



# Advanced Accounting

13th Edition

*Floyd A. Beams  
Joseph H. Anthony  
Bruce Bettinghaus  
Kenneth Smith*

 Pearson

ADVANCED  
ACCOUNTING

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ADVANCED  
ACCOUNTING

13TH EDITION

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Virginia Polytechnic Institute  
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Michigan State University

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*To Beth*

JOE ANTHONY

*To Trish*

BRUCE BETTINGHAUS

*To Karen, Madelyn and AJ*

KENNETH A. SMITH

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# ABOUT THE AUTHORS

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# PREFACE

## NEW TO THIS EDITION

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Important changes in the 13th edition of *Advanced Accounting* include the following:

- The text has been rewritten to align with both the *Financial Accounting Standards Board Accounting Standards Codification* and the *Governmental Accounting Standards Board Codification*. References to original pronouncements have been deleted, except where important in an historical context.
- The text now provides references to official pronouncements parenthetically within the text. Text length is reduced and rendered much more readable for the students. References to the Codification appear parenthetically (e.g., ASC 740-10-15).
- End of chapter materials have been modified to include Professional Research assignments. These assignments require students to access the authoritative literature. Solutions offered to these assignments are up to date as of May 2016. Instructors will want to verify that those have not changed.
- All chapters have been updated to include coverage of the latest international reporting standards and issues, where appropriate. As U.S. and international reporting standards move toward greater harmonization, the international coverage continues to expand in the 13<sup>th</sup> edition.
- All chapters have been updated to reflect the most recent changes to the *Financial Accounting Standards Board Codification* and *Governmental Accounting Standards Board Codification*.
  - Chapter 16 has been modified to clarify GAAP/non-GAAP issue with partnership accounting in instances where the addition of a new partner may constitute a business combination.
- The governmental and not-for-profit chapters have been updated to include all standards through *GASB No. 81*. These chapters have also been enhanced with illustrations of the financial statements from Golden, Colorado. Coverage now includes the new financial statement elements (deferred inflows and outflows), as well as several new pension standards. Chapter 20 includes an exhibit with t-accounts to help students follow the governmental fund transactions and their financial statement impact.
- Chapter 23 coverage of fiduciary accounting for estates and trusts has been revised and updated to reflect current taxation of these entities as of December 31, 2015. Assignment materials have been modified to enhance student learning.

This 13th edition of *Advanced Accounting* is designed for undergraduate and graduate students majoring in accounting. This edition includes 23 chapters designed for financial accounting courses beyond the intermediate level. Although this text is primarily intended for accounting students, it is also useful for accounting practitioners interested in preparation or analysis of consolidated financial statements, accounting for derivative securities, and governmental and not-for-profit accounting and reporting. This 13th edition has been thoroughly updated to reflect recent business developments, as well as changes in accounting standards and regulatory requirements.

This comprehensive textbook addresses the practical financial reporting problems encountered in consolidated financial statements, goodwill, other intangible assets, and derivative securities. The

text also includes coverage of foreign currency transactions and translations, partnerships, corporate liquidations and reorganizations, governmental accounting and reporting, not-for-profit accounting, and estates and trusts.

An important feature of the 13th edition is the continued student orientation, which has been further enhanced with this edition. This 13th edition strives to maintain an interesting and readable text for the students. The focus on the complete equity method is maintained to allow students to focus on accounting concepts rather than bookkeeping techniques in learning the consolidation materials. This edition also maintains the reference text quality of prior editions through the use of appendices to the consolidation chapters. These appendices cover pooling of interests accounting, trial balance workpaper formats, and easy to understand conversions from an incomplete equity method or cost method to the complete equity method. Students can then follow the main text approach to preparing consolidated financial statements using the complete equity method. The presentation of consolidation materials highlights working paper-only entries with shading and presents working papers on single upright pages. All chapters include current excerpts from the popular business press and references to familiar real-world companies, institutions, and events. This book uses examples from annual reports of well-known companies and governmental and not-for-profit institutions to illustrate key concepts and maintain student interest. Assignment materials include adapted items from past CPA examinations and have been updated and expanded to maintain close alignment with coverage of the chapter concepts. Assignments have been updated to include additional research cases and simulation-type problems, as well as the Professional Research assignments mentioned previously. This edition maintains identification of names of parent and subsidiary companies beginning with P and S, allowing immediate identification. It also maintains parenthetical notation in journal entries to clearly indicate the direction and types of accounts affected by the transactions. The 13th edition retains the use of learning objectives throughout all chapters to allow students to better focus study time on the most important concepts.

## ORGANIZATION OF THIS BOOK

Chapters 1 through 11 cover business combinations, the equity, fair value and cost methods of accounting for investments in common stock, and consolidated financial statements. This emphasizes the importance of business combinations and consolidations in advanced accounting courses as well as in financial accounting and reporting practices.

Accounting and reporting standards for acquisitions are introduced in Chapter 1. Chapter 1 also provides necessary background material on the form and economic impact of business combinations. The Appendix to Chapter 1 provides a summary on Pooling of Interests Accounting. Chapter 2 introduces the complete equity method of accounting as a one-line consolidation, and this approach is integrated throughout subsequent chapters on consolidations. This approach permits alternate computations for such key concepts as consolidated net income and consolidated retained earnings, and it helps instructors explain the objectives of consolidation procedures. The alternative computational approaches also assist students by providing a check figure for their logic on these key concepts. The one-line consolidation is maintained as the standard for a parent company in accounting for investments in its subsidiaries. Chapter 3 introduces the preparation of consolidated financial statements. Students learn how to record the fair values of the subsidiary's identifiable net assets and implied goodwill. Chapter 4 continues consolidations coverage, introducing working paper techniques and procedures. The text emphasizes the three-section, vertical financial statement working paper approach throughout, but Appendix A to Chapter 4 also offers a trial balance approach. The standard employed throughout the consolidation chapters is working papers for a parent company that uses the complete equity method of accounting for investments in subsidiaries. Appendix B to Chapter 4 provides a clear approach to convert from either the Incomplete Equity Method or the Cost Method to the complete equity method of accounting.

Chapters 5 through 7 cover intercompany transactions in inventories, plant assets, and bonds.

