<i>Budgeted Amounts</i>			<i>Variance with Final Budget Favorable (Unfavorable)</i>
	<i>Original*</i>	<i>Final</i>	<i>Actual Amounts</i>	
Budgetary Fund Balance, January 1	\$ 250,000	\$ 250,000	\$ 250,000	—
Resources				
Property Tax	1,158,750	1,158,750	1,158,750	—
Licenses and Permits	190,000	188,250	170,500	(17,750)
Grants	300,000	300,000	275,000	(25,000)
Charges for Services	131,000	135,000	130,500	(4,500)
Sale of Equipment	83,000	78,000	87,250	9,250
Interest	6,000	6,000	6,000	—
Transfers from Other Funds	150,000	150,000	150,000	—
Amounts Available for Appropriations	<u>\$2,268,750</u>	<u>\$2,266,000</u>	<u>\$2,228,000</u>	<u>\$(38,000)</u>
Charges to Appropriations				
Public Safety	510,000	516,000	480,000	36,000
General Government	290,000	293,500	289,000	4,500
Highways and Streets	135,000	135,500	128,000	7,500
Sanitation	73,000	75,000	70,000	5,000
Health	140,000	148,500	141,000	7,500
Cultural—recreation	90,000	88,500	80,000	8,500
Education	690,000	687,000	670,000	17,000
Transfers to Other Funds	96,000	96,000	96,000	—
Total Charges to Appropriations	<u>2,024,000</u>	<u>2,040,000</u>	<u>1,954,000</u>	<u>86,000</u>
Budgetary Fund Balance, December 31	<u>\$ 244,750</u>	<u>\$ 226,000</u>	<u>\$ 274,000</u>	<u>\$ 48,000</u>

*assumed values.

Note that even though the fund balance increased during the year, expenditures exceeded revenues by \$117,250. After considering other transfers and financing sources, you can see that the deficit is still \$63,250. The only reason that the fund balance increased during the year is because the government sold equipment. Is this a cause for concern? Keep in mind that the timing of cash flows is very important for these statements. Recall that purchased assets are expenditures and that these purchases may be financed from activities in previous years.

Lapsing of Appropriations

The treatment illustrated in this chapter for encumbrances outstanding at the end of the period was based on the assumption (and generally followed practice) that encumbered appropriations do not lapse at the end of the fiscal year. It is possible, however, for the legislative body or governing board to impose a provision that causes unexpended appropriations to lapse at the end of the year. In this case, the Fund Balance—Assigned must be reclassified at the end of the year, and if the encumbered items are to be purchased in the next year, the appropriation for the next year must contain authority for such expenditures.

ILLUSTRATION 17-10
**Model City
Budgetary Comparison Schedule
Budget-to-GAAP Reconciliation**

	<i>General Fund</i>
Sources/inflows of resources:	
Actual amounts (budgetary basis) “available for appropriation” from the Budget to Actual Comparison Statement (see Illustration 17-9)	\$2,228,000
<i>Differences—budget to GAAP</i>	
The fund balance at the beginning of the year is a budgetary resource and is not a current year revenue for financial reporting purposes	(250,000)
Transfers from other funds are inflows of budgetary resources but are not revenues for financial reporting purposes	(150,000)
The proceeds from the sale of equipment are budgetary resources but are regarded as a special item, rather than revenue, for financial reporting purposes	(87,250)
Total revenues as reported on the Statement of Revenues, Expenditures, and Changes in Fund Balances—General Fund (see Illustration 17-8)	<u>\$1,740,750</u>
Uses/outflows of resources:	
Actual amounts (budgetary basis) total charges to appropriation from the Budget to Actual Comparison Statement (see Illustration 17-9)	\$1,954,000
<i>Differences—budget to GAAP</i>	
Transfers to other funds are outflows of budgetary resources but are not expenditures for financial reporting purposes	(96,000)
Total expenditures as reported on the Statement of Revenues, Expenditures, and Changes in Fund Balance—General Fund (See Illustration 17-8)	<u>\$1,858,000</u>

If appropriations lapse, the closing entry for appropriations at the end of the year takes the following form:

Fund Balance—Assigned	191,000	
Appropriations	1,944,000	
Expenditures		1,710,000
Encumbrances		191,000
Fund Balance—Unassigned		234,000

The subsequent year’s appropriation should include authorization for the purchase of the encumbered items. Therefore, the Fund Balance—assigned would be reestablished at the beginning of the next year by a debit to encumbrances, and subsequent expenditures for the items would be accounted for the same as any other expenditures in that year.

17.6 REPORTING INVENTORY AND PREPAYMENTS IN THE FINANCIAL STATEMENTS

Inventory

LO 9 Consumption and purchases Methods.

There are two methods of accounting for and reporting inventory in the financial statements of expendable fund entities: the *consumption method* and the *purchases method*. Under *GASB Statement No. 34*, the consumption method is consistent with the government-wide approach, and the purchases method is not acceptable. Both are acceptable for fund

purposes, however, and are illustrated here. Under the consumption method, inventory is considered to be a financial resource (asset), and expenditures for inventory are reported on the operating statement in the period in which the inventory is used. Under the purchases method, inventory is not considered to be a financial resource (asset) and expenditures are recognized in the period the inventory is purchased whether it is used or not. The City of Atlanta uses the purchase method for materials and supplies and uses the consumption method for prepaid items.

To illustrate, assume that \$20,000 in inventory is on hand at the beginning of the period, that \$50,000 in inventory is purchased during the period, and that inventory at the end of the period is \$24,000. Entries under each method are as follows:

	<i>Consumption Method</i>			<i>Purchases Method</i>		
When Purchased:	Expenditures	50,000		Expenditures	50,000	
	Cash		50,000	Cash		50,000
End of Year:	Inventory	4,000		NO ENTRY		
	Expenditures		4,000			

The entry at the end of the year under the consumption method adjusts the inventory account from its beginning of year balance, \$20,000, to the correct ending inventory amount, \$24,000. If inventory decreases, expenditures would be debited and inventory credited. Under this method, inventories are automatically reported as an asset in the financial statements. As compared to the purchases method, the current year's financial statements prepared under the consumption method reflect \$4,000 less expenditures and result in a \$ 24,000 larger fund balance.

The Fund Balance for the governmental funds should classify any amounts for inventory as Fund Balance—Nonspendable. The following entries classify the amounts for inventory in fund balance under these methods:

	<i>Consumption Method</i>			<i>Purchases Method</i>		
End of year	Fund Balance—Unassigned	4,000		Inventory		4,000
	Fund Balance—Nonspendable		4,000	Fund Balance—Nonspendable		4,000

Under the consumption method, the entry has no overall impact on fund balance, but reclassifies the increase in inventory from unassigned to nonspendable fund balance. The entry for the purchases method, on the other hand, does change fund balance. After the entry, the amount reported for total fund balance will now equal the total fund balance if the consumption method were used (although the amount reported for expenditures will still differ by \$4,000). The fund balance—nonspendable should include any amounts reported for inventory on the balance sheet.

Prepayments

Prepayments for items such as insurance or rent that cover more than one accounting period may also be reported using the consumption or purchases methods. Under the purchases method, the cost is reported as an expenditure in the period when the insurance premium or rent is paid without regard to the period benefited (there is no allocation among accounting periods). Under the consumption method, a prepaid asset would be recorded, and expenditures reduced to the extent that the premium or rent payment is for a subsequent period. Fund Balance—Nonspendable should also include prepaid amounts.


SUMMARY

- 1 *Distinguish between a nonbusiness organization and a profit-oriented enterprise.* The primary goal of a profit-oriented enterprise is to earn a profit. Nonbusiness organizations provide services based on social need. Persons who contribute to nonbusiness organizations receive no equity in the organization and do not necessarily benefit proportionally or at all from the services provided.
- 2 *Explain the role of fund accounting.* Resources received by nonbusiness organizations typically have restrictions or are limited by use. In many cases, the nonbusiness organization has self-imposed restrictions on the use of resources. To account for these restrictions, nonbusiness organizations use fund accounting. The organization separates the assets, liabilities, and residual equity into distinct funds organized for specific objectives. Each fund is treated as a separate accounting entity consisting of a self-balancing set of books.
- 3 *Distinguish among the concepts of revenues, expenses, and expenditures as used in profit-oriented entities and as used for expendable fund entities.* Profit-oriented entities recognize revenues on an accrual basis and expenses using the matching principle. Expendable fund entities typically treat any increase in financial resources as revenues, such as from property taxes or sales of equipment (except debt issuances and transfers from other funds). Also, expendable funds treat any decrease in resources as an expenditure (except transfers to other funds).
- 4 *Understand the classification of revenues and other resource inflows for fund accounting.* Revenues are classified by source, such as property taxes, fines and penalties, and licenses and permits.
- 5 *Understand the classification of expenditures and other resource outflows for fund accounting.* Expenditures are classified by function, by activity, by organizational unit, by object, or by character (nature of the item). For government-wide reporting, the statement of activities classifies expenses by function.
- 6 *Describe the critical events in the use of financial resources of an expendable fund.* Before resources can be spent, they must follow a series of events. First, the amount must be authorized (appropriated) by proper authorities. Second, since the amounts spent cannot exceed the appropriations, when a purchase order is placed (or a contract is signed), an encumbrance is recorded. Any unencumbered balance indicates the amount of resources not yet committed. When a contract is performed, or a service received, an expenditure is recorded and the encumbrance reduced. At year-end, appropriations, encumbrances, and expenditures are closed to fund balance.
- 7 *Explain how capital expenditures are recorded in an expendable fund.* In profit-oriented firms, capital expenditures are recorded as assets and depreciated over their useful lives. In an expendable fund, capital expenditures are treated as expenditures (as an outflow of resources), but are not depreciated. Funds are set up to properly account for the source and use of resources during a particular period and to ensure that the fund does not spend more than its limit (appropriation).
- 8 *Understand the role of a general fund.* The general fund is used to account for all externally *unrestricted* financial resources. In other words, the general fund is used to account for all resources that have not been set aside for specific activities. Funds typically divide governments into categories based on the restrictions of the resources.
- 9 *Contrast the consumption and the purchases methods of accounting for inventories (and other prepaid items).* The consumption method treats inventory as an asset until used, while the purchases method treats all inventory purchases as expenditures of the period. Therefore, inventory is not recorded on the balance sheet if the purchases method is used. Both methods are acceptable for fund purposes, but in the government-wide statements, only the consumption method is acceptable.

TEST YOUR KNOWLEDGE SOLUTIONS

Beginning unassigned fund balance	\$50,000
Excess of estimated revenue over appropriations	50,000
Excess of actual revenue over estimated revenue	25,000
Excess of appropriations over expenditures and encumbrances	<u>20,000</u>
Unassigned fund balance—December 31	<u>\$145,000</u>

Supplemental Appendix 17A, “City of Atlanta Partial Financial Statements” is available from your instructor.

QUESTIONS

(The letter A indicated for a question, exercise, or problem refers to the appendix.)

- LO 1** 1. What characteristics distinguish nonbusiness organizations from profit-oriented enterprises?
- LO 2** 2. Define a fund as the term is applied in accounting for the activities of governmental units and other nonbusiness organizations.
- LO 6** 3. What is the significance of the “unassigned fund balance” of an expendable fund entity?
- LO 4 LO 5** 4. What are the major classifications of increases and decreases in expendable fund resources?
- LO 3** 5. What are the revenue-recognition criteria for expendable fund entities? How do these criteria differ from revenue-recognition criteria for profit-oriented enterprises?
- LO 5** 6. Expenditures may be classified by function, activity, object, or organizational unit. Give an example of each classification for a municipality. Which classification is the most appropriate for external financial reporting?
- LO 3** 7. Distinguish between an appropriation, an encumbrance, an expenditure, and a disbursement.
- LO 3** 8. Distinguish between an expense and an expenditure.
- LO 3** 9. Explain and justify the difference between the treatment of estimated uncollectible taxes in fund accounting and the treatment of estimated bad debts in commercial accounting.
- LO 6** 10. Explain the purposes of encumbrance accounting. Might encumbrance accounting be used by commercial enterprises?
- LO 6** 11. Is the year-end balance in the Encumbrances account a liability? Explain.
- LO 6** 12. What columns would you suggest for a subsidiary ledger account in order that it might be a subsidiary not only the “appropriations” control account but also the “encumbrances” and the “expenditures” control accounts?
- LO 7** 13. Why is depreciation on fixed assets not recorded in the records of expendable fund entities?
- LO 8** 14. How does the adoption of a budget for a general fund entity differ from the adoption of a budget by a commercial unit?
- LO 8** 15. Describe the principal financial statements used to report on the activities and status of expendable fund entities.
- LO 5** 16. Why may it be difficult or impossible for a governmental unit to determine the total cost of performing a particular activity or function?

Business Ethics

At State College, where football has long reigned as king and fans are near fanatical in their attendance, the frenzy for football tickets has recently reached an all-time high. With requests for home game tickets at an unprecedented level, prices on everything from parking passes to hotel rooms to home rentals have soared beyond belief. Parking passes were going for \$500 on eBay, and hotel rates have doubled—and in some cases nearly tripled—reaching as high as \$650 per night at some hotels.

1. What are the moral or ethical issues in charging what people will pay for rooms and tickets to attend a State College football game?
2. Why not let the economic forces of supply and demand determine prices in our capitalistic system?

ANALYZING FINANCIAL STATEMENTS

AFS17-1 Balance Sheet

In the appendix to this chapter, the balance sheet for the General Fund for the City of Atlanta is reported.

1. How is the format used on the balance sheet for the general fund different from the format used by for-profit organizations? Which categories of the balance sheet seem to be missing for government funds?
2. What is the largest asset reported in the General Fund? Is this surprising?
3. For the General Fund, the assigned fund balance includes \$8,537 for encumbrances. What does this balance represent?

AFS17-2 Statement of Revenues, Expenditures, and Changes in Fund Balances

In the appendix to this chapter, the Statement of Revenues, Expenditures, and Changes in Fund Balances for the General Fund for the City of Atlanta is reported.

1. How is the format used on the Statement of Revenues, Expenditures, and Changes in Fund Balances for the general fund different from the format on Income Statements used by for-profit organizations? Which items appear on the government fund's statements that do not appear on Income Statements used by for-profit companies?
2. What is the largest expenditure of the General Fund on the Statement of Revenues, Expenditures, and Changes in Fund Balances?
3. What is the largest source of revenue for the General Fund on the Statement of Revenues, Expenditures, and Changes in Fund Balances?
4. Evaluate the performance of the General Fund using the Statement of Revenues, Expenditures, and Changes in Fund Balances.

AFS17-3 Pension and OPEB Funding Status

Go online and find the City of Atlanta's Comprehensive Annual Financial Report for the year ended June 30, 2017. Find footnotes related to defined pensions and other post-employment benefits (OPEB).

Required:

1. Determine the amount of unfunded pension obligations for all defined pension plans.
2. Determine the amount of unfunded OPEB obligations.
3. Is this likely to cause problems in the future? What changes has the City of Atlanta made with regard to pensions that might help mitigate future problems?

EXERCISES

EXERCISE 17-1 General Fund Journal Entries LO 8

Several independent financial activities of a governmental unit are given below.

1. Revenue from the sale of licenses and permits for the first two months totaled \$15,000.
2. Land that had been donated previously was sold for \$100,000.
3. An order was placed for the purchase of a new fire engine at a price of \$130,000.
4. Bonds with a face value of \$500,000 were issued at par value to finance a new park.
5. A \$250,000 grant was received from the federal government to help improve the local schools.
6. The new fire engine was received and accepted. The approved price, however, was \$140,000 rather than \$130,000.

Required:

Prepare the journal entries needed to account for each transaction in the General Fund.

EXERCISE 17-2 General Fund Journal Entries LO 8

Listed are typical financial activities of a local governmental unit.

1. The legislative unit approved the budget for the general operating fund. Estimated revenues are \$4,000,000, and appropriations for expenditures are \$3,800,000.
2. Statements of property tax assessments totaling \$3,000,000 were mailed to property owners. It is estimated that 4% of the assessed taxes will be uncollectible.
3. Notification was received from the state that this unit's share of sales tax revenues from the fourth quarter of the previous year will be \$500,000.
4. The manager signed a contract to purchase equipment costing \$250,000.
5. The equipment ordered above was received and paid for.
6. Employees were paid their biweekly wages of \$36,000.
7. Property taxes in the amount of \$2,050,000 were collected.

Required:

Prepare the necessary journal entries to record the transactions listed above in the records of the General Fund.

EXERCISE 17-3 General Fund Journal Entries LO 8

Listed are transactions of the Town of Jackson.

1. A budget consisting of estimated revenues of \$1,950,000 and appropriations for expenditures of \$1,800,000 was passed by the town council.
2. Property taxes of \$1,150,000 were assessed; \$1,115,000 are expected to be collectible.
3. Property taxes in the amount of \$1,080,000 were collected.
4. Equipment costing \$200,000 was purchased, and the old equipment was sold at the end of its estimated useful life for \$24,000.
5. A contract was signed with an independent company to do the trash collecting for the year. The contract price was \$96,000.
6. The first monthly bill of \$8,000 was received from the trash collector.
7. The \$8,000 bill was paid.

Required:

Prepare the journal entries needed in the records of the General Fund to account for these transactions.

EXERCISE 17-4 General Fund Closing Entries LO 8

Following is the preclosing trial balance for the General Fund of the City of Doyle.

**Doyle City
The General Fund
General Ledger Trial Balance
December 31, 2021**

Cash	\$ 400,000	
Certificates of Deposit	350,000	
Due from State Government	112,000	
Due from Other Funds	30,000	
Taxes Receivable	774,000	
Estimated Revenue	3,110,000	
Expenditures	1,960,000	
Encumbrances	734,000	
Transfers to Other Funds	90,000	
Expenditures—2020	55,000	
Estimated Uncollectible Taxes		\$ 30,000
Vouchers Payable		64,000
Due to Other Funds		27,000
Fund Balance—Unassigned		760,000
Fund Balance—Assigned (Note 1)		784,000
Appropriations		2,700,000
Revenue		3,210,000
Transfers from Other Funds		40,000
	\$7,615,000	\$7,615,000

Note 1: Includes \$50,000 of encumbrances from 2020.

Required:

Prepare in general journal form the closing entries for the General Fund of Doyle City.

EXERCISE 17-5 General Fund Closing Entries LO 8

The preclosing trial balance for the General Fund of the City of Springfield is presented below.

City of Springfield		
The General Fund		
General Ledger Trial Balance		
December 31, 2020		
Cash	\$ 90,000	
Certificates of Deposit	120,000	
Property Taxes Receivable	175,000	
Estimated Revenue	1,690,000	
Expenditures	1,310,000	
Expenditures—2019	32,000	
Encumbrances	165,000	
Estimated Uncollectible Taxes		\$ 51,000
Vouchers Payable		65,000
Fund Balance—Unassigned		41,000
Fund Balance—Assigned (Note 1)		200,000
Reserve for Encumbrances—2019		35,000
Appropriations		1,550,000
Revenue		<u>1,675,000</u>
	<u>\$3,582,000</u>	<u>\$3,582,000</u>

Note 1: Includes \$35,000 of encumbrances from 2019.

Required:

Prepare the closing entries for the General Fund.

EXERCISE 17-6 Accounting for Supplies LO 9

In 2020, Bay City purchased supplies valued at \$350,000. At the end of the year, \$65,000 of the supplies were still in the inventory. No supplies were on hand at the beginning of the year. The city uses the purchases method to account for supplies.

Required:

- A. Prepare the journal entry necessary to report the supplies as an asset in the balance sheet of Bay City.
- B. What amount of expenditures for supplies will be shown in the statement of revenues, expenditures, and changes in fund balance?

EXERCISE 17-7 Purchases versus Consumption Methods LO 9

At the beginning of 2020, the City of Fairview reported an Unassigned Fund Balance of \$555,000 and a supplies inventory balance of \$175,000. During the year, Fairview purchased \$225,000 in supplies and used supplies of \$220,000. The city reports inventory amounts of Fund Balance—Nonspendable.

Required:

- A. Prepare the necessary journal entries under the purchases method.
- B. Prepare the journal entries needed to account for the supplies under the consumption method.
- C. What would the 12/31/20 balance in the Unassigned Fund Balance be under each method, if the only transactions of the fund are those involving the supplies?

EXERCISE 17-8 Journal Entries LO 8

During 2020, the City of Greenfield engaged in the following financial activities:

1. The City Council approved the budget for the general operating fund. The budget shows estimated revenues of \$1,900,000 and appropriations for expenditures of \$1,850,000.
2. Property tax assessments for 2020 were compiled and statements mailed to property owners. Assessments total \$955,000. Past collection experience indicates that approximately 5% of assessed property taxes are delinquent or uncollectible during the year of billing.
3. A low bid of \$15,000 was accepted for a new vehicle for the fire chief. A purchase order was issued providing for additional costs for painting and ancillary equipment (negotiated after the bid) prior to delivery. The estimate of additional costs is \$1,400.
4. Additional purchase orders placed during the year amount to \$140,000.
5. City employees are issued paychecks for the month of April. The total payroll amounts to \$90,000.
6. The City received a statement from the State Treasurer that the City's portion of the state sales tax for the first half-year is \$375,000.
7. Vouchers for expenditures totaling \$135,000 are approved for payment. Encumbrances against these vouchers were recorded at a total of \$137,000.
8. The vehicle for the fire chief was delivered and accepted. The invoice in the amount of \$16,200 was approved for payment.
9. Property tax collections for the month of June amounted to \$450,000.
10. The City Treasurer issued checks in payment of the vouchers totaling \$135,000 and for the invoice for the fire chief's vehicle.
11. A purchase order previously issued for an electric typewriter (estimated price \$650) was canceled when the vendor indicated a three-month delay in delivery.

Required:

Prepare journal entries to record and account for the foregoing transactions.

EXERCISE 17-9 General Fund Journal Entries LO 8

The following events relate typical activities in a municipality that affect the General Fund.

1. The Meadville City Council passed an ordinance approving a general operating budget of \$580,000 for fiscal year 2020. The city's only source of revenue is from property taxes. For 2020, these revenues are estimated at \$565,000.
2. A property tax levy of \$1 per \$100 assessed valuation (total assessed valuation equals \$60,000,000) is billed to property owners. Taxes are due in the current fiscal year. Experience indicates that 3% of taxes billed will be uncollectible.
3. A motorcycle for the Department of Public Safety is ordered by the purchasing department on the basis of a low bid of \$4,200.
4. The motorcycle in (3) above is received and the invoice is approved for payment. Extra accessories not included in the bid price amount to \$425.
5. Salaries and wages in the amount of \$20,000 are paid by check to city employees for the two-week period ending on May 15.
6. The property division sold used typewriters and other office equipment at a public auction. Total receipts were \$8,225.
7. Property taxes in the amount of \$540,000 were collected.

Required:

Prepare the necessary journal entries to record each event in the accounts of the General Fund.

EXERCISE 17-10 Multiple Choice LO 2 LO 6 LO 8 LO 9

Select the best answer for each of the following items:

1. When used in fund accounting, the term “fund” usually refers to
 - (a) A sum of money designated for a special purpose.
 - (b) A liability to other governmental units.
 - (c) The equity of a municipality in its own assets.
 - (d) A fiscal and accounting entity having a set of self-balancing accounts.
2. Authority granted by a legislative body to make expenditures and to incur obligations during a fiscal year is the definition of an
 - (a) Appropriation.
 - (b) Authorization.
 - (c) Encumbrance.
 - (d) Expenditure.
3. What type of account is used to earmark the fund balance to liquidate the contingent obligations of goods ordered but not yet received?
 - (a) Appropriations.
 - (b) Encumbrances.
 - (c) Obligations.
 - (d) Reserve for encumbrances.
4. A city’s General Fund budget for the forthcoming fiscal year shows estimated revenues in excess of appropriations. The initial effect of recording this will result in an increase in
 - (a) Taxes receivable.
 - (b) Fund balance—unassigned.
 - (c) Fund balance—nonspendable.
 - (d) Encumbrances.
5. In preparing the General Fund budget of Dover City for the forthcoming fiscal year, the City Council appropriated a sum greater than expected revenues. This action of the Council will result in
 - (a) A cash overdraft during that fiscal year.
 - (b) An increase in encumbrances by the end of that fiscal year.
 - (c) A decrease in the fund balance.
 - (d) A necessity for compensatory offsetting action in the Debt Service Fund.
6. What would be the effect on the General Fund balance in the current fiscal year of recording a \$150,000 purchase for a new fire truck out of General Fund resources, for which a \$146,000 encumbrance had been recorded in the General Fund in the previous fiscal year?
 - (a) Reduce the General Fund balance by \$150,000.
 - (b) Reduce the General Fund balance by \$146,000.
 - (c) Reduce the General Fund balance by \$4,000.
 - (d) Have no effect on the General Fund balance.

(AICPA adapted)

EXERCISE 17-11 Classification of Fund Balance LO 8

For each of the items listed below, determine how the amount would be classified in Fund Balance (either nonspendable, restricted, committed, assigned, or unassigned fund balance).

1. Inventory costing \$17,000 was purchased to be used for highway repair within the city.
2. The city council voted to erect a statue in a round-a-bout at a cost of \$100,000. The cash was expected to come from unassigned cash accounts.
3. A former mayor died and left the city \$10 million dollars. The donor specified that only the income could be used to repair pot holes in the suburban areas of the city.

4. The Chief Financial Officer of the city set aside \$20,000 to purchase bicycles that would be placed at the entrance to city parks for its citizens to use.
5. The governing board for a public university set aside \$20 million to build a new business school.
6. The Chief Financial Officer set aside adoption fees for purchases of animal control equipment.

PROBLEMS

PROBLEM 17-1 Journal Entries, Closing Entries, and Trial Balance LO 8

The general ledger trial balance of the General Fund of the City of Bedford on January 1, 2020, shows the following:

	<i>Dr.</i>	<i>Cr.</i>
Cash	\$100,000	
Taxes Receivable	75,000	
Allowance for Uncollectible Taxes		\$ 35,000
Fund Balance—Assigned (encumbrances from 2019)		30,000
Fund Balance—Unassigned		<u>110,000</u>
Total	<u>\$175,000</u>	<u>\$175,000</u>

A summary of activities and transactions for the General Fund during 2020 is presented here:

1. The City Council adopted a budget for the General Fund with estimated revenues of \$1,560,000 and authorization for appropriated expenditures of \$1,400,000. The budget authorized the transfer of \$50,000 from the Water Fund to the General Fund for operating expenses as a payment in lieu of taxes. Cash for the payment of interest due for the year on the \$1,000,000, 8% bond issue for the Civic Center is approved for transfer from the General Fund to the Debt Service Fund.
2. The annual property tax levy of 10% on assessed valuation (\$11,000,000) is billed to property owners. Two percent is estimated to be uncollectible.
3. Goods and services amounting to \$1,150,000 were ordered during the year.
4. Invoices for all goods ordered in 2019 amounting to \$29,000 were approved for payment.
5. Funds for bond interest on Civic Center bonds were transferred to the Debt Service Fund.
6. Invoices for goods and services received during the year totaling \$1,155,000 were recorded. These were encumbered previously [see (3) above].
7. Transfer of funds from the Water Company was received in lieu of taxes.
8. Taxes were collected from property owners in the amount of \$1,050,000.
9. Past-due tax bills of \$17,000 were charged off as uncollectible.
10. Checks in payment of invoices for goods and services ordered in 2019 and 2020 were issued [see items (4) and (6) above].
11. Revenues received from miscellaneous sources, other than property taxes, of \$455,000 were recorded.
12. Purchase order for two trash collection vehicle systems complete with residence trash containers for automatic pickup of trash was issued. Bid price per system was \$120,000.

Required:

- A. Prepare journal entries to record the summary transactions. You may find it necessary or convenient to post journal entries to ledger t-accounts before the preparation of the required trial balances.

- B. Prepare a preclosing trial balance.
- C. Prepare closing entries.
- D. Prepare a postclosing trial balance.

PROBLEM 17-2 Unassigned Fund Balance—Adjusting and Closing Entries LO 6

The following account balances, among others, were included in the preclosing trial balance of the General Fund of the City of Lynchburg on December 31, 2021.

Estimated Revenue	\$630,000
Expenditures	468,000
Encumbrances	120,000
Expenditures—2020	43,000
Supplies Inventory (Note 2)	72,000
Appropriations	672,000
Revenue	696,000
Fund Balance—Assigned (for Encumbrances, Note 1)	162,000
Fund Balance—Nonspendable (Supplies Inventory, Note 2)	72,000
Fund Balance—Unassigned	24,000

Note 1: The balance in this account was \$42,000 on January 1, 2021.

Purchase orders outstanding on December 31, 2021, total \$120,000.

Note 2: Supplies on hand on December 31, 2021, amount to \$60,000.

Required:

- A. What was the balance in the Fund Balance—Unassigned account on December 31, 2020? What was the total Fund Balance on December 31, 2020?
- B. Prepare the necessary adjusting and closing entries for the year ended December 31, 2021. Supplies inventory is accounted for using the purchases method.
- C. Prepare a schedule to calculate the Fund Balance—Unassigned and the total Fund Balance on December 31, 2021.

PROBLEM 17-3 Computing Unassigned Fund Balance and Closing Entries LO 6

The following account balances, among others, were included in the preclosing trial balance of the General Fund of the City of Madison on December 31, 2021.

Appropriations	\$3,488,000
Cash	270,000
Due to Other Funds	100,000
Due from Other Funds	250,000
Encumbrances	382,000
Estimated Revenue	3,720,000
Expenditures	3,020,000
Expenditures—2020	296,000
Fund Balance—Assigned (Encumbrances)	692,000*
Revenue	3,656,000
Taxes Receivable	600,000
Transfers from Other Funds	300,000
Transfers to Other Funds	520,000
Fund Balance—Unassigned	422,000
Vouchers Payable	400,000

* \$310,000 are for encumbrances from 2020

Required:

- A. Prepare the necessary closing entries on December 31, 2021.
- B. Calculate the amount of both the fund balance—unassigned and the total fund balance in the balance sheet (1) on December 31, 2020 and (2) on December 31, 2021.
- C. Prepare a schedule reconciling the December 31, 2020, total fund balance with the December 31, 2021, total fund balance by reference to actual inflows and outflows of financial resources.

PROBLEM 17-4 Entries, Balance Sheet, Statement of Revenues, Expenditures, and Changes in Fund Balance LO 8

The trial balance for the General Fund of the City of Monte Vista as of December 31, 2020, is presented here:

	<i>Debit</i>	<i>Credit</i>
Cash	\$300,000	
Supplies Inventory	75,000	
Fund Balance—Unassigned		\$300,000
Fund Balance—Nonspendable (supplies inventory)		75,000
	\$375,000	\$375,000

Transactions of the General Fund for the year ended December 31, 2021, are summarized as follows:

1. The City Council adopted the following budget for 2021:

Estimated revenue	\$1,600,000
Transfer from trust fund	50,000
Appropriations	1,530,000
Transfer to debt service fund	80,000

2. Property taxes of \$1,500,000 were levied, of which it is estimated that \$30,000 will not be collected.
3. Purchase orders in the amount of \$1,400,000 were placed with suppliers and other vendors.
4. Property taxes in the amount of \$1,450,000 were collected.
5. Cash was received from the Trust Fund in the amount of \$50,000.
6. Invoices in the amount of \$1,380,000 were approved for payment. The amount originally encumbered for these invoices was \$1,360,000. The invoices included \$25,000 net of trade-in allowance for the purchase of a new minicomputer and \$400,000 for supplies. The City received a trade-in-allowance of \$4,000 on its old minicomputer, which had been purchased three years earlier for \$16,000. At the time the old minicomputer was purchased, it was estimated that it would have a useful life of four years. The new minicomputer is expected to last at least six years. The City of Monte Vista uses the purchase method to account for supplies inventory.
7. Licenses and fees in the amount of \$48,000 were collected.
8. Vouchers in the amount of \$1,300,000 were paid.
9. Cash in the amount of \$80,000 was transferred to the Debt Service Fund.
10. Supplies on hand at the end of the year amount to \$100,000.

Required:

- A. Prepare entries in general journal form to record the transactions of the General Fund for the year ended December 31, 2021.

- B. Prepare a preclosing trial balance for the General Fund as of December 31, 2021.
- C. Prepare the necessary closing entries for the General Fund for the year ended December 31, 2021.
- D. Prepare a balance sheet and a statement of revenues, expenditures, and changes in fund balance for the General Fund for the year ended December 31, 2021.

PROBLEM 17-5 Balance Sheet, Statement of Revenues, Expenditures, and Changes in Fund Balance LO 8

The trial balance for the General Fund of the City of Fairfield as of December 31, 2020, is presented here:

City of Fairfield The General Fund Adjusted Trial Balance December 31, 2020		
	<i>Debit</i>	<i>Credit</i>
Cash	\$430,000	
Property Tax Receivable	45,000	
Estimated Uncollectible Taxes		\$ 20,000
Due from Trust Fund	50,000	
Vouchers Payable		60,000
Fund Balance—Assigned (encumbrances)		30,000
Fund Balance—Unassigned		<u>415,000</u>
	<u>\$525,000</u>	<u>\$525,000</u>

Transactions for the year ended December 31, 2021, are summarized as follows:

1. The City Council adopted a budget for the year with estimated revenue of \$735,000 and appropriations of \$700,000.
2. Property taxes in the amount of \$590,000 were levied for the current year. It is estimated that \$24,000 of the taxes levied will prove to be uncollectible.
3. Proceeds from the sale of equipment in the amount of \$35,000 were received by the General Fund. The equipment was purchased 10 years ago with resources of the General Fund at a cost of \$150,000. On the date of purchase, it was estimated that the equipment had a useful life of 15 years.
4. Licenses and fees in the amount of \$110,000 were collected.
5. The total amount of encumbrances against fund resources for the year was \$642,500.
6. Vouchers in the amount of \$455,000 were authorized for payment. This was \$15,000 less than the amount originally encumbered for these purchases.
7. An invoice in the amount of \$28,000 was received for goods ordered in 2020. The invoice was approved for payment.
8. Property taxes in the amount of \$570,000 were collected.
9. Vouchers in the amount of \$475,000 were paid.
10. Fifty thousand dollars was transferred to the General Fund from the Trust Fund.
11. The City Council authorized the write-off of \$30,000 in uncollected property taxes.

Required:

- A. Prepare entries in general journal form to record the transactions for the year ended December 31, 2021.
- B. Prepare a preclosing trial balance for the General Fund as of December 31, 2021.
- C. Prepare the necessary closing entries for the year ended December 31, 2021.

- D. Prepare a balance sheet and a statement of revenues, expenditures, and changes in fund balance for the General Fund for the year ended December 31, 2021.

PROBLEM 17-6 Balance Sheet, Statement of Revenues, Expenditures, and Changes in Fund Balance LO 8

Hunnington Township's adjusted trial balance for the General Fund at the close of its fiscal year ended June 30, 2021, is presented here:

Hunnington Township General Fund Trial Balance June 30, 2021		
Cash	\$ 11,000	
Property Tax Receivable—current (Note 1)	82,000	
Estimated Uncollectible Taxes—current		\$ 1,500
Property Tax Receivable—delinquent	25,000	
Estimated Uncollectible Taxes—delinquent		16,500
Accounts Receivable (Note 1)	40,000	
Allowance for Uncollectible Accounts		4,000
Due from Internal Service Fund (Note 5)	50,000	
Expenditures (Note 2)	755,000	
Encumbrances	37,000	
Revenue (Note 3)		60,000
Due to Enterprise Fund (Note 5)		10,000
Vouchers Payable		20,000
Surplus Receipts (Note 4)		7,000
Appropriations		720,000
Fund Balance—Assigned (Note 6)		81,000
Fund Balance—Unassigned		80,000
	<u>\$1,000,000</u>	<u>\$1,000,000</u>

Note 1: The current tax roll and accounts receivable, recorded on the accrual basis as sources of revenue, amounted to \$500,000 and \$200,000, respectively.

Note 2: Includes \$42,500 paid during the fiscal year in settlement of all purchase orders outstanding at the beginning of the fiscal year.

Note 3: Represents the difference between the budgeted (estimated) revenue of \$700,000 and the actual revenue realized during the fiscal year.

Note 4: Represents the proceeds from the sale of equipment damaged by fire. The equipment originally cost \$40,000 and had been held for 80% of its useful life prior to the fire.

Note 5: The interfund payable and receivable resulted from cash advances (loans) to and from the respective funds.

Note 6: Includes \$44,000 of encumbrances from prior year.

Required:

- A. Prepare a statement of revenues, expenditures, and changes in fund balance.
 B. Prepare a balance sheet for the General Fund at June 30, 2021.

(AICPA adapted)

PROBLEM 17-7 Complete Accounting Cycle—General Fund LO 8

The January 1, 2020, trial balance, the calendar-year 2020 budget, and the 2020 transactions of the City of Roseburg are presented here:

**City of Roseburg
Budget for General Fund
Calendar Year 2020**

Estimated Revenue	
City vehicle and retail license fees	\$ 252,000
Property taxes	1,448,000
City sales tax	327,000
Collections for trash service	153,000
Sale of city-owned property	<u>88,000</u>
Total estimated revenue	<u>2,268,000</u>
Appropriations	
General government	261,000
Public safety and security	875,000
Health and welfare	434,000
Recreation and parks	126,000
Street maintenance	367,000
Sanitation	<u>162,000</u>
Total appropriations	<u>2,225,000</u>
Excess of Revenues over Appropriations	43,000
Transfer from Water and Sewer Fund	118,000
Less Payments (transfers) to Debt Service Funds	<u>(55,000)</u>
Excess of Revenue and Fund Transfers to General Fund over Appropriations and Fund Transfers out of General Fund	<u>\$ 106,000</u>

**City of Roseburg
Trial Balance
January 1, 2020**

	<i>Debit</i>	<i>Credit</i>
Cash	\$155,450	
Certificates of Deposit	200,000	
Accounts Receivable	28,675	
Supplied Inventory	37,600	
Due from Federal Government	58,000	
Property Taxes Receivable	75,600	
Allowance for Uncollectible Taxes		\$ 32,150
Vouchers Payable		181,000
Fund Balance—Unassigned		226,075
Fund Balance—Nonspendable (inventory)		37,600
Fund Balance—Assigned (encumbrances)		<u>78,500</u>
	<u>\$555,325</u>	<u>\$555,325</u>

Transactions of the City of Roseburg that affected the General Fund during the year are summarized below:

1. The City Council approved the budget and it was recorded.
2. Orders for goods and services were issued for a total of \$1,202,000 during the year.
3. Goods and services were delivered against all orders placed with a total invoice amount of \$1,165,600. Of this, \$80,000 was for orders placed in the prior year.

4. The City accepted a low bid of \$78,000 for a new street sweeper for the sanitation department. A purchase order was issued.
5. The City received \$92,500 from the sale of an old street sweeper and one obsolete fire engine at public auction. The street sweeper cost \$60,000 7 years ago, at which time it was estimated to have a useful life of 10 years. The fire engine cost \$200,000 8 years ago, at which time it was estimated to have a useful life of 12 years.
6. Property tax statements were issued. The tax levy was 8% of the assessed valuation of \$18,500,000. An estimated 2% of the tax levy will be uncollectible.
7. Payment was received from the federal government. This was a grant to be used for upgrading sanitation department equipment.
8. The amount of \$55,000 was transferred to the Debt Service Fund for the payment of interest on the outstanding bond issue.
9. The city billed residents for trash service. Total billings amounted to \$155,675.
10. Property taxes totaling \$1,438,455 were collected, of which \$34,200 was past-due collections from the prior year; \$18,250 of past-due taxes was charged off as uncollectible.
11. Wages paid to employees during the year amounted to \$998,765.
12. City retail establishments remitted a total of \$333,650 in sales tax collections for the year.
13. Other cash receipts during the year were:

Vehicle license fees and parking fines	\$ 98,682
Retail license fees	130,000
For trash services (including \$28,675 due at end of prior year)	148,720
Transfer from Water and Sewer Fund	118,000

14. Cash purchases of printed forms and other office supplies for the year amounted to \$57,680.
15. The street sweeper was delivered and an invoice for \$78,000 plus freight charges of \$1,280 was received. The invoice was approved for payment and a check issued.
16. Checks were issued in payment of outstanding vouchers totaling \$1,207,100.
17. End-of-year activities: (adjustments)
 - Supplies Inventory 12/31/20: \$38,250
 - Accrued interest on CDs at 5%

The city uses the purchases method to account for supplies expenditures.

Required:

- A. Enter the opening trial balance data in t-accounts.
- B. Prepare journal entries for the year's transactions. Do not include entries for year-end adjustments. Post entries to t-accounts.
- C. Prepare a preclosing trial balance.
- D. Prepare journal entries to adjust the Supplies Inventory and record the interest on the CDs.
- E. Prepare journal entries to close the revenue, expenditures, and encumbrance accounts.
- F. Prepare a comparative balance sheet for 2019–2020.
- G. Prepare a statement of revenues, expenditures, and changes in fund balance for 2020.

PROBLEM 17-8 Reconstructing Journal Entries LO 8

The following summary of transactions was taken from the accounts of the Madras School District General Fund before the books were closed for the fiscal year ended June 30, 2020:

	<i>Postclosing Balances June 30, 2020</i>	<i>Preclosing Balances June 30, 2020</i>
Cash	\$400,000	\$ 700,000
Property tax receivable	150,000	170,000
Estimated uncollectible taxes	(40,000)	(70,000)
Estimated revenue		3,000,000
Expenditures		2,842,000
Expenditures—prior year		
Encumbrances		91,000
	<u>\$510,000</u>	<u>\$ 6,733,000</u>
Vouchers payable	\$ 80,000	\$ 408,000
Due to other funds	210,000	142,000
Fund Balance—Assigned (encumbrances)	60,000	91,000
Fund balance—Unassigned	160,000	182,000
Revenue from taxes		2,800,000
Miscellaneous revenue		130,000
Appropriations		2,980,000
	<u>\$510,000</u>	<u>\$ 6,733,000</u>

Additional Information:

- Property taxes in the amount of \$2,870,000 were assessed for the year. Taxes collected during the year totaled \$2,810,000.
- An analysis of the transactions in the vouchers payable account for the year ended June 30, 2020, follows:

	<i>Debit (Credit)</i>
Current expenditures	\$(2,700,000)
Expenditures for prior year	(58,000)
Vouchers for payment to other funds	(210,000)
Cash payments during year	<u>2,640,000</u>
Net change	<u>\$ (328,000)</u>

- During the year the General Fund was billed \$142,000 for services performed on its behalf by other city funds.
- On May 2, 2021, commitment documents were issued for the purchase of new textbooks at a cost of \$91,000.