Chapter 8 discusses changes in the level of subsidiary ownership, and Chapter 9 introduces more complex affiliation structures. Chapter 10 covers several consolidation-related topics: subsidiary preferred stock, consolidated earnings per share, and income taxation for consolidated business

entities. Chapter 11 is a theory chapter that discusses alternative consolidation theories, push-down accounting, leveraged buyouts, corporate joint ventures, and key concepts related to accounting and reporting by variable interest entities. Chapters 9 through 11 cover specialized topics and have been written as stand-alone materials. Coverage of these chapters is not necessary for assignment of subsequent text chapters.

Business enterprises become more global in nature with each passing day. Survival of a modern business depends upon access to foreign markets, suppliers, and capital. Some of the unique challenges of international business and financial reporting are covered in Chapters 12 and 13. These chapters cover accounting for derivatives and foreign currency transactions and translations. As in the prior edition, Chapter 12 covers the concepts and common transactions for derivatives and foreign currency, and Chapter 13 covers accounting for derivative and hedging activities. Coverage includes import and export activities and forward or similar contracts used to hedge against potential exchange losses. Chapter 14 focuses on preparation of consolidated financial statements for foreign subsidiaries. This chapter includes translation and remeasurement of foreign-entity financial statements, one-line consolidation of equity method investees, consolidation of foreign subsidiaries for financial reporting purposes, and the combination of foreign branch operations.

Chapter 15 introduces topics of segment reporting under *FASB ASC Topic 280*, as well as interim financial reporting issues. Partnership accounting and reporting are covered in Chapters 16 and 17. Chapter 16 has been updated to include consideration of cases where a partnership change meets the criteria for treatment as a business combination. Chapter 18 discusses accounting and reporting procedures related to corporate liquidations and reorganizations.

Chapters 19 through 20 provide an introduction to governmental accounting, and Chapter 22 introduces accounting for voluntary health and welfare organizations, hospitals, and colleges and universities. These chapters are completely updated through *GASB Statement No. 81*, and provide students with a good grasp of key concepts and procedures related to not-for-profit accounting.

Finally, Chapter 23 provides coverage of fiduciary accounting and reporting for estates and trusts.

## **INSTRUCTORS' RESOURCES**

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The following instructors' resources are available for download at [www.pearsonhighered.com](http://www.pearsonhighered.com):-

- **Solutions Manual:** Prepared by the authors, the solutions manual includes updated answers to questions, and solutions to exercises and problems. Solutions to assignment materials included in the electronic supplements are also included. Solutions are provided in electronic format, making electronic classroom display easier for instructors. All solutions have been accuracy-checked to maintain high-quality work.
- **Instructor's Manual:** The instructor's manual contains comprehensive outlines of all chapters, class illustrations, descriptions for all exercises and problems (including estimated times for completion), and brief outlines of new standards set apart for easy review.
- **Test Bank:** This file includes test questions in true/false, multiple-choice, short-answer, and problem formats. Solutions to all test items are also included.
- **PowerPoint Presentation:** A ready-to-use PowerPoint slideshow designed for classroom presentation is available. Instructors can use it as-is or edit content to fit particular classroom needs.

## **STUDENT RESOURCES**

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To access the student resources, visit [www.pearsonhighered.com/beams](http://www.pearsonhighered.com/beams). It includes problem templates for selected assignments. The templates minimize the time spent on inputting problem data, allowing students to focus their efforts on understanding the concepts and procedures.

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Sample

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# Business Combinations

- On November 23, 2015, *Pfizer* announced it would acquire *Allergan* for \$160 billion, making Pfizer one of the world's largest healthcare firms.
- On December 31, 2008, *Wells Fargo & Company* acquired all of the outstanding shares of *Wachovia Corporation* for \$23.1 billion, making Wells Fargo one of the largest U.S. commercial banks.
- In October 2001, *Chevron* and *Texaco* announced completion of their merger agreement valued in excess of \$30 billion.
- In 1998, gasoline-producing rivals *Exxon* and *Mobil* merged to form *ExxonMobil* Corporation in a deal valued at \$80 billion.

Welcome to the world of business combinations. There has been an unparalleled growth in merger and acquisition activities in both the United States and in international markets since the 1990s. The level of activities fluctuates with changes in stock markets, as many combinations are achieved through stock-for-stock exchanges, rather than outright cash purchases of another company.

Merger activities slowed with the stock market downturn in 2001, and again during the financial crisis of 2008, but when the market recovers, the pace picks up. The year 2015 saw stock values soar and an accompanying record level of mergers and acquisitions of over \$5 trillion worldwide. Approximately half of these occurred in the United States. The following firms announced combinations in 2015. *Allergan* agreed to be acquired by *Pfizer* for \$160 billion. *Anheuser-Busch InBev* announced the intent to acquire *SAB Miller* for \$117.4 billion. *HJ Heinz* completed a purchase of *Kraft Foods* for \$62.6 billion.

Firms strive to produce economic value added for shareholders. Related to this strategy, expansion has long been regarded as a proper goal of business entities. A business may choose to expand either internally (building its own facilities) or externally (acquiring control of other firms in business combinations). The focus in this chapter is on why firms often prefer external over internal expansion options and how financial reporting reflects the outcome of these activities.

In general terms, **business combinations** unite previously separate business entities. The overriding objective of business combinations must be increasing profitability; however, many firms can become more efficient by horizontally or vertically integrating operations or by diversifying their risks through conglomerate operations.

**Horizontal integration** is the combination of firms in the same business lines and markets. The combinations of Pfizer and Allergan, Chevron and Texaco, Exxon and Mobil, and Wells Fargo and

## LEARNING OBJECTIVES

- 1.1 Understand the economic motivations underlying business combinations.
- 1.2 Learn about alternative forms of business combinations, from both the legal and accounting perspectives.
- 1.3 Introduce accounting concepts for business combinations, emphasizing the acquisition method.
- 1.4 See how firms record fair values of assets and liabilities in an acquisition.
- 1.5 Appendix: Review accounting concepts for a pooling of interests.