Required:

On the basis of the data presented, reconstruct the original detailed journal entries that were required to record all transactions for the fiscal year ended June 30, 2021, including the recording of the current year's budget. Do not prepare closing entries at June 30, 2021.

(AICPA adapted)

INTRODUCTION TO ACCOUNTING FOR STATE AND LOCAL GOVERNMENTAL UNITS

CHAPTER CONTENTS

- 18.1 THE HISTORY OF GENERALLY ACCEPTED GOVERNMENTAL ACCOUNTING STANDARDS
- 18.2 THE STRUCTURE OF GOVERNMENTAL ACCOUNTING
- 18.3 GOVERNMENTAL FUND ENTITIES
- 18.4 PROPRIETARY FUNDS
- 18.5 FIDUCIARY FUNDS
- 18.6 CAPITAL ASSETS AND LONG-TERM DEBT
- 18.7 EXTERNAL REPORTING REQUIREMENTS (*GASB STATEMENT NO. 34*)
- 18.8 GOVERNMENT FUND-BASED REPORTING
- 18.9 GOVERNMENT-WIDE REPORTING

LEARNING OBJECTIVES

- 1 Identify the issues involved in developing standards for nonprofit organizations.
- 2 Describe the broad categories of government fund entities.
- 3 Distinguish between a general fund and a special revenue fund.
- 4 Explain the use of a capital projects fund.
- 5 Describe the purpose of a debt service fund.
- 6 Explain the use of a permanent fund.
- 7 Distinguish proprietary funds from government funds.
- 8 Describe where capital assets and long-term obligations are reported in government financial statements.
- 9 Describe the changes in reporting requirements under *GASB Statement No. 34*.
- 10 Explain the benefits of government-wide statements.
- 11 Describe the types of interfund activities.

IN THE NEWS

"I don't make jokes—I just watch the government and report the facts."
—Will Rogers¹

Since GASB voted in 2012 to put unfunded pension liabilities on the balance sheets of state and local governments, a host of cities have struggled with the new rule. Pension liabilities are under scrutiny in several cities across the nation including Detroit, Chicago, and New York City. With Detroit declaring bankruptcy, pension cuts were challenged by city employees because the Michigan state constitution prohibits cutting accrued pension benefits. The suit to be decided in federal court could set the precedent for other cities facing similar problems.

¹ Quoted in *Saturday Review*. From *The Merriam-Webster Dictionary of Quotations*, Merriam-Webster, Inc., 1996; *Infopedia*, SoftKey Multimedia Inc., 1996.


 IN
THE
NEWS

Governments traditionally have focused their reporting on groupings of

'funds' rather than on the government 'taken as a whole.' The current financial reporting model retains this traditional focus on funds, but at the same time insists that fund financial statements be accompanied by financial statements that focus on the overall government (i.e., 'government-wide' financial statements).²


 IN
THE
NEWS

A 24-foot boat. A \$74,000 piece of radio equipment. More than

150 handguns and rifles. These are just a few of the nearly 1,500 items that the Texas Department of Public Safety (the state's premier law enforcement agency) reported lost or stolen. It is estimated that the agency has lost track of items estimated to be valued at over \$3.2 million. The agency is working with the IT department to improve the software needed to track inventory (especially when the state is facing a huge budget deficit).⁵

One report suggests 30 of the United States's 50 most debt-ridden cities have pension liabilities greater than their revenues. Chicago, for instance, had pension liabilities in 2011 of 678% of its revenue. On a related point, liabilities from other post-employment benefits (OPEB) might even be larger than unfunded pension liabilities. The City of Nashville reported unfunded pension obligations of \$83 million dollars, while obligations for unfunded post-retirement benefits were \$2.2 billion. Nashville's OPEB obligation is completely unfunded and is paid on a pay-as-you-go basis.

The lifestyles and well-being of all people are significantly affected by the activities of both profit-oriented enterprises and nonbusiness organizations. Of these, probably none is more important and pervasive in its impact on our daily lives than government. Today there are more than 70 thousand state and local governmental units, which employ more than 20 million people and collect annual revenues in excess of 500 billion dollars. The well-publicized problems of some city governments have attracted great interest and concern in the past. These problems focused attention on the need for (among other things) adequate accounting and financial reporting practices by cities and other governmental units as a basis for evaluating the extent of such problems and potential solutions.

As a consequence, the Governmental Accounting Standards Board (GASB) has reexamined the methods of accounting for state and local governments with significant changes being implemented. The GASB's *Statement No. 34*, "Basic Financial Statements—and Management's Discussion and Analysis—for State and Local Governments,"³ issued in June 1999, affects all governmental units and is considered to be one of the most important statements issued by a governing accounting body. The rules require governments to provide basic financial statements using a government-wide (entity-wide) approach. This does not eliminate traditional fund accounting because governments are required to report statements emphasizing their major funds.⁴ In addition, for the first time, financial managers are required to provide a management's discussion and analysis (MD&A) that gives readers an objective and easily readable analysis of the government's financial performance for the year. Thus, MD&A provides an analysis of the government's overall financial position and the results of the previous year's operations to assist users in assessing whether the government's finances have improved or deteriorated. Each analysis includes a comparison of the current year to the prior year based on the government-wide statements. In addition, the analysis explains significant variations in fund-based financial results and budgetary information, and describes capital assets and long-term debt activity during the year. The MD&A concludes with a description of currently known facts, decisions, or conditions that are expected to have a material impact on the government's future financial position and operations.

Generally, fund accounting rules in the past have followed a *flow of current financial resources* concept. Basically, this implies that each year is treated as a distinct event and the principal measurement of importance is the source and use of funds (where funds are usually defined on a modified accrual basis). The simplicity of this concept, unfortunately, leaves room for inadequacies. For example, a city that borrows to balance

LO 1 Issues in developing standards.

² "The GASB's New Financial Reporting Model: An Overview for Finance Officers," July 1999, Government Finance Officers Association.

³ Governmental Accounting Standards Board, *Statement No. 34*, "Basic Financial Statements—and Management's Discussion and Analysis—for State and Local Governments." (Financial Accounting Foundation and Government Accounting Standards Board: Norwalk, CT, 1999).

⁴ Major funds as defined by the GASB are discussed later in this chapter.

⁵ *New York Times*, "Missing Inventory Plagues Dept. of Public Safety, but Only Some of It Is Theft," by Brandi Grissom, January 20, 2011.

ILLUSTRATION 18-1**Financial Reporting Model: Minimum Information Required for Fair Presentation in Conformity with Generally Accepted Accounting Principles (GAAP)**

<i>Government-wide Financial Statements</i>	<i>Fund Financial Statements</i>
Statement of net position (Illustration 18-17)	<i>Governmental funds:</i>
Statement of activities (Illustration 18-18)	Balance sheet (Illustration 18-14)
	Statement of revenues, expenditures, and changes in fund balances (Illustration 18-15)
	Reconciliation to government-wide statements (Illustrations 18-16 and 18-17)
	<i>Proprietary funds:</i>
	Balance sheet or statement of net position (Illustration 18-10)
	Statement of revenues, expenses, and changes in net position (Illustration 18-11)
	Statement of cash flows—direct format
	<i>Fiduciary funds:</i>
	Statement of fiduciary net position
	Statement of changes in fiduciary net position

Notes to the Financial Statements

1. Schedule of changes in capital assets (Illustration 18-12)
2. Schedule of changes in long-term liabilities (Illustration 18-13)

Required Supplemental Information (RSI)

1. Management's Discussion and Analysis
2. Budgetary Comparison schedules (see Chapter 17)

a current period budget deficit, must consider the future financial consequences of this decision. This example raises such questions as: Does fund accounting information alone provide users of governmental statements with sufficient information to evaluate the government? Therefore, *GASB Statement No. 34* requires “full accrual” accounting for all government-wide statements (i.e., ***flow of economic resources approach***). Under this approach, governments would not be able to defer payment of expenses into the future and avoid recognition in the current year (e.g., avoiding payment of pension obligations). Under accrual accounting, the accountability of politicians for economic decisions made during the current period may be more readily assessed. The fund-based reports will still maintain the flow of current financial resources concept showing the short-term performance of the individual funds (as opposed to the long-term focus of the *full accrual-based government-wide statements*).

The reporting requirements are listed above in Illustration 18-1 for the financial reporting model, along with the illustration number used in this chapter.

18.1 THE HISTORY OF GENERALLY ACCEPTED GOVERNMENTAL ACCOUNTING STANDARDS

Like generally accepted accounting standards for profit-oriented enterprises, standards of accounting and reporting for governmental units are in a constant state of evolution and change. The pioneer organization in promulgating standards of accounting and reporting for state and local governmental units was the Municipal Finance Officers Association (MFOA). Such standards were formulated by its National Committee on

Governmental Accounting, which in 1974 was reconstituted as the National Council on Governmental Accounting (NCGA). In 1979 the NCGA issued *Statement 1: Government and Financial Reporting Principles*. Until 1984 this and subsequent statements and interpretations of the NCGA, along with the AICPA Industry Audit Guide: *Audits of State and Local Governmental Units* (1974) as amended by subsequently issued AICPA Statements of Position, constituted the primary sources of generally accepted governmental accounting standards.

In 1984 the GASB was established as a separate board under the oversight of the Financial Accounting Foundation (FAF), the same foundation that oversees the activities of the Financial Accounting Standards Board (FASB). The GASB is composed of one full-time member (the chairman) and six part-time members supported by an administrative, technical, and research staff. Funding for the GASB is separate from that of the FASB.

The GASB is the body responsible for establishing financial accounting and reporting standards for governments. With its first pronouncement, *Authoritative Status of NCGA Pronouncements and AICPA Industry Audit Guide*, the GASB endorsed prior statements and interpretations of the NCGA, as well as the accounting and financial reporting standards embodied in the 1974 *AICPA Industry Audit Guide* as amended. Pronouncements of the GASB include GASB Statements (GASBS), GASB Interpretations (GASBI), GASB Concept Statements (GASBCS), and GASB Technical Bulletins (GASBTB). Pronouncements of the GASB are codified in the GASB's *Codification of Governmental Accounting and Financial Reporting Standards* (cited as *GASB Cod.*). This codification is updated annually.

Hierarchy of Generally Accepted Reporting Standards for Governmental Entities

The hierarchy used to establish generally accepted reporting standards for all state and local governmental-owned entities, including government-owned colleges and universities, health care providers, and utilities, is included in *GASB Statement No. 55*, "The Hierarchy of Generally Accepted Accounting Principles for State and Local Governments." The GAAP hierarchy governs what constitutes GAAP for all state and local governmental entities. It lists the order of priority of pronouncements that a governmental entity should look to for accounting and financial reporting guidance. The sources of accounting principles that are generally accepted are categorized as follows:

- a. Officially established accounting principles—Governmental Accounting Standards Board (GASB) Statements and Interpretations.
- b. GASB Technical Bulletins and, if specifically made applicable to state and local governmental entities by the American Institute of Certified Public Accountants (AICPA) and cleared by the GASB, AICPA Industry Audit and Accounting Guides, and AICPA Statements of Position.
- c. AICPA Practice Bulletins if specifically made applicable to state and local governmental entities and cleared by the GASB, as well as consensus positions of a group of accountants organized by the GASB that attempts to reach consensus positions on accounting issues applicable to state and local governmental entities.
- d. Implementation guides (Q&As) published by the GASB staff, as well as practices that are widely recognized and prevalent in state and local government.

If the accounting treatment for a transaction or other event is not specified by a pronouncement in category (a), a governmental entity should consider whether the accounting treatment is specified by an accounting principle from *a source in another category*. In such cases, if categories (b)–(d) contain accounting principles that specify accounting treatments for a transaction or other event, the governmental entity should follow the accounting treatment specified by the accounting principle from the source in the highest category—for example, follow category (b) treatment over category (c) treatment.

If the accounting treatment for a transaction or other event is not specified by a pronouncement or established in practice in *any* of the above categories ((a)–(d)), then the governmental entity should consider accounting principles for *similar transactions or other events* within categories (a)–(d) and may consider other accounting literature. A governmental entity should *not* follow the accounting treatment specified in accounting principles for similar transactions or other events in those cases where accounting principles either *prohibit* the application of the accounting treatment to the particular transaction or event or where they indicate that the accounting treatment should not be applied by analogy.

This hierarchy distinguishes the authority of the GASB and the FASB with regard to state and local governmental entities and implements the FAF trustees' jurisdictional determination of the respective roles of the two boards. The GASB and the FASB each has primary responsibility for setting standards for entities under its jurisdiction, but pronouncements of one Board should not be mandatory for entities under the jurisdiction of the other Board *unless designated as such by the primary Board*.

18.2 THE STRUCTURE OF GOVERNMENTAL ACCOUNTING

A governmental unit, although a separate *legal* entity, consists of a number of separate fund and other *accounting* entities. There are eleven broad categories of fund entities. The eleven categories of fund entities fall under three subheadings: (I) governmental funds, (II) proprietary funds, and (III) fiduciary funds, as shown below.

Fund Entities

(I) **Governmental Funds (expendable)**—reporting focuses on the sources, use, and balances of current financial resources. The accounting and reporting emphasis for these types of funds is on the inflow, outflow, and unexpended balance of net financial resources and on compliance with detailed legal provisions that specify the types of revenue to be raised and the purposes for which financial resources may be expended (the flow of current financial resources measurement basis). The different types of government funds are distinguished by the sources of their financial resources or the types of activities financed by the resources of the fund (per *GASB Statement No. 54*).

1. **General Fund**—The general fund should be used to account for and report all financial resources not accounted for and reported in another fund.
2. **Special Revenue Funds**—Special revenue funds are used to account for and report the proceeds of specific revenue sources that are *restricted* or *committed* to expenditure for specified purposes other than debt service or capital

RELATED CONCEPTS

GASB Statement 45 is expected to provide a better foundation for *decision making* about the level and types of benefits and the financing of those benefits.

LO 2 Broad categories of funds.

projects. The term *proceeds of specific revenue sources* establishes that one or more specific restricted or committed revenues should be the foundation for a special revenue fund.

3. **Capital Projects Funds**—Capital projects funds are used to account for and report financial resources that are *restricted, committed, or assigned* to expenditure for capital outlays, including the acquisition or construction of capital facilities and other capital assets. Capital projects funds exclude those types of capital-related outflows financed by proprietary funds or for assets that will be held in trust for individuals, private organizations, or other governments.
 4. **Debt Service Funds**—Debt service funds are used to account for and report financial resources that are *restricted, committed, or assigned* to expenditure for principal and interest. Debt service funds should be used to report resources if legally mandated (i.e., debt payable from property taxes). Financial resources that are being accumulated for principal and interest maturing in future years also should be reported in debt service funds.
 5. **Permanent Funds**—Permanent funds should be used to account for and report resources that are *restricted* to the extent that only earnings, and not principal, may be used for purposes that support the reporting government's programs—that is, for the benefit of the government or its citizenry. Permanent funds do not include private-purpose trust funds, which should be used to report situations in which the government is required to use the principal or earnings for the benefit of individuals, private organizations, or other governments.
- (II) **Proprietary Funds (nonexpendable)**—reporting focuses on the determination of operating income, changes in net position financial position, and cash flows. Government operations that are similar to commercial business operations such as a water utility, an electric utility, or a central garage or central computer facility are accounted for in the *proprietary fund* category. Financial accounting and reporting for these entities closely parallel accounting and reporting for profit-oriented enterprises. Thus both current and fixed assets and current and noncurrent liabilities are accounted for in the records of proprietary funds. In addition, revenue, expenses (including depreciation and amortization expense), and net income are determined and reported for these fund entities.
6. **Enterprise Funds**—to account for any activity for which a fee is charged to external users for goods or services.
 7. **Internal Service Funds**—to report any activity that provides goods or services to other funds, departments, or agencies of the primary government and its component units, or to other governments, on a cost-reimbursement basis.
- (III) **Fiduciary Funds**—reports assets held in a trustee or agency capacity for others and that cannot be used to support the government's own programs. Fiduciary fund reporting focuses on net position and changes in net position. These include:
8. **Pension (and Other Employee Benefit) Trust Funds**—used to report resources that are required to be held in trust for the members and beneficiaries of defined benefit pension plans, defined contribution plans, other post-employment benefit plans, or other employee benefit plans.
 9. **Investment Trust Funds**—used to report the external portion of investment pools reported by the sponsoring government.

10. **Private-Purpose Trust Funds**—used to report escheat property and to report all other trust agreements under which principal and income benefit individuals, private organizations, or other governments.
11. **Agency Funds**—used to report resources held by the reporting government in a purely custodial capacity (assets equal liabilities). Agency funds typically involve only the receipt, temporary investment, and remittance of fiduciary resources to individuals, private organizations, or other governments.



IN
THE
NEWS

The cost of employee pensions for some California Cities is growing at rates that exceed the growth rate of revenue. Low returns from CalPERS (California Public Employees' Retirement System) are exacerbating the problem. Low investment returns, higher mortality rates, and a shrinking ratio of active to retired employees are adding to the problem. Santa Maria is expecting pension-related expense to be \$15.4 million by 2021, more than \$6 million than the current expense. Cities are looking to the courts for solutions, such as reducing vested rights.⁶

18.3 GOVERNMENTAL FUND ENTITIES

General Fund

All revenues and expenditures of a governmental unit not accounted for in other governmental or proprietary funds are accounted for in the general fund. The variety of revenue sources available to the general fund and the variety of functions and activities financed by the resources of the general fund are ordinarily more numerous than are those for any other fund. Accounting entries and reports for the general fund of a governmental unit were illustrated in Chapter 17.

We continue the example for the Model City for the remainder of the government funds. Model City discloses the following footnote concerning encumbrances and fund balances.

Footnote for Model City Example

For the general fund, outstanding encumbrances are reported as assigned fund balances. For other governmental funds, encumbrances are reported as either restricted or committed. These balances do not constitute expenditures or liabilities for GAAP purposes since the goods and services have not been received.

The City Council is the City's highest level of decision-making authority and the formal action that is required to be taken to establish, modify, or rescind a fund balance commitment is a resolution approved by the City Council. This can also be done through adoption or amendment of the budget. The resolution must either be approved or rescinded, as applicable, prior to the last day of the fiscal year for which the commitment is made. The amount subject to the constraint may be determined in the subsequent period.

The City Council has authorized the Finance Director as the official authorized to assign fund balance \$50 to \$100 thousand, depending on the type of goods or services by administrative action. Such assignments cannot exceed the available (spendable, unrestricted, uncommitted) fund balance in any particular fund.

⁶ Source: "Stopping the Runaway Pension Train" Western City, October 2017, by Carolyn Coleman.

Special Revenue Funds

Special revenue funds are used to account for the proceeds of specific revenue sources that are required by statute, charter provisions, or local ordinance to be used to finance particular functions or activities of the governmental unit. Special revenue funds require that a specific source of revenue must at least be committed. Most local governments can only do what is authorized in State statute (restricted), so the ability to commit unrestricted general fund revenue may not exist. Municipalities may be able to commit, by ordinance, a specific source of revenue to a specific purpose. Thus, most special revenue funds will be restricted. Of the nine (nonmajor) special revenue funds, the City of Nashville reports six restricted, two committed, one nonspendable, and one negative unassigned fund balance amount. The specific source of revenue must be disclosed for each special revenue fund. Examples of special revenue funds are those established to finance the operations of special facilities, such as parks or museums, or of particular activities, such as the licensing and regulation of professions. Although the sources of revenue for special revenue funds in general are similar to those for the general fund, a typical special revenue fund will have only a single revenue source such as a single tax, or specified portion thereof, or a license fee, the proceeds of which are legally restricted to be expended for a specific purpose, function, or activity.

Accounting entries and financial reports for special revenue funds are analogous in all respects to the accounting entries and financial reports for the general fund illustrated in Chapter 17, and no further illustration is presented here beyond a brief summary. In special revenue funds, as in the general fund, the following steps are taken:

1. A budget is established and recorded in the accounts.
2. Encumbrances are used to control budgeted expenditures.
3. Fixed assets acquired by the expenditure of special revenue fund resources are not reported as assets of the special revenue fund but rather are recorded on a schedule of capital assets and reported on the government-wide statement of net position.
4. Depreciation of fixed assets is not recorded or reported by the special revenue fund. (Depreciation expense on these assets is reported on the government-wide statements.)
5. The liability for long-term debt of the specific revenue fund is not recorded or reported as a liability of the special revenue fund but is reported as a liability on the government-wide statement of net position. The proceeds are recorded in the special revenue fund.

Under *GASB Statement No. 34*, expendable trust funds are reported with special revenue funds. Assume, for example, that Model City has an ordinance that requires all licensed contractors to deposit funds with the city to guarantee performance on their contracts. The deposits must be returned to the contractors when they relinquish their licenses. When a deposit is received, cash is debited and the fund balance is credited. When deposits are refunded, the fund balance is debited and cash is credited. Since the deposits may be held by the city for substantial periods of time, the resources of the trust fund are usually invested, and modest amounts of revenue may be earned.

Capital Projects Funds

Capital projects funds can exist from transfers from other funds rather than a specific source of funds. If a capital projects fund exists because of a transfer and the governing body has identified a specific purpose by ordinance or resolution, then the fund balance is

RELATED CONCEPTS

Because nonprofit organizations are typically not self-sustaining or profit oriented, and because they rely heavily on its resource providers, stewardship information is very important for full disclosure.

- LO 3** Distinguish between the general fund and special revenue fund.

- LO 4** Explain the use of a capital projects fund.

committed. However, if the governing body has not identified a purpose, the fund balance is assigned. The City of Nashville reports two major capital projects funds, and both of these have restricted fund balance. For instance, the Education Capital Projects Fund is used to account for the use of bond proceeds for the construction and equipping of various school facilities. Capital projects funds are established to account for the *resources* to acquire or construct major capital facilities (i.e., permanent assets with long lives). Major capital facilities include assets such as buildings, streets and highways, and storm drain systems. The primary purpose of accounting for the acquisition of major capital facilities in a separate capital projects fund is to show that the resources designated for such purposes were used for authorized purposes only and that any unexpended balances of such resources or resource deficits have been treated properly. *Resources* for the acquisition of major capital facilities include (1) proceeds of long-term debt issues, (2) grants or payments from other governmental units and agencies, (3) funds from private sources, (4) transfers of current revenues from other governmental funds, (5) special assessments, and (6) other sources.

Not all major capital facilities acquisitions are accounted for in capital project funds. Construction and acquisition of capital facilities financed by enterprise funds are accounted for in the enterprise fund. In addition, in some instances the resources of the general fund or a special revenue fund are appropriated for the acquisition of a major capital facility. So long as such acquisitions do not involve the issuance of general obligation long-term debt securities, they may be accounted for in the fund that appropriates the resources rather than in a separate capital projects fund.

The operations of a capital projects fund may extend over several accounting periods. Separate capital projects funds are ordinarily created for each major capital project. When the project is completed, the associated capital projects fund is closed out.

Capital Projects Fund Example To illustrate accounting and reporting procedures for a capital projects fund, assume that Model City authorizes the construction of a combination library and civic center that will be financed from the following sources (one from within the local government and one from the state):

General obligation bonds (par value)	\$2,000,000
State government grant	<u>1,000,000</u>
Total authorized for construction	<u>\$3,000,000</u>

The state grant restricts the use of the funds for construction and a debt covenant on the debt also restricts the use of the funds for construction. Construction is to begin on September 1, 2019, and the bonds are to be issued on October 1, 2019.

Entries—2019 Entries to record the transactions of the capital projects fund during 2019 are summarized and explained as follows:

(1) Due from State Government	1,000,000	
Grant Revenue		1,000,000
To open Capital Projects Fund.		

There is no budget entry to record estimated revenue and appropriations into the accounting records. Sources of estimated revenues for a capital project are few and predictable in amount. Thus, it serves no useful purpose to record them. Likewise, an appropriation account is not required as a formal control device, since the funds can be

expended only for the single authorized project. Thus, the fund balance itself serves as an adequate measure of, and control over, unexpended appropriation authority.

(2)	Cash	2,100,000	
	Bond Issue Proceeds—Other Financing Sources		2,100,000
	To record receipt of proceeds from issuance of long-term debt securities. The bonds were issued at a market rate of 6.787%.		

The Bond Issue Proceeds account is closed to the Fund Balance at the end of the year.

EFFECT OF A TRANSACTION ON DIFFERENT FUNDS

Each fund is a set of self-balancing accounts. The previous entry, to record the issuance of the bond, is a source of funds for the capital projects fund. Yet, the debt is not recorded as a liability of the fund. This transaction illustrates that one transaction can, and often does, affect several other funds at the same time. The liability will be reported on the government-wide statement of net position.

When bonds are issued at a premium, the difference between the bond issue proceeds and the par value of the bonds represents an interest adjustment and is usually transferred to the debt service fund that is used to service the principal and interest on the debt.

(3)	Transfer to Debt Service Fund	100,000	
	Cash		100,000
	To record transfer of cash in amount of bond premium to Debt Service Fund.		

TRANSFERS BETWEEN FUNDS

It is not unusual for resources to be transferred between funds. Most transfers, like the one in Entry (3), are recurring nonreciprocal transfers (also known as operating transfers) and are reported separately from revenues and expenditures on the statement of revenues, expenditures, and changes in fund balance as “other financing sources and uses.” Transfers are discussed later in the chapter.

(4)	Certificates of Deposit	1,000,000	
	Cash		1,000,000
	To record investment of excess cash in temporary investments.		
(5)	Encumbrances	2,500,000	
	Fund Balance—Restricted		2,500,000
	To record encumbrance created by signing construction contract with Lloyd-Jones Construction Company.		
(6)	Cash	750,000	
	Due from State Government		750,000
	To record collection of part of grant from State Government.		
(7)	Expenditures	200,000	
	Vouchers Payable		200,000
	To record unencumbered expenditures for architect and legal fees. Payment is recorded in entry (9).		
(8)	Fund Balance—Restricted	1,300,000	
	Encumbrances		1,300,000
	Expenditures	1,300,000	
	Contracts Payable		1,300,000
	To record approved contract billings on construction completed to date and to remove encumbrance thereon.		
(9)	Vouchers Payable	150,000	
	Contracts Payable	1,300,000	
	Cash		1,450,000
	To record payment of liabilities (includes a portion of (7) and all of (8)).		

(10) Interest Receivable	12,500	
Interest Revenue		12,500
To record interest earned on certificate of deposit to December 31, 2019.		

The treatment of interest income on temporary investments depends on legal provisions or established policy. One alternative is to transfer such earnings to the debt service fund. A second alternative is to treat such earnings as revenue of the capital projects fund. The latter treatment is justified on the grounds that resources allocated to the project are restricted exclusively to that project and, accordingly, any earnings on such resources are also restricted resources and should not be diverted to any other use.

December 31, 2019, Trial Balance The December 31, 2019, trial balance for the capital projects fund presented below reflects the transactions recorded in 2019.

	<i>Debit</i>	<i>Credit</i>
Cash	\$ 300,000	
Interest Receivable	12,500	
Certificates of Deposit	1,000,000	
Due from State Government	250,000	
Encumbrances	1,200,000	
Expenditures	1,500,000	
Vouchers Payable		\$ 50,000
Contracts Payable		—0—
Fund Balance—Restricted		1,200,000
Grant Revenue		1,000,000
Interest Revenue		12,500
Bond Issue Proceeds—Other Financing Sources		2,100,000
Transfer to Debt Service Fund—Other Financing Use	100,000	
	<u>\$4,362,500</u>	<u>\$4,362,500</u>

Closing Entries—December 31, 2019

(11) Bond Issue Proceeds	2,100,000	
Grant Revenue	1,000,000	
Interest Revenue	12,500	
Transfer to Debt Service Fund		100,000
Fund Balance—Restricted		3,012,500
To close revenue and related accounts to fund balance.		
(12) Fund Balance—Restricted	2,700,000	
Encumbrances		1,200,000
Expenditures		1,500,000
To close expenditures and encumbrances accounts to fund balance.		

Since no budget accounts were formally recorded in the accounting records, there are no budget accounts to be closed at year-end. Hence, the nominal accounts are closed directly to the fund balance.

At the end of each year, the cost of construction in progress represented by expenditures incurred by the capital projects fund during the year will be reported on the government-wide statement of net position.

Completion of Project Entries in 2020 to record the completion of the project are presented and explained below.

(13) Encumbrances	1,200,000	
Fund Balance—Restricted		1,200,000
To reestablish the contract encumbrance closed out at end of previous year.		

Since capital projects funds are project oriented rather than period oriented, there is no need, as there is in accounting for the general fund or a special revenue fund, to identify expenditures with appropriation authority of a particular year. Thus, expenditures for amounts encumbered in prior years are not segregated from other expenditures of the current year. Entry (13) reestablishes the encumbrance equal to the beginning of year balance.

(14)	Expenditures	225,000	
	Vouchers Payable		225,000
	To record unencumbered expenditures.		
(15)	Cash	250,000	
	Due from State Government		250,000
	To record receipt of cash payment from State Government.		
(16)	Cash	1,020,000	
	Certificate of Deposit		1,000,000
	Interest Receivable		12,500
	Interest Revenue		7,500
	To record realization of certificate of deposit.		
(17)	Fund Balance—Restricted	1,200,000	
	Encumbrances		1,200,000
	Expenditures	1,200,000	
	Contracts Payable		1,200,000
	To record approved final contract billings on completed construction and to remove remaining contract encumbrance.		
(18)	Contracts Payable	1,200,000	
	Contracts Payable—Retained Percentage		125,000
	Cash		1,075,000
	To record payment of contract except for retention of 5% of the contract price pending inspection of completed project.		
(19)	Vouchers Payable	275,000	
	Cash		275,000
	To record payment of liabilities.		

December 31, 2020, Trial Balance The preclosing trial balance of the capital projects fund on December 31, 2020, is presented below:

	<i>Debit</i>	<i>Credit</i>
Cash	\$ 220,000	
Expenditures	1,425,000	
Contracts Payable—Retained Percentage		\$ 125,000
Fund Balance—Restricted		1,512,500
Interest Revenue		7,500
	<u>\$1,645,000</u>	<u>\$1,645,000</u>

Closing Entry—December 31, 2015

(20)	Fund Balance—Restricted	1,417,500	
	Interest Revenue		7,500
	Expenditures		1,425,000
	To close nominal accounts to fund balance.		

Financial Statements A comparative balance sheet and a comparative statement of revenues, expenditures, and changes in fund balance for the years ended December 31, 2020, and December 31, 2019, are presented in Illustrations 18-2 and 18-3.

Closing Out a Capital Projects Fund Although the cost of a capital project should equal the resources provided for its acquisition, actual expenditures normally

ILLUSTRATION 18-2

Library and Civic Center Capital Projects Fund Balance Sheet at December 31, 2020, and December 31, 2019

<i>Assets</i>	<i>2020</i>	<i>2019</i>
Cash	\$220,000	\$ 300,000
Interest Receivable	—	12,500
Certificates of Deposit	—	1,000,000
Due from State Government	—	250,000
Total Assets	<u>\$220,000</u>	<u>\$1,562,500</u>
<i>Liabilities and Fund Balance</i>		
Vouchers Payable	\$ —	\$ 50,000
Contracts Payable—Retained Percentage	125,000	—
Total Liabilities	<u>\$125,000</u>	<u>\$ 50,000</u>
Fund Balance		
Restricted for Capital Projects	95,000	1,512,500
Total Fund Balance	<u>95,000</u>	<u>1,512,500</u>
Total	<u>\$220,000</u>	<u>\$1,562,500</u>

ILLUSTRATION 18-3

Library and Civic Center Capital Projects Fund Statement of Revenues, Expenditures, and Other Changes in Fund Balance for Years Ended December 31, 2020, and December 31, 2019

	<i>2020</i>	<i>2019</i>	<i>Cumulative</i>
<i>Revenues</i>			
Grant Revenue	\$ —	1,000,000	1,000,000
Interest Revenue	7,500	12,500	20,000
Total Revenue	<u>7,500</u>	<u>1,012,500</u>	<u>1,020,000</u>
<i>Expenditures</i>			
Capital Asset/Construction	1,425,000	1,500,000	2,925,000
Total Expenditures	<u>1,425,000</u>	<u>1,500,000</u>	<u>2,925,000</u>
Excess (deficiency) of Revenues over Expenditures	<u>(1,417,500)</u>	<u>(487,500)</u>	<u>(1,905,000)</u>
<i>Other Financing Sources (Uses)</i>			
Proceeds of Long-Term Capital-related Debt	—	2,100,000	2,100,000
Operating Transfer Out	—	(100,000)	(100,000)
Total Other Financing Sources (Uses)	<u>—</u>	<u>2,000,000</u>	<u>2,000,000</u>
Net Change in Fund Balance	<u>(1,417,500)</u>	<u>1,512,500</u>	<u>95,000</u>
Fund Balance—January 1	<u>1,512,500</u>	—	—
Fund Balance—December 31	<u>\$ 95,000</u>	<u>\$1,512,500</u>	<u>\$ 95,000</u>

do not equal the project authorization. If an unexpended fund balance remains after the completion of the project, it should be distributed to the contributors of project resources in proportion to their contribution. For example, unless legal or policy decisions dictate otherwise, the capital projects fund of Model City illustrated above would be closed out as follows:

(21)	Contracts Payable—Retained Percentage	125,000	
	Cash		125,000
	To record final payment on contract.		
(22)	Transfer to Debt Service Fund—Other Financing Use	63,333*	
	Expenditures	31,667**	
	Cash		95,000
	To record distribution of Fund Balance.		
* $(\$2,000,000/\$3,000,000) \times \$95,000 = \$63,333$ to another governmental fund.			
** $(\$1,000,000/\$3,000,000) \times \$95,000 = \$31,667$ to the state government.			
(23)	Fund Balance—Restricted	95,000	
	Fund Balance—Unassigned		95,000
	To reclassify the restricted fund balance to unassigned		

For financial reporting purposes, transfers to other funds within a governmental unit are distinguished from expenditures. The return of \$31,667 to the state government is treated as an expenditure because it reduces the financial resources of Model City.

When construction is completed, the assets acquired with capital projects fund resources are recorded at cost in the government activities column in the government-wide statement of net position. No assets are recorded in the capital projects fund.

Debt Service Funds

LO 5 Describe a debt service fund.

Debt service funds are used to account for and report financial resources that are restricted, committed, or assigned to expenditure for principal and interest. Debt issued by the government is separated into two categories: general obligation long-term debt that supports the activities of the government, and debt that is issued by proprietary funds to support specific activities of the fund. Long-term liabilities directly related to, and expected to be paid from, fiduciary funds should be reported in the statement of fiduciary net position. General obligation long-term debt consists of bonds, notes, or warrants that are secured by the general credit and revenue-raising powers of the governmental unit, rather than by the resources of a specific fund. Two funds are involved in accounting for general obligation long-term debt. The debt is recorded on the statement of net position while *the funds* used to meet the principal and interest payments are accumulated in the *debt service fund*. Since the principal is not reported as a liability of the debt service fund, payments of bond principal and interest are *expenditures* of (rather than reduction of liabilities of) the debt service fund.⁷ On the other hand, long-term debt that is the specific obligation of an enterprise fund (a proprietary fund) is a liability of that fund, and the accumulation of resources for its payment will be accounted for in that fund, rather than in a debt service fund.

General obligation bonds may be serial bonds or term bonds. The principal of a term bond is repaid in one lump sum at a specified maturity date. The total principal of serial bonds is repaid in a specified number of annual (and usually equal) installments.

⁷ Matured long-term debt that has not yet been redeemed with the resources of the debt service fund may be recorded as a liability of the debt service fund.

Debt service funds are usually financed by one or more of the following sources of revenue:

- General property tax
- Sales tax or other specified tax revenues
- Transfers of other governmental fund revenues
- Special assessments
- Revenue from the investment of debt service fund resources

For purposes of illustrating the difference between the debt service for serial bonds and for term bonds, two debt service funds—Land Acquisition Serial Bonds Debt Service Fund and Library and Civic Center Term Bonds Debt Service Fund—are illustrated for Model City. Both these funds might be collapsed into a single debt service fund.

Serial Bonds Accounting for the accumulation of resources and payment of annual installments of principal and interest on serial bonds is relatively simple. To illustrate, assume that in 2016, Model City issued \$1,800,000 in 8% serial bonds at par, \$300,000 of which come due on July 1 of each year beginning July 1, 2017. On January 1, 2019, there is \$1,200,000 in principal on these bonds outstanding, and \$300,000 in principal and \$96,000 in interest will come due on July 1, 2019. The City Council committed property taxes for annual installments of principal and the Finance Director assigned funds from the General Fund for interest payments. At the beginning of 2019, the debt service fund had cash and receivables of \$5,000 available to make debt payments. The trial balance of the Land Acquisition Serial Bonds Debt Service Fund on January 1, 2019, is as follows:

Trial Balance—January 1, 2019		
	<i>Debit</i>	<i>Credit</i>
Cash	\$3,000	
Property Tax Receivable	2,000	
Property		
Fund Balance—Committed		<u>\$5,000</u>
Total	<u>\$5,000</u>	<u>\$5,000</u>

In this example, we have assumed that the debt service for the serial bonds are paid from committed funds. However, the funds could be restricted, committed, or assigned. Transactions of the fund for 2019 are summarized in general journal form below.

A. Budgeting Revenue and Appropriations

(1)	Estimated Revenue	315,000
	Authorized Transfer from the General Fund	96,000
	Appropriations (300,000 + 96,000)	396,000
	Fund Balance—committed	15,000
	To record budgeted revenue, transfers, and appropriations for current year.	

B. Revenue Generation and Fund Transfers

(2)	Property Tax Receivable	320,000
	Allowance for Uncollectible Taxes	4,000
	Revenue (net)	316,000
	To record general property tax levy earmarked for debt service on serial bonds.	

(3)	Due from the General Fund	96,000	
	Transfer from General Fund—Other Financing Source		96,000
	To record amount of resources authorized for transfer from General Fund during current period.		
(4)	Cash	316,000	
	Property Tax Receivable		316,000
	To record collection of property taxes.		
(5)	Cash	96,000	
	Due from the General Fund		96,000
	To record receipt of cash transfer from General Fund.		

C. Debt Expenditure

(6)	Expenditures—Principal	300,000	
	Expenditures—Interest	96,000	
	Cash		396,000
	To record payment of interest and principal on July 1.		

D. Year-End Entries

(7)	Revenue	316,000	
	Estimated Revenue		315,000
	Fund Balance—Committed		1,000
	Transfer from General Fund—Other Financing Source	96,000	
	Authorized Transfer from General Fund		96,000
	Appropriations	396,000	
	Expenditures—Principal		300,000
	Expenditures—Interest		96,000
	To close nominal and budget account balances at year-end.		
(8)	Allowance for Uncollectible Taxes	4,000	
	Property Tax Receivable		4,000
	To record write-off of taxes authorized by City Council.		

The postclosing trial balance for this fund on December 31, 2019, is as follows:

Trial Balance—December 31, 2019

	<i>Debit</i>	<i>Credit</i>
Cash	\$19,000	
Property Tax Receivable	2,000	
Fund Balance—Committed		<u>\$21,000</u>
Total	<u>\$21,000</u>	<u>\$21,000</u>

A statement of revenues, expenditures, and changes in fund balance is presented in Illustration 18-4 for the Land Acquisition Serial Bonds Debt Service Fund.

Term Bonds Accounting for the debt service of term bonds is more complicated than accounting for serial bonds. Debt service funds for term bonds require annual additions to fund resources that, with compound interest, will provide the total amount

ILLUSTRATION 18-4
Land Acquisition Serial Bonds Debt Service Fund
Statement of Revenues, Expenditure, and Changes in Fund Balance
for Year Ended December 31, 2019

<i>Revenues</i>	
General Property Taxes	\$316,000
<i>Expenditures</i>	
Principal Payments on Serial Bonds	300,000
Interest on Bonds	96,000
Total Expenditures	396,000
<i>Excess (deficiency) of Revenues over Expenditures</i>	
	<i>(80,000)</i>
<i>Other Financing Sources (Uses)</i>	
Transfers in (from General Fund)	96,000
Net Change in Fund Balance	\$ 16,000
Fund Balance—January 1	5,000
Fund Balance—December 31	\$ 21,000

of bond principal by the maturity date of the bonds. In addition, the debt service fund for a term bond issue must provide for the payment of periodic interest on the bonds.

To illustrate, assume that the \$2,000,000 in bonds issued on October 1, 2019, to finance the construction of the Library and Civic Center of Model City were 8% bonds that mature five years after their issue date. (These bonds were issued in the capital projects fund earlier in this chapter. The bonds have a stated interest rate of 8% and an original market rate of 6.787%.) The calculation of the required annual additions to the debt service fund is presented in Illustration 18-5. It is assumed that funds can be invested at an average annual return of 10%. The required annual principal addition of \$327,595

ILLUSTRATION 18-5
Debt Service Fund—Term Bonds
Required Annual Additions and Required Earnings for
\$2,000,000 Library and Civic Center Bond Issue

<i>Year</i>	<i>Required Principal Additions (1)</i>	<i>Required Earnings (2)</i>	<i>Required Increase in Fund Balance (3)</i>	<i>Required Fund Balance (4)</i>
2020	\$ 327,595		\$ 327,595	\$ 327,595
2021	327,595	\$ 32,760	360,355	687,950
2022	327,595	68,795	396,390	1,084,340
2023	327,595	108,434	436,029	1,520,369
2024	327,595	152,036	479,631	2,000,000
	<u>\$1,637,975</u>	<u>\$ 362,025</u>	<u>\$2,000,000</u>	
Required Principal Addition (1)				\$ 327,595
Required Interest Addition (0.08 × \$2,000,000)				160,000
Required Annual Addition				<u>\$ 487,595</u>

(1) The required principal addition equals $(\$2,000,000 \div 3 \div 0.62092) \times .79079$ or \$327,595

(2) Required earnings equals 10% times the previous year's required fund balance (column (4))

(3) The required increase in fund balance equals the sum of column (1) and column (2)

(4) The required fund balance equals the cumulative sum of the required increase in fund balance, column (3)

is calculated by dividing the term bond principal of \$2,000,000 by the amount of an ordinary annuity of \$1.00 for five periods at 10% ($\$2,000,000/6.1051 = \$327,595$). Alternatively, it can be calculated by first getting the present value \$2,000,000 discounted back for five periods at 10% ($\$2,000,000 \times 0.62092 = \$1,241,840$). Then divide \$1,241,840 by the present value of an ordinary annuity for five periods at 10% ($\$1,241,840/3,79079 = \$327,595$). See Appendix PV (at the back of the book) Tables A1 and A2 for present value table factors. In addition, \$160,000 is needed to cover the interest payments ($\$2,000,000 \times .08$).

These calculations do not take into account the \$100,000 premium on the issue of the bonds that is transferred by the capital projects fund to the debt service fund in 2019. However, if the fund balance of a debt service fund exceeds actuarial requirements, the excess is ordinarily carried forward without adjustment until the final addition to the fund is made. It is assumed that annual additions to the Library and Civic Center Term Bonds Debt Service Fund are derived from an earmarked portion of the general property tax assessment (assume restricted fund balance).

Transactions—2019 Transactions of the fund in 2019 are summarized in general journal form as follows:

(1)	Cash	100,000	
	Transfer from Capital Projects Fund—Other		100,000
	Financing Use		
	To record transfer of cash from Capital Projects Fund for the premium received on bond issue proceeds.		

Note that for fund accounting purposes, the premium on the bond issued is not amortized to expense over the life of the bond, but is considered an operating transfer-in that increases the fund balance. However, on the government-wide financial statements (illustrated later in the chapter), the premium needs to be amortized to expense.

Without a transfer of cash to the debt service fund by the capital projects fund, no entries would have been required in the debt service fund until the 2015 fiscal year.

(2)	Investments	100,000	
	Cash		100,000
	To record investment of cash in a certificate of deposit.		
(3)	Interest Receivable	4,000	
	Interest Income		4,000
	To accrue interest receivable from the certificate of deposit on December 31, 2019.		
(4)	Interest Income	4,000	
	Transfer from Capital Projects Fund	100,000	
	Fund Balance—restricted		104,000
	To close nominal accounts to Fund Balance.		

The postclosing trial balance on December 31, 2019, is as follows:

Trial Balance—December 31, 2019

	<i>Debit</i>	<i>Credit</i>
Investments	\$100,000	
Interest Receivable	4,000	
Fund Balance—Restricted		<u>\$104,000</u>
Total	<u>\$104,000</u>	<u>\$104,000</u>

Transactions—2020 Revenue and expenditure transactions for 2020 are summarized later in Illustration 18-9. At the end of 2020, the postclosing trial balance for the fund is as follows:

Trial Balance—December 31, 2020		
	<i>Debit</i>	<i>Credit</i>
Cash	\$ 33,000	
Interest Receivable	4,000	
Property Tax Receivable	6,000	
Investments	400,000	
Allowance for Uncollectible Taxes		\$ 1,000
Fund Balance—Restricted		<u>442,000</u>
Total	<u>\$443,000</u>	<u>\$443,000</u>

Transactions—2021 Transactions for 2021 (also shown later in Illustration 18-7) are summarized in general journal form as follows:

A. Budget Additions, Appropriations, and Estimated Revenues

(1)	Required Additions (\$327,595 + \$160,000)	487,595	
	Required Earnings	32,760	
	Fund Balance—Restricted		520,355
	To record budgeted additions and budgeted income on invested resources of fund for current year (see Illustration 18-5).		

The amounts reported in the required additions and the required earnings accounts are determined (actuarially) to meet the current and future years' interest and principal payments. For example, \$160,000 is needed to meet the current year's interest payment. An additional \$327,595 is needed for the fund to accumulate to meet future payments. In addition, existing funds must earn some minimum rate to accumulate to the desired amount. The required earnings amount is \$32,760 during the current year. If the actual amount of additions and earnings equals these budgeted amounts, the fund balance will equal the present value of the remaining interest and principal payments at the assumed interest rate.

(2)	Fund Balance—Restricted	160,000	
	Appropriations		160,000
	To record budgeted expenditures for bond interest for current year.		
(3)	Property Tax Receivable	503,000	
	Allowance for Uncollectible Taxes		15,000
	Revenue (net of uncollectible accounts)		488,000
	To record property tax levy earmarked for debt service on Library and Civic Center term bonds.		

B. Collection of Receivables, Investment Income, and Purchase of Investments

(4)	Cash	485,000	
	Property Tax Receivable		485,000
	To record collection of property taxes.		
(5)	Investments	360,000	
	Premium on Investments	15,000	
	Cash		375,000
	To record investment of fund resources.		

Debt service fund investments are closely regulated by law and are usually restricted to quality government and municipal securities. When such investments are expected to be held to maturity, they are recorded at their par value and premium or discount is recorded in a *separate* account and amortized by reducing or increasing investment income over the remaining life of the investment.

(6)	Cash	26,000	
	Interest Receivable		4,000
	Interest Income		22,000
	To record receipt of interest on investments.		
(7)	Allowance for Uncollectible Taxes	13,000	
	Property Tax Receivable		13,000
	To record write-off of property taxes authorized by City Council.		
(8)	Interest Receivable	21,000	
	Interest Income		21,000
	To record interest accrued on investments to December 31, 2021.		
(9)	Interest Income	1,200	
	Premium on Investments		1,200
	To record current year's amortization of premium on investments.		

C. Expenditure for Interest

(10)	Expenditures	160,000	
	Interest Payable		160,000
	To record expenditures for current year's interest on bonds.		
(11)	Interest Payable	160,000	
	Cash		160,000
	To record payment of interest.		

D. Closing Entries

(12)	Revenue	488,000	
	Required Additions		487,595
	Fund Balance—Restricted		405
	Interest Income	41,800	
	Required Earnings		32,760
	Fund Balance—Restricted		9,040
	Appropriations	160,000	
	Expenditures		160,000
	To close budgeted and nominal account balances at year-end.		

In this example, the funds were restricted so the accounts are closed to fund balance-restricted. However, depending on the constraints on the funds, the accounts could be closed to either restricted, committed, or assigned fund balance. Comparative financial statements for the Library and Civic Center Term Bonds Debt Service Fund

are presented in Illustrations 18-6 and 18-7. Two things should be noted about these statements, as follows:

ILLUSTRATION 18-6

**Model City
Library and Civic Center Term Bonds Debt Service Fund
Balance Sheet at December 31, 2021, December 31, 2020, and December 31, 2019**

<i>Assets</i>	<i>2021</i>	<i>2020</i>	<i>2019</i>
Cash	\$ 9,000	\$ 33,000	\$ —
Interest Receivable	21,000	4,000	4,000
Taxes Receivable (less allowance for uncollectible taxes, 2021—\$3,000; 2020—\$1,000)	8,000	5,000	
Investment (at maturity value)	760,000	400,000	100,000
Unamortized Premium on Investments	13,800	—	—
Total Assets	<u>\$811,800</u>	<u>\$442,000</u>	<u>\$104,000</u>
<i>Liabilities and Fund Balance</i>			
Fund Balance:			
Restricted for Debt Service	<u>\$811,800</u>	<u>\$442,000</u>	<u>\$104,000</u>

Disclosure

The actuarial requirements in the fund balance are \$687,950 in 2021 and \$327,595 in 2020. See Illustration 18-5.

ILLUSTRATION 18-7

**Library and Civic Center Term Bonds Debt Service Fund
Statement of Revenues, Expenditures, and Changes
In Fund Balance for Years Ended December 31, 2021, 2020, and 2019**

	<i>2021</i>	<i>2020</i>	<i>2019</i>
<i>Revenues</i>			
General Property Tax	\$488,000	\$488,000	\$ —
Interest on Investments (net of amortization)	41,800	10,000	4,000
Total Revenues	<u>529,800</u>	<u>498,000</u>	<u>4,000</u>
<i>Expenditures</i>			
Redemption of Term Bonds	—	—	—
Interest on Bonds	160,000	160,000	—
Total Expenditures	<u>160,000</u>	<u>160,000</u>	<u>—</u>
Excess (Deficiency) of Revenues over Expenditures	369,800	338,000	4,000
<i>Other Financing Sources (Uses)</i>			
Transfers In	—	—	100,000
Net Change in Fund Balance	369,800	338,000	104,000
Fund Balance—January 1	\$442,000	\$104,000	—
Fund Balance—December 31	<u>\$811,800</u>	<u>\$442,000</u>	<u>\$104,000</u>

Note: The actuarial requirements in the fund balance are \$687,950 in 2021, \$327,595 in 2020, and \$—0— in 2019. See Illustration 18-5.

1. There is no interest payable accrual on general obligation long-term debt. For fund accounting, there are no entries to record the accrual of interest payable on the bonds from the last interest payment date (July 1 for the serial bonds and October 1 for the term bonds) to the end of the fiscal year. This action is justified because financial resources that are appropriated by the debt service fund are usually appropriated in the period the interest on the debt must be paid. To accrue the debt service fund expenditure and liability in one year, but record the transfer or collection of the financial resources appropriated for this purpose in a later year, would be confusing and would result in an overstatement of fund liabilities and expenditures and an understatement of the fund balance. Thus, for fund purposes it is considered appropriate and more informative to treat interest payable on general obligation long-term debt at the end of the year as an expenditure in the year of payment. *However, on the accrual-based government-wide statements, this interest must be accrued regardless of the period that the interest will be paid.* On the government-wide statement of net position, accrued interest of \$76,000 (\$36,000 from the serial bond and \$40,000 from the term bond) is included in liabilities, while no accrued interest is included on the governmental fund statements.

2. Actuarial requirements must be disclosed. An essential disclosure in the financial statements of debt service funds for term bonds is the amount, actuarially determined, of resources that is necessary on the financial statement date for the accumulation of sufficient resources to redeem the debt on its maturity date. The actuarial requirements shown in Illustrations 18-6 and 18-7 are those determined in the “Required Fund Balance” column of Illustration 18-5.

Closing Out the Debt Service Fund Assume the following trial balance for the Library and Civic Center Term Bonds Debt Service Fund on September 15, 2019:

Trial Balance—September 15, 2019

	<i>Debit</i>	<i>Credit</i>
Cash	\$2,220,000	
Fund Balance—Restricted		\$2,220,000
Total	<u>\$2,220,000</u>	<u>\$2,220,000</u>

Entries to close the fund are as follows:

- (1) Expenditures—Principal 2,000,000
 Expenditures—Interest 160,000
 Cash 2,160,000
 To record redemption of matured bonds and payment of interest.

- (2) Transfer to X Fund—Other Financing Use 60,000
 Cash 60,000
 To record transfer of unexpended fund resources to another governmental fund.

The unexpended balance of the fund after the final payment of interest and principal on the matured bonds should be disposed of in accordance with legal or bond indenture requirements. Usually the unexpended balance is transferred to another debt service fund, but legal requirements may specify an alternative disposition. The accounts of the fund being terminated should be closed in such a way as to reflect compliance with applicable legal requirements.

(3) Fund Balance—Restricted	2,220,000	
Expenditures—Principal		2,000,000
Expenditures—Interest		160,000
Transfer to X Fund—Other Financing Use		60,000
To close out Debt Service Fund.		

After these entries are posted, the balance of all accounts would be zero and the Debt Service Fund would effectively cease to exist.



IN
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The Montana Senate supported a bill to prohibit benefits for people who retire early to offset the declining value of the state's pension funds. Previously, full benefits were awarded to anyone retiring after 30 years of service.⁸

Credit Suisse estimated that state and local governments owed more than \$1.5 trillion in unfunded health-care and non-pension benefits. Boston's College's Center for Retirement Research has estimated that the recent market meltdown has eliminated \$1 trillion from municipal pension funds. The fear is that many municipalities might have to follow the city of Vallejo, California and declare bankruptcy. The city was spending 74 percent of its general fund budget on public sector salaries and benefits. New York City added \$63 billion in liabilities to comply with GASB 45.⁹

Permanent Funds

LO 6 Explain the use of a permanent fund.

Nonexpendable Trust Funds Nonexpendable trust funds are generally reported as permanent funds. There are two types of nonexpendable trust funds: those in which the principal must be retained intact, but earnings may be expended, and those in which both the principal and the earnings of the fund must be retained intact. An example of the latter type of nonexpendable trust funds is the *revolving loan fund*, in which interest collected on loans outstanding increases the funds available for subsequent loans.

Nonexpendable trust funds may be established because of a gift, a bequest, or some other action that requires the governmental unit to act in a fiduciary capacity and to maintain and conserve cash or other assets that it does not own. Trust funds must be accounted for in accordance with the terms of the trust agreement or the applicable provisions of statutory and common law. Accounting procedures must result in a clear distinction between nonexpendable fund resources and expendable resources resulting from the earnings of the fund. Appropriate procedures are also necessary to ensure that the expenditure of expendable resources is made in accordance with the trust agreement or other applicable legal provisions.

Where the earnings of a trust fund may be expended, they are generally transferred to a special revenue fund (expenditures restricted to specified use). To illustrate, assume that a private donor granted Model City \$300,000 for the purpose of financing the purchase of rare editions of the classics for the public library. As a result of this grant, two funds were created:

1. The Classics Endowment Fund to account for the nonexpendable fund principal and the investment (this fund is classified as a permanent fund).

⁸ "Senate Nixes Early Retirement to Plug Pension Gap," Associated Press, February 25, 2009.

⁹ "The Great GASB," City Journal, February 24, 2009.

2. The Classics Acquisition Fund to account for the expenditure of the earnings of the endowment fund (this fund is classified as a special revenue fund).

The general ledger trial balances for each fund on January 1, 2019, are presented below.

Classics Endowment Fund

<i>(Permanent Fund)</i>	<i>Debit</i>	<i>Credit</i>
Cash	\$ 2,000	
Certificates of Deposit	300,000	
Interest Receivable (accrued)	7,500	
Due to Classics Acquisition Fund		\$ 9,500
Fund Balance—Nonspendable		<u>300,000</u>
Total	<u>\$309,500</u>	<u>\$309,500</u>

Classics Acquisition Fund

<i>(Special Revenue Fund)</i>		
Cash	\$ 8,000	
Due from Classics Endowment Fund	9,500	
Fund Balance—Restricted		\$ 17,500
Total	<u>\$ 17,500</u>	<u>\$ 17,500</u>

Transactions for 2019 for each fund are summarized below in general journal form.

Classics Endowment Fund

(1) Cash	30,000	
Interest Receivable		7,500
Interest Income		22,500
To record interest collected on certificate of deposit.		
(2) Interest Receivable	7,500	
Interest Income		7,500
To accrue interest on certificate of deposit.		
(3) Transfer to Classics Acquisition Fund	30,000	
Due to Classics Acquisition Fund		30,000
To record amount of 2019 income transferable to Classics Acquisition Fund.		
(4) Due to Classics Acquisition Fund	32,000	
Cash		32,000
To record cash payment to Classics Acquisition Fund.		

For purposes of simplification, it is assumed that the trust agreement requires that the entire endowment principal be invested in a savings account earning 10% interest. Usually, the principal of an endowment fund is invested in various securities. If the securities are purchased at a premium or discount, such amounts should ordinarily be amortized to interest income, and only the net amount of investment income would accrue to the recipient Classics Acquisition Fund. Accounting procedures for an endowment fund are complicated further if the endowment includes depreciable

income-producing assets such as rental properties. In that case, earnings accruing to the recipient expendable fund must also be reduced by depreciation if the trust principal is to be maintained “intact.”

Classics Acquisition Fund

(1)	Due from Classics Endowment Fund	30,000	
	Fund Balance—Restricted		30,000
	To record expendable earnings due from endowment fund.		
(2)	Cash	32,000	
	Due from Classics Endowment Fund		32,000
	To record receipt of cash from endowment fund.		
(3)	Fund Balance—Restricted	18,000	
	Cash		18,000
	To record acquisition of rare books.		

Financial statements for these funds are presented in Illustrations 18-8 and 18-9.

ILLUSTRATION 18-8

Classics Endowment Fund

Balance Sheet

December 31, 2019 and December 31, 2018

<i>Assets</i>	<i>2019</i>	<i>2018</i>
Cash	\$ —	\$ 2,000
Interest Receivable	7,500	7,500
Investments	<u>300,000</u>	<u>300,000</u>
Total Assets	<u>\$307,500</u>	<u>\$309,500</u>
 <i>Liabilities and Fund Balance</i>		
Due to Classics Acquisition Fund	\$ 7,500	\$ 9,500
Fund Balance—Nonspendable	<u>300,000</u>	<u>300,000</u>
Total	<u>\$307,500</u>	<u>\$309,500</u>

Statement of Revenues, Expenditures, and Changes

In Fund Balances for Years Ended

December 31, 2019, and December 31, 2018

	<i>2019</i>	<i>2018</i>
<i>Revenues</i>		
Interest Income	\$ 30,000	\$ 30,000
<i>Expenditures</i>		
Excess (Deficiency) of Revenues over Expenditures	<u>30,000</u>	<u>30,000</u>
 <i>Other Financing Sources (Uses)</i>		
Transfers to Classics Acquisitions Fund	<u>(30,000)</u>	<u>(30,000)</u>
Net Change in Fund Balance:	—	—
Fund Balance—January 1	<u>300,000</u>	<u>300,000</u>
Fund Balance—December 31	<u>\$300,000</u>	<u>\$300,000</u>

ILLUSTRATION 18-9
**Classics Acquisition Fund
Balance Sheet
December 31, 2019, and December 31, 2018**

<i>Assets</i>	<i>2019</i>	<i>2018</i>
Cash	\$22,000	\$ 8,000
Due from Classics Endowment Fund	7,500	9,500
Total Assets	<u>\$29,500</u>	<u>\$17,500</u>
<i>Liabilities and Fund Balance</i>		
Fund Balance—Restricted	<u>\$29,500</u>	<u>\$17,500</u>

**Statement of Revenues, Expenditures, and Changes
In Fund Balances for Years Ended
December 31, 2019, and December 31, 2018**

	<i>2019</i>	<i>2018</i>
Revenues	\$ —	\$ —
Expenditures	<u>18,000</u>	<u>20,000</u>
Excess (Deficiency) of Revenues over Expenditures	(18,000)	(20,000)
Other Financing Sources (Uses)		
Transfers from Endowment Trust Fund	<u>30,000</u>	<u>30,000</u>
Excess (Deficiency) to Fund Balance	12,000	10,000
Fund Balance—January 1	<u>17,500</u>	<u>7,500</u>
Fund Balance—December 31	<u>29,500</u>	<u>\$17,500</u>


**IN
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Social Security and Medicare together accounted for 42 percent of Federal program expenditures in fiscal year 2016. Both Social Security and Medicare will experience cost growth substantially more than GDP growth through the mid-2030s due to rapid population aging caused by the large baby-boom generation entering retirement and lower-birth-rate generations entering employment. For Medicare, it is also the case that growth in expenditures per beneficiary exceeds growth in per capita GDP over this time. In later years, projected costs expressed as a share of GDP rise slowly for Medicare and are relatively flat for Social Security, reflecting very gradual population aging caused by increasing longevity and slower growth in per-beneficiary health care costs. The Trustees project that the combined fund asset reserves at the beginning of each year will exceed that year's projected cost through 2029. However, the funds fail the test of long-range close actuarial balance. The Trustees project that total Medicare costs (including both HI and SMI expenditures) will grow from approximately 3.6 percent of GDP in 2016 to 5.6 percent of GDP by 2041, and will increase gradually thereafter to about 5.9 percent of GDP by 2091.¹⁰

18.4 PROPRIETARY FUNDS

LO 7 Distinguish proprietary funds from government funds.

In *GASB Statement No. 34*, the proprietary fund operating statement requirements were changed from a capital maintenance approach to a change in net position approach. Under a capital maintenance approach, certain resource flows such as contributions

¹⁰ Source: Social Security Administration, Summary of the 2017 Annual Reports by Social Security and Medicare Boards of Trustees.

of capital assets and permanently restricted contributions of financial assets were excluded from the operating or income statement “bottom line” and were reported as direct charges to equity or net assets. In other words, they were not considered revenues or expenses, but “balance-sheet only” transactions. The board concluded that the change in net position approach, which is already required in the government-wide statement of activities, is also appropriate for proprietary funds. Under the change in net position approach, *all* changes in net position are included somewhere in the “statement of activities” and are included in the “bottom-line” total in the change in net position for the year. There are no “direct to equity” transactions and no mandatory reporting distinction between capital transactions and operating transactions. No additional change in net position is reported between the beginning and ending net position, as would be needed under the capital maintenance approach.

Proprietary fund reporting focuses on the determination of operating income, changes in net position (or cost recovery), financial position, and cash flows. The cash flow statement is to be prepared using the direct basis. Proprietary funds include Enterprise and Internal Service Funds, as illustrated in the following sections.

Enterprise Funds

Enterprise Funds may be used to report any activity for which a fee is charged to external users for goods and services. The most common examples of governmental enterprises are public utilities that provide such services as water or electricity. Other activities of governmental units that are accounted for in Enterprise Funds include airports, transportation systems, parking lots and garages, and recreational facilities such as swimming pools. Activities are required to be reported as Enterprise Funds if any one of the following is met:

- The activity is financed with debt that is secured solely by a pledge of the net revenues from fees and charges of the activity.
- Laws or regulations require that the activity’s costs of providing services including capital costs (such as depreciation or debt service) be recovered with fees and charges, rather than with taxes or similar revenues.
- The pricing policies of the activity establish fees and charges designed to recover its costs, including capital costs (such as depreciation and debt service).

The resources to establish an enterprise fund may come from contributions or from the proceeds of long-term debt issues or both. Contributions may be obtained from other governmental units, resources of the General Fund of the same governmental unit, property owners, subdivision developers, or customers.

A balance sheet of the proprietary funds (both the Enterprise and the Internal Service Funds) is presented in Illustration 18-10, and several features of the enterprise fund are pointed out. Some assets are restricted in use by bond provisions or other arrangements and are classified on the balance sheet as *restricted assets*. Restricted assets are generally reported between current assets and capital assets. In Illustration 18-10, the Restricted Assets consist of assets segregated in compliance with the sinking fund requirements of the revenue bonds,¹¹ and the Current Liabilities (Payable from

¹¹ Revenue bonds are long-term obligations, where the principal and interest are paid from the earnings of self-supporting enterprises on which the bond proceeds were spent.

ILLUSTRATION 18-10**Model City Proprietary Funds
Balance Sheet
at December 31, 2019***

	<i>Business-Type Activities— Enterprise Fund</i>	<i>Governmental Activities</i>
	<i>Sewer Fund</i>	<i>Internal Service Fund</i>
Assets		
<i>Current Assets</i>		
Cash	\$ 100,000	\$ 22,500
Receivables	<u>451,000</u>	<u>100,000</u>
Total Current Assets	\$ 551,000	\$122,500
<i>Noncurrent Assets:</i>		
Restricted Assets	509,000	—
Capital Assets (net of accumulated depreciation)	10,000,000	420,000
Construction in Progress	<u>40,000</u>	<u>—</u>
Total Noncurrent Assets	<u>10,549,000</u>	<u>420,000</u>
Total Assets	<u>\$11,100,000</u>	<u>\$542,500</u>
Liabilities		
<i>Current Liabilities:</i>		
Current Liabilities (payable from current assets)	\$ 361,000	\$ 27,500
Current Liabilities (payable from restricted assets)	<u>282,000</u>	<u>—</u>
Total Current Liabilities	643,000	27,500
Revenue Bonds Payable	<u>4,200,000</u>	<u>—</u>
Total Liabilities	<u>\$ 4,843,000</u>	<u>\$ 27,500</u>
Net Position		
Invested in capital assets, net of related debt	5,558,000	420,000
Restricted	500,000	
Unrestricted	<u>199,000</u>	<u>95,000</u>
Total Net Position	<u>\$ 6,257,000</u>	<u>\$515,000</u>
Total Liabilities and Net Position	<u>\$11,100,000</u>	<u>\$542,500</u>

*An alternative to the balance sheet format shown here is a statement of net position format, which presents the same information but is organized slightly differently.

Restricted Assets) consist of the current interest and principal installments due on the revenue bonds.

Net position is reported as either (1) net investment in capital assets, (2) restricted for some specific purpose such as debt service, or (3) unrestricted.

Internal Service Funds

Internal Service Funds are used to account for any activity that provides goods or services to *other funds, departments, or agencies of the primary governmental unit and its component units, or to other governments*, on a cost reimbursement basis.

Internal service funds should be used only if the reporting government is the predominant participant in the activity. Otherwise, the activity should be reported as an Enterprise Fund.

Typical examples of activities accounted for in Internal Service Funds include the operations of central computer facilities, central garages and motor pools, central purchasing and stores departments, and central printing departments.

Internal Service Funds are established with resources obtained from contributions from other funds, proceeds from the sale of general obligation bonds, or long-term advances from other funds. If an Internal Service Fund obtains resources from the proceeds of the issuance of general obligation bonds, the bond liability is *not* accounted for in the records of the Internal Service Fund. Rather a Debt Service Fund is established, and the bond liability is accounted for on the statement of net position. Upon the receipt of the bond issue proceeds, the entry in the records of the Internal Service Fund is a debit to Cash and a credit to Capital Contributions—General Obligation Bonds. A balance sheet and the statement of revenues, expenses, and changes in fund balance for an Internal Service Fund are included as part of the proprietary fund statements as shown in Illustrations 18-10 and 18-11. As indicated, fixed assets acquired with the resources of the Internal Service Fund and depreciation thereon are recorded in the accounting records of that fund.

ILLUSTRATION 18-11

**Model City
Proprietary Funds
Statement of Revenues, Expenses, and Changes in Fund Net Position
for the Year Ended December 31, 2019**

	<i>Business-Type Activities— Enterprise Fund</i>	<i>Governmental Activities</i>
	<i>Sewer Fund</i>	<i>Internal Service Fund</i>
<i>Operating Revenues</i>		
Charges for Services	\$1,500,000	\$200,000
Total Operating Revenues	<u>1,500,000</u>	<u>200,000</u>
<i>Operating Expenses</i>		
Personal Services	675,000	185,000
Utilities	105,000	20,000
Depreciation Expense	500,000	15,000
Total Operating Expenses	<u>1,280,000</u>	<u>220,000</u>
Operating Income (loss)	<u>220,000</u>	<u>(20,000)</u>
<i>Nonoperating Revenue (Expenses)</i>		
Interest Expense (10%)	<u>(420,000)</u>	<u>—</u>
Total Nonoperating Revenue (expenses)	<u>(420,000)</u>	<u>—</u>
Income Before Contributions and Transfers	(200,000)	(20,000)
Transfers Out—General Fund	<u>(150,000)</u>	<u>—</u>
Change in Net Position	(350,000)	(20,000)
Total Net Position—beginning of year	<u>6,607,000</u>	<u>535,000</u>
Total Net Position—end of year	<u>6,257,000</u>	<u>515,000</u>

18.5 FIDUCIARY FUNDS

Trust and Agency Funds

As stated earlier, trust and agency funds focus on reporting net position and changes in net position. Fiduciary funds are used to report assets held in a trustee or agency capacity for others and therefore cannot be used to support the government's own programs. Fiduciary funds include pension trust funds, investment trust funds, private-purpose trust funds, and agency funds. The three types of *trust* funds should be used to report resources held and administered by the reporting government when it is acting in a fiduciary role. These funds are distinguished from *agency* funds generally by the existence of a trust agreement that affects the degree of management involvement and the length of time that the resources are held. Accounting procedures for agency funds and most trust funds are quite similar and are relatively simple. The disclosures under *GASB Statement No. 34* require a separate statement of fiduciary responsibilities with a statement of net position and a statement of changes in net position. The statement of net position and the statement of changes in net position may be presented in a "layered" approach or presented as separate statements.

Agency Funds For example, assume that Model City collects property taxes on behalf of a legally separate governmental unit such as a water improvement district. The following entries are made to record the amount of taxes to be collected and their remittance to the water improvement district.

(1)	Property Tax Receivable	250,000	
	Due to Water Improvement District		250,000
	To record levy of taxes earmarked for Valley Water Improvement District.		
(2)	Cash	250,000	
	Property Tax Receivable		250,000
	To record collection of taxes earmarked for Valley Water Improvement District.		
(3)	Due to Water Improvement District	250,000	
	Cash		250,000
	To record remittance to Valley Water Improvement District of taxes collected on its behalf.		

Agency funds are purely custodial, and assets always equal liabilities (no fund balance exists or if a fund balance is recorded, it is reported as a liability). These funds do not involve revenues or expenditures, nor do they require the preparation of a statement of revenues, expenditures, and changes in fund balance.

18.6 CAPITAL ASSETS AND LONG-TERM DEBT

Under *GASB Statement No. 34*, governments report all capital assets, including infrastructure assets, and unmatured general long-term debt on a government-wide basis and report depreciation expense as a charge to operations in each period. General fixed assets of a governmental unit are the fixed assets that are not accounted for in proprietary (enterprise, internal service, and nonexpendable trust) funds.

General long-term debt of a governmental unit is the unmatured principal of general obligation indebtedness that is not accounted for in a proprietary fund or

trust fund. Such debt is reported on the government-wide statement of net position. *Governments must maintain amortization schedules for all debt issued since the effective interest expense is reported on the government-wide statement of activities and the amortized debt is reported on the statement of net position.*

Capital Assets

General fixed assets may be acquired through gift or foreclosure, or they may be acquired through the expenditure of resources of the general fund, special revenue funds, or capital project funds.

INFRASTRUCTURE ASSETS

How should a government account for streets, sidewalks, bridges and other immovable assets? Prior to the issuance of *GASB Statement No. 34* on reporting for state and local governments, most governments ignored accounting for these assets. Using the former rules, if the majority of a city's bridges needed repairs, there was no information provided in statements. Under the new rules, governments will be required to show the historical cost of these assets on the government-wide statement of net position and include depreciation expense on the government-wide statement of activities. Although this topic is a controversial issue, the GASB felt that capitalization and depreciation of infrastructure assets is important to assist users in:

1. Determining whether current-year revenues are sufficient to pay for current-year services.
2. Assessing the service efforts and costs of programs.
3. Determining whether the government's financial position improved or deteriorated as a result of the year's operations.
4. Assessing the government's financial position and condition.

Governments are required to capitalize and report major general infrastructure assets that were acquired (purchased, constructed, or donated) in fiscal years ending after June 30, 1980. The initial capitalization amount should be based on historical cost. If determination of historical cost is not practical because of inadequate records, estimated historical cost may be used.

LO 8 Describe where capital assets are reported.

The valuation of constructed or purchased general fixed assets is determined using the cost basis. Donated assets, intended for use by the city, would not be recorded in the government funds as assets or revenue. However, donated assets would be recorded as an asset and as revenue on the government-wide financial statements. Donated assets are recorded at their estimated fair value at the time they are received. Consider the following classifications of general fixed assets and the sources of the funds:

<i>Classification of Assets</i>	<i>Classification of Sources of Assets</i>
Land	Investments in general fixed assets from:
Buildings	Capital projects funds
Improvements other than buildings	General obligation bonds
Machinery and equipment	Special assessment debt with government commitment
Construction in progress	Federal grants
Infrastructure assets	State grants
	Local grants
	General fund revenues
	Special revenue fund revenues
	Contributions from property owners
	Private gifts

Prior to *GASB Statement No. 34*, governments maintained a set of self-balancing account groups called the General Fixed Asset Account Group and the General Long-Term Obligation Account Group. In place of these account groups, information on capital assets and long-term debt is reported in the statement of net position, in addition to detailed schedules for both in the footnotes (illustrated later in the chapter). The following journal entries reflect how the capital asset transactions would be reported on the statement of net position.

Accounting events in 2019 that affect the capital assets of Model City are summarized below in general journal form:

Purchase of a Fixed Asset

(1) Machinery and Equipment	250,000	
Cash		250,000
To record expenditure for office equipment made by General Fund in 2019 (see Chapter 17).		

Sale of a Fixed Asset

(2) Cash	87,250	
Accumulated Depreciation	140,000	
Machinery and Equipment		225,000
Gain on sale		2,250
To record sale of used office equipment.		

Equipment, which was purchased five years ago for \$225,000, was sold for \$87,250. Accumulated depreciation on the asset was \$140,000. The proceeds of the sale were accounted for as revenue of the General Fund (see Chapter 17). When a general fixed asset is sold, both its original cost and accumulated depreciation are removed from the records. Under *GASB Statement No. 34*, the difference between the book value of the asset (\$85,000) and the cash received (\$87,500) is reported as a gain (loss) on sale and reported on the government-wide statement of activities. In this case, the gain is \$2,250.

During 2019, \$1,500,000 was spent on construction of Model City's Library and Civic Center. (Of the amount incurred, recall that \$50,000 was still owed.) Thus the impact on the government-wide statement of net position is:

Construction in Progress	1,500,000	
Cash		1,450,000
Vouchers payable		50,000
Depreciation Expense (321,000 – 15,000)	306,000	
Accumulated Depreciation—Buildings		120,000
Accumulated Depreciation—Machinery and equipment		55,000
Accumulated Depreciation—Improvements		131,000

Total depreciation expense of \$321,000 includes \$15,000 of depreciation expense already recorded in the Internal Service Fund.

As previously explained, depreciation of general fixed assets is not measured or reported in the accounts of governmental funds. Since depreciation is now required on government-wide statements, accumulated depreciation is deducted from the related assets in the statement of net position. Notice that the recognition of accumulated

depreciation does *not* result in the recording or reporting of depreciation expense in any governmental fund type. ***It is reported only on the government-wide statements.***

The required disclosures about capital assets are presented in Illustration 18-12. The primary difference between past disclosures (pre-*GASB 34*) and the new disclosures is that the capital assets of the Internal Service Fund and infrastructure assets are included in the new disclosures for *governmental activities*.

ILLUSTRATION 18-12**Disclosure of Information About Capital Assets
for the Year Ending December 31, 2019**

<i>Governmental Activities</i>	<i>Primary Government</i>			<i>Ending Balance</i>
	<i>Beginning Balance</i>	<i>Additions</i>	<i>Retirements</i>	
Land	\$ 500,000			\$ 500,000
Building*	4,760,000			4,760,000
Improvements	2,795,000			2,795,000
Machinery and Equipment*	950,000	250,000	(225,000)	975,000
Construction in Progress		1,500,000		1,500,000
Infrastructure	<u>5,000,000</u>			<u>5,000,000</u>
Total at historical cost	<u>\$14,005,000</u>	<u>1,750,000</u>	<u>225,000</u>	<u>\$15,530,000</u>
<i>Less accumulated depreciation</i>				
Building*	(1,490,000)	(130,000)		(1,620,000)
Improvements	(600,000)	(31,000)		(631,000)
Machinery and Equipment*	(235,000)	(60,000)	140,000	(155,000)
Infrastructure	<u>(1,000,000)</u>	<u>(100,000)</u>		<u>\$(1,100,000)</u>
Total accumulated depreciation	<u>\$(3,325,000)</u>	<u>(321,000)</u>	<u>140,000</u>	<u>\$(3,506,000)</u>
Governmental activities capital assets, net	<u>\$10,680,000</u>	<u>1,429,000</u>	<u>(85,000)</u>	<u>\$12,024,000</u>
<i>Business-Type Activities:</i>				
Utility Plant	12,000,000			12,000,000
Construction in Progress	<u>—</u>	<u>40,000</u>		<u>40,000</u>
Totals at historical cost	12,000,000	40,000		12,040,000
<i>Less accumulated depreciation</i>				
Utility Plant	<u>(1,800,000)</u>	<u>(200,000)</u>		<u>(2,000,000)</u>
Business-type Activities Capital Assets, Net	<u>\$10,200,000</u>	<u>\$(160,000)</u>		<u>\$10,040,000</u>
<i>Depreciation Expense Charged to Governmental Activities as Follows:</i>				
Public Safety		\$ 36,612		
General Government		18,210		
Highways and Streets		12,332		
Sanitation		6,745		
Health		13,585		
Cultural—recreation		153,963		
Education		64,553		
In addition, depreciation on capital assets held by the Internal Service Fund is charged to the various functions based on usage		<u>15,000</u>		
		<u>\$ 321,000</u>		

* Includes, in ending balances, the capital assets of the Internal Service Fund (\$360,000 and \$200,000 in buildings and equipment, respectively, with \$100,000 and \$40,000 in accumulated depreciation).

LO 8 Describe where long-term obligations are reported.

Long-Term Debt

General long-term obligations of a governmental unit include the unmatured principal on bonds, warrants, notes, and other long-term general obligations, including special assessment debt for which the government is obligated in some manner. It is not limited to liabilities arising from debt issues, but may include noncurrent liabilities arising from lease agreements and similar commitments. It does not include long-term debt that is the specific liability of proprietary funds. However, where the full faith and credit of the governmental unit is pledged as additional assurance that specific proprietary fund liabilities will be paid, the contingent liability should be disclosed in the notes to the financial statements.

The following journal entries reflect how the following events affect the statement of net position of Model City:

Cash	2,100,000	
Term Bond Payable		2,000,000
Premium on Bond Payable		100,000
Interest Expense	96,000	
Serial Bond Payable	300,000	
Cash		396,000

To meet the reporting requirements, amortization schedules are needed. The following amortization schedules are prepared for the serial and the term bonds.

<i>Term Bond Amortization Schedule*</i>					
<i>Effective interest rate = 6.7875%. Coupon rate = 8%</i>					
<i>Date</i>	<i>Interest Expense</i>	<i>Interest Paid</i>	<i>Premium Amortization</i>	<i>Unamortized Premium</i>	<i>Term Bond Balance</i>
				100,000	\$2,100,000
10/1/20	142,537	160,000	17,463	82,537	2,082,537
10/1/21	141,352	160,000	18,648	63,889	2,063,889
10/1/22	140,086	160,000	19,914	43,975	2,043,975
10/1/23	138,734	160,000	21,266	22,709	2,022,709
10/1/24	137,291	160,000	22,709	0	2,000,000

*Note: Minor differences in calculations may result from rounding.

<i>Serial Bond Amortization Schedule</i>				
<i>Effective interest rate = 8%. Coupon rate = 8%</i>				
<i>Date</i>	<i>Interest Expense</i>	<i>Interest Paid</i>	<i>Principal Payment</i>	<i>Serial Bond Balance</i>
				1,200,000
7/1/19	96,000	396,000	300,000	900,000
7/1/20	72,000	372,000	300,000	600,000
7/1/21	48,000	348,000	300,000	300,000
7/1/22	24,000	324,000	300,000	—

If the serial bonds were issued at a premium or discount, the amortization schedule would adjust interest expense to the historical market rate (effective interest rate), similar to the term bond illustrated above.

The total effective interest expense is \$119,634 (or 50% of \$96,000 plus 50% of \$72,000 plus 25% of \$142,537). Accrued interest payable is \$76,000 (or 25% of \$160,000 plus 50% of \$72,000). An example of the disclosure requirements concerning long-term liabilities is presented in Illustration 18-13.

ILLUSTRATION 18-13**Model City****Schedule of General Long-Term Obligations
December 31, 2019, and December 31, 2018**

<i>Governmental Activities</i>	<i>Beginning Balance</i>	<i>Additions</i>	<i>Reductions</i>	<i>Ending Balance</i>	<i>Amounts Due within One Year</i>
Term Bonds	\$ —	\$2,100,000	\$ 4,366	\$2,095,634	\$ —
Serial Bonds	1,200,000	—	300,000	900,000	300,000
Governmental Activities Long-Term Liabilities	<u>\$1,200,000</u>	<u>\$2,100,000</u>	<u>\$304,366</u>	<u>\$2,995,634</u>	<u>\$300,000</u>
Business-Type Activities					
Revenue Bonds Payable	<u>\$4,200,000</u>	\$ —	\$ —	<u>\$4,200,000</u>	\$ —
Business-Type Activities Long-Term Liabilities	<u>\$4,200,000</u>	\$ —	\$ —	<u>\$4,200,000</u>	\$ —

TEST YOUR KNOWLEDGE 18.1

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

True or False

1. Are the following statements concerning fixed assets true or false?
 - a. _____ Infrastructure assets need to be disclosed on the government-wide statement of net position.

- b. _____ Accrued interest is reported as a liability on the statement of net position.
- c. _____ Depreciation expense does not have to be recorded for either government-wide or governmental fund balance reports.

18.7 EXTERNAL REPORTING REQUIREMENTS (GASB STATEMENT NO. 34)

LO 9 Describe reporting requirements under GASB Statement No. 34.

The following statements and disclosures are required:¹²

Reporting Governmental Fund Financial Statements

1. Balance sheet (Illustration 18-14)
2. Statement of revenues, expenditures, and changes in fund balances (Illustration 18-15)
3. Reconciliation to the government-wide statements (Illustrations 18-16 and 18-17)

¹² The focus of the governmental and proprietary fund statements is on major funds. Nonmajor funds are aggregated and displayed in a single column. Combining statements, showing the details of the nonmajor funds, are not required but may be presented as supplementary information.