## EXHIBIT 1-1

## Segment Reporting at General Electric

Source: From 2014 GE Annual Report © 2015 GENERAL ELECTRIC.

| NOTE 24: OPERATING SEGMENTS      |                  |                  |                  |
|----------------------------------|------------------|------------------|------------------|
| Revenues (in millions)           |                  |                  |                  |
|                                  | Total Revenues   |                  |                  |
|                                  | 2015             | 2014             | 2013             |
| Power                            | \$ 21,490        | \$ 20,580        | \$ 19,315        |
| Renewable Energy                 | 6,273            | 6,399            | 4,824            |
| Oil & Gas                        | 16,450           | 19,085           | 17,341           |
| Energy Management                | 7,600            | 7,319            | 7,569            |
| Aviation                         | 24,660           | 23,990           | 21,911           |
| Healthcare                       | 17,639           | 18,299           | 18,200           |
| Transportation                   | 5,933            | 5,650            | 5,885            |
| Appliances & Lighting            | 8,751            | 8,404            | 8,338            |
| Total industrial                 | 108,796          | 109,727          | 103,383          |
| Capital                          | 10,801           | 11,320           | 11,267           |
| Corporate items and eliminations | (2,211)          | (3,863)          | (1,405)          |
| Total                            | <u>\$117,386</u> | <u>\$117,184</u> | <u>\$113,245</u> |

The note goes on to provide similar detailed breakdown of intersegment revenues; external revenues; assets; property, plant, and equipment additions; depreciation and amortization; interest and other financial charges; and the provision for income taxes.

Wachovia are examples of horizontal integration. The past 25 years have witnessed significant consolidation activity in banking and other industries. *Kimberly-Clark* acquired *Scott Paper*, creating a consumer paper and related products giant. *American Airlines* took control of its rival *U.S. Airways* in 2013 at a cost of \$4.592 billion.

**Vertical integration** is the combination of firms with operations in different, but successive, stages of production or distribution, or both. In March 2007, *CVS Corporation* and *Caremark Rx, Inc.*, merged to form *CVS/Caremark Corporation* in a deal valued at \$26 billion. The deal joined the nation's largest pharmacy chain with one of the leading healthcare/pharmaceuticals service companies.

**Conglomeration** is the combination of firms with unrelated and diverse products or service functions, or both. Firms may diversify to reduce the risk associated with a particular line of business or to even out cyclical earnings, such as might occur in a utility's acquisition of a manufacturing company. Several utilities combined with telephone companies after the 1996 Telecommunications Act allowed utilities to enter the telephone business.

The early 1990s saw tobacco maker *Phillip Morris Company* acquire food producer *Kraft* in a combination that included over \$11 billion of recorded goodwill alone. Although all of us have probably purchased a light bulb manufactured by *General Electric Company*, the scope of the firm's operations goes well beyond that household product. Exhibit 1-1 excerpts Note 24 from General Electric's 2015 annual report on its major operating segments.

## LEARNING OBJECTIVE 1.1

## REASONS FOR BUSINESS COMBINATIONS

If expansion is a proper goal of business enterprise, why would a business expand through combination rather than by building new facilities? Among the many possible reasons are the following:

**Cost Advantage.** It is frequently less expensive for a firm to obtain needed facilities through combination than through development. This is particularly true in periods of inflation. Reduction of the total cost for research and development activities was a prime motivation in *AT&T's* acquisition of *NCR*.

**Lower Risk.** The purchase of established product lines and markets is usually less risky than developing new products and markets. The risk is especially low when the goal is diversification. Scientists may discover that a certain product provides an environmental or health hazard. A single-product, nondiversified firm may be forced into bankruptcy by such a discovery, whereas a multiproduct, diversified company is more likely to survive. For companies in industries already plagued with excess manufacturing capacity, business combinations may be the only way to grow. When *Toys R Us* decided to diversify its operations to include baby furnishings and other related products, it purchased retail chain *Baby Superstore*.

**Fewer Operating Delays.** Plant facilities acquired in a business combination are operative and already meet environmental and other governmental regulations. The time to market is critical, especially in the technology industry. Firms constructing new facilities can expect numerous delays in construction, as well as in getting the necessary governmental approval to commence operations. Environmental impact studies alone can take months or even years to complete.

**Avoidance of Takeovers.** Many companies combine to avoid being acquired themselves. Smaller companies tend to be more vulnerable to corporate takeovers; therefore, many of them adopt aggressive buyer strategies to defend against takeover attempts by other companies.

**Acquisition of Intangible Assets.** Business combinations bring together both intangible and tangible resources. The acquisition of patents, mineral rights, research, customer databases, or management expertise may be a primary motivating factor in a business combination. When *IBM* purchased *Lotus Development Corporation*, \$1.84 billion of the total cost of \$3.2 billion was allocated to research and development in process.

**Other Reasons.** Firms may choose a business combination over other forms of expansion for business tax advantages (e.g., tax-loss carryforwards), for personal income and estate-tax advantages, or for personal reasons. One of several motivating factors in the combination of *Wheeling-Pittsburgh Steel*, a subsidiary of *WHX*, and *Handy & Harman* was Handy & Harman's overfunded pension plan, which virtually eliminated Wheeling-Pittsburgh Steel's unfunded pension liability. The egos of company management and takeover specialists may also play an important role in some business combinations.

## ANTITRUST CONSIDERATIONS

Federal antitrust laws prohibit business combinations that restrain trade or impair competition. The U.S. Department of Justice and the Federal Trade Commission (FTC) have primary responsibility for enforcing federal antitrust laws. For example, in 1997 the FTC blocked *Staples's* proposed \$4.3 billion acquisition of *Office Depot*, arguing in federal court that the takeover would be anti-competitive. *Office Depot* acquired rival *OfficeMax* in 2013.

In 2004, the FTC conditionally approved *Sanofi-Synthelabo SA's* \$64 billion takeover of *Aventis SA*, creating the world's third-largest drug manufacturer. Sanofi agreed to sell certain assets and royalty rights in overlapping markets in order to gain approval of the acquisition.