Reporting Proprietary Fund Financial Statements

1. Balance sheet (Illustration 18-10) or a statement of net position (not shown); either format is acceptable
2. Statement of revenues, expenses, and changes in fund net position (Illustration 18-11)
3. Statement of cash flows (not shown)—direct format

Reporting Fiduciary Funds (and Similar Component Units) Financial Statements

1. Statement of fiduciary net position (not shown)
2. Statement of changes in fiduciary net position (not shown)

Reporting Government-wide Statements

1. Statement of net position (Illustration 18-17)
2. Statement of activities (Illustration 18-18)

Combining Statements for Major Component Units

1. Statement of net position (not shown)
2. Statement of activities (not shown)

Notes to the Financial Statements

1. Schedule of changes in capital assets (Illustration 18-12)
2. Schedule of changes in long-term liabilities (Illustration 18-13)

Required Supplementary Information (RSI)

1. Management's discussion and analysis (MD&A)
2. Budgetary comparison schedules (see Chapter 17, Illustration 17-9), accompanied by information reconciling the budget-to-GAAP (see Chapter 17, Illustration 17-10)

18.8 GOVERNMENT FUND-BASED REPORTING

Earlier in the chapter, several individual fund financial statements were illustrated. In this section, we discuss the reporting requirements for the governmental funds aggregated. See Illustrations 18-14 and 18-15 for the fund balance sheets and the statement of revenues, expenditures, and changes in fund balances for the governmental funds. Fund information is important because funds are created to account for financial resources and the activities that they support and to aid management in decision making. Because much of the government's activities is managed and accounted for in a limited number of funds, the governmental fund reporting is designed to report the government's *major funds*. For example, in Illustration 18-14, each of the funds is reported in separate columns. Governments are required only to report the *major funds* in separate columns but have flexibility to report more funds separately if desired. *Individual governmental funds and proprietary funds are major funds if the total assets, liabilities, revenues, or expenditure/expenses of that individual fund are at least 10% of the corresponding total for the relevant fund category (governmental or enterprise funds) and at least 5% of the corresponding total for all governmental and enterprise funds combined.* In addition, any fund that may be important to financial statement users should be reported as a major fund. Internal Service Funds are exempt from major fund reporting. Therefore, to avoid double counting

ILLUSTRATION 18-14

**Model City
Governmental Funds*
Balance Sheets at December 31, 2019**

Assets	Capital Projects Fund		Debt Service Funds		Special Revenue Fund	Permanent Fund	Total Governmental Funds
	General Fund	Library and Civic Center	Library and Civic Center Term Bond	Land Acquisition Serial Bond	Classics Acquisitions	Classics Endowment	
	Cash	\$ 63,250	\$ 300,000	\$ —	\$19,000	\$22,000	\$ —
Interest Receivable		12,500	4,000			7,500	24,000
Investments	106,000	1,000,000	100,000			300,000	1,506,000
Property Tax Receivable	127,750			2,000			129,750
Due from Other Funds	50,000				7,500		57,500
Due from State Government		250,000					250,000
Total Assets	<u>\$347,000</u>	<u>\$1,562,500</u>	<u>\$104,000</u>	<u>\$21,000</u>	<u>\$29,500</u>	<u>\$307,500</u>	<u>\$2,371,500</u>
Liabilities and Fund Balance							
Vouchers Payable	\$ 73,000	\$ 50,000					\$ 123,000
Due to Other Funds						7,500	7,500
Total Liabilities	<u>\$ 73,000</u>	<u>\$ 50,000</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 7,500</u>	<u>\$ 130,500</u>
Fund Balance:							
Nonspendable						300,000	300,000
Restricted for:							
Capital projects		1,512,500					1,512,500
Debt Service			104,000				104,000
Other					29,500		29,500
Committed for:							
Debt Service				21,000			21,000
Assigned for:							
Encumbrances	191,000						
Unassigned	83,000						
Total Fund Balance	<u>274,000</u>	<u>1,512,500</u>	<u>104,000</u>	<u>21,000</u>	<u>29,500</u>	<u>300,000</u>	<u>2,241,000</u>
Total Liabilities and Fund Balances	<u>\$347,000</u>	<u>\$1,562,500</u>	<u>\$104,000</u>	<u>\$21,000</u>	<u>\$29,500</u>	<u>\$307,500</u>	<u>\$2,371,500</u>

*Because Model City does not have many funds, all of which were considered important to readers, the city reported on all funds rather than focusing on only the major funds, as defined by percentage cutoffs.

(revenue to the internal service fund is an expenditure of the government funds), the net effects of internal service transactions are eliminated.

Reconciliation between Government Fund Balances and Government-wide Net Position

The primary difference between the disclosure requirement for capital assets (Illustration 18-12) and prior disclosures relates to the assets of the Internal Service Funds and infrastructure assets. On the statement of net position, the Internal Service Fund's assets and liabilities are reported in governmental activities along with infrastructure assets. To assist the users of the financial statements, governments must reconcile the change in fund balances in the governmental funds (see

ILLUSTRATION 18-15

**Model City
Governmental Funds***
**Statement of Revenues, Expenditures, and Changes in Fund Balances
for the Year Ended December 31, 2019**

	<i>Capital Projects Fund</i>		<i>Debt Service Funds</i>		<i>Special Revenue Fund</i>	<i>Permanent Fund</i>	<i>Total Governmental Funds</i>
	<i>General Fund</i>	<i>Library and Civic Center</i>	<i>Library and Civic Center Term Bond</i>	<i>Land Acquisition Serial Bond</i>	<i>Classics Acquisitions</i>	<i>Classics Endowment</i>	
Revenues							
Property Taxes	\$1,158,750			\$316,000			\$1,474,750
Licenses and Permits	170,500						170,500
State Grant—education	275,000						275,000
Intergovernmental		\$1,000,000					1,000,000
Charges for Services	130,500						130,500
Interest	6,000	12,500	\$ 4,000			\$ 30,000	52,000
Total Revenue	<u>\$1,740,750</u>	<u>\$1,012,500</u>	<u>\$ 4,000</u>	<u>\$316,000</u>		<u>\$ 30,000</u>	<u>\$3,103,250</u>
Expenditures							
Public Safety	\$ 480,000						\$ 480,000
General Government	289,000						289,000
Highways and Streets	128,000						128,000
Sanitation	70,000						70,000
Health	141,000						141,000
Cultural—recreation	80,000				\$ 18,000		98,000
Education	670,000						670,000
Debt Service							
Principal				\$300,000			300,000
Interest				96,000			96,000
Capital Outlay		\$1,500,000					1,500,000
Total Expenditures	<u>\$1,858,000</u>	<u>\$1,500,000</u>	<u>—</u>	<u>\$396,000</u>	<u>\$ 18,000</u>	<u>—</u>	<u>\$3,772,000</u>
Excess (deficiency) of revenues over expenditures	<u>\$ (117,250)</u>	<u>\$ (487,500)</u>	<u>\$ (4,000)</u>	<u>\$80,000</u>	<u>\$(18,000)</u>	<u>\$ 30,000</u>	<u>(668,750)</u>
Other Financing Sources (Uses)							
Proceeds from long-term capital debt		\$2,100,000					\$2,100,000
Transfers in	\$ 150,000		\$100,000	\$ 96,000	\$ 30,000		376,000
Transfers out	(96,000)	(100,000)				\$(30,000)	(226,000)
Total other	<u>\$ 54,000</u>	<u>\$2,000,000</u>	<u>\$100,000</u>	<u>\$ 96,000</u>	<u>\$ 30,000</u>	<u>\$(30,000)</u>	<u>\$2,250,000</u>
Special Items							
Proceeds from sale of equipment	\$ 87,250						\$ 87,250
Net change in fund balance	24,000	\$1,512,500	\$104,000	\$ 16,000	\$ 12,000	\$ —	\$1,668,500
Fund balance—beginning	250,000	—	—	5,000	17,500	300,000	572,500
Fund balance—ending	<u>\$ 274,000</u>	<u>\$1,512,500</u>	<u>\$ 21,000</u>	<u>\$104,000</u>	<u>\$ 29,500</u>	<u>\$300,000</u>	<u>\$2,241,000</u>

*Because Model City does not have many funds, all of which were considered important to readers, the city reported on all funds rather than focusing on only the major funds, as defined by percentage cutoffs. In addition, \$250,000 of capital expenditures made by the general fund are included in the following governmental activities: Public Safety, \$100,000, Cultural—recreation, \$50,000, and Education, \$100,000.

ILLUSTRATION 18-16

**Model City
Reconciliation of the Statement of Revenues,
Expenditures, and Changes in Fund Balances of Governmental
Funds to the Statement of Activities
for the Year Ended December 31, 2019**

Net change in fund balances—total governmental funds (Illustration 18-15)	\$1,668,500
Governmental funds report capital outlays as expenditures while governmental activities report depreciation expense to allocate those expenditures over the life of the asset. This is the amount by which capital outlays exceeded depreciation in the current period. ^(a)	1,444,000
In the statement of activities, only the gain on the sale of equipment is reported, while in the governmental funds, the proceeds from the sale increase financial resources. Thus, the change in net position differs from the change in fund balance by the book value of the asset sold.	(85,000)
Bond proceeds provide current financial resources to governmental funds but issuing debt increases long-term liabilities in the statement of net position.	(2,100,000)
Repayment of bond principal is an expenditure in the government funds, but reduces long-term liabilities in the statement of net position.	300,000
Some expenses reported on the statement of activities do not require the use of current financial resources and therefore are not reported as expenditures in government funds (in this case, accrued interest). ^(b)	(23,634)
Internal service funds are used by management to charge the cost of certain activities to individual funds. The net revenue (expense) of the internal service fund is reported with governmental activities. ^(c)	(20,000)
Change in Net Position of Governmental Activities (see Illustration 18-18)	<u>\$1,183,866</u>

(a) Total capital expenditures from the capital projects fund (\$1,500,000) plus purchases by the General Fund (\$250,000) less depreciation expense, excluding depreciation from the Internal Service Fund (\$321,000 – \$15,000).

(b) Total interest expense using the accrual basis is \$119,634 but only \$96,000 is recognized as an expenditure. (The \$119,634 includes \$84,000 from the serial bond and \$35,634 from the term bond.)

(c) The \$20,000 is charged equally to public safety and to the general government.

Illustration 18-15) with the changes in fund balance reported on the government-wide statements (see Illustration 18-18 later in the chapter). This reconciliation is reported in Illustration 18-16. In addition, governments must reconcile the fund balance in the governmental funds (see Illustration 18-14) with the fund balance reported in the statement of net position prepared on a government-wide basis (from Illustration 18-17). This reconciliation is reported at the bottom of Illustration 18-17. These reconciliations highlight the major differences between fund accounting and accrual accounting. For instance, in the governmental funds, amounts spent to acquire capital assets are expenditures; while under accrual accounting, these assets are capitalized on the balance sheet and depreciated on the statement of activities. Similarly, when bonds are issued, the total proceeds increase financial resources on the statement of revenues, expenditures, and changes in fund balance, whereas under accrual accounting, bond issues increase liabilities on the balance sheet. Total proceeds from the sale of an asset are also included on the statement of revenues, expenditures, and changes in fund balance, whereas under accrual accounting only the difference between the carrying value of the asset and the cash received is reported on the statement of activities. Similarly, in the governmental funds, only the amount of cash interest paid is treated as an expenditure; in the government-wide statements, the effective interest expense is recorded on the statement of activities with accrued interest payable reported on the balance sheet.

18.9 GOVERNMENT-WIDE REPORTING

Lo10 Benefits of government-wide reporting.

As stated previously, the primary financial statements under *GASB Statement No. 34* are prepared on a government-wide basis. These statements are prepared on the accrual basis using the flow of economic resources concept. These primary statements include:

1. The statement of net position.
2. The statement of activities.

Note that a governmental-wide statement of cash flows is *not* required. Cash flow statements are required for proprietary funds.

Statement of Net Position

The statement of net position reports both financial and capital resources. The statement of net position is prepared using the accrual basis and a government-wide format (formerly called entity-wide basis). Under the prior rules, the balance sheet listed each fund's assets and liabilities with no overall government totals. While permitted, no distinction between current and long-term is required under the proposal for government-wide assets and liabilities. However, if no distinction is made, the items should be listed in the order of liquidity. In Illustration 18-17, we show the "net asset format" with items listed in the order of liquidity rather than the classified version of the statement of net position. If the classified format is used and there are liabilities with maturities longer than one year, the current portion should be listed separately from the amount due later than one year.

The statement of net position is divided into two categories: the primary government and its discretely presented component units. The *primary government* columns include the governmental funds, the business-activities (proprietary) funds, and a total column.¹³ *Component units* are governmental units that are legally independent of the reporting government, but within the reporting unit's control. Control means either appointing a majority of the unit's governing body members or being fiscally dependent (e.g., the budget is approved by the primary government). An example of a component unit is a school district that receives funding from the county. Because the school district is financially accountable to the county, it is considered a component unit. No component units are shown in Illustration 18-17.

At a minimum, assets, liabilities, and net position should be disclosed for each of the following four categories:

- A. Primary Government¹⁴
 1. Government activities
 2. Business-type activities
 3. Total primary government activities (total of 1 and 2)

¹³ Fiduciary activities whose resources are not available to finance the government's programs should be excluded from the government-wide statements and should be reported only in the fund financial statements.

¹⁴ Component units that meet the criteria for blending should be reported in the primary government columns (GASB Codification 2600.115).

ILLUSTRATION 18-17**Model City
Statement of Net Position—Government-wide Basis At December 31, 2019**

<i>Assets</i>	<i>Primary Government</i>		<i>Total</i>
	<i>Total Government Activities</i>	<i>Business-Type Activities</i>	
Cash	\$ 428,750	\$ 100,000	\$ 528,750
Interest Receivable	24,000		24,000
Investments	1,506,000		1,506,000
Receivables	227,750	451,000	678,750
Internal Balances	50,000	(50,000)	—
Due from State Government	250,000		250,000
Restricted Assets		509,000	509,000
Capital Assets (net)	12,024,000	10,040,000	22,064,000
Total Assets	\$14,510,500	\$11,050,000	\$25,560,500
<i>Liabilities</i>			
Payables	\$ 226,500	\$ 593,000	\$ 819,500
Long-term Liabilities			
Due within One Year	300,000		300,000
Due in More Than One Year	2,695,634	4,200,000	6,895,634
Total Liabilities	3,222,134	4,793,000	\$ 8,015,134
<i>Net Position</i>			
Net Investment in Capital Assets	9,028,366	5,558,000	14,586,366
Restricted for Debt Service	125,000	500,000	625,000
Restricted for Permanent Funds:			
Nonexpendable	300,000		300,000
Restricted for other	29,500		29,500
Unassigned	1,805,500	199,000	2,004,500
Total Net Position	\$11,288,366	\$6,257,000	\$17,545,366
<i>Reconciling the Statement of Net Position with Governmental Fund Reporting</i>			
Fund balance for governmental activities (see Illustration 18-14)			\$ 2,241,000
Capital assets used in governmental activities are not financial resources and are not reported in the funds (\$12,024,000 less internal service fund assets of \$420,000)			11,604,000
Internal service funds are used by management to charge the costs of certain activities to individual funds. The assets and liabilities of the internal service fund are included in the governmental activities in the statement of net position. (Note: this line item includes capital assets.)			515,000
Some liabilities are not due in the current period and are not recognized in the funds (\$40,000 and \$36,000 accrued interest on the serial and term bonds)			(76,000)
Long-term liabilities (plus unamortized premium) are not due and payable in the current period and therefore are not reported in the funds.			(2,995,634)
Net position in governmental activities (see Illustration 18-18)			\$11,288,366

B. Discretely Presented Component Units

4. “Discretely presented” component units (discretely presented, as opposed to blended, means reporting the data in a separate column as if it were a separate fund).

Under previous guidelines, long-term debt was reported as one amount. Under the new rules, the current portion of long-term debt must be listed separately from the noncurrent portion. In addition, a footnote is required for the governmental, business-type, and component units activities showing the additions and reductions to the long-term liability account for the year, including the current portion.

Like the requirements for long-term debt, a footnote is required showing the additions and reductions to the capital asset account. The amount of depreciation charged to governmental activities is required. This information is disclosed for the government, business-type, and component units activities.

Net Position Net position is displayed in three components as follows:

1. *Not Investment in capital assets.* This component consists of capital assets including restricted capital assets, net of accumulated depreciation and reduced by the outstanding balances of any bonds, mortgages, notes, or other borrowings attributable to the acquisition, construction, or improvement of those assets.
2. *Restricted* (listed by major categories of restrictions such as capital projects, debt service, etc.) Net position is reported as restricted when constraints placed on net position use are either: (a) externally imposed by creditors (such as through debt covenants), grantors, contributors, or laws and regulations of other governments, or (b) imposed by law. When permanent endowments or permanent fund principal amounts are included, “restricted net position” should be displayed in two components—expendable and nonexpendable. Nonexpendable net position are those that are required to be retained in perpetuity.
3. *Unrestricted.* Unrestricted net position consists of total balances that do not meet the definition of *restricted* or *net investment in capital assets*.

Restricted fund balance on the governmental fund financial statements will generally be different from restricted net position for governmental activities reported on the government-wide statement of net position. There are three reasons for this difference. First, the principal amount of a permanent fund is classified as nonspendable fund balance in the governmental fund financial statements, but is included in restricted net position in the government-wide statement of position assets.

Second, the fund financial statements are prepared on the modified accrual basis of accounting and the government-wide statement of net position is prepared on the accrual basis of accounting. The differences between the two bases of accounting will generate differences in the two amounts. And finally, the internal service fund is not included on the governmental fund financial statements; however, on the government-wide statement of net position, the internal service fund is generally included with governmental activities.

Infrastructure Asset Reporting Issues One of the more controversial rules of *GASB Statement No. 34* is that infrastructure assets such as roads, bridges, storm sewers, water systems, and so on are reported as assets in the governmental-wide

statements at historical cost (or estimated historical cost at transition). In addition, governments are required to report depreciation on these assets.¹⁵

TEST YOUR KNOWLEDGE 18.2

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

Multiple Choice

1. In reconciling the fund balance for government activities to net position in government activities (government-wide basis), which of the following items is not a reconciling item?
 - a. Capital assets used in government activities
 - b. Accrued interest on debt
 - c. Long-term liabilities
 - d. Property Taxes Revenue
 - e. Net position of Internal Service Fund.

Statement of Activities

The statement of activities presented in Illustration 18-18 is prepared on a government-wide basis and is presented using a *net cost* format. This format separates revenues into program revenues and general revenues. Then expenses are reduced by program revenues resulting in “net (expense) revenue.” General revenues, extraordinary items and special items, and transfers are reported separately. **Program revenues** include three categories: charges for services; program-operating grants and contributions; and capital grants and contributions. (In the illustration only two of the three categories are used.) Charges for services include revenues attributable to a specific program because they result from exchange transactions, such as charges to customers. Licenses and permits would generally be reported as charges for services under program revenues since the users benefit directly from the services provided. In Illustration 18-18 the \$170,500 of revenue from licenses and permits from Illustration 18-15 is included as charges for services: highways and streets (\$94,000), cultural and recreation (\$15,000), and general government (\$61,500, along with an additional \$130,500 from Illustration 18-15. “All” taxes are considered **general revenue**. In Illustration 18-18, columns are used to distinguish between governmental and business-type activities of the primary government. A total column for the primary government should be presented.¹⁶

IN THE NEWS

The statement of activities might actually change how governments do business, according to one expert, who claims that these net cost statements by departments and functions might give governments a lot of heartburn as the numbers for certain funds may look bad. Other funds, however, could look better. He gives the example of a police department being funded from an ad valorem tax collected for general purposes. Since the government specifically dedicates the revenue from the ad valorem tax for the police department, the net cost would no longer be as big a negative on the Statement of Activities since there would now be revenue directly associated with the function.¹⁷

¹⁵ Governments may elect not to report depreciation expense for infrastructure assets if two conditions are met. First, a government must use an asset management system that contains up-to-date inventories of the assets, be able to assess the condition of the assets, and be able to estimate the amounts needed to preserve the network at a level established by the government. Second, the government must be able to document that the network of infrastructure assets is being preserved at a level established and disclosed by the government.

¹⁶ Discretely presented component units are shown in a separate column and not included in the totals for the primary government.

¹⁷ *Practical Accountant*, Vol. 32, “New Look for Government Statements,” by Howard Wolosky, August 1999, pp. 47–50.

ILLUSTRATION 18-18

Model City
Statement of Activities—Government-wide
for the Year Ended December 31, 2019

Functions/Programs	Expenses	Program Revenues		Net (Expense) Revenue and Changes in Net Position		
		Charges for Services	Grants and Contributions	Primary Government		Total
				Governmental Activities	Business-type Activities	
Primary Government						
<i>Government Activities</i>						
Public Safety	\$ 426,612			\$ (426,612)		\$ (426,612)
General Government	317,210	\$ 192,000	\$1,000,000	874,790		874,790
Highways and Streets	140,332	94,000		(46,332)		(46,332)
Sanitation	76,745			(76,745)		(76,745)
Health	154,585			(154,585)		(154,585)
Cultural—recreation	201,963	15,000		(186,963)		(186,963)
Education	634,553		275,000	(359,553)		(359,553)
Interest on Long-term Debt	119,634			(119,634)		(119,634)
Total Governmental Activities	<u>2,071,634</u>	<u>301,000</u>	<u>1,275,000</u>	<u>(495,634)</u>		<u>(495,634)</u>
<i>Business-type Activities</i>						
Sewer	<u>1,322,000</u>	<u>1,500,000</u>			\$ 178,000	<u>178,000</u>
Total Business-type Activities	<u>1,322,000</u>	<u>1,500,000</u>			<u>178,000</u>	<u>178,000</u>
Total Primary Government	<u>\$3,393,634</u>	<u>\$1,801,000</u>	<u>\$1,275,000</u>	<u>\$ (495,634)</u>	<u>\$ 178,000</u>	<u>\$ (317,634)</u>
General Revenues						
Taxes:						
Property taxes, levied for general purposes				\$ 1,158,750		\$ 1,158,750
Property taxes, levied for debt service				316,000		316,000
Interest and investment earnings				52,500		52,500
Special item—gain on sale of equipment				2,250		2,250
Transfers				<u>150,000</u>	<u>(150,000)</u>	<u>—</u>
Total general revenues, special items, and transfers				<u>1,679,500</u>	<u>(150,000)</u>	<u>1,529,500</u>
Change in Net Position				1,183,866	28,000	1,211,866
Net position—beginning (assumed)				<u>10,104,500</u>	<u>6,229,000</u>	<u>16,333,500</u>
Net position—ending				<u>\$11,288,366</u>	<u>\$6,257,000</u>	<u>\$17,545,366</u>


SUMMARY

1 *Identify the issues involved in developing standards for non-profit organizations.* Currently both the GASB and the FASB are responsible for setting standards for nonprofit organizations. The GASB is involved in establishing standards for governments, while the FASB has been responsible since 1979 for setting standards for all other nonbusiness organizations. Because of the dual nature of standard setting, public universities and hospitals follow different rules from private

universities and hospitals. Therefore, it is important to the users of financial statements to understand the differences between the standards of public and private organizations.

2 *Describe the broad categories of government fund entities.* Government entities are composed of a set of separate self-balancing funds. The eleven categories of funds fall under three primary groups. **Government funds** include the general fund, special revenue funds, capital projects funds, debt

service funds, and permanent funds. Government funds report on current period resources and focus on inflows, outflows, and unexpended resources. In addition, they are designed to determine compliance with legal provisions specifying how revenues are raised and resources spent. The funds in this group are organized by the types of activities each fund is designed to carry out. The second primary group includes the **proprietary funds**, which in turn include the enterprise funds and the internal service funds. These funds are used to account for the business-type activities of the government. Since these funds operate similarly to for-profit organizations, the accounting also parallels for-profit organizations. The statements issued by proprietary funds include cash flow statements, balance sheets, and accrual-based income statements. The last group includes **fiduciary funds**. These funds, which include trust and agency funds, account for assets held by the government for others, and these funds cannot be used to support the government's own programs.

- 3 **Distinguish between a general fund and a special revenue fund.** Special revenue funds are used to account for resources that are legally restricted for some specific expenditure (other than capital projects or debt service). If resources are unrestricted, then they will be accounted for in a general fund.
- 4 **Explain the use of a capital projects fund.** Capital projects funds are used to account for resources used to acquire permanent assets with long lives, such as buildings, streets and highways, and sewer systems. The purpose of this type of fund is to show that funds designated for capital projects are used for authorized purposes only and that any unexpended amounts are treated properly. Long-term assets acquired by proprietary funds are accounted for in the proprietary fund accounts.
- 5 **Describe the purpose of a debt service fund.** Governments issue two kinds of debt: general long-term debt that supports the activities of the government, and debt that is issued by a proprietary fund to support that fund's activities. The debt service fund accounts for the funds used to meet principal and interest payments for general long-term debt. The principal amounts of the general long-term debt are recorded in the government-wide statement of net position. Therefore, payments of interest and principal are expenditures of the debt service fund. It should be noted that accrued interest is not recorded in the debt service fund (even though it is required on the government-wide statements).
- 6 **Explain the use of a permanent fund.** Permanent funds include nonexpendable trust funds. These are funds in which the principal must remain intact and the earnings either spent or retained also, as specified. The resources in these funds must be accounted for according to law or trust provisions.
- 7 **Distinguish proprietary funds from government funds.** Proprietary funds account for the activities of governments that are like for-profit enterprises. For example, cities often provide water to the public and recover all or most of the cost through charges to the public. These funds are accounted for using the accrual basis of accounting, and all assets (including fixed assets) and liabilities (including long-term debt) are accounted for. The cash flow statement is prepared using the direct format, and accrual-based revenues and expenses are reported on the income statement. Government funds operate using a flow of financial resources concept where each year is treated as a distinct event, and the important measurements are the current period's sources and uses of funds.
- 8 **Describe where capital assets and long-term obligations are reported in government financial statements.** Fixed assets and long-term obligations are not reported for governmental activities. Instead, these items are reported on the government-wide Statement of Net Position and for proprietary funds. In addition, schedules of capital assets showing both cost and accumulated depreciation are required to be disclosed. Similarly, a schedule of long-term obligations highlighting the additions and reductions in debt is required. In addition, accrued interest is reported on the Statement of Net Position.
- 9 **Describe the changes in reporting requirements under GASB Statement No. 34.** Two additional statements are the statement of net position and the statement of activities, both prepared on a government-wide basis using accrual accounting. Fund-based statements are still required, but only major funds are required to be shown separately (minor funds can be combined). Additional statements reconciling the differences between the government-wide statement and the fund statements are required. In addition, disclosures relating to capital assets and long-term liabilities are added. Proprietary fund reports must include a direct-based statement of cash flows. Also, net position is displayed by three categories: net investment in capital assets; restricted; and unrestricted.
- 10 **Explain the benefits of government-wide statements.** The new government-wide statements help users assess the extent to which the government has invested in capital assets. Also, users can assess whether the public paid for services they received during the year or if the costs are shifted to other periods. The government-wide statement of activities focuses on the net cost of each of the government's functions. The expenses of the individual functions are compared to the revenues generated directly by that function. This helps users assess whether each program provides a benefit or a burden to the public.
- 11 **Describe the types of interfund activities.** Reciprocal interfund activity is like exchanges or exchange-like transactions. It includes interfund loans and interfund services provided and used. Interfund loans should be reported as interfund receivables in the lender fund and as an interfund payable in the borrower fund. Interfund services provided and used are sales or purchases of goods and services between funds for a price approximating their external exchange value. Interfund services provided and used should be reported as revenues in the seller funds and expenses or expenditures in the purchaser

funds. Unpaid amounts should be reported as interfund receivables and payables in the fund balance sheet or the statement of net position.

Nonreciprocal interfund activity is similar to nonexchange transactions. This includes interfund transfers (e.g., outflows of assets without an equivalent inflow of assets in return and without a requirement for repayment) and interfund reimbursements (repayments from the funds responsible

for a particular expenditure or expense to the funds that initially paid for them). In government funds, interfund transfers should be reported as “other financing uses” in the funds initiating the transfer and as “other financing sources” in the funds receiving the transfer. In proprietary funds, interfund transfers should be reported after no operating revenues and expenses. Reimbursements should not be displayed in the financial statements.

TEST YOUR KNOWLEDGE SOLUTIONS

18.1 1. a. T b. T c. F Depreciation expense is reported on the government-wide statement of net activities.

18.2 1. d

Supplemental Appendix 18A, “Government-wide Financial Statements—City of Atlanta” is available from your instructor.

QUESTIONS

(The letter A indicated here for a question, exercise, or problem refers to the appendix.)

- LO 2** 1. Eleven funds are recommended to account for the various activities and resources of a governmental unit. Identify these funds by title and type and briefly state (in two sentences or less) the basic purpose of each fund.
- LO 10** 2. Why are governments required to prepare financial statements on a government-wide basis using full accrual accounting?
- LO 7** 3. What is the difference between a governmental fund and a proprietary fund?
- LO 2** 4. Are fiduciary funds governmental funds or proprietary funds? Explain.
- LO 11** 5. A disbursement by the general fund to another fund may be recorded as a receivable, an expenditure, or a fund transfer. Explain the circumstances that would result in each of these different treatments.
- LO 2 LO 8** 6. In what funds would you expect bonds payable to be included?
- LO 2 LO 8** 7. In what funds might property and other nonfinancial resources be recorded?
- LO 3 LO 4** 8. Why are budgeted revenues and expenditures formally recorded in the records of the general fund but not in the records of a capital projects fund?
- LO 4** 9. Are all major capital facilities acquisitions accounted for in a capital projects fund? Explain.
10. What exception to the normal expenditure recognition criteria is associated with debt service funds and what is the justification for this exception? **LO 5**
11. Identify and describe four types of interfund activities. **LO 11**
12. The following funds and account groups are recommended for use in accounting for state and municipal governmental financial operations: **LO 2**
- A. General Fund.
 - B. Special Revenue Fund.
 - C. Debt Service Fund.
 - D. Capital Projects Fund.
 - E. Agency Fund.
 - F. Enterprise Fund.
 - G. Internal Service Fund.
 - H. Trust Fund.
 - I. Government-wide Statement of Activities.
 - J. Government-wide Statement of Net Position.
- Identify, by the letters given above, the funds and account groups in which each of the account titles below might properly appear.
1. Bonds Payable.
 2. Equipment.
 3. Appropriations.

4. Estimated Revenue.
5. Property Taxes Receivable.
6. Construction Work in Progress.
7. Accumulated Depreciation.
8. Depreciation Expense.
9. Required Earnings.

- LO 9** 13. Describe some of the major reconciling items between a government fund and the government-wide financial statements.

Business Ethics

GASB 45 requires that the expected future costs of retiree health costs be recognized in the current period. Prior to this, govern-

ments used a pay-as-you-go plan in which only the current year's actual payments affected the financial statements.

Suppose you are working for a government prior to the issuance of *GASB 45*. As part of the collective bargaining agreement, the government offers employees increased health benefits.

1. Prior to the issuance of *GASB 45*, what would be the impact on the government's financial statements?
2. Under *GASB 45*, what are the financial statement implications?
3. Why might the current governmental leaders agree to offer such a benefit?
4. What are the ethical issues involved in this decision?

ANALYZING FINANCIAL STATEMENTS

AFS18-1 Type of Government Fund **LO 5**

Part A: The following departments of activities are recorded in the City of Atlanta's Comprehensive Annual Financial Report in the appendix to this chapter. Indicate the type of fund that most likely would be used for each department by placing a G for governmental, P for proprietary, or F for fiduciary by each department.

1. _____ Department of Aviation (Airport Authority)
2. _____ Police and Fire Departments
3. _____ Water and Wastewater System
4. _____ Agency Funds
5. _____ Sanitation
6. _____ Public Works
7. _____ Pension and Retirement Trust Funds
8. _____ Internal Service (e.g., Information Technology)
9. _____ Payment of General Obligation Debt

Part B: What is the main factor that causes some of the above departments to be classified in the proprietary fund?

AFS18-2 Statement of Net Position

Examine the financial statements for the City of Atlanta in the appendix to this chapter.

1. The balance in unrestricted net position can be positive or negative. A negative balance would indicate that the government owes more than it owns. What is the balance in unrestricted net position for the governmental activities?
2. Does the balance in the unrestricted net position indicate that the city has cash available to spend? Examine the amount of cash and cash equivalents on the statement of net position. Does the city have enough cash to spend? If not, what would the city need to do to have cash available?
3. Net position is considered restricted if their use is constrained for a specific purpose. What is the largest purpose listed for restricted net position?

AFS18-3 Reconciling the Governmental Fund Balance with the Government-Wide Statement of Net Position.

Examine the appendixes in both Chapter 17 and this chapter (specifically the reconciliation between the Governmental Fund Balance Sheet and the Government-wide Statement of Net Position).

1. What are the top two categories of reconciling differences between the two statements? Is this to be expected? Why or why not?
2. Discuss one of the other reconciling items. Why did the item appear in one, but not the other?

AFS18-4 Statement of Activities

Examine the Statement of Activities in the appendix to this chapter.

1. For each of the six governmental activities listed (from general government to Parks, Recreation, and Cultural Activities), did the program revenue exceed program expenses? List the excess or deficit for each activity.
2. For each of the seven business-type activities listed (from Watershed Management to Civic Center), did the program revenue exceed program expenses? List the excess or deficit for each activity.
3. For the total primary government, did the City of Atlanta have an excess or a deficit before considering general revenues? After considering general revenues, did net position increase or decrease? List the amount of the change.

EXERCISES

EXERCISE 18-1 Identify the Fund LO 2

The following transactions take place:

1. A cement mixer was purchased with resources of the general fund.
2. A contract was signed for the construction of a new civic center.
3. Bonds were issued to finance the construction of the new civic center.
4. Construction of the civic center was completed.

Required:

Indicate the name of the fund(s) in which each of the transactions or events should be recorded.

EXERCISE 18-2 Identify the Fund LO 2

The following transactions take place:

1. A commitment was made to transfer general revenues to the entity in charge of providing transportation for all government agencies.
2. Construction bonds were issued at a premium. The premium is to be included in funds accumulated to retire the debt.
3. Police salaries were paid.
4. Interest and principal were paid on general obligation serial bonds.

Required:

Indicate the name of the fund(s) in which each of the transactions or events should be recorded.

EXERCISE 18-3 Identify the Interfund Activity LO 11

The following events take place:

1. The Special Revenue Fund transfers \$8,000 to the Internal Service Fund as a temporary loan.
2. The Internal Service Fund bills the Special Revenue Fund \$20,000 for services performed.
3. Interest payments in the amount of \$14,000 that are the responsibility of the Debt Service Fund are paid by the General Fund.
4. The unexpended balance of the Capital Projects Fund, which is \$65,000, is transferred to the General Fund.

5. Current expendable revenues of the Trust Fund in the amount of \$35,000 are transferred to the Special Revenue Fund.
6. The General Fund transfers \$100,000 to start an Internal Service Fund.

Required:

- A. Identify the interfund activity as a loan, services provided and used, interfund transfer, or interfund reimbursement and prepare entries in general journal form to record the transactions on the records of the funds involved.
- B. Why is it important to distinguish residual equity transfers from operating transfers?

EXERCISE 18-4 Journal Entries LO 2 LO 8

The following events take place:

1. Hector Madras died and left 100 acres of undeveloped land to the city for a future park. He acquired the land at \$100 an acre, but at the date of his death, the land was appraised at \$8,000 an acre.
2. The city authorized the transfer of \$100,000 of general revenues and the issuance of \$1,000,000 in general obligation bonds to construct improvements on the donated land. The bonds were sold at par.
3. The improvements were completed at a cost of \$1,100,000, and the operation of the park was turned over to the City Parks Department.

Required:

Prepare entries in general journal form to record these transactions in the proper fund(s). Designate the fund in which each transaction is recorded. If the transaction did not result in a journal entry to a government fund, record the journal entry needed to reflect the information in the government-wide Statement of Net Position.

EXERCISE 18-5 Journal Entries LO 2 LO 8

The following transactions take place:

1. The General Fund repaid the Special Revenue Fund a loan of \$10,000 plus \$900 in interest on the loan.
2. On January 1, the city issued 9% general obligation bonds with a face value of \$2,000,000 payable in 10 years to finance the construction of city offices. Total proceeds were \$2,300,000.
3. On December 20, construction was completed, and occupancy taken of the city offices. The full cost of \$1,960,000 was paid to the contractor, and appropriate closing entries were made about the project.

Required:

Prepare entries in general journal form to record these transactions in the proper fund(s). Designate the fund in which each entry is recorded.

EXERCISE 18-6 Journal Entries LO 5

On January 1, 2020, Allentown issued \$800,000 of 9% serial bonds at par. Semiannual interest is payable on January 1 and July 1 and principal of \$80,000 matures each January 1 starting in 2021. The debt will be serviced through a special tax levy designed especially for this purpose. Therefore, transfers will be provided as needed from the Special Revenue Fund.

The following transactions occurred relating to the Debt Service Fund.

2020

June 29	A transfer of \$36,000 was received from the Special Revenue Fund.
July 1	The semiannual interest payment was made.
Dec. 18	A Special Revenue Fund transfer of \$20,000 was received.

2021

Jan. 1 A payment on bond principal and semiannual interest was made.

2031

Jan. 2 Accumulations in the Debt Service Fund amounted to \$55,000 in investments and \$40,000 in cash. The investments were liquidated at face value and the final interest and principal payment was made.

Jan. 4 Having served its purpose, the Debt Service Fund's remaining assets were transferred to the Special Revenue Fund.

Required:

Prepare the journal entries necessary to record the foregoing transactions.

EXERCISE 18-7 Multiple Choice LO 2 LO 8

Select the best answer for each of the following:

1. The City of Apache should use a Capital Projects Fund to account for
 - (a) Structures and improvements constructed with the proceeds of a special assessment.
 - (b) Special Revenue funds set aside to acquire land for city parks.
 - (c) Construction in progress on the city-owned electric utility plant, financed by an issue of revenue bonds.
 - (d) Assets to be used to retire bonds issued to finance an addition to the City Hall.
2. Activities of a central print shop offering printing services at cost to various city departments should be accounted for in
 - (a) The General Fund.
 - (b) An Internal Service Fund.
 - (c) A Special Revenue Fund.
 - (d) An Agency Fund.
3. Adams County collects property taxes for the benefit of the state government and the local school districts and periodically remits collections to these units. These activities should be accounted for in
 - (a) An Agency Fund.
 - (b) The General Fund.
 - (c) An Internal Service Fund.
 - (d) A Special Revenue Fund.
4. In order to provide for the retirement of general obligation bonds, the City of Globe invests a portion of its receipts from general property taxes in marketable securities. This investment activity should be accounted for in
 - (a) A Capital Projects Fund.
 - (b) A Debt Service Fund.
 - (c) A Trust Fund.
 - (d) The General Fund.
5. The transactions of a municipal police retirement system should be recorded in
 - (a) The General Fund.
 - (b) A Special Revenue Fund.
 - (c) A Trust Fund.
 - (d) An Internal Service Fund.

(AICPA adapted)

EXERCISE 18-8 Multiple Choice LO 2 LO 8

Select the best answer for each of the following:

1. The activities of a municipal golf course that receives three-fourths of its total revenue from a special tax levy should be accounted for in
 - (a) An Enterprise Fund.
 - (b) The General Fund.
 - (c) A Trust Fund.
 - (d) A Special Revenue Fund.
2. Equipment in general governmental service that had been constructed 10 years before with resources of a Capital Projects Fund was sold. The receipts were accounted for as unrestricted revenue. Entries are necessary in the
 - (a) General Fund and Capital Projects Fund.
 - (b) General Fund.
 - (c) General Fund, Capital Projects Fund, and Enterprise Fund.
 - (d) General Fund, Capital Projects Fund, and Debt Service Fund.
3. An account for expenditures does not appear in which fund?
 - (a) Capital Projects.
 - (b) Enterprise.
 - (c) General.
 - (d) Special Revenue.
4. Part of the general obligation bond proceeds from a new issuance was used to pay for the cost of a new City Hall as soon as construction was completed. The remainder of the proceeds was transferred to repay the debt. Entries are needed to record these transactions in the
 - (a) General Fund and Proprietary Fund.
 - (b) General Fund, Agency Fund, and Debt Service Fund.
 - (c) Trust Fund and Debt Service Fund.
 - (d) Debt Service Fund, Capital Projects Fund.
5. Cash secured from property tax revenue was transferred for the eventual payment of principal and interest on general obligation bonds. The bonds had been issued when land was acquired several years ago for a city park. Upon the transfer, an entry would be made in which of the following?
 - (a) Debt Service Fund.
 - (b) Enterprise Fund.
 - (c) Agency Fund.
 - (d) General Fund.

(AICPA adapted)

EXERCISE 18-9 Multiple Choice LO 2 LO 8

Select the best answer for each of the following:

1. Premiums received on general obligation bonds are generally transferred to what fund or group of accounts?
 - (a) Debt Service.
 - (b) General.
 - (c) Special Revenue.
2. Of the items listed below, those most likely to have parallel accounting procedures, account titles, and financial statements are
 - (a) Special Revenue Funds and Internal Service Funds.
 - (b) Internal Service Funds and Debt Service Funds.
 - (c) The General Fund and Special Revenue Funds.

3. Recreational facilities run by a governmental unit and financed on a user-charge basis would be accounted for in which fund?
 - (a) General.
 - (b) Trust.
 - (c) Enterprise.
 - (d) Capital Projects.
4. Taylor City should record depreciation as an expense in its
 - (a) Enterprise Fund and Internal Service Fund.
 - (b) Internal Service Fund and the General Fund.
 - (c) General Fund and Enterprise Fund.
 - (d) Enterprise Fund and Capital Projects Fund.
5. A performance budget relates a governmental unit's expenditures to
 - (a) Objects of Expenditure.
 - (b) Expenditures of the preceding fiscal year.
 - (c) Individual months within the fiscal year.
 - (d) Activities and programs.

(AICPA adapted)

EXERCISE 18-10 Identify the Fund LO 2 LO 8

Write the name of the fund(s) in which each of the following transactions or events would be recorded.

1. Bonds, the proceeds of which were to be used for the construction of a new City Hall, were issued.
2. A sum of money was appropriated, to be advanced from monies on hand, to finance the establishment of a City Garage for servicing city-owned transportation equipment.
3. A contribution was received from a private source. The use of the income earned on the investment of this sum of money was specifically designated by the donor.
4. Proceeds received from a bond issue were used for the purchase of the privately owned water utility in the city.
5. Property taxes designated to be set aside for the eventual retirement of the City Hall building bonds were collected.
6. Real estate and personal property taxes, which had not been assessed or levied for any specific purpose, were collected.
7. Payment was made to the contractor for progress made in the construction of the new City Hall.
8. Interest was paid on the bonds issued for the purchase of the water utility.
9. Bonds, the proceeds of which are to be used to pay for the improvement of streets in the residential district, were issued. The debt is to be serviced by assessments on the property benefited. The government is obligated to the bondholders to assure the timely payment of principal and interest on the debt.
10. Salaries of personnel in the office of the mayor were paid.
11. Interest was paid on the City Hall building bonds.
12. Installment payments were received from the property owners assessed for the street improvement project.
13. Interest was paid on bonds issued for the payment of the improvement of streets in the residential district.
14. Interest was received on the investment of moneys set aside for the retirement of the City Hall building bonds.
15. Sums of money were received from employees by payroll deductions to be used for the purchase of United States government bonds for those employees individually.

16. City motor vehicle license fees, to be used for general street expenditures, were collected.
17. Materials to be used for the general repair of the streets were purchased.
18. The City Garage was reimbursed for services on the equipment of the fire and police departments.
19. Excess funds were transferred from the water utility to the General Fund.

(AICPA adapted)

EXERCISE 18-11 Capital Projects Fund—Journal Entries LO 4

On June 1, 2020, the City of Cape May authorized the construction of a police station at an expected cost of \$250,000. Financing will be provided through transfers from a Special Revenue Fund.

The following transactions occurred during the fiscal year beginning June 1, 2020, relating to the Capital Project Fund.

1. The \$250,000 receivable from the Special Revenue Fund was recorded.
2. The Special Revenue Fund transferred \$125,000 to the Capital Project Fund to begin construction on the police station.
3. The Capital Project Fund invested the transfer of monies in a six-month certificate, at 5%.
4. A contract in the amount of \$250,000 was let to the lowest bidder.
5. Architect and legal fees in the amount of \$3,125 were approved for payment. There was no encumbrance for these expenditures.
6. Contract billings in the amount of \$250,000 were approved for payment on the completion of the police station and the encumbrance was removed.
7. The six-month certificate was redeemed at maturity with interest revenue.
8. The Special Revenue Fund transferred the final amount of \$125,000 to the Capital Projects Fund.
9. All liabilities except for the retention of 5% of the contract price were paid.
10. All requirements and obligations were completed; the final payment of the contract price was made and all nominal accounts were closed.

Required:

Prepare the journal entries necessary in the Capital Projects Fund to record the transactions and events described above.

EXERCISE 18-12 Capital Projects Fund—Journal Entries LO 4

The town of Aberdeen authorized a fire station to be built at an estimated cost of \$150,000. On January 1, 2020, 6% bonds with a par value of \$150,000 were authorized and issued. Any difference between the par value of the bonds and the proceeds from their sale is transferred to the Debt Service Fund.

The following transactions relating to the Capital Project Fund occurred during 2020.

1. Encumbrances were recorded on signing contracts in the amount of \$150,000.
2. Proceeds from the bond issue were received in the amount of \$155,000.
3. The premium on the bond issue was transferred to the Debt Service Fund.
4. Contract billings in the amount of \$150,000 were approved for payment on the completion of the fire station.
5. The contractor was paid except for retention of 5% of the contract price.
6. The final contract price was paid on the completion of the requirements and obligations of the contract. The nominal accounts were closed.

Required:

Prepare the journal entries necessary in the Capital Projects Fund to record the transactions and events described above.

EXERCISE 18-13 Determining a Government's Major Funds LO 2**Required:**

Using Illustrations 18-10, 18-11, 18-14, and 18-15, determine which of Model City's funds qualify as major funds using the percentage cutoffs. Calculate aggregate amounts for all other nonmajor funds, and indicate how they would be presented.

EXERCISE 18-14 Determining Amounts to Report for Long-Term Liabilities LO 5

On January 1, 2020, Metropolis City issued a 7%, 5-year, \$100,000 general obligation bond for \$96,007. The bond pays interest annually (on December 31) and was issued to yield 8%. The bond was issued in the capital projects fund, and the proceeds are to be used to build a giant ball that will drop twenty stories on New Year's Eve. No construction has occurred. A debt service fund was created to meet the interest and principal payments. The city prepares financial statements on December 31 of each year.

Required:

Determine how the above information will be reflected on each of the following statements for the year 2020.

1. The governmental funds' statement of revenue, expenditures, and changes in fund balances. List the governmental fund and then list the dollar amount within the appropriate heading on the statement (such as Revenues, Expenditures, or Other Financing Sources (Uses)).
2. The government-wide statement of net position.
3. The government-wide statement of activities.

EXERCISE 18-15 Determining Amounts to Report for Capital Assets LO 4

The following schedule of capital assets was prepared for Capital City.

<i>Government Activities</i>	<i>Beginning Balance</i>	<i>Additions</i>	<i>Retirements</i>	<i>Ending Balance</i>
Total Capital Assets (gross)	\$500,000	100,000	(75,000)	\$525,000
Less: Accumulated				
Depreciation	<u>(200,000)</u>	<u>(30,000)</u>	<u>25,000</u>	<u>(205,000)</u>
Net Capital Assets	\$300,000	70,000	(50,000)	\$320,000

All capital acquisitions were made in a capital projects fund (and paid for with cash). An asset was sold by the general fund for \$65,000 cash.

Required:

Determine how the above information will be reflected on each of the following statements for the year 2020.

1. The governmental funds' statement of revenue, expenditures, and changes in fund balances. List the governmental fund and then list the dollar amount within the appropriate heading on the statement (such as Revenues, Expenditures, or Other Financing Sources (Uses)).
2. The government-wide statement of net position.
3. The government-wide statement of activities.

EXERCISE 18-16 Reconciliation Schedule—Statement of Activities LO 9

The following information is available about items that differ between the governmental funds and the government-wide statements. Assume that there are no internal service funds. The schedule of capital assets prepared for the year ended December 31, 2020, includes the following items:

<i>Government Activities</i>	<i>Beginning Balance</i>	<i>Additions</i>	<i>Retirements</i>	<i>Ending Balance</i>
Total Capital Assets (at gross)	\$700,000	\$50,000	\$(25,000)	\$725,000
Less: Accumulated Depreciation	<u>(170,000)</u>	<u>(30,000)</u>	<u>17,500</u>	<u>(182,500)</u>
Net Capital Assets	\$530,000	\$20,000	\$ (7,500)	\$542,500

The bond was issued at the beginning of the year, and the following amortization schedule is available.

<i>Date</i>	<i>Interest Expense</i>	<i>Cash Paid</i>	<i>Premium Amortization</i>	<i>Bond Balance</i>
1/1/2020				\$104,213
12/31/2020	6,253	7,000	747	\$103,466

The net change in fund balances—total governmental funds was \$1,100,000.

Required:

Prepare the reconciliation of the statement of revenues, expenditures, and changes in fund balances to the statement of activities on a government-wide basis for the year ended December 31, 2020.

EXERCISE 18-17 Reconciliation Schedule—Statement of Net Position LO 9

The following information was available about items that differed between the governmental funds and the government-wide statements. Assume that there are no internal service funds. The schedule of capital assets prepared for the year ended December 31, 2020, included the following items:

<i>Government Activities</i>	<i>Beginning Balance</i>	<i>Additions</i>	<i>Retirements</i>	<i>Ending Balance</i>
Total Capital Assets (at gross)	\$800,000	\$60,000	\$(30,000)	\$830,000
Less: Accumulated Depreciation	<u>(200,000)</u>	<u>(40,000)</u>	<u>22,500</u>	<u>(217,500)</u>
Net Capital Assets	\$600,000	\$20,000	\$ (7,500)	\$612,500

The bond was issued at the beginning of the year and the following amortization schedule is available:

<i>Date</i>	<i>Interest Expense</i>	<i>Cash Paid</i>	<i>Premium Amortization</i>	<i>Balance</i>
1/1/2020				\$104,213
12/31/2020	\$6,253	\$7,000	\$747	\$103,466

The total fund balances for governmental activities was \$3,125,000 at the end of the year.

Required:

Prepare the reconciliation of the governmental fund balances to the net position reported for governmental activities on the Statement of Net Position as of December 31, 2020.

PROBLEMS**PROBLEM 18-1 Debt Service Fund LO 5**

On January 1, 2020, the City of Cape May authorized and issued \$200,000 of 5%, three-year term bonds. Interest is payable annually on December 31. A debt service fund is established to accumulate the necessary resources to pay the annual interest on the bonds and to redeem the bonds when they mature. The required annual addition for principal and interest will be transferred annually to the debt service fund from the general fund. It is assumed that amounts received by the debt service fund for the payment of principal can be invested at an annual return of 8%.

Required:

- A. Prepare a schedule to calculate the annual required additions and annual required earnings to repay the principal on the bonds assuming that the first installment for principal and interest is transferred to the debt service fund from the general fund on December 30, 2020.
- B. Prepare the entries to be recorded by the debt service fund as follows:
 - (1) The 2021 budget entry.
 - (2) The entry to record the annual transfer from the general fund.
 - (3) The entry to record the annual payment of interest.
 - (4) The entry to record \$4,929 in interest income for 2021.
 - (5) The entry(s) to close the accounts at the end of 2021.

PROBLEM 18-2 Capital Projects Fund and Related Funds LO 4 LO 8

The Town of Green River authorized a municipal building to be constructed at a cost of \$175,000. The construction will be financed from the proceeds from the issue of \$175,000 of 6% bonds. Any difference between the par value of the bonds and the proceeds from their sale is transferred to the Debt Service Fund.

Transactions and events relating to this project include the following:

1. The proceeds from the sale of the bonds were received and included a premium on the bond issue in the amount of \$15,000. The premium was transferred to Debt Service Fund.
2. Encumbrances were recorded on signing of the construction contract in the amount of \$175,000.
3. Contract billings in the amount of \$85,000 were approved for payment.
4. Contract billings were paid in the amount of \$85,000.
5. All nominal accounts were closed and construction in progress was recorded in the appropriate account group in anticipation of the preparation of financial statements.
6. Encumbrances that were closed in anticipation of the preparation of financial statements are reestablished in the Capital Projects Fund.
7. Contract billings in the amount of \$90,000 were approved on the completion of the municipal building.
8. Contract billings of \$90,000 less a retention of 5% were paid.
9. The building was accepted, all construction liabilities were paid, and the building was recorded as an asset in the appropriate account group.

Required:

Prepare the journal entries relating to the Capital Projects Fund and the Debt Service Fund for the transactions and events described above. Clearly identify the fund in which each entry is recorded.

PROBLEM 18-3 Special Assessment Debt LO 5 LO 8

The City of Dayville has undertaken a sidewalk construction project. The project is being financed by the proceeds from the issue on July 1, 2020, of \$500,000 of 7% special assessment debt. One quarter of the principal plus interest is payable on June 30 of each year beginning

June 30, 2021. Property owners are assessed to provide the funds to pay the principal and interest on the debt.

The following transactions occurred during the period July 1, 2020, through June 30, 2021.

1. The bonds for the construction of the sidewalks were issued at par value.
2. The sidewalks were completed at a cost of \$500,000.
3. Property owners were assessed and billed for the first installment of principal and interest on the special assessment debt.
4. Assessments for the first installment of principal and interest on the special assessment debt were collected and the June 30, 2021, payment of principal and interest on the special assessment debt was made.

Required:

Prepare all journal entries for the above transactions that are necessary in the funds of the City of Dayville assuming that.

- A. The City of Dayville has made a commitment to the holders of the special assessment debt to assure the timely and full payment of principal and interest on the appropriate due dates.
- B. The City of Dayville has not obligated itself in any manner on the special assessment debt that was issued for the construction of the sidewalks.

PROBLEM 18-4 Internal Service Fund LO 2

The administrators of the City of Lyons have obtained approval from the City Council to centralize the computer facility as of January 1, 2020. An internal service fund is created to account for the activities of the computer facility. The City Council has approved a contribution of \$25,000 from the General Fund for use as working capital and an advance from the Electric Utility Fund of \$355,000 for the purchase of equipment and facilities. The \$355,000 advance will be repaid by the internal service fund in 20 equal annual installments.

The following transactions relate to the establishment and operation of the Internal Service Fund.

January 1	The computer facility received the contribution from the General Fund and the advance from the Electric Utility Fund.
January 4	Land and a building were purchased for \$175,000 of which \$25,000 was assigned to land. Hardware was purchased for \$125,000 and equipment to protect the hardware was purchased for \$55,000.
April 10	The computer facility billed the Electric Utility Fund for service provided. The service cost \$200,000 and was billed at a mark-up of 25% on cost. (Direct costs of providing computer services are accumulated in the "Computer Service" account. When services are billed to departments, this account is credited and the "Cost of Service" account is debited for the cost of services billed.)
April 29	Administrative expenses totaling \$10,000 were approved for payment.
May 1	Payment of \$37,750 was received from the Electric Utility in partial payment of the April 10 billing.
May 1	The administrative expense was paid.
December 2	The first of 20 equal annual installments to the Electric Utility Fund was paid.
December 30	Depreciation expense was recorded for the year as administration expense. The building was estimated to have a remaining useful life of 25 years; the hardware was estimated to have a useful life of 5 years; the equipment to protect the hardware was estimated to have a useful life of 10 years.

December 31 The nominal accounts of the internal service fund were closed through a closing account, “Excess of Billings to Departments over Costs,” which in turn was closed to unrestricted net position.

Required:

Prepare the journal entries necessary in the Internal Service Fund to record the transactions and events described above. The chart of accounts presented below may be used as an aid. The closing account, “Excess of Billings to Departments over Costs,” is like the “Income Summary” account of a corporation.

PROBLEM 18-5 Tax Agency Fund LO 2

An administrative section of the County Assessor’s Office of Mecklenburg County serves as the billing and collection agency for all property taxes assessed in Mecklenburg County. A charge of 1% of taxes and penalties collected is apportioned among recipients of the taxes for this service. All property tax records—current and delinquent—are maintained in this administrative unit. The 1% charge is included as revenue in the General Fund budget of the county government.

<i>Current Assets:</i>	<i>Liabilities:</i>
Cash	Vouchers payable
Due from general fund	Advance from electric utility
Due from electric utility fund	
Computer service	<i>Net Position:</i>
	Unrestricted net position
<i>Fixed Assets:</i>	<i>Revenue:</i>
Land	Billing to departments
Building	Contribution from general fund
Equipment—hardware	
Equipment—protection	<i>Costs and Expense:</i>
Accumulated depreciation	Cost of computer service
	Administrative expense

Information relative to the collection of property taxes for fiscal year 2020 is as follows:

Assessed valuation	\$5,826,300
Tax rates per \$100 assessed:	
County government	\$1.20
State government	.80
City of Midvale	2.80
Unified school district	3.20

Tax bills are issued on January 1; taxes are payable without penalty by April 30; taxes paid after April 30 are subject to a 5% penalty for late payment. Taxes not paid by June 30 are considered delinquent.

No delinquent taxes remain uncollected for years prior to 2020.

An estimated 3% of billed taxes for 2020 will be uncollectible.

A summary of the activities of the Tax Agency Fund for the period January 1, 2020, to June 30, 2020, includes the following:

January 1	Tax bills are mailed to property owners. Accounts are opened by the tax collection unit.
April 30	Taxes collected and deposited during first four months total \$372,883. Distribution of taxes collected is made to the applicable governmental units.
June 30	Taxes collected and deposited during May and June including the 5% penalty total \$73,412. Distribution of taxes and penalties collected is made to the applicable governmental units.

Required:

- A. Prepare in general journal form entries to record the activities of the Tax Agency Fund from January 1 to June 30. Establish a Delinquent Account for taxes not collected.
- B. Prepare a balance sheet for the Tax Agency Fund after adjusting the accounts on June 30.

PROBLEM 18-6**Journal Entries—Identify the Fund LO 2 LO 8**

The following activities and transactions are typical of those that may affect the various funds used by a typical municipal government.

Required:

Prepare journal entries to record each transaction and identify the fund in which each entry is recorded.

- A. The Greenville City Council passed a resolution approving a general operating budget of \$5,000,000 for the fiscal year 2020. Total revenues are estimated at \$4,900,000.
- B. The Greenville City Council Passed an ordinance providing a property tax levy of \$6.25 per \$100 of assessed valuation for the fiscal year 2020. Total property valuation in Greenville City is \$204,800,000. Property is assessed at 25% of current property valuation. Property tax bills are mailed to property owners. An estimated 3% will be uncollectible.
- C. Reed City sold a general obligation term bond issue for \$1,000,000 at 105 to a major brokerage firm. The stated interest rate is 5%. Proceeds are to be used for construction of a new Central Law Enforcement Building. (*Note:* Entries are required in the Capital Project Fund).
- D. The premium on bond sale in (C) above is transferred to the Debt Service Fund.
- E. At the end of fiscal year 2020, the Greenville City Council approves the write-off of \$52,550 of uncollected 2019 taxes because of inability to locate the property owners. The tax bills have been referred to the legal department for further action.
- F. The Reed City Central Law Enforcement Building [(C) above] is completed. Contracts and expenses total \$989,000, and all have been paid and recorded in the Capital Project Fund. Prepare entries to close this project and record the completion of the project in all other funds or account groups affected. Any balance in the Capital Project Fund is to be applied to payment of interest and principal of the bond issue.
- G. On May 1, 2020, Hopi City supervised the issue of 6% serial bonds at par to finance street curbing in an area recently incorporated in the city limits. The face amount of the bonds is \$600,000; interest is payable annually, and bonds are to be retired in equal amounts over five years from collections from assessments against property owners. The City acts as a collection agent and has given assurances to the debt holders that it will guarantee payment of principal and interest even though it is not obligated to do so.

- (1) Record the issuance of the bonds on May 1, 2020.
 - (2) Record the payment to bondholders on May 1, 2021.
- H. The curbing project in (G) above was completed on November 30 at a total of \$590,000. Record summary entries for expenditure transactions May 1–November 30, 2020, and on completion of the project.

PROBLEM 18-7 Journal Entries—Identify the Fund LO 2 LO 8

The following transactions take place.

1. Bond proceeds of \$1,000,000 were received to be used in constructing a firehouse. An equal amount is contributed from general revenues.
2. \$800,000 of serial bonds matured. Interest of \$120,000 was paid on these and other serial bonds outstanding.
3. \$8,000 was received as insurance proceeds from the accidental destruction of a four-year-old police car costing \$24,000.
4. \$120,000 in expendable funds was transferred from the City Parks Endowment Fund to the City Parks Special Revenue Fund.
5. Equipment purchased from general revenues at a cost of \$200,000 was sold for \$40,000.
6. The City Water Company (an enterprise fund) issued a bill for \$800 for water provided to the street department’s street cleaner.
7. The City Water Company transferred \$400,000 in excess funds to the General Fund.
8. A central motor pool was established by a contribution of \$120,000 from the General Fund, a long-term loan of \$80,000 from the City Parks Special Revenue Fund, and general obligation bond issue proceeds of \$200,000.
9. The Motor Pool Fund billed the General Fund \$10,000 and the City Parks Fund \$4,000 for the use of motor vehicles.
10. Special Assessment Bonds in the amount of \$400,000 were retired. The city has indicated a willingness to guarantee the payment of principal even though it was not obligated to do so.
11. Customers’ deposits of \$8,000 for water meters were received by the City Water Company during the year. The monies are to be held in trust until the customers request that their services be disconnected and the final bills are collected.
12. It is determined that the Service Fund will require an annual contribution of \$60,000 and earnings of \$6,000 in the current year to accumulate the amounts necessary to retire general obligation term bonds.

Required:

Prepare entries in general journal form to record these transactions in the proper fund(s). Designate the fund in which each entry is recorded.

PROBLEM 18-8 General Fund Journal Entries and Related Fund Adjustments LO 2 LO 8

You have been engaged to examine the financial statements of the Town of Bridgeport for the year ended June 30, 2020. Your examination disclosed that, because of the inexperience of the town’s bookkeeper, all transactions were recorded in the General Fund. The following General Fund trial balance as of June 30, 2020, was furnished to you.

**General Fund Trial Balance
Town of Bridgeport
June 30, 2020**

	<i>Debit</i>	<i>Credit</i>
Cash	\$ 16,800	
Short-term Investments	40,000	
Accounts Receivable	11,500	

General Fund Trial Balance
Town of Bridgeport
June 30, 2020

	<i>Debit</i>	<i>Credit</i>
Taxes Receivable—current year	30,000	
Tax Anticipation Notes Payable		\$ 50,000
Appropriations		400,000
Expenditures	382,000	
Estimated Revenue	320,000	
Revenues		360,000
General Property	85,400	
Bonds Payable	52,000	
Fund Balance		127,700
	\$937,700	\$937,700

Your audit disclosed the following additional information:

1. The accounts receivable of \$11,500 includes \$1,500 due from the town's water utility for the sale of scrap sold on its behalf. Accounts for the municipal water utility are maintained in a separate fund.
2. The balance in Taxes Receivable—Current Year is now considered delinquent, and the town estimates that \$24,000 will be uncollectible.
3. On June 30, 2020, the town retired, at par value, 6% general obligation serial bonds totaling \$40,000. The bonds were issued on July 1, 2020, at a face value of \$200,000. Interest paid during the year ended June 30, 2020, was charged to Bonds Payable.
4. Expenditures for the year ended June 30, 2020, included \$11,200 applicable to purchase orders issued to the prior year. Outstanding purchase orders at June 30, 2020, not recorded in the accounts amounted to \$17,500.
5. On June 28, 2020, the State Revenue Department informed the town that its share of a state-collected, locally shared tax would be \$34,000.
6. During the year, equipment with a book value of \$7,900 was removed from service and sold for \$4,600. In addition, new equipment costing \$90,000 was purchased. The transactions were recorded in General Property.
7. During the year, 100 acres of land were donated to the town for use as an industrial park. The land had a value of \$400,000. This donation has not been recorded.

Required:

- A. Prepare the formal reclassification, adjusting, and closing journal entries for the General Fund as of June 30, 2020.
- B. Prepare the formal adjusting journal entries for any other fund as of June 30, 2020.

(AICPA adapted)

PROBLEM 18-9 Journal Entries—Various Funds LO 2 LO 8

The Village of Oakridge, which was incorporated recently, began financial operations on July 1, 2020, the beginning of its fiscal year. The following transactions occurred during this first fiscal year, July 1, 2020, to June 30, 2021.

1. The Village Council adopted a budget for general operations during the fiscal year ended June 30, 2020. Revenues were estimated at \$400,000. Legal authorizations for budgeted expenditures were \$394,000.
2. Property taxes were levied in the amount of \$390,000; it was estimated that 2% of this amount would prove to be uncollectible. These taxes are available as of the date of levy to finance current expenditures.

3. During the year, a resident of the village donated marketable securities valued at \$50,000 to the village under the terms of a trust agreement. The terms of the trust agreement stipulated that the principal amount is to be kept intact; use of revenue generated by the securities is restricted to financing college scholarships for needy students. Revenue earned and received on these marketable securities amounted to \$5,500 through June 30, 2021.
4. A General Fund transfer of \$5,000 was made to establish an Internal Service Fund to provide for a permanent investment in inventory.
5. During the year the Internal Service Fund purchased various supplies at a cost of \$1,900.
6. Cash collections recorded by the General Fund during the year were as follows:

Property taxes	\$386,000
Licenses and permits	7,000

7. The Village Council decided to build a village hall at an estimated cost of \$500,000 to replace space occupied in rented facilities. The village does not record project authorizations. It was decided that general obligation bonds bearing interest at 6.5% would be issued. On June 30, 2021, the bonds were issued at their face value of \$500,000, payable June 30, 2033. No contracts have been signed for this project, and no expenditures have been made.
8. A fire truck was purchased for \$150,000 and the voucher approved and paid by the General Fund. This expenditure was previously encumbered for \$150,000.

Required:

Part A: Prepare journal entries to record each of the transaction above in the appropriate fund(s) of Oakridge Village for the fiscal year ended June 30, 2021. Use the following funds:

- General Fund
- Capital Projects Fund
- Internal Service Fund
- Permanent Fund
- Special Revenue Fund

Each journal entry should be numbered to correspond with the transactions described above. Do *not* prepare closing entries for any fund. Present your answer in the following format:

<i>Transaction Number</i>	<i>Fund</i>	<i>Account Title and Explanation</i>	<i>Amounts</i>	
			<i>Debit</i>	<i>Credit</i>
1				
2				
.				
.				

Part B: For transactions 7 and 8, describe how the information would be reflected on the government-wide financial statements (if at all).

(AICPA adapted)

PROBLEM 18-10 Journal Entries—Various Funds LO 2 LO 8

The following transactions represent practical situations frequently encountered in accounting for municipal governments. Each transaction is independent of the others.

1. The City Council of Bernardville adopted a budget for the general operations of the government during the new fiscal year. Revenues were estimated at \$695,000. Legal authorizations for budgeted expenditures were \$650,000.
2. Taxes of \$160,000 were levied for the special revenue fund of Millstown. One percent was estimated to be uncollectible.

3. (a) On July 25, 2021, office supplies estimated to cost \$2,390 were ordered for the city manager's office of Bullersville. Bullersville, which operates on the calendar year, does not maintain an inventory of such supplies.
(b) The supplies ordered July 25 were received on August 9, 2021, accompanied by an invoice for \$2,500.
4. On October 10, 2021, the general fund of Washingtonville repaid to the utility fund a loan of \$1,000 plus \$40 interest. The loan had been made earlier in the fiscal year.
5. A prominent citizen died and left 10 acres of undeveloped land to Harper City for a future school site. The donor's cost of the land was \$55,000. The fair value of the land was \$85,000.
6. (a) On March 6, 2021, Dahlstrom City supervised the issue of 6% special assessment bonds payable March 6, 2021, at face value of \$90,000. Interest is payable annually. Dahlstrom City, which operates on the calendar year, will supervise the use of the proceeds to finance a curbing project. The City has made no commitments and has not obligated itself in any manner with respect to the payment of principal and interest on the debt.
(b) On October 26, 2021, the full \$84,000 cost of the completed curbing project was recorded. Also, appropriate closing entries were made with regard to the project.
7. (a) Conrad Thamm, a citizen of Basking Knoll, donated common stock valued at \$22,000 to the City under a trust agreement. Under the terms of the agreement, the principal amount is to be kept intact; use of revenue from the stock is restricted to financing college scholarships for needy students.
(b) On December 14, 2021, dividends of \$1,100 were received on the stock donated by Mr. Thamm.
8. (a) On February 23, 2021, the Town of Lincoln, which operates on the calendar year, issued 5% general obligation bonds with a face value of \$300,000 payable February 23, 2026, to finance the construction of an addition to the City Hall. Total proceeds were \$308,000.
(b) On December 31, 2021, the addition to the City Hall was officially approved, the full cost of \$297,000 was paid to the contractor, and appropriate closing entries were made with regard to the project. (Assume that no entries have been made with regard to the project since February 23, 2021.)

Required:

For each transaction, prepare the necessary journal entries for all the funds involved. No explanation of the journal entries is required. Use the following headings for your workpaper.

<i>Transaction Number</i>	<i>Journal Entries</i>	<i>Dr.</i>	<i>Cr.</i>	<i>Fund</i>
-------------------------------	----------------------------	------------	------------	-------------

In the far right column, indicate in which fund each entry is to be made, using the coding below:

Funds	
General	G
Special revenue	SR
Capital projects	CP
Debt service	DS
Enterprise	E
Internal service	IS
Permanent fund	P
Trust or agency	TA

(AICPA adapted)

PROBLEM 18-11 Capital Projects Fund LO 4

The City of Minden entered into the following transactions during the year 2021.

1. A bond issue was authorized by vote to provide funds for the construction of a new municipal building, which it was estimated would cost \$1,000,000. The bonds are to be paid in 10 equal installments from a Debt Service Fund, and payments are due March 1 of each year. Any premium on the bond issue, as well as any balance of the Capital Projects Fund, is to be transferred directly to the Debt Service Fund.
2. An advance of \$80,000 was received from the General Fund to underwrite a deposit on the land contract of \$120,000. The deposit was made.
3. Bonds of \$900,000 were sold for cash at 102. It was decided not to sell all the bonds because the cost of the land was less than expected.
4. Contracts amounting to \$780,000 were let to Standstone and Company, the low bidder, for construction of the municipal building.
5. The temporary advance from the General Fund was repaid and the balance on the land contract was paid.
6. On the basis of the architect’s certificate, contract billings were approved for \$640,000 for the work completed to date.
7. Contract billings paid in cash by the treasurer amounted to \$620,000.
8. Because of changes in the plans, the contract with Sandstone and Company was revised to \$880,000; the remainder of the bonds were sold at 101.
9. Before the end of the year, the building had been completed, and additional contract billings amounting to \$230,000 approved. All contract billings were paid by the treasurer to the contractor in final payment for the work.

Required:

- A. Prepare entries to record the foregoing transactions (excluding the entries necessary to close out the fund) of the Capital Projects Fund.
- B. Prepare a preclosing trial balance for the Capital Projects Fund.
- C. Prepare entries necessary to close out the Capital Projects Fund on the completion of construction.
- D. Prepare a statement of revenues, expenditures, and changes in fund balance for the Capital Projects Fund.
- E. Prepare preclosing trial balances at December 31, 2021, for the Debt Service Fund, considering only the proceeds, expenditures, and transfers resulting from transactions of the Capital Projects Fund.

(AICPA adapted)

PROBLEM 18-12 Determining a Government’s Major Funds LO 2 LO 8

The following information is available about Gotham’s City government funds.

<i>Governmental Funds</i>	<i>Assets</i>	<i>Liabilities</i>	<i>Revenues</i>	<i>Expenditures</i>
1 General Fund	\$ 9,408	\$ 7,753	\$ 86,022	\$ 88,717
2 HUD Programs	7,504	6,428	2,731	2,954
3 Community Development	13,616	440	549	2,664
4 Route 7 Construction	10,478	1,115	273	11,298
5 Impact Fees	371	61	35	755
6 Local Gas Tax	2,139	170	1,436	2,971
7 Historic District	194	4	60	47
8 Central City Development	1,618	151	4,783	6,804
9 Community Redevelopment	2,365	—	42	1,872
10 Culvert Project			1,471	1,974

<i>Governmental Funds</i>	<i>Assets</i>	<i>Liabilities</i>	<i>Revenues</i>	<i>Expenditures</i>
11 Bridge	2,602	686	3	1,270
12 Cemetery Fund	1,405	—	72	—
	<u>\$51,700</u>	<u>\$16,808</u>	<u>\$ 97,477</u>	<u>\$121,326</u>
<i>Proprietary Funds</i>				
13 Water and Sewer	\$12,149	\$ 4,679	\$11,329	\$ 6,907
14 Parking Facilities	372	672	1,344	1,582
	<u>12,521</u>	<u>5,351</u>	<u>12,673</u>	<u>8,489</u>
Totals, All Funds	<u>\$64,221</u>	<u>\$22,159</u>	<u>\$110,150</u>	<u>\$129,815</u>

Required:

Using the information about the government's funds, determine which funds qualify as "major" funds using percentage cutoffs and would be required to be included in the governmental fund financial statements.

PROBLEM 18-13 Preparing Government-wide Financial Statements LO 9

Circus City issued an 8%, 10-year \$2,000,000 bond to build a monorail mass transit system. The city received \$1,754,217 cash from the bond issuance on January 1, 2020. The bond yield is 10%. Interest is paid annually on December 31 of each year. Disclosure information about capital assets is reported below.

**Disclosure of Information about Capital Assets
for the Year Ending December 31, 2020**

<i>Governmental Activities</i>	<i>Primary Government</i>			
	<i>Beginning Balance</i>	<i>Additions</i>	<i>Retirements</i>	<i>Ending Balance</i>
Land	\$ 500,000			\$ 500,000
Building	760,000			760,000
Machinery and Equipment	950,000		\$(225,000)	725,000
Construction in Progress		\$1,500,000		1,500,000
Infrastructure	<u>450,000</u>			<u>450,000</u>
Totals at historical cost	<u>\$2,660,000</u>	<u>\$1,500,000</u>	<u>\$(225,000)</u>	<u>\$3,935,000</u>
Less accumulated depreciation				
Building	(190,000)	(59,150)		(249,150)
Machinery and Equipment	(235,000)	(76,050)	140,000	(171,050)
Infrastructure	<u>(50,000)</u>	<u>(33,800)</u>		<u>(83,800)</u>
Total accumulated depreciation	<u>\$(475,000)</u>	<u>\$(169,000)</u>	<u>\$140,000</u>	<u>\$(504,000)</u>
Governmental activities capital assets, net	<u>\$2,185,000</u>	<u>\$1,331,000</u>	<u>\$ (85,000)</u>	<u>\$3,431,000</u>

Depreciation expense charged to governmental activities as follows:

Public Safety	\$ 55,000
General Government	72,000
Highways and Streets	25,000
Sanitation	<u>17,000</u>
	<u>\$169,000</u>

Circus City's governmental funds financial statements are as follows:

**Circus City
Governmental Funds
Fund Balance Sheets at December 31, 2020**

	<i>Capital Projects Fund</i>	<i>Debt Service Fund</i>	<i>Total Governmental Funds</i>	
<i>Assets</i>	<i>General Fund</i>	<i>Monorail Fund</i>	<i>Term Bond Fund</i>	
Cash	\$ 64,000	\$ 300,000	\$ —	\$ 364,000
Interest Receivable		12,000	4,000	16,000
Investments	100,000	1,250,500	100,000	1,450,500
Property Tax Receivable	183,000			183,000
Total Assets	<u>\$347,000</u>	<u>\$1,562,500</u>	<u>\$104,000</u>	<u>\$2,013,500</u>
<i>Liabilities and Fund Balance</i>				
Vouchers Payable	\$ 73,000	\$ 50,000		\$ 123,000
Total Liabilities	<u>\$ 73,000</u>	<u>\$ 50,000</u>	<u>\$ —</u>	<u>\$ 123,000</u>
Fund Balances:				
Restricted for:				
Capital projects		1,512,500		1,512,500
Debt Service			104,000	104,000
Assigned for encumbrance	191,000			191,000
Unassigned	83,000			83,000
Total Fund Balance	<u>274,000</u>	<u>1,512,500</u>	<u>104,000</u>	<u>1,890,500</u>
Total Liabilities and Fund Balances	<u>\$347,000</u>	<u>\$1,562,500</u>	<u>\$104,000</u>	<u>\$2,013,500</u>

**Circus City
Governmental Funds
Statement of Revenues, Expenditures, and Changes in Fund
Balances for the Year Ended December 31, 2020**

	<i>Capital Projects Fund</i>	<i>Debt Service Fund</i>	<i>Total Governmental Funds</i>	
	<i>General Fund</i>	<i>Monorail Fund</i>	<i>Term Bond</i>	
Revenues				
Property Taxes	\$ 525,000		\$ 50,000	\$ 575,000
Licenses and Permits*	150,000			150,000
State Grant—highways and streets	250,000			250,000
Intergovernmental—state grant		\$1,000,000		1,000,000
Charges for Services (general government)	130,000			130,000
Investment Earnings	75,000			75,000
Total Revenue	<u>\$1,130,000</u>	<u>\$1,000,000</u>	<u>\$ 50,000</u>	<u>\$2,180,000</u>
Expenditures				
Public Safety	\$ 500,000			\$ 500,000
General Government	300,000			300,000
Highways and Streets	130,000			130,000
Sanitation	70,000			70,000

Circus City
Governmental Funds
Statement of Revenues, Expenditures, and Changes in Fund
Balances for the Year Ended December 31, 2020

	<i>General Fund</i>	<i>Capital Projects Fund</i>	<i>Monorail Fund</i>	<i>Debt Service Fund</i>	<i>Term Bond</i>	<i>Total Governmental Funds</i>
Debt Service Interest				\$160,000		160,000
Capital Outlay		\$1,500,000				1,500,000
Total Expenditures	\$1,000,000	\$1,500,000		\$160,000		\$2,660,000
Excess (deficiency) of revenues over expenditures	\$ 130,000	\$ (500,000)		\$(110,000)		\$ (480,000)
Other Financing Sources (Uses)						
Proceeds from long-term capital debt		\$1,754,217				\$1,754,217
Transfers in				\$160,000		160,000
Transfers out	\$ (160,000)					(160,000)
Total other	\$ (160,000)	\$1,754,217		\$160,000		\$1,754,217
Special Items						
Proceeds from sales of equipment	\$ 115,000					\$ 115,000
Net change in fund balance	85,000	1,254,217		50,000		1,389,217
Fund balance—beginning	189,000	258,283		54,000		501,283
Fund balance—ending	\$ 274,000	\$1,512,500		\$104,000		\$1,890,500

* Revenues from licenses and permits are assigned to highways and streets (\$100,000) and to the general government (\$50,000).

Required:

Using the information above, prepare the statement of activities and the statement of net position on a government-wide basis (using full accrual accounting). The beginning fund balance in the government-wide Statement of Net Position is \$2,686,283.

PROBLEM 18-14 Reporting Information about Long-term Liabilities LO 5 LO 8

On January 1, 2012, the city of Nashvegas issued an 8% annual, 10-year, \$10,000 bond for \$11,472 (an effective yield of 6%). The bonds become due on December 31, 2021. On June 30, 2020, the city of Nashvegas issued an 8% annual, 10-year, \$10,000 bond to yield 10% (the proceeds are \$8,771).

Required:

- Assuming that both bonds are general obligation bonds, prepare the schedule of long-term liabilities at December 31, 2020 (see Illustration 18-13 for an example).
- Determine the amount of interest reported on the government-wide statement of activities for the year ending December 31, 2020.
- Determine the amount of long-term liabilities reported on the government-wide statement of net position at December 31, 2020.
- Determine the total amount of interest expenditures included in the governmental statement of revenues, expenditures, and changes in net position for the year ending December 31, 2020.
- Determine the amount of debt (if any) reported on the governmental funds balance sheet.

ACCOUNTING FOR NONGOVERNMENT NONBUSINESS ORGANIZATIONS: COLLEGES AND UNIVERSITIES, HOSPITALS AND OTHER HEALTH CARE ORGANIZATIONS

CHAPTER CONTENTS

- 19.1 SOURCES OF GENERALLY ACCEPTED ACCOUNTING STANDARDS FOR NONGOVERNMENT NONBUSINESS ORGANIZATIONS
- 19.2 FINANCIAL REPORTING FOR NOT-FOR-PROFIT ENTITIES
- 19.3 FUND ACCOUNTING AND ACCRUAL ACCOUNTING
- 19.4 CONTRIBUTIONS
- 19.5 ACCOUNTING FOR CURRENT FUNDS
- 19.6 ACCOUNTING FOR PLANT FUNDS
- 19.7 ACCOUNTING FOR ENDOWMENT FUNDS
- 19.8 ACCOUNTING FOR INVESTMENTS
- 19.9 ACCOUNTING FOR LOAN FUNDS
- 19.10 ACCOUNTING FOR AGENCY (CUSTODIAL) FUNDS
- 19.11 ACCOUNTING FOR ANNUITY AND LIFE INCOME FUNDS
- 19.12 ISSUES RELATING TO COLLEGES AND UNIVERSITIES

LEARNING OBJECTIVES

- 1 Describe the source of accounting standards for non-government nonbusiness organizations (NNOs)
- 2 Identify the three basic statements for NNOs
- 3 Describe the basic funds used by nongovernment nonbusiness organizations and recent changes brought about by recent FASB changes
- 4 Distinguish between a current restricted fund and an unrestricted fund
- 5 Explain the term “assets whose use is limited”
- 6 Distinguish between a mandatory and a nonmandatory transfer
- 7 Explain how contributions are recorded by NNOs
- 8 Understand how donated services are recorded
- 9 Describe the funds used to account for property, plant and equipment
- 10 Explain the basic accounting used by endowment funds
- 11 Indicate how equity investments are reported in the financial statements
- 12 Explain the accounting for loan funds
- 13 Understand the use of an annuity or life income fund
- 14 Discuss the special reporting issues of hospitals


 IN
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In the 2015 survey of college and university business officers, 20% of the business officers are concerned that their institution is at risk of closing in the near future because of financial concerns. More institutions are moving toward 'shared services' and have placed more emphasis on increasing enrollments.¹

Nonbusiness organizations (NNOs) other than governmental units are referred to in this text as nongovernment NNOs. In this chapter, we describe the accounting for the following four major classifications of NNOs:

1. *Nonprofit institutions of higher education.* This category includes private colleges, universities, and community colleges.
2. *Hospitals and other health care providers.*
3. *Voluntary health and welfare organizations (VHWOs).* These are organizations that derive their revenue from voluntary contributions of the general public to be used for purposes connected with health, welfare, or community services. Examples of such organizations include heart associations, family planning councils, mental health associations, and foundations for the blind.
4. *Other nongovernment nonbusiness organizations (ONNOs).* ONNOs take a variety of forms and include a broad assortment of organizations such as cemetery organizations, civic organizations, fraternal organizations, labor unions, libraries, museums, other cultural institutions, performing arts organizations, political parties, private and community foundations, private elementary and secondary schools, professional associations, public broadcasting stations, religious organizations, social and country clubs, trade associations, and zoological and botanical societies.

19.1 SOURCES OF GENERALLY ACCEPTED ACCOUNTING STANDARDS FOR NONGOVERNMENT NONBUSINESS ORGANIZATIONS

LO 1 The source of accounting standards

Until the early 1970s, accounting and reporting practices for NNOs were developed under the auspices of various interested professional associations such as the American Hospital Association, the Hospital Financial Management Association, the American Council on Education, and the National Association of College and University Business Officers. In the early 1970s, the AICPA exhibited an interest in financial reporting problems in this area that resulted in the issuance of separate *Industry Audit Guides for Hospitals, Colleges and Universities*, and *Voluntary Health and Welfare Organizations*. These *Audit Guides* were developed by different committees over approximately the same time period.

Inevitably, there were differences in the practices and reporting standards recommended in the different *Audit Guides*, as well as differences between those recommended in the *Audit Guides* and those recommended in the publications of

¹ *Inside Higher Ed*, "Closure concerns and Financial Strategies: A Survey of College Business Officers," by Kellie Woodhouse, 7/17/2015.

the professional associations. Later, several *Statements of Position* issued by the Accounting Standards Division of the AICPA resulted in amendments to each of the *Audit Guides*. In addition, a *Statement of Position* was issued containing the recommendations of the AICPA on accounting and reporting standards for NNOs not covered under the three *Industry Audit Guides*. By the late 1970s, all significant differences between the financial accounting and reporting standards recommended in the *Audit Guides* and those recommended in the publications of the professional associations relating to hospitals and to colleges and universities had been resolved and the various professional association publications and *Audit Guides* had been amended accordingly. Unfortunately, there continue to be significant differences among the *Audit Guides* (as amended) themselves with regard to recommended accounting and reporting practices for different types of NNOs.

In 1979, the Financial Accounting Standards Board assumed responsibility for setting accounting and reporting standards for all NNOs except governmental units. In preparation for addressing specific standards for NNOs, the Board first undertook to incorporate NNOs into its *Statements of Financial Accounting Concepts*. In 1980, the Board issued *FASB Concepts Statement No. 4*, “Objectives of Financial Reporting by Nonbusiness Organizations.” In 1985, the Board amended *FASB Concepts Statement No. 2*, “Qualitative Characteristics of Accounting Information,” to apply to NNOs as well as to business enterprises and issued *Concepts Statement No. 6*, “Elements of Financial Statements,” which encompasses NNOs as well as business enterprises. FASB standards for nonprofits are in FASB ASC topic 958 (Not-for-Profit (NFP) Entities).

Hierarchy of Generally Accepted Reporting Standards for Nongovernment Nonbusiness Organizations

NFP organizations (such as colleges, universities, and health care providers) that may be either government owned or privately owned are referred to as *special entities*. Government-owned special entities follow the standards established by the Government Accounting Standards Board (GASB). The hierarchy used to establish generally accepted reporting standards for all state and local governmental-owned entities was presented in Chapter 18. The hierarchy used to establish generally accepted reporting standards for NNOs other than government-owned special entities is the same as that for business organizations and is included in the FASB Codification.

NNOs in the private sector should look to the FASB for accounting and reporting guidance. With different hierarchies for entities under the jurisdiction of the FASB and entities under the jurisdiction of the GASB, different accounting standards may apply depending on whether they are privately owned or government owned. For example, FASB ASC paragraph 958–360–35–1 requires that all privately owned NFP organizations record depreciation. *GASB Statement No. 34* requires governmental entities to begin recording depreciation in 2001. The issue of conflicts among multiple standard-setting bodies remains controversial.