Business combinations in particular industries are subject to review by additional federal agencies. The Federal Reserve Board reviews bank mergers, the Department of Transportation scrutinizes mergers of companies under its jurisdiction, the Department of Energy has jurisdiction over some electric utility mergers, and the Federal Communications Commission (FCC) rules on the transfer of communication licenses. After the Justice Department cleared a \$23 billion merger between *Bell Atlantic Corporation* and *Nynex Corporation*, the merger was delayed by the FCC because of its concern that consumers would be deprived of competition. The FCC later approved the merger. The merger of *U.S. Airways* and *American Airlines* faced delay and scrutiny over the reduced competitive environment, but was finally approved in December 2013.

In addition to federal antitrust laws, most states have some type of statutory takeover regulations. Some states try to prevent or delay hostile takeovers of the business enterprises incorporated within

their borders. On the other hand, some states have passed antitrust exemption laws to protect hospitals from antitrust laws when they pursue cooperative projects.

Interpretations of antitrust laws vary from one administration to another, from department to department, and from state to state. Even the same department under the same administration can change its mind. A completed business combination can be re-examined by the FTC at any time. Deregulation in the banking, telecommunication, and utility industries permits business combinations that once would have been forbidden. In 1997, the Justice Department and the FTC jointly issued new guidelines for evaluating proposed business combinations that allow companies to argue that cost savings or better products could offset potential anticompetitive effects of a merger.

## LEARNING OBJECTIVE 1.2

### LEGAL FORM OF BUSINESS COMBINATIONS

*Business combination* is a general term that encompasses all forms of combining previously separate business entities. Such combinations are **acquisitions** when one corporation acquires the productive assets of another business entity and integrates those assets into its own operations. Business combinations are also acquisitions when one corporation obtains operating control over the productive facilities of another entity by acquiring a majority of its outstanding voting stock. The acquired company need not be dissolved; that is, the acquired company does not have to go out of existence.

The terms **merger** and **consolidation** are often used as synonyms for acquisitions. However, legally and in accounting there is a difference. A merger entails the dissolution of all but one of the business entities involved. A consolidation entails the dissolution of all the business entities involved and the formation of a new corporation.

A *merger* occurs when one corporation takes over all the operations of another business entity, and that entity is dissolved. For example, Company A purchases the assets of Company B directly from Company B for cash, other assets, or Company A securities (stocks, bonds, or notes). This business combination is an acquisition, but it is not a merger unless Company B goes out of existence. Alternatively, Company A may purchase the stock of Company B directly from Company B's stockholders for cash, other assets, or Company A securities. This acquisition will give Company A operating control over Company B's assets. It will not give Company A legal ownership of the assets unless it acquires all the stock of Company B and elects to dissolve Company B (again, a merger).

A *consolidation* occurs when a new corporation is formed to take over the assets and operations of two or more separate business entities and dissolves the previously separate entities. For example, Company D, a newly formed corporation, may acquire the net assets of Companies E and F by issuing stock directly to Companies E and F. In this case, Companies E and F may continue to hold Company D stock for the benefit of their stockholders (an acquisition), or they may distribute the Company D stock to their stockholders and go out of existence (a consolidation). In either case, Company D acquires ownership of the assets of Companies E and F.

Alternatively, Company D could issue its stock directly to the stockholders of Companies E and F in exchange for a majority of their shares. In this case, Company D controls the assets of Company E and Company F, but it does not obtain legal title unless Companies E and F are dissolved. Company D must acquire all the stock of Companies E and F and dissolve those companies if their business combination is to be a consolidation. If Companies E and F are not dissolved, Company D will operate as a holding company, and Companies E and F will be its subsidiaries.

Future references in this chapter will use the term *merger* in the technical sense of a business combination in which all but one of the combining companies go out of existence. Similarly, the term *consolidation* will be used in its technical sense to refer to a business combination in which all the combining companies are dissolved, and a new corporation is formed to take over their net assets. *Consolidation* is also used in accounting to refer to the accounting process of combining parent and subsidiary financial statements, such as in the expressions "principles of consolidation," "consolidation procedures," and "consolidated financial statements." In future chapters, the meanings of the terms will depend on the context in which they are found.

Mergers and consolidations do not present special accounting problems or issues after the initial combination, apart from those discussed in intermediate accounting texts. This is because only one legal and accounting entity survives in a merger or consolidation.

## ACCOUNTING CONCEPT OF BUSINESS COMBINATIONS

Generally accepted accounting principles (GAAP) define the accounting concept of a business combination as:

*A transaction or other event in which an acquirer obtains control of one or more businesses. Transactions sometimes referred to as true mergers or mergers of equals also are business combinations. (ASC 805-10)<sup>1</sup>*

Note that the accounting concept of a business combination emphasizes the creation of a single entity and the independence of the combining companies before their union. Although one or more of the companies may lose its separate legal identity, dissolution of the legal entities is not necessary within the accounting concept.

Previously separate businesses are brought together into one entity when their business resources and operations come under the control of a single management team. Such control within one business entity is established in business combinations in which:

1. One or more corporations become subsidiaries;
2. One company transfers its net assets to another; or
3. Each company transfers its net assets to a newly formed corporation.

A corporation becomes a **subsidiary** when another corporation acquires a majority (more than 50 percent) of its outstanding voting stock. Thus, one corporation need not acquire all of the stock of another corporation to consummate a business combination. In business combinations in which less than 100 percent of the voting stock of other combining companies is acquired, the combining companies necessarily retain separate legal identities and separate accounting records even though they have become one entity for financial reporting purposes.

Business combinations in which one company transfers its net assets to another can be consummated in a variety of ways, but the acquiring company must acquire substantially all the net assets in any case. Alternatively, each combining company can transfer its net assets to a newly formed corporation. Because the newly formed corporation has no net assets of its own, it issues its stock to the other combining companies or to their stockholders or owners.

### A Brief Background on Accounting for Business Combinations

Accounting for business combinations is one of the most important and interesting topics of accounting theory and practice. At the same time, it is complex and controversial. Business combinations involve financial transactions of enormous magnitudes, business empires, success stories and personal fortunes, executive genius, and management fiascos. By their nature, they affect the fate of entire companies. Each is unique and must be evaluated in terms of its economic substance, irrespective of its legal form.