GASB Statement No. 15 allows public colleges and universities to use either the AICPA/NACUBO model (described in this chapter) or the government model (described in Chapter 18). In the discussion that follows, all illustrations, including those for colleges and universities, are based on the hierarchy described in this chapter for NNOs and **not** government-owned special entities.

"In a survey comparing the financial reporting of colleges and universities to publicly held corporations, a number of differences in styles and formats between the two groups were discovered. For example, 100% of the colleges responding to the survey listed the statement of financial position as the first statement that appeared in the annual report, while 69% of corporations listed the income statement first. In addition, 82% of colleges used the term "statement of financial position" to describe the balance sheet, while 94% of the corporations surveyed used the term 'balance sheet.' Income statements for publicly held corporations were single-column statements (for each year), unless they were part of some consolidating statement; in contrast, 84% of the national liberal arts colleges presented the statement of activities in multiple columns (with headings for different types of net assets), and only 10 out of 120 colleges used a single-column format, stacking the various categories of net assets."²

THE CONCEPTUAL FRAMEWORK FOR NNO—FINANCIAL ACCOUNTING STANDARDS BOARD

FASB Statement of Financial Concepts No. 4, "Objectives of Financial Reporting by Nonbusiness Organizations"

The purpose of this statement is to establish the objectives for external reporting by NNOs. There are several major distinguishing characteristics of nonbusiness versus business organizations. Generally, NNOs receive resources from providers who do not expect to receive anything or expect to receive amounts significantly less than the amounts given. This characteristic results in frequent transactions concerning grants and contributions, which are infrequent in business organizations. NNOs tend to operate for purposes other than profit. Finally, NNOs tend not to have defined ownership interests that can be bought or sold, or tend not to have liquidation values.

Concepts Statement No. 4 identifies seven major objectives of financial reporting.

1. Because the users of the financial statements make decisions about whether to provide resources to the organization, the information provided by the nonbusiness organization should be useful for such decisions.
2. The information provided should help the resource providers and others assess the nonbusiness organization's service and its ability to provide the service.
3. The information provided should help the resource providers and others assess the nonbusiness organization's stewardship responsibilities.
4. Information about the economic resources, obligations, and net resources of an organization, and the effects of changes in these resources, should be provided.
5. Information about the performance of the organization should be provided. Performance should be measured periodically and information should be provided about the service efforts and accomplishments along with information to assess this performance.
6. Information should be provided concerning how the organization obtains and spends cash and how the organization repays borrowing.
7. Information should be provided to help users understand the financial information provided.

19.2 FINANCIAL REPORTING FOR NOT-FOR-PROFIT ENTITIES

LO 2 Three basic statements

This section describes the financial reporting requirements for NNO and the recent changes issued by the FASB. The financial reporting requirements are provided in FASB ASC Topic 958 *Not-for-Profit (NFP) Entities*.

Basic Financial Statements: A complete set of financial statements required by a NFP include

² *NACUBO Business Officer*, "Corporate-Like," by Frederick M. Weis, June 1999, pp. 28–33.

1. A statement of financial position,
2. A statement of activities,
3. A statement of cash flows, and
4. Footnotes to the financial statements.

In the supplemental appendix to this chapter (available from your instructor), the three primary financial statements for a private educational institution are illustrated (Illustrations 19-1 through 19-3). The statement of financial position (balance sheet) is presented in Illustration 19-1. The statement of activities is shown in Illustration 19-2, and the statement of cash flows is presented in Illustration 19-3.

Net Assets: In 2016, FASB made significant changes in the reporting requirements for NFP entities. The most significant change affects the statement of financial position. FASB now requires the use of two classes of net assets, rather than the three classes that were formerly being used. The two required classes are *net assets without donor restrictions* and *net assets with donor restrictions*. The three categories being replaced are unrestricted net assets, temporarily restricted net assets, and permanently restricted net assets. This change was made because the distinction between temporarily and permanently restricted net assets had diminished due to certain changes in state laws. It was felt that the reduced number of categories also reduced the complexity of reporting and provided equally (or more) useful information for users.

Board-designated endowments are classified as net assets without donor restrictions because the board has the right to decide at any time to expend the fund. Board designations can be used for operating reserves, capital reserves, and a variety of other items. NFPs are required to disclose the nature and amount of board designations, if any exist.

The practical implication of this is that the change in net assets merges “temporarily restricted” and “permanently restricted” categories into “net assets with donor restrictions.” The NFP entity, as before, must disclose the nature and amounts of these restrictions (either on the statement or in the footnotes).

FASB did not specify precise formats for the statement of financial position, but did require that information about liquidity be disclosed. Organizations can meet this requirement by classifying assets and liabilities as current or noncurrent, or they may choose to list the assets and liabilities in the order of liquidity. FASB also expressed a strong preference for the term “statement of financial position” rather than balance sheet.

Reporting of Expenses: FASB made another change regarding the reporting of expenses. NFPs should report information about expenses at least in one location: on the face of the statement of activities, in a schedule included in the notes to the financial statements, or in a separate financial statement. In general, the functional classifications of expenses reported in columns (such as program services and supporting activities) are organized by the nature of the expense presented in rows (such as salaries, rent, electricity, depreciation, etc.). For instance, the following is an illustration of the requirement reported as a separate schedule:

	Total	Program		Management and General
		A	B	
Salaries	\$12,500	\$7,000	\$2,000	\$3,500
Supplies	3,750	2,500	750	500
Depreciation	2,000	1,200	500	300
Total Expenses	18,250	\$10,700	\$3,250	\$4,300

Endowment Funds: Endowment funds are established funds designed to provide income to the NFP. FASB, in ASU 2016-14, provided new disclosure requirements for endowment fund that are considered “underwater.” First, these disclosure requirements only apply to donor-restricted endowment funds and not to board-designated quasi-endowment funds. An endowment fund is considered underwater if the fair value of the fund at the reporting date is less than either the original amount of the gift, the amount required to be maintained by the donor, or by law. A decline in the market might cause an investment included in the endowment fund to decrease, causing an “underwater” situation.

Under prior standards, the “underwater amount” (the difference between the fund’s fair value and the original gift) was reported in *unrestricted net assets*. This is no longer allowed. The entire net amount of the underwater endowment fund (both the original amount and the deficit change in value) is included in “*net assets with donor restrictions*.” The NFP must disclose the original endowment gift or the fair value of the underwater endowment fund and the amount of the deficit of the underwater fund.

Placed-in-Service Approach: NFPs often receive gifts of cash or other assets with the intent to acquire or construct long-lived assets. FASB changed the reporting for such gifts. FASB requires the *placed-in-service approach* for reporting expirations of restrictions on gifts used to acquire long-lived assets. Under the former rules, there were inconsistent applications of the contributions and releases of any restrictions. For instance, suppose that a donor contributed a group of high-capacity color copy machines to a private university (or donated cash to buy the copiers). The donor does not state explicitly how long the copiers must be used or what happens if the copiers are sold. Such contributions are recorded as “restricted contribution revenue.” If the NFP chooses an expiration policy based on a “time-restriction,” an equal amount of the “donor restricted net asset” is released each year over the life of the asset.

However, if the NFP does not choose an expiration policy with a “time-restriction,” it might depend on whether cash is contributed or the asset is donated. If money is contributed, the cash is recorded as “restricted contribution revenue.” Then when the copiers are purchased and *placed-in-service*, the restriction (from net asset donor restrictions) is released and reclassified as net assets without donor restrictions. If the physical asset is donated, the donation is recorded as ‘unrestricted contribution revenue’ and recorded in net assets without donor restrictions.

FASB standardized the options by requiring the second option, or the placed-in-service approach.

Investment Returns: NFPs, under the former standards, had many options to report and disclose investment returns and expenses. The former standards allowed NFPs to net investment expenses against investment returns on the statement of activities or to include the expense as a component of expenses on the statement of activities. FASB eliminated this latter approach and now requires that both external and direct internal investment expenses be netted against investment returns on the statement of activities. Direct internal expenses might include salaries of individuals responsible for developing and executing the NFP’s investment strategy. In addition, FASB eliminated the requirement to disclose the amount of investment expenses.

Statement of Cash Flows: The former rules allowed both the indirect and the direct method for computing cash from operations. However, if the NFP chose to use the direct method, they were required to disclose in the footnotes the indirect

reconciliation of the total change in net assets to net cash from operating activities. FASB eliminated this disclosure requirement for NFPs that use the direct approach. They will no longer be required to show the indirect reconciliation in the notes.

Liquidity and Availability of Financial Assets Disclosures: One clear goal of FASB is to improve the usefulness and transparency of information presented in the financial statements and footnotes. FASB requires new *qualitative* and *quantitative* disclosures about how NFPs manage liquidity and how they manage the availability of financial assets. The disclosure requirements are to include the following:

- a. Qualitative information in the notes to financial statements that is useful in assessing an entity’s liquidity and that communicates how an NFP manages its liquid resources available to meet cash needs for general expenditures *within one year* of the date of the statement of financial position.
- b. Quantitative information (on the face of the statement of financial position or in the notes) that communicates the availability of an NFP’s financial assets at the date of the statement of financial position to meet cash needs for general expenditures *within one year* of the date of the statement of financial position.

While the disclosures for part a above might be narrative in nature, an example of the second quantitative information, might look like the following.

Disclosure: Financial assets available <i>within one year</i> of the balance sheet date for general expenditure are as follows:	
Cash and cash equivalents	\$ 4,500
Accounts and interest receivable	2,100
Contributions receivable	1,800
Short-term investments	1,400
Other investments appropriated for current use	<u>10,800</u>
	<u>\$ 20,600</u>
Endowment funds consist of donor-restricted endowments and a quasi-endowment. Income from donor-restricted endowments is restricted for specific purposes and, therefore, is not available for general expenditure.	



Fundraising expenses
Charity Navigator rates fundraising of charities

by the ratio of expenses of fundraising to amount raised. It gives the highest rating to charities with a 10% ratio and recommends a maximum of 35%.

Source: www.charitynavigator.org

Ratio of Fundraising Expenses to Amounts Raised: If an NFP discloses a ratio of fundraising expenses to amounts raised, the NFP must disclose how this ratio is computed.

Financial Report for Public Colleges and Universities: Public Colleges and Universities follow the reporting of *GASB Statement No. 34*. This statement established the standards for public colleges and universities using the reporting guidelines set out in *GASB Statement No. 34* (see Chapter 18). *Statement No. 35* allows public colleges and universities to apply the guidance designed for special-purpose governments. This means that colleges and universities, in separately issued financial statements, can follow the reporting requirements for such governments. In addition, public institutions are required to include a management discussion and analysis (MDA) section, as well as other supplemental disclosures not required for private colleges and universities.

19.3 FUND ACCOUNTING AND ACCRUAL ACCOUNTING

LO 3 Basic funds of NNO

For internal purposes, NFP entities may use fund accounting. Fund statements are not required by GAAP for NFP entities. Fund accounting is a system of recording resources whose use is limited by donors, governing boards, or by law. Whereas in some instances the total resources of an NNO may be available to finance its functions and operating activities, in most cases restrictions are placed on certain of the organization's resources by donors, by law or contract, or by other external authorities. Donors, for example, often specify the specific purpose or program to which their contributions are to be applied, and sometimes the time period in which the resources contributed by them may be expended. To facilitate the observance of such restrictions, most NNOs use fund accounting for recordkeeping and reporting purposes. Fund balances or net assets are classified on the statement of financial position as net assets without donor restrictions and net assets with donor restrictions. Specific funds are created to record resources whose use might be limited by donors, governing boards, other users, or by law. Each fund is a self-balancing set of assets, liabilities, net assets, revenue, and expense accounts. In this section, we may refer to net assets as fund balance with or without restrictions. FASB does not require the use of the term net assets with or without donor restrictions if the term used is clearly defined. In the fund accounting section, we refer to net assets as fund balance. Each fund's fund balance would be closed to one of the two net asset categories, either net assets without donor restrictions or net assets with donor restrictions, on the reporting date.

The fund structure of different NNOs is summarized in Illustration 19-4. The fund structure and terminology differ among NNOs primarily because of the separate development of accounting and reporting standards for the different organizations. There are six commonly used funds. They are

1. **Current Fund.** (restricted and unrestricted). The unrestricted fund is also called the operating fund. In addition, some NNO, such as hospitals, refer to the current fund as the General Fund, and the restricted fund as a special purpose fund.

ILLUSTRATION 19-4

Comparison of Fund Structures of Different Nonbusiness Organizations

Primary Purpose of Funds and Account Group	Names of the Funds Used by Different Nonbusiness Organizations			
	State and Local Governmental Units	Colleges and Universities	Hospitals	Voluntary Health and Welfare Organizations and ONNOs
Financing of Current Operations	General Fund Special Revenue Fund	Restricted Current Restricted Current	Specific Purpose Specific Purpose	Restricted Current Restricted Current
Acquisition of and Accountability for Major Capital Assets and Related Long-term Obligations	Capital Projects Debt Service General Fixed Assets Account Group General Long-term Obligation Account Group	Plant: Unexpended For Renewals and Replacements For Retirement of Debt Investment in Plant	Plant Replacement and Expansion	Plant (Land, Building, and Equipment)
Fiduciary Responsibilities	Permanent Agency	Endowment Loan Agency Annuity Life Income	Endowment Agency	Endowment Loan Agency Annuity Life Income

2. **Plant Fund.** Several subfunds may be used to account for different aspects of plant and equipment, including the debt to acquire them.
3. **Endowment Fund.**
4. **Loan Fund.**
5. **Agency or Custodial Fund.**
6. **Annuity and Life Income Fund.**

Accrual Basis of Accounting

Generally accepted accounting standards require that financial statements for NNOs be prepared using the accrual basis of accounting. Thus, revenues are reported when earned and realized or realizable, and expenditures are reported when materials or services are received. Expenses incurred before the reporting date are accrued, and expenses applicable to future periods are deferred. Although accrual accounting is used, the primary emphasis in reporting for NNOs is the disclosure of the sources of the entity's resources and how they were used to accomplish the objectives of the organization, rather than the determination of net income.



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"Moody's Investors Service plans to make some changes in the way it rates the operating performance of colleges and universities, saying investors have been frustrated by accounting practices that can mask financial weaknesses. Most of the changes will be made in the ratings of private colleges and universities, which have widely divergent methods of reporting nonoperating revenues and expenses, rates of spending endowment funds, and participation in the private 'off-balance-sheet' financing of campus facilities, particularly dormitories."³

Classification of Revenue and Expense

For external reporting purposes, revenues are classified by source (such as net patient service revenue), and expenses and expenditures are classified by function or activity (such as research). An example of major sources of revenue is presented in Illustration 19-5. As indicated, hospitals and colleges and universities distinguish revenues between operating and nonoperating, while VHWOs and ONNOs classify revenues based on the source of the revenue, such as public support. Typical functional classifications of expenditures and expenses for different types of NNOs are presented in Illustration 19-6.

19.4 CONTRIBUTIONS

LO 7 How contributions are recorded.

NNOs recognize contributions, including unconditional promises to give, as **revenue** in the period received.⁴ Contributions include gifts of cash, promises to give cash or other assets, donated services, and gifts of noncash assets. Conditional promises to give (where the contribution would be returned if the conditions are not met) are recognized when they become unconditional; that is, when the conditions are substantially met. Donors sometimes restrict unconditional contributions to be used for a specific purpose. Distinguishing between a condition stipulated by a donor and a restriction on the use of a contribution requires judgement. Donor-restricted

³ *Chronicle of Higher Education*, Vol. 45:22, "Investment Service Plans to Change the Way It Evaluates Colleges' Finances," by Martin van der Werf, 2/5/99, p. A40.

⁴ FASB ASC paragraphs 958-605-25-8 through 13. ASC 958 defines an unconditional promise to give as a promise to give that depends only on the passage of time or demand by the promises for performance.

ILLUSTRATION 19-5**Major Sources of Revenue for Different Classifications of Nongovernment Nonbusiness Organizations**

<i>Colleges and Universities</i>	<i>Hospitals</i>	<i>Voluntary Health and Welfare Organizations and ONNOs</i>
Tuition and Fees	Operating Revenue	Public Support
Federal, State, or Local Appropriations	Patient Service Revenue (Gross) Less	Public Contributions
Federal, State, or Local Grants and Contracts	Deductions (charity allowances, courtesy allowances, policy discounts, contractual adjustments, etc.)	Special Events
Private Gifts, Grants, and Contracts	Net Patient Service Revenue	Legacies and Bequests
Endowment Income	Other Operating Revenue (tuition from schools, specific-purpose grants, revenue from auxiliary enterprises, etc.)	Federated and Nonfederated Campaigns
Sales and Services of Educational Activities (film rentals, testing services, etc.)		Revenue
Sales and Services of Auxiliary Enterprises (residence halls, food services, etc.)	Nonoperating Revenue	Membership Dues
	Unrestricted Gifts and Grants	Investment Income
	Unrestricted Income from Endowment Funds	Realized Gains on Investment Activities
	Donated Services	
	Income from Board Designated Funds	

ILLUSTRATION 19-6**Functional Classification of Expenditures and Expenses for Different Types of Nongovernment Nonbusiness Organizations**

<i>Colleges and Universities</i>	<i>Hospitals</i>	<i>Voluntary Health and Welfare Organizations and ONNOs</i>
Instruction	Professional Care of Patients	Program Services
Academic Instruction	Dietary Services	Research
Community Education	General Services	Public Education
Research	Administrative Services	Professional Education and Training
Institutes and Centers	Employee Health and Welfare	Community Service
Project Research	Medical Malpractice Costs	Other
Public Service	Depreciation and Amortization	Support Services
Community Service	Interest	Management and General Fund Raising
Conferences and Institutes	Provision for Bad Debts	
Extension Service		
Academic Support		
Computer Services		
Libraries		
Student Services		
Admissions		
Counseling		
Financial Aid		
Health and Infirmary		
Intramural Athletics		
Student Organizations		
Registrar		
Remedial Instruction		
Institutional Support		
Operation and Maintenance of Plant		
Scholarships and Fellowships		
Auxiliary Enterprises		

contributions are still reported as revenues and result in an increase in net assets with donor restrictions. Other contributions are reported as revenues, resulting in increases in net assets without donor restrictions. Expiration of donor restrictions results in a transfer from net assets with donor restrictions to net assets without donor restrictions.

RELATED CONCEPTS

The objectives of financial accounting for both business and NNOs is to provide information that is *useful to decision makers*. However, the absence of traditional owners in a non-business organization generally means that information needs to be presented for current and potential *resource-providers* to make rational decisions regarding resource allocation for the organization.

Promises to Give and Pledges

Promises to give are agreements (written or oral) to contribute cash or other assets to the NNO. Promises also include subscriptions, awards, appropriations, or grants. On the other hand, pledges may refer to promises to give, but can also be used for intentions to give that are not promises.

Usually, a pledge represents a signed commitment to contribute specific amounts of money to an organization on a future date or in installments. Although resembling promissory notes, pledges generally are not enforceable contracts. Regardless, pledges are recorded as revenues when a promise to give is nonrevocable and unconditional, at the present value of the expected receipts.⁵ All NNOs should establish an allowance for uncollectible pledges.

The recording of pledges may be illustrated by assuming that, as a result of a fund-raising campaign, an organization receives written and signed pledges to contribute \$300,000 for unrestricted use by the organization in the current or future years. Experience indicates that about 15% of pledges from similar past campaigns were never collected. Entries to record the pledges using the accrual basis of accounting are as follows.

Current Unrestricted Fund			
(1)	Pledges Receivable	300,000	
	Revenue—Contributions		300,000
	To record gross amount of campaign pledges.		
(2)	Expense—Provision for Uncollectible Pledges	45,000	
	Allowance for Uncollectible Pledges		45,000
	To record provision for estimated uncollectible pledges.		

Contributions are shown net of the Provision for Uncollectible Pledges in the operating statement, and Pledges Receivable are shown net of the Allowance for Uncollectible Pledges in the statement of financial position. If the amounts pledged contain restrictions on their use, entries similar to those made in the current unrestricted fund (above) would be made in the current restricted fund or in a loan, endowment, or plant fund as appropriate. If the payments for unconditional promises to give are not received by year-end, the contribution should be discounted and recorded in temporarily restricted net assets.

TEST YOUR KNOWLEDGE 19.1

1. Challenge Grants: A patron of a private university promises to contribute \$1 for every \$1 of contributions received from students, up to \$35,000. The contributions are to be used to build a new lounge in the library with a fireplace. In the first semester, students contributed \$5,000 cash. The amount of contribution revenue recognized by the end of the first semester is:

- a. \$0
- b. \$5,000
- c. \$10,000
- d. \$40,000

⁵ Suppose an alumnus offered to give \$10 million to the school if 90% of his fellow alumni contributed money to the school. This conditional promise would be disclosed in the footnotes and would not be recorded until the condition is met and the promise becomes unconditional.

LO 8 How donated services are recorded.

Donated Services

Some of the operations and activities of NNOs may be carried out by volunteers who donate their time and expertise. Donated services may range from the limited participation of large numbers of volunteers in fund-raising activities to active and sustained involvement in the organization by a few dedicated individuals.

Contributions of services are *recognized* only if the services received:

1. Create or enhance nonfinancial assets, *or*
2. a. Require specialized skills,
 - b. Are provided by individuals possessing those skills, *and*
 - c. Would need to be purchased if not provided by donation.

To illustrate the first alternative, consider an architect who contributes services to construct a building. Since the service helps create a fixed asset, the service would be recognized. For example, if a building valued at \$1,500,000 included an estimated value of \$400,000 assigned to the architectural services, then revenue from donated services of \$400,000 would be recognized.

If the first alternative is not met, then all three conditions of the second alternative (2 above) must be satisfied in order for the contribution to be recognized. Suppose that a retired tax partner from a Big Four firm offers to teach a tax course at a local college. Since the school would need to hire a qualified person possessing specialized skills to teach the course, the service would be recorded. These conditions generally prohibit organizations from recording the value of the services of volunteer solicitors and from recording the value of donated services received on a casual or intermittent basis.

When these conditions are met, NNOs record and report the value of the services received, net of incidental expenses reimbursed to the contributing personnel, as revenue or support in the current unrestricted fund (or the General Fund for hospitals). In the same entry, an amount equal to the revenue or support recognized is recorded as an expense in the appropriate expense account (e.g., professional fees expense).

Example of Donated Service Assume that the necessary conditions are met and that the services of a CPA who audited the records of a heart association at no charge were valued at \$15,000, and those of an attorney who provided necessary legal services to the organization at no charge had a value of \$6,000. The entry to record the revenue and expense resulting from the donated services is:

Current Unrestricted Fund		
(1)	Management and General Expense	21,000
	Donated Services Revenue	21,000
	To record value of donated services.	

Had the organization incurred any costs for incidental expenses of the CPA or attorney, the value of the services recorded as revenues would be reduced by the amount of those costs.

Donated Collection Items

Contributions of works of art, historical treasures, and similar assets that are *not part of a collection* shall be recognized as assets or gains in financial statements. Otherwise, they are not capitalized if they meet the definition of a collection. These conditions

are (a) the donated items are added to collections held for public exhibition, education, or research in furtherance of public service rather than financial gain; (b) the donated items are protected, cared for, and preserved; and (c) organizational policy requires proceeds from any future sale of the items to be used to acquire other items for collections.

Donor-Imposed Restricted Contributions

Donor-imposed restrictions limit the use of assets received. Some restrictions limit the organization's ability to sell the asset. Restrictions may be permanent or temporary. For instance, temporary restrictions may stipulate that the resource can only be used after a specified date, for a particular program or service, or to acquire buildings or equipment. In any case, the organization needs to distinguish between contributions received that increase net assets with donor restrictions and contributions that increase net assets without donor restrictions. This separation provides users with important information such as: Were aggregate net assets maintained only because net assets with donor restrictions made up for a decline in net assets without donor restrictions? The primary difference between a donor-imposed restriction and a conditional contribution is that a donor-imposed restriction limits the use of donated assets while a conditional contribution creates a barrier that must be overcome before assets transferred or promised become contributions received. Therefore, donor-imposed restricted assets are recorded as contribution revenues (also known as donor-restricted support) in the period received, thus increasing net assets with donor restrictions. Then, as the expenditures are made, or the restriction expires, the net assets are released from net assets with donor restrictions and are reported as net assets without donor restrictions on the Statement of Activities.

For example, suppose a university received \$120,000 in contributions that were restricted for specific operating purposes. The following entry would be recorded in the Restricted Current Fund (General Fund).

Restricted Current Funds		
(1)	Cash	120,000
	Contribution Revenue (donor-restricted support)	120,000
	To record restricted contributions.	

Later in the current year, \$80,000 was spent, with the remaining \$40,000 spent in the second year. The following entries would be recorded in the current year:

Restricted Current Funds		
(2)	Net Assets Released from Restrictions	80,000
	Cash	80,000
	To release funds from restricted into unrestricted assets.	

Unrestricted Current Funds		
(1)	Cash	80,000
	Net Assets Released from Restrictions	80,000
	To receive funds into unrestricted from restricted assets.	
(2)	Expenses—educational	80,000
	Cash	80,000
	To record expenditures of restricted assets for specified purposes.	

The effect of these transactions is reported in the following condensed statement of activities.

<i>Condensed Statement of Activities</i>	<i>Without Donor Restrictions</i>	<i>With Donor Restrictions</i>
Revenues and Support		\$120,000
Net Assets Released from Restrictions	\$80,000	(80,000)
Total Revenues and Support	80,000	40,000
Expenses	(80,000)	
Changes in Net Assets	<u>—0—</u>	<u>\$ 40,000</u>

In the next year, assuming that the money is spent as planned, the remaining \$40,000 is released from restrictions and recorded as an expense.

Proposed Accounting Standard Update 2017—270 Contributions

One challenge unique to NFP entities is determining whether a transaction is a revenue contribution or an exchange transaction. How the transaction is classified determines when and how the revenue is recognized. FASB attempts to clarify the guidance in proposed ASU 2017-270. Recall that unconditional contributions are recognized immediately and classified as either net assets with restrictions or net assets without restrictions. Conditional contributions received are accounted for as a liability or are unrecognized initially; that is, until the barriers to entitlement are overcome, at which point the transaction is recognized as unconditional and classified as either net assets with restrictions or net assets without restrictions. Revenue from exchange transactions will follow the guidance in *FASB ASC Topic 606 Revenue from Contracts with Customers*.

In the proposal, FASB distinguishes a contribution from an exchange transaction. A contribution is defined as “an unconditional transfer of cash or other assets to an entity in a voluntary nonreciprocal transfer by another entity acting other than as an owner.” An exchange transaction is a reciprocal transfer in which each party receives and sacrifices approximately commensurate value. In a contribution transaction, the resource provided receives value indirectly because of the benefits to the society from the NFP. In an exchange transaction, these public benefits are secondary to the proprietary benefits to the resource provider.

Once the transaction is considered a contribution, the first step is to determine whether the contribution is conditional or unconditional. If a conditional promise contains a donor-imposed barrier that must be overcome and a right of release from the obligation, the contribution will not be recognized until the conditions are substantively met. For instance, if a donor promises to give a university \$10,000 if the university raises \$10,000 on its own, the contribution is not recognized as revenue until the university raises \$10,000. Instead, the donation is treated as a refundable advance (in liabilities) until the condition is substantively met.

Contributions Example

In this section, we illustrate examples of transactions that affect net assets with donor restrictions and net assets without donor restrictions. The amounts in each category would be reported in the statement of activities.

Net Assets *without* Donor Restrictions

1. \$4,000, services are donated that meet the recognition of services definition.
2. \$500 cash received (no restrictions attached).

3. \$2,500 of equipment received (no restrictions)
4. \$3,000 of unconditional promises to give to support activities.

Net Assets *with* Donor Restrictions

1. \$1,500 cash received. Restricted to \$500 for program purposes, \$1,000 for acquisition of land.
2. \$3,000 of promises to give to program activities.
3. A donor contributes \$3,300 cash to set up a donor-restricted endowment fund. The income is restricted to support program activities.
4. A donor contributes cash to set up an annuity trust with a present value of \$1,000.

Thus, on the statement of activities:

Statement of Activities	
<i>Changes in net assets without donor restrictions:</i>	
Contribution Revenues	\$10,000
<i>Changes in net assets with donor restrictions:</i>	
Contribution Revenues	\$8,800

TEST YOUR KNOWLEDGE 19.2

NOTE: Solutions to *Test Your Knowledge* questions are found at the end of each chapter before the end-of-chapter questions.

Short Answer

Determine how much of the following contributions should be treated as unrestricted revenue during the current year.

1. Mary contributed \$40,000 cash to her alma mater. She did not impose any restrictions on the contribution.
2. David contributed \$60,000 cash to State University. He stipulated that the money could not be used until Professor Lowgrade retired. Professor Lowgrade is not expected to retire for five years.
3. Betty pledged to give \$10,000 to the University of Treetop by the end of the year.

19.5 ACCOUNTING FOR CURRENT FUNDS

NNOs distinguish between unrestricted funds and restricted funds (or, for hospitals, between the General Fund and specific purpose funds) in accounting for current operations.

Current Unrestricted Funds

Current unrestricted funds include financial resources of the organization that may be *expended at the discretion of the governing board* to carry out the operations of the organization and to accomplish its objectives. The resources and operations of current unrestricted funds of NNOs are similar in many ways to the resources and operations of the General Fund of a municipality. Fund balances of current unrestricted funds should be classified on the statement of financial position as net assets without donor restrictions

Current Restricted Funds

In a sense, all resources of an NNO that are not accounted for as current unrestricted funds are restricted because of *legal, contractual, or external restrictions on their use*. Current restricted funds are distinguished from other funds (such as plant or endowment

LO 4 Distinguish between restricted and unrestricted funds

funds) in that current restricted funds consist of financial resources that are **currently available** for use in *operations*, but which may be expended only for purposes specified by the donor, grantor, or other *external* party. Current restricted fund balances should be classified on the statement of financial position as net assets with donor restrictions.

Thus, the resources of both current funds—restricted and unrestricted—may be used by the organization to carry out its current operations and activities. Current unrestricted resources may be expended at the discretion of the governing board, whereas current restricted resources may be expended only in accordance with externally imposed restrictions.

Accounting for Board Designated Funds

The governing board of an NNO may designate resources of the current unrestricted fund (General Fund of hospitals) for specific purposes, projects, or investments. An example of a specific purpose might include research expenditures, while an addition to the plant would be an example of a specific project. Such designations are intended to aid in the planning and control of expenditures and to limit the discretion of management (as distinguished from the governing board) over expenditures of the designated resources. However, these designations do not constitute, and should not be confused with, donor or external restrictions on the use of resources. The governing board has the authority to reverse or modify such designations at will. Accordingly, *board designated funds should be accounted for as unrestricted funds* and the term “restricted” should **not** be used in connection with them. Such funds should never be included in the current restricted (specific purpose) funds and should properly be classified as net assets without donor restrictions on the statement of financial position.

Hospitals

LO 4 Assets whose use is limited

Assets set aside by the governing board of a hospital for *board-designated purposes* are reported separately in the General Funds portion of the statement of financial position as **assets whose use is limited**.

To illustrate, assume that the governing board designated \$200,000 of current unrestricted funds for future research grants and \$50,000 for financing an addition to plant and equipment. Hospitals would report these items separately from other assets in the assets section of the General Fund statement of financial position as follows:

General Funds—Asset Section of the Statement of Financial Position

Assets whose use is limited:	
By board for research grants	\$200,000
By board for acquisition of equipment	<u>50,000</u>
Total assets whose use is limited	<u>\$250,000</u>

Assets whose use is limited under terms of debt indentures, trust agreements, third-party reimbursement arrangements, or other similar arrangements are also presented in the statement of financial position as “assets whose use is limited.”

Other Nonbusiness Nongovernmental Organizations (ONNOs)

ONNOs report the amounts and purposes of board designated funds either in the *footnotes* to the financial statements *or by reclassification* of an equivalent portion of the Current Unrestricted Fund Balance similar to an appropriation of retained earnings. Using the information from the previous example and assuming reclassification

of a portion of the Current Unrestricted Fund Balance (net assets), an entry is made as follows:

Current Unrestricted Fund		
(1)	Fund Balance	250,000
	Board Designated Reserve for Research Grants	200,000
	Board Designated Reserve for Plant Expansion	50,000
	To record designation of reserves by action of governing board.	

The reserves would be reported as part of the total Current Unrestricted Fund Balance as follows:

Current Unrestricted Fund Balance	
Available for Current Expenditures	\$1,500,000*
Board Designated Reserve for Research Grants	200,000
Board Designated Reserve for Plant Expansion	50,000
Total Current Unrestricted Fund Balance	\$ 1,750,000

*This is an assumed amount.

Colleges and Universities

Unrestricted current funds of colleges and universities that are designated by the board for specific current operating purposes are accounted for in the same manner as board designated funds of ONNOs (by footnote or by reclassification of the Unrestricted Current Fund Balance (i.e., net assets without donor restrictions)). However, *some board-restricted current resources can be transferred to other funds*. The allowable transfers are resources designated by the governing boards for loans, investments, or plant expansion. These funds can be transferred to loan funds, endowment funds, or plant funds.

If in the preceding example, the governing board was the Board of Regents of a university, the entries recorded on the books of the university would be as follows:

Unrestricted Current Funds		
(1)	Fund Balance—Unallocated	200,000
	Fund Balance—Allocated for Research Grants	200,000
	To establish a reserve in Fund Balance for research grants.	
(2)	Nonmandatory Transfer to Plant Funds	50,000
	Cash	50,000
	To record the transfer to Plant Funds for purposes of making additions to plant.	

Unexpended Plant Fund		
(1)	Cash	50,000
	Fund Balance—Unrestricted	50,000
	To record the receipt of cash from the Unrestricted Current Fund for the purpose of financing additions to plant.	

Mandatory and Nonmandatory Transfers

The terms *mandatory transfer* and *nonmandatory transfer*, which are unique to accounting and reporting for colleges and universities, are described in the *Industry Audit Guide* as follows.⁶

Mandatory Transfers. This category includes *transfers* from the Current Funds group to other fund groups arising from (1) *binding legal agreements* related to the financing of educational plant, such as amounts for debt retirement, interest,

LO 6 Distinguish between mandatory and nonmandatory transfers

⁶ *Audits of Colleges and Universities*, second edition (New York: AICPA, 1975), p. 104.

and required provisions for renewals and replacements of plant not financed from other sources and (2) **grant agreements** with agencies of the federal government, donors, and other organizations to match gifts and grants to loan and other funds. Mandatory transfers may be specified to be made from unrestricted or from restricted current funds.

Nonmandatory Transfers. This category includes those **transfers** from the Current Funds group to other fund groups made **at the discretion of the governing board** to serve a variety of objectives, such as additions to loan funds, additions to quasi-endowment funds, general or specific plant additions, voluntary renewals and replacements of plant, and prepayments on debt principal. It also may include the retransfer of resources back to current funds.

The recording of a nonmandatory (board designated) transfer was illustrated in the preceding section. To illustrate a mandatory transfer, assume that a university is required by the terms of a mortgage agreement to transfer \$340,000 of tuition and fees that have been recorded as revenue in the unrestricted current funds to pay principal and interest on long-term debt that is carried as a liability in the plant fund accounts. The transfer of funds is recorded as follows:

Mandatory Transfer

Unrestricted Current Funds		
Mandatory Transfer to Plant Funds		340,000
Cash		340,000
To record transfer of funds for payment of principal and interest on mortgage note carried as a liability in Plant Fund.		
Plant Fund (for Retirement of Indebtedness)		
Cash		340,000
Fund Balance—Restricted		340,000
To record receipt of mandatory transfer from Unrestricted Current Funds.		

Mandatory and nonmandatory transfers are shown separately in both the statement of changes in fund balances and in the statement of current funds revenues, expenditures, and other changes.

Revenue and Support from Fund-Raising Events

The costs incurred by VHWOs and ONNOs in carrying out public support fund-raising events, such as dinners, dances, theater parties, auctions, and so on, are deducted from gross contributions received; and only the net funds provided by the event are reported as revenue in the financial statements.

19.6 ACCOUNTING FOR PLANT FUNDS

LO 9 Funds used to account for property, plant, and equipment.

Most transactions involving property, plant and equipment are accounted for by NNOs other than hospitals in a plant fund. The plant fund is used to account for (1) the property, plant and equipment owned by the organization and the net investment, (2) the accumulation of financial resources for the acquisition or replacement of property, plant and equipment, (3) the acquisition and disposal of property, plant and equipment, (4) liabilities relating to the acquisition of property, plant and equipment, and (5) depreciation expense and accumulated depreciation.

Colleges and Universities

Colleges and universities also account for the accumulation of financial resources to service-related indebtedness in the plant fund. All types of NNOs are required by generally accepted accounting principles to record depreciation expense.

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The combination of rapid change in technology and university capital budgeting procedures can result in what amounts to the university “capitalizing scrap.” By the time the budgeting and purchasing procedures are implemented, and the equipment is delivered, it is not far from being obsolete, at which point the whole procedure has to start over. As an alternative, colleges can consider leasing equipment.⁷

The plant fund of colleges and universities is usually divided into four separate self-balancing subgroups:⁸

1. *Unexpended Plant Fund*: to account for resources used to purchase property, plant and equipment (similar to a capital projects fund of a municipality).
2. *Funds for Renewals and Replacements*: to account for resources used to renovate or replace existing property, plant and equipment (also similar to a capital projects fund of a municipality).
3. *Funds for Retirement of Indebtedness*: to account for resources to be used to retire or pay interest on debt incurred in the acquisition or replacement of property, plant and equipment (similar to the debt service fund of a municipality).
4. *Investment in Plant*: to account for the institution’s property, plant and equipment, related debt, and net investment in plant.

Both board-designated funds and externally restricted funds are accounted for in the plant fund of colleges and universities; therefore, a distinction is made between restricted and unrestricted fund balances.

To illustrate the funds and the procedures used to account for transactions relating to property, plant and equipment by different NNOs, consider the following example.

PLANT FUND EXAMPLE

1. During the year, resources are obtained for the acquisition of property, plant and equipment as follows:

2. Loan proceeds	\$500,000
Contributions restricted by donor for plant	200,000
Board designation of unrestricted funds	<u>50,000</u>
	<u>\$750,000</u>
3. Land is acquired for a building site for \$750,000.
4. Principal and interest of \$200,000 and \$20,000, respectively, are paid on long-term obligations relating to property, plant and equipment.
5. The amount of depreciation expense on all fixed assets for the year is \$235,000.

⁷ *Tax Adviser*, Vol. 29:11, “From Here to Technology in Less than an Eternity,” by Corey Schou, K. Smith, and W. Stratton, November 1998, pp. 790–793.

⁸ It is likely that most NNOs will reorganize the plant fund in the future to agree more readily with the new external reporting practices. For example, instead of using the four subfunds of the plant fund, they might collapse them all into one fund.

The transactions described above would be recorded by colleges and universities as follows (the journal entry numbers correspond to the information in the box above):

Unrestricted Current Fund

(1A)	Nonmandatory Transfer to Plant Funds (unexpended)	50,000	
	Cash		50,000
	To record transfer of board designated unrestricted funds to Plant Fund.		

Unexpended Plant Fund

(1B)	Cash	750,000	
	Notes Payable		500,000
	Revenue—Contributions—Restricted		200,000
	Fund Balance—Unrestricted		50,000
	To record receipt of resources to be used for additions to property, plant and equipment.		
(2A)	Land	750,000	
	Cash		750,000
	To record acquisition of land.		
(2B)	Fund Balance—Restricted	200,000	
	Fund Balance—Unrestricted	50,000	
	Notes Payable	500,000	
	Land		750,000
	To transfer assets and related liabilities to Investment in Plant Fund.		

Investment in Plant Fund

(2C)	Land	750,000	
	Notes Payable		500,000
	Net Investment in Plant		250,000
	To record acquisition of land and related indebtedness from the Unexpended Plant Fund.		

The construction of assets and related debt is accounted for in the *unexpended plant fund* until the construction is completed. On the completion of construction, the assets and related liabilities are transferred from the unexpended plant fund to the *investment in plant fund* using entries similar to those presented in (2B) and (2C) above.

Funds for Retirement of Indebtedness

(3A)	Fund Balance—Restricted	200,000	
	Cash (principal)		200,000
	Interest Expense	20,000	
	Cash		20,000
	To record payment of principal and interest on obligations related to property, plant and equipment.		

Investment in Plant Fund

(3B)	Notes Payable	200,000	
	Net Investment in Plant		200,000
	To record reduction in indebtedness related to property, plant and equipment.		
(4)	Depreciation Expense	235,000	
	Accumulated Depreciation		235,000
	To record annual depreciation on property, plant and equipment that is included in the assets of the Investment in Plant Fund.		

Hospitals

Most property, plant and equipment transactions of hospitals are accounted for in the General Fund and not in a Plant Fund. However, contributed resources that may

be used only to acquire property, plant and equipment are accounted for in a *plant replacement and expansion (restricted) fund* until the expenditures that satisfy the donor's terms are made. At that time, the assets acquired and the related fund balance are recorded in (transferred to) the General Fund.

To illustrate, the transactions presented in the preceding example would be recorded by a hospital as follows:

Plant Replacement and Expansion Fund		
(1A)	Cash	200,000
	Revenue—Contributions—Restricted	200,000
	To record receipt of contributions that may be used only to acquire property, plant and equipment.	
General Fund		
(1B)	Cash	500,000
	Notes Payable	500,000
	To record proceeds from note authorized by governing board to be used for acquisition of property, plant and equipment.	

The hospital *may* also record a reclassification of the General Fund Balance and establish a Board Designated Reserve for Plant Expansion in an amount of unrestricted funds designated by the governing board for additions to property, plant and equipment. It is assumed here that such designations are not recorded but are simply disclosed in the footnotes to the financial statements.

Plant Replacement and Expansion Fund		
(2A)	Fund Balance	200,000
	Cash	200,000
General Fund		
(2B)	Land	750,000
	Cash	550,000
	Fund Balance	200,000

Taken together, entries (2A) and (2B) record the acquisition of land with \$200,000 in externally restricted funds and \$550,000 in unrestricted board designated funds.

General Fund		
(3)	Interest Expense	20,000
	Notes Payable	200,000
	Cash	220,000
	To record payment of principal and interest.	
(4)	Depreciation Expense	235,000
	Accumulated Depreciation	235,000
	To record annual depreciation expense on property, plant and equipment that is included in assets of the General Fund.	