Historically, much of the controversy concerning accounting requirements for business combinations involved the **pooling of interests method**, which became generally accepted in 1950. Although there are conceptual difficulties with the pooling method, the underlying problem that arose was the introduction of alternative methods of accounting for business combinations (pooling versus purchase). Numerous financial interests are involved in a business combination, and alternate accounting procedures may not be neutral with respect to different interests. That is, the individual financial interests and the final plan of combination may be affected by the method of accounting.

Until 2001, accounting requirements for business combinations recognized both the pooling and purchase methods of accounting for business combinations. In August 1999, the Financial Accounting Standards Board (FASB) issued a report supporting its proposed decision to eliminate pooling. Principal reasons cited included the following:

- Pooling provides less relevant information to statement users.
- Pooling ignores economic value exchanged in the transaction and makes subsequent performance evaluation impossible.
- Comparing firms using the alternative methods is difficult for investors.

Pooling creates these problems because it uses historical book values to record combinations, rather than recognizing fair values of net assets at the transaction date. GAAP generally require recording asset acquisitions at fair values.

<sup>1</sup>FASB ASC 805-10. Originally Statement of Financial Accounting "Business Combinations." Stamford, CT: Financial Accounting Standards Board, 2016.

Further, the FASB believed that the economic notion of a pooling of interests rarely exists in business combinations. More realistically, virtually all combinations are acquisitions, in which one firm gains control over another.

GAAP eliminated the pooling of interests method of accounting for all transactions initiated after June 30, 2001. (ASC 805) Combinations initiated subsequent to that date must use the acquisition method. Because the new standard prohibited the use of the pooling method only for combinations initiated after the issuance of the revised standard, prior combinations accounted for under the pooling of interests method were grandfathered; that is, both the acquisition and pooling methods continue to exist as acceptable financial reporting practices for past business combinations.

Therefore, one cannot ignore the conditions for reporting requirements under the pooling approach. On the other hand, because no new poolings are permitted, this discussion focuses on the acquisition method. More detailed coverage of the pooling of interests method is relegated to the Appendix to this chapter.

**INTERNATIONAL ACCOUNTING** Elimination of pooling made GAAP more consistent with international accounting standards. Most major economies prohibit the use of the pooling method to account for business combinations. International Financial Reporting Standards (IFRS) require business combinations to be accounted for using the acquisition method, and specifically prohibit the pooling of interests method. In introducing the new standard, International Accounting Standards Board (IASB) Chairman Sir David Tweedie noted:

*Accounting for business combinations diverged substantially across jurisdictions. IFRS 3 marks a significant step toward high quality standards in business combination accounting, and in ultimately achieving international convergence in this area. (IFRS 3)<sup>2</sup>*

Accounting for business combinations was a major joint project between the FASB and IASB. As a result, accounting in this area is now generally consistent between GAAP and IFRS. Some differences remain, and we will point them out in later chapters as appropriate.

LEARNING  
OBJECTIVE **1.3**

### ACCOUNTING FOR COMBINATIONS AS ACQUISITIONS

GAAP requires that all business combinations initiated after December 15, 2008, be accounted for as acquisitions. (ASC 810-10) The **acquisition method** follows the same GAAP for recording a business combination as we follow in recording the purchase of other assets and the incurrence of liabilities. We record the combination using the fair-value principle. In other words, we measure the cost to the purchasing entity of acquiring another company in a business combination by the amount of cash disbursed or by the fair value of other assets distributed or securities issued.

We expense the direct costs of a business combination (such as accounting, legal, consulting, and finder's fees) other than those for the registration or issuance of equity securities. We charge registration and issuance costs of equity securities issued in a combination against the fair value of securities issued, usually as a reduction of additional paid-in capital. We expense indirect costs such as management salaries, depreciation, and rent under the acquisition method. We also expense indirect costs incurred to close duplicate facilities.

#### NOTE TO THE STUDENT

The topics covered in this text are sometimes complex and involve detailed exhibits and illustrative examples. Understanding the exhibits and illustrations is an integral part of the learning experience, and you should study them in conjunction with the related text. Carefully review the exhibits as they are introduced in the text. Exhibits and illustrations are designed to provide essential information and explanations for understanding the concepts presented.

Understanding the financial statement impact of complex business transactions is an important element in the study of advanced financial accounting topics. To assist you in this learning endeavor, this book depicts journal entries that include the types of accounts being affected and the directional impact of the event. Conventions used throughout the text are as follows: A parenthetical reference added to each account affected by a journal entry indicates the type of account and the effect of the entry. For example, an increase in accounts receivable, an asset account, is denoted as "Accounts receivable (+ A)." A decrease in this account is denoted as "Accounts receivable(- A)." The symbol (A) stands for assets, (L) for liabilities, (SE) for stockholders' equity accounts, (R) for revenues, (E) for expenses, (Ga) for gains, and (Lo) for losses.

<sup>2</sup>© IFRS 3. "Business Combinations." London, UK: International Accounting Standards Board, 2004.

To illustrate, assume that Pop Corporation issues 100,000 shares of \$10 par common stock for the net assets of Son Corporation in a business combination on July 1, 2016. The market price of Pop common stock on this date is \$16 per share. Additional direct costs of the combination consist of Securities and Exchange Commission (SEC) fees of \$5,000, accountants' fees in connection with the SEC registration statement of \$10,000, costs for printing and issuing the common stock certificates of \$25,000, and finder's and consultants' fees of \$80,000.

Pop records the issuance of the 100,000 shares on its books as follows (in thousands):

|                                  |       |       |
|----------------------------------|-------|-------|
| Investment in Son (+A)           | 1,600 |       |
| Common stock, \$10 par (+SE)     |       | 1,000 |
| Additional paid-in capital (+SE) |       | 600   |

To record issuance of 100,000 shares of \$10 par common stock with a market price of \$16 per share in a combination with Son Corporation.

Pop records additional direct costs of the business combination as follows:

|                                  |    |     |
|----------------------------------|----|-----|
| Investment expense (E, -SE)      | 80 |     |
| Additional paid-in capital (-SE) | 40 |     |
| Cash (or other net assets) (-A)  |    | 120 |

To record additional direct costs of combining with Son Corporation: \$80,000 for finder's and consultants' fees and \$40,000 for registering and issuing equity securities.

We treat registration and issuance costs of \$40,000 as a reduction of the fair value of the stock issued and charge these costs to Additional paid-in capital. We expense other direct costs of the business combination (\$80,000). The total cost to Pop of acquiring Son is \$1,600,000, the amount entered in the Investment in Son account.

We accumulate the total cost incurred in purchasing another company in a single-investment account, regardless of whether the other combining company is dissolved or the combining companies continue to operate in a parent-subsidary relationship. If we dissolve Son Corporation, we record its identifiable net assets on Pop's books at fair value and record any excess of investment cost over fair value of net assets as goodwill. In this case, we allocate the balance recorded in the Investment in Son account by means of an entry on Pop's books. Such an entry might appear as follows (in thousands):

|                        |     |       |
|------------------------|-----|-------|
| Receivables (+A)       | XXX |       |
| Inventories (+A)       | XXX |       |
| Plant assets (+A)      | XXX |       |
| Goodwill (+A)          | XXX |       |
| Accounts payable (+L)  |     | XXX   |
| Notes payable (+L)     |     | XXX   |
| Investment in Son (-A) |     | 1,600 |

To record allocation of the \$1,600,000 cost of acquiring Son Corporation to identifiable net assets according to their fair values and to goodwill.

If we dissolve Son Corporation, we formally retire the Son Corporation shares. The former Son shareholders are now shareholders of Pop.

If Pop and Son Corporations operate as parent company and subsidiary, Pop will not record the entry to allocate the Investment in Son balance. Instead, Pop will account for its investment in Son by means of the Investment in Son account, and we will make the assignment of fair values to identifiable net assets required in the consolidation process.

Because of the additional complications of accounting for parent–subsidiary operations, the remainder of this chapter is limited to business combinations in which a single acquiring entity receives the net assets of the other combining companies. Subsequent chapters cover parent–subsidiary operations and the preparation of consolidated financial statements.

LEARNING  
OBJECTIVE **1.4**

### Recording Fair Values in an Acquisition

The first step in recording an acquisition is to determine the fair values of all identifiable tangible and intangible assets acquired and liabilities assumed in the combination. This can be a monumental task, but much of the work is done before and during the negotiating process for the proposed merger. Companies generally retain independent appraisers and valuation experts to determine fair values. GAAP provides guidance on the determination of fair values. There are three levels of reliability for fair-value estimates. (ASC 820-10) Level 1 is fair value based on established market prices. Level 2 uses the present value of estimated future cash flows, discounted based on an observable measure such as the prime interest rate. Level 3 includes other internally derived estimations. Throughout this text, we assume that total fair value is equal to the total market value, unless otherwise noted.

We record identifiable assets acquired, liabilities assumed, and any noncontrolling interest using fair values at the acquisition date. We determine fair values for all identifiable assets and liabilities, regardless of whether they are recorded on the books of the acquired company. For example, an acquired company may have expensed the costs of developing patents, blueprints, formulas, and the like. However, we assign fair values to such identifiable intangible assets of an acquired company in a business combination accounted for as an acquisition. (ASC 750-10)

Assets acquired and liabilities assumed in a business combination that arise from contingencies should be recognized at fair value if fair value can be reasonably estimated. If the fair value of such an asset or liability cannot be reasonably estimated, the asset or liability should be recognized in accordance with general FASB guidelines to *account for contingencies*. It is expected that most litigation contingencies assumed in an acquisition will be recognized only if a loss is probable and the amount of the loss can be reasonably estimated. (ASC 450)

There are few exceptions to the use of fair value to record assets acquired and liabilities assumed in an acquisition. Deferred tax assets and liabilities arising in a combination, pensions and other employee benefits, and leases should be accounted for in accordance with normal guidance for these items. (ASC 740)

We assign no value to the goodwill recorded on the books of an acquired subsidiary because such goodwill is an unidentifiable asset and because we value the goodwill resulting from the business combination directly: (ASC 715 and ASC 840-10)

*The acquirer shall recognize goodwill as of the acquisition date, measured as the excess of (a) over (b):*

- a. *The aggregate of the following:*
  1. *The consideration transferred measured in accordance with this Section, which generally requires acquisition-date fair value (ASC 805-30-30-7)*
  2. *The fair value of any noncontrolling interest in the acquiree*
  3. *In a business combination achieved in stages, the acquisition-date fair value of the acquirer's previously held equity interest in the acquiree*
- b. *The net of the acquisition-date [fair value] amounts of the identifiable assets acquired and the liabilities assumed measured in accordance with this Topic<sup>3</sup>*

**RECOGNITION AND MEASUREMENT OF OTHER INTANGIBLE ASSETS** GAAP (ASC 805-20) clarifies the recognition of intangible assets in business combinations under the acquisition method. Firms should recognize intangibles separate from goodwill only if they fall into one of two categories. Recognizable intangibles must meet either a separability criterion or a contractual-legal criterion.

GAAP defines intangible assets as either current or noncurrent assets (excluding financial instruments) that lack physical substance. Per GAAP:

*The acquirer shall recognize separately from goodwill the identifiable intangible assets acquired in a business combination. An intangible asset is identifiable if it meets either*

<sup>3</sup>FASB ASC 805-30-30-1 Originally Statement of Financial Accounting “Business Combinations.” Stamford, CT: Financial Accounting Standards Board, 2010.

*the separability criterion or the contractual-legal criterion described in the definition of identifiable.*

*The separability criterion means that an acquired intangible asset is capable of being separated or divided from the acquiree and sold, transferred, licensed, rented, or exchanged, either individually or together with a related contract, identifiable asset, or liability. An intangible asset that the acquirer would be able to sell, license, or otherwise exchange for something else of value meets the separability criterion even if the acquirer does not intend to sell, license, or otherwise exchange it. . . .*

*An acquired intangible asset meets the separability criterion if there is evidence of exchange transactions for that type of asset or an asset of a similar type, even if those transactions are infrequent and regardless of whether the acquirer is involved in them. . . .*

*An intangible asset that is not individually separable from the acquiree or combined entity meets the separability criterion if it is separable in combination with a related contract, identifiable asset, or liability. (ASC 805-30)<sup>4</sup>*

Intangible assets that are not separable should be included in goodwill. For example, acquired firms will have a valuable employee workforce in place, but this asset cannot be recognized as an intangible asset separately from goodwill. GAAP (reproduced in part in Exhibit 1-2) provides more detailed discussion and an illustrative list of intangible assets that firms can recognize separately from goodwill.