Voluntary Health and Welfare Organizations and Other Nongovernment Nonbusiness Organizations

Voluntary health and welfare organizations and ONNOs use a single Plant Fund and report the fund balance in two classifications as “expended” or “unexpended.” The Expended Fund Balance is equal to the organization's net investment in property, plant and equipment (gross assets less related liabilities and accumulated depreciation). The

Unexpended Fund Balance represents the amount of resources available to replace or acquire additional property, plant and equipment.

These same transactions illustrated previously would be accounted for by VHWOs or ONNOs as follows:

Current Unrestricted Fund

(1A)	Transfer to Plant Funds	50,000	
	Cash		50,000
	To record transfer of cash to Plant Fund.		

Plant Fund

(1B)	Cash	750,000	
	Notes Payable		500,000
	Contributions—Revenue—Restricted		200,000
	Transfer from Current Unrestricted Fund		50,000
	To record receipt of resources to be used for additions to property, plant and equipment.		

While VHWOs classify contributions that are restricted for the acquisition of plant assets as Support, ONNOs classify such contributions in a separate section of the operating statement entitled Capital Additions.

Plant Fund

(2)	Land	750,000	
	Cash		750,000
	To record acquisition of land.		
(3)	Notes Payable	200,000	
	Interest Expense	20,000	
	Cash		220,000
	To record payment of principal and interest on obligations related to property, plant and equipment.		
(4)	Depreciation Expense	235,000	
	Accumulated Depreciation		235,000
	To record annual depreciation expense on property, plant and equipment included in assets of the Plant Fund.		

As noted earlier, the Plant Fund Balance is classified as Expended Fund Balance and Unexpended Fund Balance. The Expended Fund Balance is analogous to the Net Investment in Plant recorded in the plant funds of a university. Before the financial statements are prepared, the Expended Fund Balance must be adjusted to reflect the change in the organization's net investment in plant resulting from the transactions above. The change in the net investment in plant is calculated as follows:

Increases:

Purchase of Land	\$750,000		
Reduction of Indebtedness	<u>200,000</u>		\$950,000

Decreases:

Issue Notes Payable	(500,000)		
Depreciation Expense	<u>(235,000)</u>		<u>(735,000)</u>
Net Increase in Investment in Plant			<u>\$215,000</u>

Plant Fund

(5)	Unexpended Fund Balance	215,000	
	Expended Fund Balance		215,000
	To recognize the effect on the Fund Balances of the increase in the organization's net investment in property, plant and equipment.		

Nonexhaustible Assets of Other Nongovernment Nonbusiness Organizations

Prior to 1990, ONNOs were not required to recognize depreciation expense and accumulated depreciation on “nonexhaustible” assets such as landmarks, monuments, cathedrals, and historical treasures or on structures used primarily as houses of worship. In *SFAS No. 93*, the Board considered and rejected the assertions that such assets are nonexhaustible and that those assets and structures used primarily as houses of worship need not be depreciated. Thus, depreciation concepts and measurement are applied to these as well as other depreciable assets of ONNOs. However, depreciation need not be recognized on historical treasures and works of art that have estimated useful lives that are extraordinarily long. To qualify, such assets must have cultural, historical, or esthetic value that is worth preserving perpetually, and the holder must have and exercise the financial and technological ability to protect and preserve the asset.

19.7 ACCOUNTING FOR ENDOWMENT FUNDS

LO 10 Basic accounting by Endowment funds.

Endowment funds are similar to the nonexpendable trust funds of governmental units described in Chapter 18. When the donated funds have been given in perpetuity, the endowment fund is referred to as a *pure endowment fund*. When the donor has specified a particular date or event after which the principal of the endowment fund may be expended, the endowment fund is referred to as a *term endowment fund*. Resources of an unrestricted fund that are designated by the governing board for endowment purposes are accounted for in the unrestricted fund by all NNOs except colleges and universities. Colleges and universities may transfer such resources from the unrestricted current fund to a separate fund referred to as a quasi-endowment fund. Since the establishment of a quasi-endowment fund may be rescinded at the discretion of the governing board, it is recorded as a non-mandatory transfer in the unrestricted current fund and as a credit to Fund Balance—Unrestricted in the quasi-endowment fund.

The income from endowment funds generally may be expended as earned either for specified purposes or at the discretion of the governing board. If there are no restrictions on the use of the endowment fund income, it is recognized as revenue in the organization’s unrestricted or General Fund. Otherwise, endowment fund income is recognized as a resource addition to current restricted (specific purpose) funds, loan funds, plant funds, or other funds as appropriate to the use of the endowment income specified by the donor.

To illustrate the recording of endowment fund income that may be used for restricted and unrestricted purposes, assume that dividends and interest on endowment fund investments amount to \$400,000, of which \$150,000 is restricted for research grants and the remainder is unrestricted. Suppose that \$100,000 in research grants is awarded during the period. Entries to record the income on endowment fund investments are summarized here:

		Endowment Fund
(1)	Cash	400,000
	Due to Unrestricted Fund (General Fund of Hospital)	250,000
	Due to Restricted Fund (Specific Purpose Fund of Hospital)	150,000
	To record receipt of dividends and interest.	

Current Unrestricted Fund

(2)	Due from Endowment Fund	250,000	
	Unrestricted Income (Investment Income)		250,000
	To record unrestricted Endowment Fund income.		

Current Restricted Fund

(3)	Due from Endowment Fund	150,000	
	Restricted Income (Investment Income)		150,000
	To record restricted Endowment Fund income.		
(4)	Research Expense	100,000	
	Cash		100,000
	To record payment of research grants.		

Accounting for Public Nonprofit Organizations For *public* nonprofits (governmental nonprofits), accounting for endowment funds differs from the external reports of *private* NNOs. This section illustrates the differences in accounting between governmental nonprofits (under GASB rules) and private nonprofits (under FASB rules). For governmental nonprofits, restricted endowment fund income is not reported as revenue until it is expended for the restricted purposes. Entries (3) and (4) above would be replaced with entries (3a), (4a), and (4b) below:

Current Restricted Fund

(3a)	Due from Endowment Fund	150,000	
	Fund Balance (Deferred Income)		150,000
	To record availability of restricted income.		
(4a)	Expenditure	100,000	
	Cash		100,000
	To record payment of research grants.		
(4b)	Fund Balance (Deferred Income)	100,000	
	Income from Endowment Fund (Investment Income)		100,000
	To record revenue for restricted assets expended.		

Public hospitals would report the cash as a reduction of fund balance in the specific purpose fund, with the expenditure and the income offsetting each other in the General Fund.

19.8 ACCOUNTING FOR INVESTMENTS

LO 11 Equity investments.

FASB ASC paragraph 958-320-35-1 requires that all NFP organizations report investments in equity securities with readily determinable fair values and all debt securities at fair value in the appropriate net asset category (unrestricted, temporarily restricted, or permanently restricted net assets). Unrealized gains and losses are to be recognized as well as realized gains and losses in the Statement of Activities. Investments accounted for using the equity method, as well as investments in consolidated subsidiaries, are excluded from this requirement.⁹ Readily determined fair values are usually those quoted in a stock exchange.

⁹ Real estate, mortgage notes, equity securities without a determinable fair value, and venture capital funds are also excluded.

To illustrate, suppose that Vanderbilt University receives an unrestricted cash gift of \$800,000 and immediately purchases an equity investment with the same fair value. The following entries are made:

(1) Cash	800,000	
Revenue—Contributions—Unrestricted		800,000
To record unrestricted contribution.		
(2) Equity Investments	800,000	
Cash		800,000
To record the purchase of marketable equity investments.		

There are no specific requirements for reporting investment income (such as dividends or interest) other than distinguishing among the net assets. Suppose that during the year, the investments earned dividend income of \$30,000 and that at the end of the year, the investment was worth \$820,000. The following entries would be made:

(1) Cash	30,000	
Investment Income—Unrestricted		30,000
To record the receipt of dividends from investment.		
(2) Equity Investments	20,000	
Unrealized Gain on Investment—Unrestricted		20,000
To adjust the investment to market (\$820,000 less \$800,000).		

If the investment income is restricted by donors, the income would be classified as either temporarily or permanently restricted.

Investment Pools

To improve effectiveness and flexibility in investing, NNOs often pool the investments of different funds into a single investment portfolio. Once placed in the pooled investment portfolio, individual securities are no longer identified with the contributing fund. Rather, they are pooled with all other investments. Gains, losses, and income of the investment portfolio pool are allocated by maintaining a record of the percentage interest (equity) of each fund in the investment pool. Investments that are nonmarketable should generally not be included in the pool but should be kept separate.

The initial equity interest of each fund in the investment pool is based on the *relative market value* of the investments contributed. Revised percentage (equity) interests in the investment pool must be calculated whenever additional resources are placed or removed from the investment pool. At the time securities are brought into, or removed from, the investment pool, the carrying values of the securities are usually adjusted to their fair market values on the records of the participating funds.

IN THE NEWS

A spokesperson for Sacred Heart Medical Center in Spokane, Washington, said that the hospital did not belong to the list of “Fifty Fastest Growing Hospitals” recently released because a change in accounting methods had resulted in a deceptive depiction of its growth. Similarly, Ron Anderson, M.D. and CEO of a Dallas hospital, said a change recommended by the FASB in how the hospital recognized its revenues had made the hospital “look like” it had suddenly grown by \$80 to \$90 million.¹⁰

¹⁰ *Health Care Strategic Management*, Vol. 17:4, “Some on ‘Fastest Fifty’ List of Fast-Growing Hospitals Say They Don’t Belong There,” by Ed Egger, April 1999, pp. 17–19.

19.9 ACCOUNTING FOR LOAN FUNDS

LO 12 Accounting for loan funds.

Loan funds are used to account for loans to students and staff of colleges and universities, for loans to employees of hospitals, and for loans to beneficiaries of the interests of certain ONNOs (for example, loans to music students by symphony orchestra societies). Loan funds are generally revolving (repayments of loan balances and interest are in turn loaned to other individuals).

Historically, loan funds did not use any revenue or expense accounts, and all transactions were recorded directly to the fund balance. It was assumed that any income earned would offset the costs of operating the fund and was netted against the fund balance. For internal reporting purposes, these same procedures might be followed. Currently, for external reporting purposes, all revenues and expenses must be recognized on an accrual basis. Therefore, for external reporting purposes, the following entries would be made:

(1) Cash	200,000	
Revenue—Contributions—Restricted		200,000
To record contribution received for establishment of a Loan Fund.		
(2) Loans Receivable	125,000	
Cash		125,000
To record loans to students.		
(3) Bad Debt Expense	2,500	
Allowance for Uncollectible Loans		2,500
To record estimated allowance for uncollectible loans.		
(4) Investments	75,000	
Cash		75,000
To record investment of excess funds in money market account.		
(5) Allowance for Uncollectible Loans	500	
Loans Receivable		500
To record write-off of a loan to student severely disabled in automobile accident.		
(6) Investments	5,000	
Investment Income—Restricted		5,000
To record income on money market account.		

19.10 ACCOUNTING FOR AGENCY (CUSTODIAL) FUNDS

An agency (custodial) fund is the same as its counterpart in a governmental unit. It is used to account for the assets held by an NNO as a custodian for others. Unless significant amounts are involved, resources held by an NNO as an agent for others are often accounted for as assets and liabilities in the unrestricted or General Fund rather than in a separate agency fund. When a separate agency fund is used, the balance in the fund is reported as a liability since the organization does not have any equity in the fund. To illustrate, assume that resources in the amount of \$15,000 belonging to the

Association of Volunteer Aids are deposited with an NNO. Entries to account for this agency relationship in the unrestricted fund are as follows:

Unrestricted Fund			
(1)	Cash	15,000	
	Due to Volunteer Aids		15,000
	To record deposit of assets belonging to Association of Volunteer Aids.		
(2)	Due to Volunteer Aids	15,000	
	Cash		15,000
	To record distribution of assets to Association of Volunteer Aids.		

Similar entries are made in an agency fund if such a fund is used.

19.11 ACCOUNTING FOR ANNUITY AND LIFE INCOME FUNDS

LO 13 The use of an annuity fund.

An NNO may accept the contribution of assets to the organization on the condition that the organization make annuity payments to a specified recipient for a specified period of time (*annuity fund*) or that the organization pay the income earned on the contributed assets to a specified recipient during his or her lifetime (*life income fund*). The major distinction between the two funds is that the beneficiary of an annuity fund is assured of periodic payments of a **stated amount**, whereas life income fund beneficiaries receive periodic payments of **varying amounts** depending on the earnings of the fund. At the end of the annuity or on the death of the life income beneficiary, the unexpended assets of the fund are transferred to the unrestricted fund or to an endowment fund, loan fund, plant fund, or other fund specified by the donor.

To illustrate transactions recorded in an Annuity Fund, assume that on January 1, 2019, an individual donated securities with a market value of \$325,000 to an NNO on the condition that she be paid \$40,000 a year for 10 years beginning December 31, 2019. At the end of the 10-year period, unexpended assets are to be placed in a permanent endowment fund. It is estimated that the investments in the Annuity Fund will yield at least 8% annually. Entries to account for the basic transactions of the Annuity Fund are presented here:

Annuity Fund			
(1)	Investments	325,000	
	Annuity Payable		268,403
	Revenue—Contributions—Permanent Restriction		56,597
	To record establishment of an Annuity Fund with an Annuity Payable equal to the present value of an annuity of \$40,000 discounted over 10 periods at 8% ($6.71008 \times \$40,000 = \$268,403$).		
(2)	Cash	26,000	
	Annuity Payable		26,000
	To record investment income for year at 8%.		
(3)	Annuity Payable	40,000	
	Cash		40,000
	To record annual annuity payment.		

Each year the Annuity Payable balance is reduced by annuity payments and by losses on investments and is increased by investment income and gains on investments. The reasoning is that if actual investment earnings equal expected investment earnings, the

net decrease in the Annuity Payable balance each year will be equal to the decrease in its present value. If the actuarial assumptions change, an entry to Annuity Payable would be made with an offset to a Change in Annuity Payable—Permanent Restriction account. This account is reported on the Statement of Activities.

19.12 ISSUES RELATING TO COLLEGES AND UNIVERSITIES

College and University Issues

Recognition of Service Fee Revenue: The full amount of university tuition and fees is recorded as revenue at standard rates even though the university does not intend to collect the full amount because of remissions or waivers for scholarships and fellowships. Amounts of tuition and fees that are waived are recorded as expenditures for scholarships and fellowships.

Operating versus Nonoperating Income: The FASB does not require that organizations disclose a measure of operating income. Therefore, if an organization has a 5% spending rate, any investment income earned above or below this rate might be classified as nonoperating. It will be important to users to understand the institution's policies and any relevant state laws.

Issues Relating to Hospitals

LO 14 Reporting issues of hospitals.

Hospital patient service revenue is recorded at established rates, regardless of whether the hospital expects to collect the full amount. Some exceptions and several other issues relating to hospital revenues are addressed below:

Charity Care: Hospitals are required by some federal grant programs to provide healthcare services to individuals who cannot pay. Charity care revenues are not included in net revenues reported on the income statement. If the revenue was recorded, an entry to Debit Revenue and Credit Accounts Receivable should be made to reverse it out.

Contractual Allowances: Contractual allowances result from agreements made with third-party payers. Hospitals have standard rates that they charge for specific procedures. However, third-party payers, such as Blue Cross/Blue Shield, stipulate amounts that they are willing to pay. Therefore, contractual allowances are used to reduce the hospital's gross revenue to revenues net of contractual allowances.

Capitation Revenues: Health care organizations may contract with groups (or individuals) to provide health care services for some defined period of time. The health care firms generally receive a fixed amount each month to provide any necessary services needed for that month. Thus, revenues are easily budgeted, and cost control becomes an important issue if a large percentage of revenues comes from capitation contracts.

Malpractice: Potential losses from malpractice claims are enormous. Health care organizations are constantly monitoring and altering the controls needed to help prevent such claims. Current rules for malpractice follow FASB ASC topic 450 (Contingencies).

 SUMMARY

- 1** *Describe the source of accounting standards for nongovernment NNOs.* Before 1970, there were several professional bodies that prescribed accounting practices for nongovernment NNOs. During the 1970s, the AICPA developed audit guides for hospitals, colleges and universities, and voluntary health and welfare organizations. In 1979, the FASB assumed responsibility for setting accounting standards for all NNOs except government units. Government units follow the direction of the GASB.
- 2** *Identify the three basic statements for NNOs.* The three basic financial statements include a statement of financial position (balance sheet), a statement of activities, and a statement of cash flows. Net assets are presented in two categories in the statement of financial position. These categories are net assets without donor restrictions and net assets with donor restrictions.
- 3** *Describe the basic funds used by nongovernment NNOs.* Basic funds used by NNOs include the following six funds. (1) Current funds (both restricted and unrestricted): These funds account for financial resources used in current period operations. Hospitals typically call these special purpose funds and General Funds respectively. (2) Plant funds: These funds are used to account for different aspects of property, plant, and equipment, including the debt to acquire them. (3) Endowment funds: These funds are used to account for donated contributions that must be maintained permanently (pure endowment funds) or that must be maintained until a certain date (term endowment funds). (4) Loan funds: These funds are used to account for loans to students and staff of colleges and universities, for loans to employees of hospitals, and often to beneficiaries of ONNOs. (5) Agency or custodial funds: These funds are used to account for funds held for others. (6) Annuity or life income funds: Sometimes an NNO accepts a contribution on the condition that periodic payments be made to some recipient for a specific period of time (annuity fund) or that the earnings be paid to some recipient during his or her lifetime (life income fund).
- 4** *Distinguish between a current restricted fund and an unrestricted fund.* Current funds are used to account for current period resources. Current unrestricted funds include resources that may be expended at the discretion of the governing board, while current restricted funds account for resources that are restricted because of legal, contractual, or other external restrictions. Therefore, current restricted resources can only be expended in accordance with externally imposed restrictions.
- 5** *Explain the term “assets whose use is limited.”* The governing board may designate resources of the current unrestricted fund for specific purposes, projects, or investments. Because the governing body can reverse such decisions, these funds should never be classified as restricted. These resources are typically reported separately on the statement of financial position.
- 6** *Distinguish between a mandatory and a nonmandatory transfer.* These terms are specific to accounting for colleges and universities. Mandatory transfers are interfund transfers made because of binding legal agreements or agreements made in receiving grants. For instance, if a debt agreement specifies that a portion of tuition revenues be used to meet interest payments, a university would transfer resources from a current unrestricted fund to the appropriate fund. A nonmandatory transfer would include any other transfer from the current funds to other funds made at the *discretion* of the governing board.
- 7** *Explain how contributions are recorded by NNOs.* Contributions, including unconditional promises to give, are recognized as revenue in the period received. Conditional promises are recognized when they become unconditional. Conditional promises should be distinguished from donor-restricted contributions. Donors sometimes restrict unconditional contributions to be used for a specific purpose. Donor-restricted contributions are still reported as revenues and result in an increase in net assets with donor restrictions. Pledges are recognized as revenues at the present value of the expected receipts when a promise is nonrevocable and unconditional.
- 8** *Understand how donated services are recorded.* If certain conditions are met, donated services are recognized as both revenue and expense. Contributions of services are recognized only if the services received create a nonfinancial asset (such as a building) or if the services received require specialized skills, are provided by someone possessing those skills, and would have to be purchased if not provided by the donation. Donated collections of art, historical treasures, or other similar assets are generally not capitalized.
- 9** *Describe the funds used to account for property, plant and equipment.* Plant funds may include an unexpended plant fund (to account for resources used to purchase plant and equipment), funds for renewals and replacement, funds for retirement of indebtedness, and investment in plant (to account for the assets and the related debt).
- 10** *Explain the basic accounting used by endowment funds.* When an endowment fund receives interest or dividends on endowment investments, the cash is recorded against a “due to fund” account. When the appropriate fund receives the cash, it is recognized as income for that fund. Also, any expenditures paid with the income of the endowment is recognized as an expense of the fund that incurred the expenditure.
- 11** *Indicate how equity investments are reported in the financial statements.* Equity investments (less than 20% ownership) and all debt investments are reported at fair value with any unrealized gains and losses reported on the Statement of Activities. Equity investments with ownership over 20% are excluded from this requirement. If the income from the investment is restricted by donors, then the income would be classified as either temporarily or permanently restricted.

- 12** *Explain the change in accounting for loan funds brought about by new standards.* Loan funds are typically revolving in that repayments of loan balances and interest are usually loaned to other individuals. Therefore, historically no revenues or expenses have been recorded. For external reporting purposes, since accrual accounting must be used, all revenues and expenses of the loan fund must now be recorded on the Statement of Activities.
- 13** *Understand the use of an annuity or life income fund.* Sometimes donors give institutions money with the condition that either a stated amount (annuity fund) or a part of the earnings (life income fund) be paid to some beneficiary. The organization records the investment at market value. A payable is recorded at the present value of the estimated amount to be paid. Revenues are then recognized for the difference. As payments are made, the payable is reduced. As income is earned, no income is recorded but, instead, the Annuity Payable account is increased. Any adjustments to the actuarial assumptions result in an adjustment to the Payable account and to the statement of activities.
- 14** *Discuss the special reporting issues of hospitals.* Some of the issues related to hospitals include accounting for charity care, contractual allowances, and capitation revenues. Charity revenues should not be included in net revenues reported on the income statement. However, hospitals are free to disclose the amount of charity care that they provide. Contractual allowances result from agreements that hospitals have made with third-party payers. Some third-party payers, such as Blue Cross/Blue Shield, stipulate amounts that they are willing to pay. The contractual allowance equals the hospital's billing rate and the amount the third-party payer actually pays. Health care organizations often contract with groups to provide health care services for a fixed fee. Therefore, the capitation revenues are the amount the health care organization receives from this contract. Under a capitation system, revenues are fixed and the costs of providing the service and cost control are key factors in measuring the organization's performance.

Supplemental Appendix 12A, "Sample Financial Statements for Private Educational Institutions" is available from your instructor.

TEST YOUR KNOWLEDGE SOLUTIONS

19.1 1. C \$10,000

- 19.2** 1. \$40,000
 2. Zero, treated as donor-restricted support
 3. If the amount pledged is received by the end of the year, the revenue is unrestricted. Otherwise the revenue is considered donor-restricted support.

QUESTIONS

- LO 1** 1. What authoritative body(s) is (are) responsible for establishing financial accounting standards for NNOs? **LO 8**
- LO 1** 2. Why do most NNOs use fund accounting? **LO 8**
- LO 4** 3. NNOs distinguish between restricted and unrestricted funds. Why is this distinction important? **LO 8**
- LO 3** 4. What is the major difference in accounting for the General Fund of a hospital and the unrestricted fund of other NNOs? **LO 14**
- LO 7** 5. What is the major difference in accounting between conditional and unconditional pledges? Give an example of each. **LO 9**
- LO 6** 6. What is the relationship (if any) between board designated funds and nonmandatory transfers? **LO 9**
- LO 5** 7. May board designated funds ever be accounted for in the unrestricted current fund? Explain. **LO 9**
8. When should an NNO record donated services in its accounting records? **LO 8**
9. The donated services of volunteer workers on fund-raising campaigns are usually not given accounting recognition. Why? **LO 8**
10. Universities and hospitals often reduce their standard service charge to students or patients. How are these reductions reflected in the statements of revenue and expenses of these organizations? Explain. **LO 14**
11. What fund is used to account for the library books owned by a university? How should depreciation of the library books be reflected in the financial statements of the university? **LO 9**
12. In which fund of a hospital are medical equipment and related long-term obligations recorded? Would your **LO 9**

answer be the same for a voluntary health and welfare organization? Explain.

- LO 9** 13. What capital assets (if any) of ONNOs need not be depreciated?
- LO 10** 14. Identify three different types of endowment funds and explain how they differ.
- LO 13** 15. Distinguish an annuity fund from a life income fund.

Business Ethics

On the first page of this chapter, an article is referenced describing the recent activities of the chancellor of Vanderbilt University. Comment on the pros and cons, from an ethical perspective, of allowing a university employee in such a position great flexibility in spending.

ANALYZING FINANCIAL STATEMENTS

AFS19-1 Private Educational Institution

In the appendix to the chapter, partial financial statements are presented.

Required:

1. What is the institution's largest source of unrestricted revenue? What is the largest source of total revenue?
2. What is the largest asset on the statement of financial position? What is the largest expense on the statement of operations? Are these to be expected? Explain why.
3. Net assets include two items. What are they and what do you think each represents?
4. What is the largest adjustment on the statement of cash flows in adjusting the change in net assets to cash provided by operating activities (also is it positive or negative)? Do you think this adjustment is common for a private university? Why or why not?

EXERCISES

EXERCISE 19-1 Cash Gift to a College **LO 3**

A \$36,000 cash gift was received by a college during the year.

Required:

- A. In which fund should the gift be recorded if there were no restrictions on the use of the cash
- B. In which fund should the gift be recorded if the donor specified that the cash was to be used to replace obsolete and damaged equipment?

EXERCISE 19-2 Donated Services **LO 8**

During 2020, volunteer pinstripers donated their services to General Hospital at no cost. The staff at General Hospital was in control of the pinstripers' duties. If regular employees had provided the services rendered by the volunteers, their salaries would have totaled \$6,000.

While working for the hospital, the pinstripers received complimentary meals from the cafeteria, which normally would have cost \$500.

Required:

Prepare the journal entry necessary in the General Fund to record the donated services on the books of General Hospital.

EXERCISE 19-3 Journal Entries for a Library **LO 3** **LO 7**

The Franklin Public Library received a restricted contribution of \$300,000 in 2020. The donor specified that the money must be used to acquire books of poetry written in the sixteenth century. As of December 31, 2020, only \$100,000 of the restricted resources had been expended.

Required:

Prepare the journal entries necessary to record these events during 2020. Indicate the fund in which each journal entry is recorded.

EXERCISE 19-4 University Loan LO 12

The following events relate to Grearson University Loan Fund:

1. \$100,000 is received from an estate to establish a faculty and student loan fund. Annual interest rates range from 8% for students to 10% for faculty.
2. Loans to students totaled \$60,000, and \$40,000 was disbursed to faculty members (of the total loans made, 10% are estimated to be uncollectible).
3. Grearson wrote off a \$1,000 student loan as uncollectible.
4. The following loans were repaid.

	<i>Principal</i>	<i>Interest</i>
Faculty	\$ 5,000	\$500
Student	10,000	800

Required:

Prepare the journal entries necessary to record these transactions and indicate the fund(s) in which the transactions are recorded.

EXERCISE 19-5 Pooled Investment Fund LO 3

Hastings College pooled the individual investments of three of its funds on December 31, 2019. The recorded value and the fair market value of the investments on December 31, 2019, are presented here:

	<i>Recorded Value</i>	<i>Fair Value</i>
Loan fund	\$121,000	\$105,000
Quasi-endowment fund	128,000	147,000
Life income fund	151,000	168,000
Total	\$400,000	\$420,000

During 2020, the investment pool earned dividends of \$12,000 and interest of \$18,000 and distributed cash in these amounts to the respective funds. Realized gains on transactions of the investment pool amounted to \$20,000 and were reinvested in securities held in the pool.

Required:

Prepare the journal entries that are necessary in the records of each of the funds to account for the earnings of the investment pool during 2020.

EXERCISE 19-6 Reporting Contributions LO 7

A well-known celebrity sponsored a telethon for the Help for the Blind Foundation on November 1, 2020. Pledges in the amount of \$1,000,000 were called in. Using similar telethon campaigns as a basis, it is estimated that 25% of the pledges will be uncollectible.

During 2021, \$700,000 of contributions from these pledges were collected. The remainder were uncollectible.

Required:

Identify the appropriate fund(s) and prepare the journal entries necessary in 2020 and 2021 to record these transactions.

EXERCISE 19-7 Endowment and Related Funds LO 10

Jefferson Hospital received money from a donor to set up an endowment fund. The following information pertains to this contribution:

During 2020

1. \$2,000,000 was received to establish the fund. The requirements were
 - a. \$100,000 of the endowment fund's income must be used for research grants each year.
 - b. The remainder of income is under the discretion of the governing board.
 - c. The principal is expendable after the donor's death. It shall be used to purchase equipment.
2. The cash received was invested in a number of securities.

During 2021

3. Dividends of \$100,000 and interest of \$300,000 were received.
4. The income was transferred to the appropriate funds.
5. Of the restricted income, only \$80,000 was expended for its specified purpose during 2021.
6. The governing board specified that \$200,000 of the income would be used for loans for deserving medical students.

During 2022

7. \$180,000 was lent to medical students.
8. The donor died of cancer.

Required:

Set up headings for the following funds: Endowment, General, Specific Purpose, and Plant Replacement and Expansion. Prepare the entries necessary in each fund to record the events listed above.

EXERCISE 19-8 Plant Fund LO 9

After the election of a prominent political figure, the principal from a term endowment fund was expendable by Crandall University. The official was elected this year. The fund was restricted to the construction of a Political Science building annex. The following transactions occurred because of this event:

1. A transfer of \$3,000,000 is made from the Endowment Fund (Term) to the Unexpended Plant Fund.
2. Construction is begun on the Political Science annex. Costs of construction during the year amounted to \$1,000,000, of which \$30,000 remained unpaid at the end of the year. (The financial controller does not record transfers to the Investment in Plant subgroup until a project has been completed.)
3. By the end of the following year, the annex is completed at an additional cost of \$2,100,000. All costs have been paid.
4. The completed building is recorded in the Investment in Plant subgroup.

Required:

Record the journal entries for each transaction and identify the fund or fund subgroup in which each entry is recorded.

EXERCISE 19-9 Multiple Choice LO 4

Select the best answer for each of the following items:

1. Which of the following should be included in the current funds revenue of a NFP private university?

	<i>Tuition Waivers</i>	<i>Unrestricted Bequests</i>
(a)	Yes	No
(b)	Yes	Yes
(c)	No	Yes
(d)	No	No

2. The current funds group of a NFP private university includes which of the following subgroups?

	<i>Term-Endowment Funds</i>	<i>Life-Income Funds</i>
(a)	No	No
(b)	No	Yes
(c)	Yes	Yes
(d)	Yes	Yes

3. Tuition waivers for which there is **no** intention of collection from the student should be classified by a NFP university as

	<i>Revenue</i>	<i>Expenditures</i>
(a)	No	No
(b)	No	Yes
(c)	Yes	Yes
(d)	Yes	No

4. Which of the following is utilized for current expenditures by a NFP university?

	<i>Unrestricted Current Funds</i>	<i>Restricted Current Funds</i>
(a)	No	No
(b)	No	Yes
(c)	Yes	No
(d)	Yes	Yes

5. In the loan fund of a college or university, each of the following types of loans would be found except

- (a) Student.
- (b) Staff.
- (c) Building.
- (d) Faculty.

(AICPA adapted)

EXERCISE 19-10 Multiple Choice LO 4

Select the best answer choice for each of the following items:

1. Which of the following receipts is properly recorded as unrestricted current funds on the books of a university?

- (a) Tuition.
- (b) Student laboratory fees.
- (c) Housing fees.
- (d) Research grants.

2. The current funds group of a NFP private university includes which of the following?

	<i>Annuity Funds</i>	<i>Loan Funds</i>
(a)	Yes	Yes
(b)	Yes	No
(c)	No	No
(d)	No	Yes

3. On January 2, 2020, John Reynolds established a \$500,000 trust, the income from which is to be paid to Mansfield University for general operating purposes. The Wyndham National Bank was appointed by Reynolds as trustee of the fund. What journal entry is required on Mansfield’s books?

(a)	Memo entry only		
(b)	Cash	500,000	
	Endowment Fund Balance		500,000
(c)	Nonexpendable Endowment Fund	500,000	
	Endowment Fund Balance		500,000
(d)	Expendable Funds	500,000	
	Endowment Fund Balance		500,000

4. For the fall semester of 2020, Cherry College assessed its students \$2,300,000 for tuition and fees. The net amount realized was only \$2,100,000 because of the following revenue reductions:

Refunds occasioned by class cancellations and student withdrawals	\$ 50,000
Tuition remissions granted to faculty members’ families	10,000
Scholarships and fellowships	140,000

How much should Cherry College report for the period for unrestricted current funds revenues from tuition and fees?

- (a) \$2,100,000.
 (b) \$2,150,000.
 (c) \$2,250,000.
 (d) \$2,300,000.
5. During the years ending June 30, 2019, and June 30, 2020, Schafer University conducted a cancer research project financed by a \$2,000,000 gift from an alumnus. This entire amount was pledged by the donor on July 10, 2013, although he paid only \$500,000 at that date. The gift was restricted to the financing of this particular research project. During the two-year research period, Schafer’s related gift receipts and research expenditures were as follows:

	<i>Year Ended June 30</i>	
	<i>2019</i>	<i>2020</i>
Gift receipts	\$700,000	\$ 800,000
Cancer research restricted expenditures	900,000	1,100,000

How much gift revenue should Schafer University report in the temporarily restricted column of its statement of activities for the year ended June 30, 2020?

- (a) \$0.
 (b) \$800,000.
 (c) \$1,100,000.
 (d) \$2,000,000.

(AICPA adapted)

EXERCISE 19-11 Multiple Choice LO 7 LO 8

Select the best answer for each of the following items:

1. Cura Foundation, a voluntary health and welfare organization, supported by contributions from the general public, included the following costs in its statement of functional expenses for the year ended December 31, 2021.

Fund raising	\$500,000
Administrative	300,000
Research	100,000

Cura's functional expenses for 2021 program services included

- (a) \$900,000.
 - (b) \$500,000.
 - (c) \$300,000.
 - (d) \$100,000.
2. Community Service Center is a voluntary welfare organization funded by contributions from the general public. During 2020, unrestricted pledges of \$900,000 were received, half of which were payable in 2020 with the other half payable in 2021 for use in 2021. It was estimated that 10% of these pledges would be uncollectible. How much should Community report as net contribution revenue for 2020 with respect to the pledges?
 - (a) \$0.
 - (b) \$405,000.
 - (c) \$810,000.
 - (d) \$900,000.
 3. Theresa Plato is a social worker on the staff of Community Service Center, a voluntary welfare organization. She earns \$30,000 annually for a normal workload of 2,000 hours. During 2020, she contributed an additional 800 hours of her time to Community at no extra charge. How much should Community record in 2020 as contributed service expense?
 - (a) \$12,000.
 - (b) \$6,000.
 - (c) \$1,200.
 - (d) \$0.
 4. The basis of accounting used by nonprofit organizations is the
 - (a) Cash basis.
 - (b) Modified accrual basis.
 - (c) Accrual basis.
 - (d) Modified cash basis.

(AICPA adapted)

EXERCISE 19-12 Multiple Choice LO 3 LO 7

Select the best answer for each of the following items:

1. Which NNOs must record depreciation on exhaustible assets?
 - (a) Hospitals.
 - (b) VHWOs.
 - (c) ONNOs.
 - (d) All of the above.
2. Which statement relating to VHWOs is most nearly correct?
 - (a) Use modified accrual accounting practices.
 - (b) Report expenditures on a functional basis.
 - (c) Record pledges when they are received.
 - (d) Recognize donated services as revenue if measurable.

3. Which of the following funds of a VHWO does not have a counterpart fund in governmental accounting?
 - (a) Current Unrestricted Fund.
 - (b) Land, Building, and Equipment Fund.
 - (c) Agency Fund.
 - (d) Endowment Fund.
4. A voluntary health and welfare organization received a pledge in 2019 from a donor specifying that the amount pledged be used in 2021. The donor paid the pledge in cash in 2020. The pledge should be accounted for as
 - (a) A deferred credit in the balance sheet at the end of 2019 and as support in 2020.
 - (b) A deferred credit in the balance sheet at the end of 2019 and 2020, and as support in 2021.
 - (c) Support in 2021.
 - (d) Support in 2020 and no deferred credit in the balance sheet at the end of 2019.
 - (e) None of the above.
5. Which of the following should be used in accounting for nonprofit health agencies?
 - (a) Fund accounting and accrual accounting.
 - (b) Fund accounting but not accrual accounting.
 - (c) Accrual accounting but not fund accounting.
 - (d) Neither accrual accounting nor fund accounting.

(AICPA adapted)

EXERCISE 19-13 Multiple Choice **LO 4** **LO 7**

Select the best answer for each of the following items:

1. Depreciation should be recognized in the financial statements of
 - (a) Private sector proprietary (for profit) hospitals only.
 - (b) Both private sector proprietary (for profit) hospitals and NFP hospitals.
 - (c) Both private sector proprietary (for profit) hospitals and NFP hospitals, only when they are affiliated with a university.
 - (d) All private sector hospitals, as a memorandum entry not affecting the statement of revenue and expenses.
2. Securities donated to a nonbusiness organization should be recorded at the
 - (a) Donor's recorded amount.
 - (b) Fair market value at the date of the gift.
 - (c) Fair market value at the date of the gift or the donor's recorded value, whichever is lower.
 - (d) Fair market value at the date of the gift or the donor's recorded value, whichever is higher.
3. The Charity Services ledger account of a nonprofit hospital is a(an)
 - (a) Contra-asset account.
 - (b) Expense account.
 - (c) Contra-revenue account.
 - (d) Loss account.
4. The restricted groupings recommended for hospitals do not include
 - (a) Specific purpose funds.
 - (b) Endowment funds.
 - (c) Plant funds.
 - (d) Plant replacement and expansion funds.

(AICPA adapted)

EXERCISE 19-14 Multiple Choice LO 7 LO 8

Select the best answer for each of the following items:

- An unrestricted pledge from an annual contributor to a NFP hospital made in December 2019 and paid in cash in March 2020 would generally be credited to
 - Nonoperating revenue in 2019.
 - Nonoperating revenue in 2020.
 - Operating revenue in 2019.
 - Operating revenue in 2020.
- A gift to a NFP hospital that is not restricted by the donor should be credited directly to
 - Fund balance.
 - Deferred revenue.
 - Operating revenue.
 - Nonoperating revenue.

- During the year ended December 31, 2020, Melford Hospital received the following donations, stated at their respective fair values:

Employee services from members of a religious group.	\$100,000
Medical supplies from an association of physicians. These supplies were restricted for indigent care and were used for such purposes in 2020.	30,000

How much revenue (both operating and nonoperating) from donations should Melford report in its 2020 statement activities?

- \$0.
 - \$30,000.
 - \$100,000.
 - \$130,000.
- On July 1, 2019, Lilydale Hospital's Board of Trustees designated \$200,000 for expansion of outpatient facilities. The \$200,000 is expected to be expended in the fiscal year ending June 30, 2022. In Lilydale's balance sheet at June 30, 2020, this cash should be classified as a \$200,000
 - Restricted current asset.
 - Restricted noncurrent asset.
 - Unrestricted current asset.
 - Asset whose use is limited.

(AICPA adapted)

EXERCISE 19-15 Contribution Revenue

Case A: A NFP entity receives a promise from a collection of donors to give \$10,000 in three years. The expected future cash flows to be received from the donors is \$7,000. The NFP uses a present value method to estimate fair value. The fair value (or the present value of the future cash flows) is estimated to be \$6,100.

Required:

Prepare the journal entry to record the amount of contribution revenue.

Case B: Determine the amount of revenue recognized for each of the following items. Then determine whether the revenue would be classified as net assets with donor restrictions or net assets without donor restrictions.

- \$4,000, services are donated that meet the recognition of services definition.
- \$500 cash received (no restrictions attached).
- \$2,500 of equipment received (no restrictions)
- \$3,000 of unconditional promises to give to support activities.

- E. \$1,500 cash received. Restricted to \$500 for program purposes and \$1,000 for acquisition of land.
- F. \$3,000 of promises to give to program activities.
- G. A donor contributes \$3,300 cash to set up a donor-restricted endowment fund. The income is restricted to support program activities.
- H. A donor contributes cash to set up an annuity trust with a present value of \$1,000.
- I. A donor contributed \$2,000 cash, but the NFP must raise its own \$2,000 by the same time next year or the cash must be refunded.

PROBLEMS

PROBLEM 19-1 Statement of Activities—Hospital LO 2

The following events were recorded on the books of Mercy Hospital for the year ended December 31, 2020.

1. Revenue from patient services totaled \$16,000,000. The allowance for uncollectibles was established at \$3,400,000. Of the \$16,000,000 revenue, \$6,000,000 was recognized under cost reimbursement agreements. This revenue is subject to audit and retroactive adjustment by third-party payers (estimated adjustments are included in the allowance account).
2. Patient service revenue is accounted for at established rates on the accrual basis.
3. Other operating revenue totaled \$346,000, of which \$160,000 was from specific purpose funds.
4. Mercy received \$410,000 in unrestricted gifts and bequests. They are recorded at fair market value when received.
5. Endowment funds earned \$160,000 in unrestricted income.
6. Board designated funds earned \$82,000 in income.
7. Mercy's operating expenses for the year amounted to \$13,370,000. This included \$500,000 in straight-line depreciation.

Required:

Prepare a statement of activities for Mercy Hospital for the year ended December 31, 2020.

(AICPA adapted)

PROBLEM 19-2 Various Funds—Hospital LO 3

On January 1, 2020, a new Board of Directors was elected for Bradley Hospital. The new board switched to a different accountant. After reviewing the hospital's books, the accountant decided that the accounts should be adjusted. Effective January 1, 2020, the board decided that

1. Separate funds should be established for the General Fund, the Bradley Endowment Fund, and the Plant Replacement and Expansion Fund (the old balances will be reversed to eliminate them).
2. The accounts should be maintained in accordance with fund accounting principles. The balances in the general ledger at January 1, 2020, are presented here:

Cash	\$ 50,000
Investment in U.S. treasury bills	105,000
Investment in common stock	417,000
Interest receivable	4,000
Accounts receivable	40,000
Inventory	25,000
Land	407,000
Building	245,000
Equipment	283,000

Allowance for depreciation		\$ 376,000
Accounts payable		70,000
Bank loan		150,000
Endowment fund balance		119,500
Other fund balances		<u>860,500</u>
Total	<u>\$1,576,000</u>	<u>\$1,576,000</u>

The following additional information is available:

- Under the terms of the will of J. Ethington, founder of the hospital, "The principal of the bequest is to be fully invested in trust forevermore in mortgages secured by productive real estate in Central City and/or in U.S. Government securities . . . and the income therefrom is to be used to defray current expenses."

- The Endowment Fund consists of the following:

Cash received in 1898 by bequest from Ethington	\$ 81,500
Net gains realized from 1956 through 1989 from the sale of real estate acquired in mortgage foreclosures	23,500
Income received from 1990 through 2019 from 90-day U.S. treasury bill investments	<u>14,500</u>
Balance per general ledger on January 1, 2020	<u>\$119,500</u>

- The land account balance is composed of

1900 appraisal of land at \$10,000 and building at \$5,000, received by donation at that time. The building was demolished in 1934.	\$15,000
Appraisal increase based on insured value in land title policies issued in 1954.	380,000
Landscaping costs for trees planted.	<u>12,000</u>
Balance per general ledger on January 1, 2020	<u>\$407,000</u>

- The building balance is composed of

Cost of present hospital building completed in January 1974, when the hospital commenced operations.	\$ 300,000
Adjustment to record appraised value of building in 1984.	(100,000)
Cost of elevator installed in hospital building in January 2000.	45,000
Balance per general ledger on January 1, 2020.	<u>\$ 245,000</u>

The estimated useful lives of the hospital building and the elevator when new were 50 years and 20 years, respectively.

- The hospital's equipment was inventoried on January 1, 2020. The costs shown in the inventory agreed with the equipment account balance in the general ledger. The allowance for depreciation account at January 1, 2020, included \$158,250 applicable to equipment, and that amount was determined to be accurate. All depreciation is computed on a straight-line basis.
- A bank loan was obtained to finance the cost of new operating room equipment purchased in 2011. Interest was paid to December 31, 2019.
- Common stock with a market value of \$417,000 was donated to Bradley Hospital with the stipulation that the proceeds from the sale of the stock must be used for facilities expansion. The hospital plans to undertake expansion of its facilities next year and to sell these securities at that time.

Required:

Using the workpaper form below, prepare the entries necessary to establish the correct balances as of January 1, 2020.

<i>Account Description</i>	<i>Trial Balance</i>	<i>Adjustments</i>	<i>General Fund</i>	<i>Endowment Fund</i>	<i>Plant Replacement Fund</i>
	<i>Debit Credit</i>	<i>Debit Credit</i>	<i>Debit Credit</i>	<i>Debit Credit</i>	<i>Debit Credit</i>

(AICPA adapted)

PROBLEM 19-3 Various Funds—University **LO 2** **LO 3**

A partial statement of financial position of Century University is shown below.

**Century University
Partial Statement of Financial Position
June 30, 2019**

<i>Assets</i>	
Current Funds	
Unrestricted	
Cash	\$210,000
Accounts Receivable (less allowance for doubtful accounts, \$9,000)	341,000
State Appropriations Receivable	<u>75,000</u>
Total Unrestricted	<u>626,000</u>
Restricted	
Cash	7,000
Investments	<u>60,000</u>
Total Restricted	<u>67,000</u>
Total Current	<u>\$693,000</u>
<i>Liabilities and Fund Balances</i>	
Current Funds	
Unrestricted	
Accounts Payable	\$ 45,000
Deferred Revenues	66,000
Fund Balance	<u>515,000</u>
Total Unrestricted	<u>626,000</u>
Restricted	
Fund Balance	<u>67,000</u>
Total Restricted	<u>67,000</u>
Total Current	<u>\$693,000</u>

During the fiscal year ended June 30, 2011, the following transactions occurred:

1. A gift of \$100,000 was received from an alumnus on July 7, 2019. One-half of the gift was to be used for the purchase of books for the university’s library and the rest was to be used to establish a scholarship fund per the alumnus’s request. It was also requested that the income generated by the scholarship fund be awarded annually as a scholarship for a qualified disadvantaged student. The board decided that the funds for the new scholarship should be invested in savings certificates on July 20, 2019. These savings certificates were purchased on July 21, 2019.
2. Revenue for the fiscal period from student tuition and fees amounted to \$1,900,000. During the fiscal year, \$1,686,000 of this amount was collected; \$66,000 had been collected in

the prior year. The university had also received \$158,000 by June 30, 2020, for fees for the session beginning July 1, 2020.

3. During the year ended June 30, 2020, the university collected \$349,000 of the outstanding accounts receivable at the beginning of the year. The balance was determined to be uncollectible and was written off against the allowance account. At June 30, 2020, the allowance account was increased by \$3,000.
4. Because of late student fee payments, \$6,000 in interest charges were earned and collected.
5. The state appropriation was received. Another unrestricted appropriation of \$50,000 was made by the state. This had not been paid to the university by the fiscal year-end.
6. An unrestricted gift of \$25,000 cash was received from alumni of the university.
7. During the year, investments of \$21,000 were sold for \$26,000. Investment income amounting to \$1,900 was received.
8. Unrestricted operating expenses were recorded at \$1,777,000, \$59,000 of which remains unpaid.
9. Restricted current funds of \$13,000 were spent for authorized purposes during the year.
10. The accounts payable at June 30, 2019, were paid during the year.
11. During the year, \$7,000 interest was earned and received on the savings certificates purchased in accordance with the board's resolution [in item (1)].

Required:

- A. Prepare journal entries to record in summary form the transactions above for the year ended June 30, 2020. Each journal entry should be numbered to correspond with the transaction described above. Set up the following headings:

<i>Accounts</i>	<i>Current Funds</i>					
	<i>Unrestricted</i>		<i>Restricted</i>		<i>Endowment Fund</i>	
	<i>Dr.</i>	<i>Cr.</i>	<i>Dr.</i>	<i>Cr.</i>	<i>Dr.</i>	<i>Cr.</i>

- B. Prepare a statement of activities for the year ended June 30, 2020.
- C. Prepare a statement of activities for the current funds for the year ended June 30, 2020. Include more details about the revenues and expenses.

PROBLEM 19-4 Journal Entries—University LO 3

The following transactions of Belville College transpired during 2020. The funds necessary are the Endowment Fund, the Annuity Fund, the Plant Fund—Unexpended, the Plant Fund—Investment in Plant, the Loan Fund, the Unrestricted Current Fund, and the Restricted Current Fund.

January 1

1. A gift of \$10,000 was received from Carl Brown. The principal was to be held intact and the income to be used for any purpose designated by the governing board.
2. David Gross donated \$20,000. The principal was to be held intact and the income to be used for scholarships for worthy students.
3. Roxanne Norton donated \$30,000, of which the principal was to remain intact while the interest was to be used for student loans. All income is to be relent; all losses from loans are to be charged against income.
4. A gift of \$205,000 was received from Brian Carr. Semiannual payments of \$10,000 are to be made to the donor during his lifetime. On his death the fund is to be used to purchase or construct a students' residence. Mr. Carr has a life expectancy of five years and investments are expected to earn 8% annually.

5. Kathy Jackson donated 1,000 shares of BIM stock, which had a market value of \$150 per share on that date. All income received from the shares is to be held intact and the shares cannot be held for more than five years. Once the board sells the shares, all the proceeds are to be used to build a student hospital.
6. The assets of the Brown and Gross funds were consolidated into a pooled investment account by the governing board (in proportion to the principal accounts). Electric Power Bonds worth \$30,000 were purchased. The 12% interest was payable on January 1 and July 1.
7. The Norton Fund cash is used to purchase Cravit Company 10% bonds at par for \$30,000. January 1 and July 1 are the interest dates.
8. With the cash from the Carr Fund, \$200,000 of 8% U.S. Treasury notes was purchased at par. The interest dates are January 1 and July 1.

July 1

9. The interest was received on all bonds and notes and was transferred to the proper funds. Dividends of \$4,000 were received from BIM stock.
10. The stipulated payment is made to Mr. Carr from the Endowment Fund.
11. Electric Power Company bonds bought at par value for \$20,000 are sold at 102. The gain is added to the principal.
12. A \$300 student loan was made from the Norton Fund.

October 1

13. A notice of Brian Carr’s death is received. There is no liability to his estate.
14. The Gross Scholarship Fund awards a \$200 scholarship.
15. \$200,000 par of U.S. Treasury notes are sold for \$206,000.

December 31

16. Interest on bonds is received.
17. \$100 of principal and \$5 of interest were repaid on the student loan.
18. A building was purchased for \$250,000 using the funds available from the Carr gift. The residence hall will have a 20-year mortgage payable to account for the balance.

Required:

Using the following format, record the journal entries necessary for each event.

<i>Event</i>	<i>Fund</i>	<i>Journal Entry</i>
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(AICPA adapted)

PROBLEM 19-5 Journal Entries—Financial Statements—Library LO 2

Preston Library, a nonprofit organization, presented the following statement of financial position and statement of activities for its fiscal year ended February 28, 2019.

**Preston Library
Statement of Financial Position
February 28, 2019**

<i>Assets</i>	<i>Unrestricted</i>	<i>Temporarily Restricted</i>
Current Assets		
Cash	\$ 285,000	\$80,000
Grants Receivable	80,000	
Prepaid Expenses	65,000	
Total	430,000	

<i>Assets</i>	<i>Unrestricted</i>	<i>Temporarily Restricted</i>
Investments (at market)	1,020,000	
Land, Building, and Equipment (less accumulated depreciation of \$50,000)	<u>530,000</u>	<u> </u>
Total Assets	<u>\$1,980,000</u>	<u>\$80,000</u>
 <i>Liabilities and Fund Balances</i>		
<hr/>		
Current Liabilities		
Accounts Payable and Accrued Expenses	\$ 150,000	
Total	150,000	
Long-Term Debt	200,000	
Fund Balances	<u>1,630,000</u>	<u>80,000</u>
Total Liabilities and Fund Balances	<u>\$1,980,000</u>	<u>\$80,000</u>

**Preston Library
Statement of Activities
for Year Ended February 28, 2019**

<i>Support and Revenue</i>	<i>Unrestricted</i>	<i>Temporarily Restricted</i>
<hr/>		
Support		
Grants	\$ 70,000	\$—0—
Gifts	<u>300,000</u>	<u>80,000</u>
Total	<u>370,000</u>	<u>80,000</u>
Revenue		
Service Fees	22,000	
Book Rentals and Fines	<u>107,000</u>	
Investment Income	<u>71,000</u>	
Total	<u>200,000</u>	<u>—0—</u>
Total Support and Revenue	<u>\$ 570,000</u>	<u>\$80,000</u>
 <i>Expenses</i>		
<hr/>		
Program Services		
Circulating Library	\$ 212,000	
Research Library	86,000	
Exhibits	20,000	
Community Services	<u>10,000</u>	
Total	<u>328,000</u>	<u>—0—</u>
Supporting Services		
General and Administrative	175,000	
Fund Raising	<u>111,000</u>	
Total	<u>286,000</u>	<u>—0—</u>
Total Expenses	<u>614,000</u>	<u>—0—</u>
Increase (decrease) in Net Assets	(44,000)	80,000
Fund Balances—Beginning of Year	<u>1,674,000</u>	<u>—0—</u>
Fund Balances—End of Year	<u>\$1,630,000</u>	<u>\$80,000</u>

The following transactions occurred during the fiscal year ended February 28, 2020.

1. Fees were billed as follows:

Service fees	\$30,000
Book rentals	43,000
Book fines	78,000

2. \$40,000 of the Grant Receivable was received. Another grant in the amount of \$20,000 was promised.

3. Contributions in the amounts summarized below were received:

Unrestricted	\$215,000
Restricted	108,000

4. Investment income totaled \$75,000 for the year.

5. Vouchers for the year were approved as follows:

Circulating library	\$189,000
Research library	74,000
Exhibits	15,000
Community services	12,000
General and administrative	166,000
Fund raising	<u>103,000</u>
Total	<u>\$559,000</u>

6. During the year, \$500,000 worth of vouchers were paid.

Adjustment Data

7. Accounts Payable and Accrued Expenses at February 28, 2020, should be \$217,000. The difference should be allocated to the following expenses:

Research library	\$5,000
General and administrative	3,000

8. Additions to the research library in the amount of \$68,000 that were approved in (5) above were made in accordance with the terms of a contribution that had been received earlier and that was restricted for that purpose.

9. The current market value of the investments is \$1,035,000 (no investment transactions occurred).

10. Depreciation amounted to \$9,000 for the year. It should be allocated as follows:

Circulating library	\$3,500
Research library	2,900
General and administrative	2,600

11. Prepaid Expenses should be \$60,000. The difference should be allocated to:

Exhibits	\$3,700
General and administrative	1,300

Required:

A. Prepare journal entries to record the transactions

B. Prepare the statement of financial position and the statement of activities for the year ended February 28, 2020.

(AICPA adapted)

PROBLEM 19-6 Statement of Financial Position LO 2

The December 31, 2020, statement of financial position for the Blood Donors of America Foundation is presented below.

**Statement of Financial Position
December 31, 2020**

<i>Assets</i>	
Cash	\$ 470,000
Accounts Receivable	160,000
Allowance for Doubtful Accounts	(30,000)
Pledges Receivable	930,000
Allowance for Doubtful Pledges	(130,000)
Inventories	400,000
Investments	19,300,000
Land	1,300,000
Buildings and Improvements	46,500,000
Equipment	2,700,000
Accumulated Depreciation	(13,500,000)
Other Assets	<u>200,000</u>
Total Assets	<u>\$58,300,000</u>
<i>Liabilities</i>	
Accounts Payable	\$ 700,000
Accrued Expenses	130,000
Deferred Revenue—Unrestricted	100,000
Deferred Capital Addition	1,600,000
Long-term Debt	<u>7,350,000</u>
Total Liabilities	<u>9,880,000</u>
<i>Fund Balances</i>	
Plant	29,000,000
Endowment	3,850,000
Restricted	7,300,000
Unrestricted	<u>8,270,000</u>
Total Fund Balances	<u>48,420,000</u>
Total Liabilities and Fund Balances	<u>\$58,300,000</u>

Additional information concerning the statement of financial position is as follows:

1. Except for \$70,000 of cash, the Endowment Fund is made up of investments only. There are no liabilities.
2. The Plant Fund has no current liabilities and includes some investments and \$15,000 in cash.
3. In addition to investments, the Current Restricted Fund consists of the pledges receivable, \$35,000 of accounts payable, and cash of \$155,000.

Required:

Prepare a corrected statement of financial position for the Blood Donors of America Foundation at December 31, 2020, using the following columnar format:

	<i>Current Unrestricted</i>	<i>Current Restricted</i>	<i>Plant</i>	<i>Endowment</i>	<i>Total</i>
(Account Titles)	\$	\$	\$	\$	\$
					<i>(AICPA adapted)</i>

PROBLEM 19-7 Investment Pool LO11

Three funds of the Leukemia Foundation, a nonprofit welfare organization, began an investment pool on January 1, 2021. The costs and fair market values on this date were as follows:

	<i>Cost</i>	<i>Market Value</i>
Restricted fund	\$55,000	\$70,000
Lambert endowment fund	215,000	210,000
Plant fund	<u>200,000</u>	<u>220,000</u>
Total	<u>\$470,000</u>	<u>\$500,000</u>

During 2021, the investment pool reinvested \$20,000 in realized gains and received interest of \$15,000 and dividends of \$10,000. Interest and dividend income was distributed to the respective funds. The Plant Fund withdrew from the investment pool on December 31, 2021, when the total current market value was \$540,000. It distributed securities in the amount of its percentage share.

On January 3, 2022, the Fargot Annuity Fund entered the investment pool with investments costing \$100,000 and having a current market value of \$117,600. During 2022 the pool received interest of \$25,000 and dividends of \$15,000, which were distributed to the participating funds. Realized gains of \$30,000 were reinvested in the pool.

Required:

- A. Calculate the equity percentages of the contributing funds in the investment pool at January 1, 2021, and at January 3, 2022
- B. Using the format shown below, prepare entries necessary on the records of the funds that contributed securities to the investment pool to account for the earnings of the investment pool in 2021 and 2022.

<i>Date</i>	<i>Fund</i>	<i>Journal Entry</i>



GLOSSARY

- Accretive** Term applied to a business combination in which the acquirer's earnings per share increase as a result of the merger.
- Accrual accounting** The usual basis of accounting for profit-seeking enterprises under generally accepted accounting principles; revenues are recognized when earned, and expenses are matched against those revenues in the period of the benefit.
- Acquisition accounting** Method of accounting for business combinations in which the assets and liabilities of the acquired firm are valued at fair market values, including the recording of goodwill implied by any excess of purchase price over the net fair value. (Also called purchase method.)
- Adjusting entries** Journal entries needed to correct any accounts of the affiliates that may be incorrect at the financial statement date, or to recognize the effects of a transaction made by one party (such as the parent), but not recorded by another party (such as a subsidiary).
- Advance plan for the distribution of cash** A schedule that specifies the order in which each partner will participate in sharing profit and losses and the amount of cash each partner will receive as it becomes available for distribution.
- Affiliate** An entity that controls, is controlled by, or is under common control with, another entity, either directly or indirectly through one or more intermediaries.
- Agency funds** Funds used to report resources held by the reporting government in a purely custodial capacity (assets equal liabilities). Agency funds typically involve only the receipt, temporary investment, and remittance of fiduciary resources to individuals, private organizations, or other governments.
- Agency or custodial fund of an NNO** Funds used to account for the assets held by an NNO (nongovernment-nonbusiness organization) as a custodian for others.
- American depository receipt (ADR)** A depository receipt that is traded in the United States. ADRs may be sponsored or unsponsored.
- Amortization** The transfer of the cost of an asset over its useful life from the balance sheet to the income statement. Amortization is required for intangible assets with a finite life.
- Annuity and life income fund of an NNO** An NNO may accept the contribution of assets to the organization on the condition that the organization make annuity payments to a specified recipient for a specified period of time (annuity fund) or that the organization pay the income earned on the contributed assets to a specified recipient during his or her lifetime (life income fund).
- Appropriations** The maximum expenditures that are authorized by the legislature when budgeted expenditures are enacted into law.
- Articles of partnership** See Partnership agreement.
- Asset acquisition** A business combination in which one corporation pays cash or issues stock or debt for the net assets of another company, and the acquired company no longer exists as a separate legal entity.
- Bargain purchase** A business combination in which the price paid to acquire another firm is lower than the fair value of identifiable net assets (assets minus liabilities).
- Bonus method** A method used when the composition of a partnership changes (such as admission of a new partner) to adjust the partners' capital accounts equitably to account for undervalued assets or the existence of implied goodwill. Under this method, the assets are not revalued (and goodwill is not recorded).
- Budgetary funds** Fund entities in which the budget is formally incorporated into the accounting records.
- Capital improvement special assessments** Assessments levied against property owners for capital improvements that benefit them.
- Capital maintenance approach** An approach under which some changes in net assets are excluded from the Statement of Activities, such as capital contributions and permanently restricted contributions of financial assets.
- Capital projects fund** A fund used to account for financial resources to be used for the acquisition or construction of major capital facilities.
- Change in net assets approach** An approach, required on all government wide financial statements, under which all changes in net assets are reported on the Statement of Activities. There are no "balance sheet-only" transactions.
- Chief operating decision maker** A person whose general function (not specific title) is to allocate resources to, and assess the performance of, the segments of an enterprise.
- Codification** The FASB Codification is the single source of authoritative nongovernmental

- U.S. generally accepted accounting principles (U.S. GAAP).
- Common costs** Operating expenses incurred by the enterprise for the benefit of more than one segment.
- Complete equity method** A variation of the equity method, in which the reported income (loss) of the investee is adjusted for excess depreciation, goodwill amortization, and other differences implied by the investor's purchase price, in measuring the investor's income from investment.
- Component units of a government** Legally independent units that are within the government's control. (A school district is funded by the county, but is independent of the county; therefore, the county includes the school district as a component unit.)
- Comprehensive income** All changes in net assets (or equity) or an entity during the current period except those arising from investments by the owners and distributions to the owners.
- Computation and Allocation Schedule** A schedule used to show how the cost of an acquisition (the purchase price) is allocated to specific assets and liabilities of the subsidiary.
- Conglomerate** A business combination among firms in unrelated industries.
- Consolidated entity (affiliated group)** A group of firms consisting of a parent and all subsidiaries for which consolidated financial statements are prepared.
- Consolidated financial statements** The combined financial statements of a parent and its subsidiaries as one economic entity, as though the separate companies were a single company with one or more divisions or branches.
- Consolidated net income** A number equal to the parent company's income from its independent operations plus (minus) reported subsidiary income (loss) plus or minus adjustments for the period relating to the amortization of the difference between implied and book value.
- Consolidated retained earnings** The retained earnings of the parent company, after reflecting any needed adjustments from the perspective of the consolidated entity. Under the complete equity method, the adjustments are already included in the books of the parent. Under the partial equity method, for example, the number is calculated as the parent company's recorded partial-equity basis retained earnings plus or minus the cumulative effect of the adjustments to date relating to the amortization of the difference between implied and book value.
- Constructive retirement (of bond obligation)** Extinguishment of debt from the perspective of the consolidated entity, occurring in situations such as when one affiliate purchases another affiliate's outstanding bonds from outsiders.
- Control (effective control)** The ability of an entity to direct the policies and management that guide the ongoing activities of another entity so as to increase its benefits and limit its losses from that other entity's activities. For purposes of consolidated financial statements, control involves decision-making ability not shared with others.
- Controlling interest** The interest of the parent company in a partially owned subsidiary. The term is also used to refer to the parent's interest in the combined profits of the parent and its subsidiary.
- Corporate assets** Assets maintained for general corporate purposes and not specifically used in the operations of any segment.
- Cost method** A method used to account for an investment in another company, in which the income from investment consists of dividends received. Under this method, the carrying value of the investment changes only when the percentage ownership changes, or when it is believed to be permanently impaired.
- Current exchange rate** The spot rate in effect at the end of the accounting period (i.e., the balance sheet date).
- Current fund of an NNO** (restricted and unrestricted). Current unrestricted funds include financial resources of an organization that may be expended at the discretion of the governing board. Current restricted funds consist of financial resources that are currently available for use in current operations, but which may be expended only for purposes specified by the donor, grantor, or other external party.
- Current rate method** A method of converting accounts from a foreign currency into the parent's reporting currency, in which all assets and liabilities are translated using the current exchange rate. This method is appropriate when the accounts are already measured in the functional currency. (Also called translation.)
- Debt service fund** A fund used to account for the accumulation of resources for the payment of general long-term debt principal and interest.
- Deferred taxes** Taxes resulting from temporary differences between taxable income and income reported under generally accepted accounting principles; deferred tax liabilities represent an increase in taxes payable in future years as a result of these differences, while deferred tax assets represent a resulting decrease in taxes payable in future years.
- Depository receipt (DR)** A derivative instrument usually representing a certain fixed number of publicly traded shares of a non-U.S. corporation.
- Derivative** Financial product whose value depends on another *underlying* value of measure, but whose terms do not require the holder to own or deliver the underlying value of measure. Thus its value is *derived* from the underlying value of measure (examples include options, swaps, forwards, and futures).
- Dilutive** Term applied to an acquisition in which the acquirer's earnings per share decrease as a result of the combination.
- Direct exchange quotation** A quotation in which the exchange rate is quoted in terms of how many units of the domestic currency can be converted into one unit of foreign currency.
- Direct expenses** Expenses incurred in a business combination, such as accounting and consulting fees, that would not have been incurred in the absence of the combination. These are expensed as incurred.
- Dissolution** The change in the relation of the partners that occurs when a partner ceases to be associated with a partnership, as distinguished from the winding up of the business.
- Downstream sales** Sales by a parent company to one or more of its subsidiaries.
- Economic entity concept** A concept that emphasizes control of the whole by a single management, so that the consolidated financial statements are intended to provide information about a group of legal entities—a parent company and its subsidiaries—operating as a single unit.
- Eliminating entries** Journal entries that are made only on the consolidated workpaper (and not on the parent's or subsidiary's books) to cancel the effects of intercompany transactions and accounts.
- Encumbrance** Term applied to the financial resources of a fund when a transaction is entered into that requires the performance on the part of another party before the government becomes liable to perform its part of the transaction. (For example, placing a

- purchase order creates an encumbrance, but the government is not liable until the goods are received.)
- Endowment fund of an NNO** Category of funds that includes both pure endowment funds and term endowment funds. Pure endowment funds require that the principal be kept in perpetuity, while term endowment funds allow the principal to be spent after a particular date or event.
- Enterprise fund** A fund used to account for any activity for which a fee is charged to external users for goods and services.
- Equity allocation rule** When the par (or stated) value of the shares issued by the issuing firm in a pooling of interests exceeds the total par or stated value of the combining company's stock, the excess should be deducted first from the combined other contributed capital and then from combined retained earnings.
- Equity method** A method used to account for an investment in another company, in which the income from investment consists of the investor's share of the profits (losses) of the investee. Under this method, the carrying value of the investments is adjusted continually to reflect the investee's profits, losses, and dividends.
- Exchange rate** The ratio between a unit of one currency and the amount of another currency for which that unit can be exchanged at a particular time.
- Expendable fund entity** A fund entity established to account for net financial resources dedicated for specific use(s).
- Expenditure** Decrease in the financial resources of a fund or incurrence of a fund liability.
- Father-son-grandson affiliation** A type of indirect ownership where the parent has ownership interests in a subsidiary that owns a controlling interest in a third firm.
- Fiduciary funds** Funds that hold assets in a trustee or agency capacity for others and that cannot be used to support the government's own programs.
- Financial synergy** Financial advantages or benefits arising from a business combination; for example, the opportunity to file a consolidated tax return may allow profitable corporations' tax liability to be reduced by the losses of unprofitable affiliates. Also, when an acquisition is financed using debt, the interest payments are tax deductible, creating a financial synergy.
- Floating rates** The exchange rates between major currencies, largely determined by supply and demand factors.
- Flow of current financial resources** Concept under which each year is treated as a distinct event and the only measurement that is important is the source and use of funds (where funds are usually defined on a modified accrual basis). A charge to operations is generally made when goods and services are acquired rather than when the goods and services are consumed or used.
- Flow of economic resources** A concept or focus now required for government-wide financial statements, which requires the accrual basis and thus recognizes economic transactions and other events when they occur, rather than only when the related inflows and outflows of cash or other financial resources occur. A charge is made to operations in the period when goods and services are used or consumed rather than when goods and services are acquired.
- Forecasted transaction** Expected future transaction that does not bear severe penalties for nonperformance or that is not under contract.
- Foreign currency exposure** The loss potential that exists as a result of uncertainty about future changes in exchange rates.
- Foreign currency transaction** A transaction that requires settlement in a foreign currency.
- Forward exchange contract** An agreement to exchange currencies of two different countries at a specified rate (the forward rate) on a stipulated future date. At the inception of the contract, the forward rate normally differs from the spot rate.
- Forward rate** An exchange rate quoted for future delivery of currencies exchanged.
- Functional currency** The currency in which a company primarily conducts its operations and generates and expends cash.
- Fund accounting** A system of accounting for nonbusiness organizations where the entities' resources are accounted for by individual funds.
- GASB** See Government Accounting Standards Board.
- General corporate expense** Any expense incurred for the benefit of the corporation as a whole, which cannot be reasonably allocated to any segment.
- General fund** A fund used to account for unrestricted financial resources, especially those required to be accounted for in another fund.
- General partnership** A partnership in which all partners are general (rather than limited). Characteristics of general partnerships include mutual agency, unlimited liability, limited life, and the right to dispose of a partnership interest.
- Goodwill (or excess of implied over fair value)** The excess of the value implied by the acquisition cost over the fair value of the identifiable net assets of the subsidiary on the date of acquisition.
- Goodwill method** A method used when the composition of a partnership changes (such as admission of a new partner) to adjust the partners' capital accounts equitably to account for the existence of implied goodwill. Under this method, the goodwill is recorded, and the capital accounts of the partners responsible for creating the goodwill are credited.
- Government Accounting Standards Board (GASB)** The authoritative body responsible for establishing financial accounting standards for all state and local governmental bodies.
- Government-wide financial statements** The Statement of Activities and the Statement of Net Assets now required to be prepared on an accrual basis listing the total activities of the government.
- Hedge** A purchase or sale transaction entered into to counterbalance potential losses (profits) arising from price fluctuations; a way of transferring the risk of price fluctuations from one group to another (for example, from seller to purchaser).
- Historical exchange rate** The spot rate in effect on the date a transaction takes place.
- Horizontal combination (horizontal integration)** A business combination among companies within the same industry operating at the same basic level (competitors).
- Horizontal sales** Sales from one subsidiary to another subsidiary.
- Impairment** The decline in fair value of an asset below its recorded book value, resulting in a reported loss in the income statement. Goodwill and other intangible assets with indefinite lives must be reviewed at least annually for potential impairment.
- Implied value** The fair value of an acquired entity, as implied by its purchase (acquisition) price. Implied value may be calculated as the acquisition cost divided by the percentage acquired.
- Indirect expenses** Expenses related to business combinations that are ongoing in

- nature, such as those incurred to maintain a mergers and acquisitions department, and that would have continued in the absence of a specific acquisition. These are expensed as incurred.
- Indirect ownership** A relationship created when a parent owns a subsidiary that owns an interest in another firm; i.e., the parent indirectly owns an interest in the third firm.
- Infrastructure assets** Immovable assets of a government such as streets, sidewalks, bridges, drains, street lights, etc.
- Installment liquidation** A liquidation that extends over a period of time, in which partners receive cash in installments before the total liquidation losses and total cash available are known.
- Intercompany accounts (reciprocal accounts)** Accounts that are maintained in the separate books of a parent and its subsidiaries that reflect a single transaction and should be eliminated in preparing the consolidated reports; for example, an “account receivable from subsidiary” on the books of a parent is reciprocal to an “account payable to parent” on the books of the subsidiary.
- Interfund activity** Activity between funds that includes reciprocal and nonreciprocal transactions. Reciprocal interfund activities include interfund loans and interfund services provided and used. Nonreciprocal interfund activities include interfund transfers and interfund reimbursements.
- Internal service fund** A fund used to account for any activity that provides goods or services to other funds, departments, or agencies of the primary government on a cost-reimbursement basis.
- International Accounting Standards Board (IASB)** A committee whose missions are to formulate international accounting standards used in the presentation of financial statements and to promote their worldwide acceptance and observation.
- International Federation of Accountants (IFAC)** An organization of practicing international accountants that is responsible for appointing members to the IASC Board.
- International Financial Reporting Standards (IFRS)** Standards issued by the International Accounting Standards Board (IASB) as part of a drive toward the global harmonization of accounting practices.
- Investee** A corporation that issues (sells) voting stock held by an investor (buyer).
- Investment trust funds** Funds used to report the external portion of investment pools reported by the sponsoring government.
- Investor** A business entity that holds an investment in voting stock of another company.
- Joint and severally liable** Legal action may be brought against all the partners together or against any one or more of the partners in separate suits.
- Joint venture** An arrangement entered into by two or more parties to accomplish a single or limited purpose for the mutual benefit of the members of the group, often to earn a profit.
- Leveraged buyout (LBO)** The creation by a group of employees (generally a management group) and third-party investors of a new company to acquire all the outstanding common shares of their employer company. The management group contributes whatever stock they hold to the new corporation and borrows sufficient funds to acquire the remainder of the common stock.
- Limited partnership** A partnership in which one or more of the partners are general and one or more are limited. Limited partners invest capital only and limit their liability for partnership obligations to the extent of the amount invested.
- Liquidating dividend** In the context of business combinations, dividends declared by a subsidiary in excess of its cumulative earnings since acquisition.
- Loan funds of an NNO** Funds used to account for loans to students and staff of colleges and universities, to hospitals, and to beneficiaries of the interests of certain ONNOs (e.g., loans to music students by symphony orchestra societies). Loan funds are generally revolving (repayments of loan balances and interest are in turn lent to other individuals).
- Local currency** The currency in which a foreign entity will generally measure and record its transactions, usually the currency of the country in which it is located.
- Major funds of a government** Funds of a government that are required to be displayed separately on the balance sheet and the statement of revenues, expenditures, and changes in fund balances. Size percentage cutoffs are used to determine the major funds.
- Majority-owned subsidiary** A subsidiary in which a parent or the parent’s other majority-owned subsidiaries hold more than 50% of the outstanding voting stock.
- Modified accrual accounting** A variation of accrual accounting used by expendable fund entities. Revenues must be both measurable and available to liquidate liabilities of the current period before they are recognized.
- Expenditures are recognizable when an event is expected to use current spendable resources, rather than future resources.
- Monetary accounts** Cash and other assets and liability accounts that are to be settled in cash.
- Mutual agency** One of the characteristics of a general partnership; each general partner is an agent of both the partnership and every other partner. Thus a partner can bind the other partners to a contract.
- Net assets** An entity’s assets minus liabilities.
- Net Assets** Not-for-profits report net assets into two categories: net assets with donor restrictions and net assets without donor restrictions. Previously, net assets were reported in three categories: Permanently restricted, temporarily restricted, and unrestricted.
- Net assets (not-for-profit)** Term replacing the label “fund balance” as historically used in not-for-profit organizations under the authority of the FASB. Net Assets are categorized into unrestricted, temporarily restricted, and permanently restricted categories.
- Net monetary position** Monetary assets minus monetary liabilities.
- Noncontrolling interest (minority interest)** The interest in the profits (losses) or net assets of a partially owned subsidiary of all shareholders other than the parent.
- Nongovernment nonbusiness organizations (NNOs)** NNOs include nonprofit institutions of higher education, hospitals and other healthcare providers, voluntary health and welfare organizations (VHWOs), and other nongovernment nonbusiness organizations (ONNOs).
- Operating segment** A component of an enterprise that may earn revenues and incur expenses, about which separate financial information is evaluated regularly by the chief operating decision maker in deciding how to allocate resources and in assessing performance.
- Option** A legal right to buy or sell something at a specified price, usually within a specified time period (for example, in a foreign currency option contract, the holder has the right to buy or sell a specified amount of currency according to stipulated terms).
- Other nongovernment nonbusiness organizations (ONNOs)** Wide variety of organizations taking assorted forms, ranging from cemetery organizations, civic organizations, and labor unions to performing arts organizations, political parties, private and community

- foundations, private elementary and secondary schools, and zoological and botanical societies.
- Parent** A company that controls another company, usually achieved by direct or indirect ownership of some or all of its voting stock.
- Parent company concept** A concept that emphasizes the interests of the parent's shareholders in such a way that the consolidated financial statements reflect those stockholder interests in the parent itself, plus their undivided interests in the net assets of the parent's subsidiaries.
- "Parent only" financial statements** The unconsolidated financial statements of a parent company, in which its subsidiaries are shown as investments.
- Partial equity method** A variation of the equity method, in which the reported income (loss) of the investee is used to measure the investor's income from investment, without adjustment.
- Partnership agreement** A contractual agreement between or among legally competent persons to form a voluntary partnership (may also be called a partnership contract or articles of partnership).
- Pension (and other employee benefit) trust funds** Funds used to report resources that are required to be held in trust for the members and beneficiaries of defined benefit pension plans, defined contribution plans, other postemployment benefit plans, or other employee benefit plans.
- Permanent fund** A fund used to account for resources that are legally restricted to the extent that the earnings, and not principal, can be used to support the activities of the government.
- Plant fund of an NNO** Fund used to account for (1) the property and equipment owned by the organization and the net investment, (2) the accumulation of financial resources for the acquisition or replacement of property and equipment, (3) the acquisition and disposal of property and equipment, (4) liabilities relating to the acquisition of property and equipment, and (5) depreciation expense and accumulated depreciation.
- Pooling of interests method** A method of accounting for business combinations, allowed prior to June 2001 in the United States in which the assets and liabilities of the combining firm are carried forward at their historical book values. This method, which requires the use of stock as the medium of exchange, is sometimes justified as the uniting of two or more groups of shareholders into a single "pooled" entity, with no group being dominant.
- Primary government** Part of the government including the government funds and the proprietary funds, but not including component units of the government.
- Pro forma statements** Financial statements prepared to show the effect of planned or contemplated transactions as if they had occurred during the period covered by the financial statements; sometimes called "as of" statements.
- Profit or loss agreement** An agreement that indicates how a partnership's profits or losses should be allocated. Common agreements are based on a fixed ratio, a ratio based on capital balances, interest on capital balances, an allocation based on time or managerial talent, or some combination of these.
- Proprietary (nonexpendable) fund entities** The activities of nonbusiness organizations that operate similar to those of business enterprises, such as water utilities. Proprietary funds include enterprise and internal service funds.
- Purchase method** See Acquisition accounting.
- Push down accounting** The establishment of a new accounting and reporting basis for a subsidiary company in its separate financial statements based on the purchase price paid by the parent company to acquire a controlling interest in the outstanding voting stock of the subsidiary company.
- Reciprocal stockholdings** A relationship created when two or more affiliates have ownership interests in each other; for example, the parent owns shares in a subsidiary that also owns shares in the parent.
- Relevance** One of the primary qualities of accounting information identified in *SFAC No. 2*, referring to the characteristic of making a difference in a decision.
- Reliability** One of the primary qualities of accounting information identified in *SFAC No. 2*, incorporating the characteristics of verifiability, representational faithfulness, and reasonable freedom from error and bias.
- Remeasurement** The process of translating the accounts of a foreign entity into its functional currency when they are stated in another currency (often used to refer to the temporal method).
- Remeasurement gain or loss** Gain or loss arising from the application of the temporal method to convert accounts from a nonfunctional foreign currency into U.S. dollars.
- Reportable segment** A segment considered to be significant to an enterprise's operations; specifically one that has passed one of three 10% tests or has been identified as being reportable through other criteria (aggregation, for example).
- Reporting currency** The currency in which a company reporting entity prepares its financial statements, usually the domestic currency of the country in which the company is domiciled.
- Restricted fund entities** An expendable fund whose current financial resources are limited as to use because of externally imposed restrictions.
- Safe payment approach** A schedule used in an installment liquidation that guarantees that before any cash is distributed to partners, the partners' remaining capital balances are sufficient to absorb any potential loss.
- Segment assets** Those tangible and intangible assets directly associated with, or used by, a segment, including any allocated portion of assets used jointly by more than one segment.
- Segment operating profit or loss** All of a segment's revenue minus all operating expenses, including any allocated revenues or expenses (e.g., common costs).
- Segment revenue** The revenue from sales to unaffiliated customers and from intersegment sales or transfers.
- Service-type special assessment** An assessment levied against property owners for services that benefit them.
- Settlement date** Date at which a payable is paid or a receivable is collected.
- Simple liquidation** A procedure in which all noncash assets are converted into cash before any assets are distributed to creditors and partners.
- Sound value** The fair value of used assets in appraisal reports.
- Special items** Significant fund accounting transactions within the control of management that are either unusual or infrequent.
- Special revenue fund** A fund used to account for the proceeds of specific revenue sources that are legally restricted to expenditures for specified purposes.
- Spot rate** An exchange rate quoted for immediate delivery of a currency.
- Statutory consolidation** A consolidation resulting when a new corporation is formed to acquire two or more other corporations through an exchange of voting stock; the

- acquired corporations then cease to exist as separate legal entities.
- Statutory merger** A legal term referring to the loss of a subsidiary's corporate legal entity status by canceling its corporate charter. The parent takes title to the newly acquired subsidiary's assets and assumes responsibility for its liabilities, and the subsidiary ceases to exist as a separate legal entity, although it may be continued as a separate division of the acquiring company.
- Stock acquisition** A business combination in which one corporation pays cash or issues stock or debt for all or part of the voting stock of another company, and the acquired company remains intact as a separate legal entity.
- Stock exchange ratio** A ratio generally defined as the number of shares of the acquiring company to be exchanged for each share of the acquired company, thus constituting a negotiated price.
- Subsidiary** A company that is controlled by another company through direct or indirect ownership of some or all of its voting stock.
- 20-F statement** A form filed annually with the Securities and Exchange Commission (SEC) by foreign firms that list in the U.S. stock exchanges.
- Takeover premium** The excess of the amount offered, or agreed upon, in an acquisition over the prior stock price of the acquired firm.
- Temporal method** A method of converting accounts from a foreign currency into the functional currency, in which monetary assets and liabilities are translated at the current exchange rate; assets and liabilities carried at historical cost are translated at historical exchange rates; and assets and liabilities carried at current values are translated at the current exchange rate (also called remeasurement).
- Tender offer** An offer made directly to the shareholders of a company targeted by another company in a potential business combination. Usually published in a newspaper, a tender offer typically provides a price higher than the current market price for shares made available by a certain date.
- Totally held subsidiary** A subsidiary in which a parent or the parent's other majority-owned subsidiaries hold substantially all the subsidiary's outstanding equity securities and where the subsidiary is not materially indebted to any party other than the parent and/or the parent's other totally held subsidiaries.
- Transaction gain or loss** The gain or loss that arises from holding foreign currency receivables or payables and resulting from changes in exchange rates between the transaction date and the settlement date.
- Transfer pricing** The pricing of products or services between operating segments or geographic areas.
- Translation** Term is used in the two following ways: (1) as a generic term to apply to any restatement of foreign currency units into the reporting currency and (2) more specifically, to apply to the restatement of foreign currency units that are already measured in the functional currency into dollars (current rate method).
- Translation adjustments** Dual-meaning term referring either to: (1) any gains or losses resulting from the effects of converting financial statements from foreign currency into the parent's reporting currency or (2) those gains and losses arising from the application of the current method to convert from the functional currency into U.S. dollars.
- Treasury stock method** An accounting method under which a reciprocal stockholding is presented as treasury stock on the consolidated balance sheet from the perspective of the parent firm, and the noncontrolling shareholders' interest in the parent is essentially ignored.
- Undistributed subsidiary income** The difference between the parent's share of the subsidiary's income, which is included in consolidated net income, and the amount of dividends received from the subsidiary, which is included in its taxable income if the affiliates file separate tax returns.
- Unlimited liability** A feature of a general partnership, establishing that each partner is jointly and severally liable for the debts and obligations of the partnership. Thus creditors, in a liquidation, can proceed against the personal assets for recovery of claims.
- Unrealized intercompany profit (loss)** Profit (loss) that has not been realized from the point of view of the consolidated entity through subsequent sales to third parties and must be eliminated in the preparation of consolidated financial statements.
- Upstream sales** Sales by subsidiary companies to the parent company.
- Variable interest entity (VIE)** A legal entity subject to consolidation (generally, the investor has obtained less than a majority-owned interest). VIEs are entities whose equity investors do not have sufficient equity at risk such that the entity cannot finance its own activities. VIEs often are created for a single specified purpose, for example, to facilitate securitization, leasing, hedging, research and development, reinsurance, or other transactions or arrangements.
- Vertical combination (vertical integration)** A business combination among companies within the same industry operating at different levels (supplier and customer).
- Voluntary health and welfare organizations (VHWOs)** Organizations that derive their revenues from voluntary contributions of the general public to be used for purposes connected with health, welfare, or community services.
- Wholly owned subsidiary** A subsidiary in which all of the subsidiary's outstanding voting stock is owned by the parent and/or the parent's other wholly owned subsidiaries.



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