**CONTINGENT CONSIDERATION IN AN ACQUISITION** A business combination may provide for additional payments to the previous stockholders of the acquired company, contingent on future events or transactions. The contingent consideration may include the distribution of cash or other assets or the issuance of debt or equity securities.

Contingent consideration in an acquisition must be measured and recorded at fair value as of the acquisition date as part of the consideration transferred in the acquisition. In practice, this requires the acquirer to estimate the amount of consideration it will be liable for when the contingency is resolved in the future.

The contingent consideration can be classified as equity or as a liability. An acquirer may agree to issue additional shares of stock to the acquiree if the acquiree meets an earnings goal in the future. Then, the contingent consideration is in the form of equity. At the date of acquisition, the Investment and Paid-in Capital accounts are increased by the fair value of the contingent consideration. Alternatively, an acquirer may agree to pay additional cash to the acquiree if the acquiree meets an earnings goal in the future. Then, the contingent consideration is in the form of a liability. At the date of the acquisition, the Investment and Liability accounts are increased by the fair value of the contingent consideration.

The accounting treatment of subsequent changes in the fair value of the contingent consideration depends on whether the contingent consideration is classified as equity or as a liability. If the contingent consideration is in the form of equity, the acquirer does not remeasure the fair value of the contingency at each reporting date until the contingency is resolved. When the contingency is settled, the change in fair value is reflected in the equity accounts. If the contingent consideration is in the form of a liability, the acquirer measures the fair value of the contingency at each reporting date until the contingency is resolved. Changes in the fair value of the contingent consideration are reported as a gain or loss in earnings, and the liability is also adjusted. (ASC 805-30)

**COST AND FAIR VALUE COMPARED** After assigning fair values to all identifiable assets acquired and liabilities assumed, we compare the investment cost with the total fair value of identifiable assets less liabilities. If the investment cost exceeds net fair value, we first assign the excess to identifiable net assets according to their fair values and then assign the rest of the excess to goodwill.

In some business combinations, the total fair value of identifiable assets acquired over liabilities assumed may exceed the cost of the acquired company. The gain from such a **bargain purchase** is recognized as an ordinary gain by the acquirer.

<sup>4</sup>FASB ASC 805-20-55-11 through 55-38. Originally Statement of Financial Accounting Standards No. 141(R). "Business Combinations." Appendix A. Norwalk, CT: Financial Accounting Standards Board, 2007.

**EXHIBIT 1-2****Intangible Assets That Are Identifiable (ASC 805-20)**

Source: FASB ASC 805-20-55-11 through 55-38. Originally Statement of Financial Accounting Standards No. 141(R). "Business Combinations." Norwalk, CT: Financial Accounting Standards Board, 2007.

The following guidance presents examples of identifiable intangible assets acquired in a business combination. Some of the examples may have characteristics of assets other than intangible assets. The acquirer should account for those assets in accordance with their substance. The examples are not intended to be all-inclusive.

Intangible assets designated with the symbol # are those that arise from contractual or other legal rights. Those designated with the symbol \* do not arise from contractual or other legal rights but are separable. Intangible assets designated with the symbol # might also be separable, but separability is not a necessary condition for an asset to meet the contractual-legal criterion.

**Marketing-Related Intangible Assets**

- a. Trademarks, trade names, service marks, collective marks, certification marks #
- b. Trade dress (unique color, shape, package design) #
- c. Newspaper mastheads #
- d. Internet domain names #
- e. Noncompetition agreements #

**Customer-Related Intangible Assets**

- a. Customer lists \*
- b. Order or production backlog #
- c. Customer contracts and related customer relationships #
- d. Noncontractual customer relationships \*

**Artistic-Related Intangible Assets**

- a. Plays, operas, ballets #
- b. Books, magazines, newspapers, other literary works #
- c. Musical works such as compositions, song lyrics, advertising jingles #
- d. Pictures, photographs #
- e. Video and audiovisual material, including motion pictures or films, music videos, television programs #

**Contract-Based Intangible Assets**

- a. Licensing, royalty, standstill agreements #
- b. Advertising, construction, management, service or supply contracts #
- c. Lease agreements (whether the acquirer is the lessee or the lessor) #
- d. Construction permits #
- e. Franchise agreements #
- f. Operating and broadcast rights #
- g. Servicing contracts such as mortgage servicing contracts #
- h. Employment contracts #
- i. Use rights such as drilling, water, air, timber cutting, and route authorities #

**Technology-Based Intangible Assets**

- a. Patented technology #
- b. Computer software and mask works #
- c. Unpatented technology \*
- d. Databases, including title plants \*

**Illustration of an Acquisition**

Pam Corporation acquires the net assets of Sun Company in an acquisition consummated on December 27, 2016. Sun Company is dissolved. The assets and liabilities of Sun Company on this date, at their book values and at fair values, are as follows (in thousands):

|                    | Book Value     | Fair Value     |
|--------------------|----------------|----------------|
| <i>Assets</i>      |                |                |
| Cash               | \$ 50          | \$ 50          |
| Net receivables    | 150            | 140            |
| Inventories        | 200            | 250            |
| Land               | 50             | 100            |
| Buildings—net      | 300            | 500            |
| Equipment—net      | 250            | 350            |
| Patents            | —              | 50             |
| Total assets       | <u>\$1,000</u> | <u>\$1,440</u> |
| <i>Liabilities</i> |                |                |
| Accounts payable   | \$ 60          | \$ 60          |
| Notes payable      | 150            | 135            |
| Other liabilities  | 40             | 45             |
| Total liabilities  | <u>\$ 250</u>  | <u>\$ 240</u>  |
| Net assets         | <u>\$ 750</u>  | <u>\$1,200</u> |

**CASE 1: GOODWILL**

Pam Corporation pays \$400,000 cash and issues 50,000 shares of Pam Corporation \$10 par common stock with a market value of \$20 per share for the net assets of Sun Company. The following entries record the acquisition on the books of Pam Corporation on December 27, 2016 (in thousands).

|  |       |       |
|--|-------|-------|
| Investment in Sun Company (+A)   | 1,400 |       |
| Cash (−A)  |       | 400   |
| Common stock, \$10 par (+SE)   |       | 500   |
| Additional paid-in capital (+SE)   |       | 500   |
| To record issuance of 50,000 shares of \$10 par common stock plus \$400,000 cash in a business combination with Sun Company.                 |       |       |
| Cash (+A)  | 50    |       |
| Net receivables (+A)   | 140   |       |
| Inventories (+A)   | 250   |       |
| Land (+A)  | 100   |       |
| Buildings (+A)   | 500   |       |
| Equipment (+A)   | 350   |       |
| Patents (+A)   | 50    |       |
| Goodwill (+A)  | 200   |       |
| Accounts payable (+L)  |       | 60    |
| Notes payable (+L)   |       | 135   |
| Other liabilities (+L)   |       | 45    |
| Investment in Sun Company (−A)   |       | 1,400 |
| To assign the cost of Sun Company to identifiable assets acquired and liabilities assumed on the basis of their fair values and to goodwill. |       |       |

We assign the amounts to the assets and liabilities based on fair values, except for goodwill. We determine goodwill by subtracting the \$1,200,000 fair value of identifiable net assets acquired from the \$1,400,000 purchase price for Sun Company's net assets.

**CASE 2: FAIR VALUE EXCEEDS INVESTMENT COST (BARGAIN PURCHASE)**

Pam Corporation issues 40,000 shares of its \$10 par common stock with a market value of \$20 per share, and it also gives a 10 percent, five-year note payable for \$200,000 for the net assets of Sun Company. Pam's books record the Pam/Sun business combination on December 27, 2016, with the following journal entries (in thousands):

|  |       |       |
|--|-------|-------|
| Investment in Sun Company (+A)   | 1,000 |       |
| Common stock, \$10 par (+SE)   |       | 400   |
| Additional paid-in capital (+SE)   |       | 400   |
| 10% Note payable (+L)  |       | 200   |
| To record issuance of 40,000 shares of \$10 par common stock plus a \$200,000, 10% note in a business combination with Sun Company.  |       |       |
| Cash (+A)  | 50    |       |
| Net receivables (+A)   | 140   |       |
| Inventories (+A)   | 250   |       |
| Land (+A)  | 100   |       |
| Buildings (+A)   | 500   |       |
| Equipment (+A)   | 350   |       |
| Patents (+A)   | 50    |       |
| Accounts payable (+L)  |       | 60    |
| Notes payable (+L)   |       | 135   |
| Other liabilities (+L)   |       | 45    |
| Investment in Sun Company (−A)   |       | 1,000 |
| Gain from bargain purchase (Ga, +SE)   |       | 200   |
| To assign the cost of Sun Company to identifiable assets acquired and liabilities assumed on the basis of their fair values and to recognize the gain from a bargain purchase. |       |       |

(continued)

We assign fair values to the individual asset and liability accounts in the last entry in accordance with GAAP provisions for an acquisition. (ASC 805) The \$1,200,000 fair value of the identifiable net assets acquired exceeds the \$1,000,000 purchase price by \$200,000, so Pam recognizes a \$200,000 gain from a bargain purchase. Bargain purchases are infrequent, but may occur even for very large corporations.

### The Goodwill Controversy

GAAP (ASC 350-20) defines *goodwill* as the excess of the investment cost over the fair value of net assets received. Theoretically, it is a measure of the present value of the combined company's projected future excess earnings over the normal earnings of a similar business. Estimating it requires considerable speculation. Therefore, the amount that we capitalize as goodwill is the portion of the purchase price left over after all other identifiable tangible and intangible assets and liabilities have been valued at fair value. Errors in the valuation of other assets will affect the amount capitalized as goodwill.

Under current GAAP, goodwill is not amortized. There are also income tax controversies relating to goodwill. In some cases, firms can deduct goodwill amortization for tax purposes over a 15-year period.

### Current GAAP for Goodwill and Other Intangible Assets

GAAP dramatically changed accounting for goodwill in 2001. (ASC 350-20) GAAP maintained the basic computation of goodwill, but the revised standards mitigate many of the previous controversies. Current GAAP provides clarification and more detailed guidance on when previously unrecorded intangibles should be recognized as assets, which can affect the amount of goodwill that firms recognize.

Under current GAAP (ASC 350-20), firms record goodwill but do *not* amortize it. Instead, GAAP requires that firms periodically assess goodwill for impairment in its value. An impairment occurs when the recorded value of goodwill is greater than its fair value. We calculate the fair value of goodwill in a manner similar to the original calculation at the date of the acquisition. Should such impairment occur, firms will write down goodwill to a new estimated amount and will record an offsetting loss in calculating net income for the period.

Firms no longer amortize goodwill or other intangible assets that have indefinite useful lives. Instead, firms will periodically review these assets (at least annually) and adjust for value impairment. GAAP provides detailed guidance for determining and measuring impairment of goodwill and other intangible assets.

GAAP also defines the reporting entity in accounting for intangible assets. Under prior rules, firms treated the acquired entity as a stand-alone reporting entity. GAAP now recognizes that many acquirees are integrated into the operations of the acquirer. GAAP treats goodwill and other intangible assets as assets of the business reporting unit, which is discussed in more detail in a later chapter on segment reporting. A reporting unit is a component of a business for which discrete financial information is available, and its operating results are regularly reviewed by management.

Firms report intangible assets, other than those acquired in business combinations, based on their fair values at the acquisition date. Firms allocate the cost of a group of assets acquired (which may include both tangible and intangible assets) to the individual assets based on relative fair values and "shall not give rise to goodwill."

GAAP is specific on accounting for internally developed intangible assets:

*Costs of internally developing, maintaining, or restoring intangible assets that are not specifically identifiable, that have indeterminate lives, or that are inherent in a continuing business and related to the entity as a whole, shall be recognized as an expense when incurred. (ASC 350-20)<sup>5</sup>*

**RECOGNIZING AND MEASURING IMPAIRMENT LOSSES** The goodwill impairment test is a two-step process. (ASC 350-20) Firms first compare carrying values (book values) to fair values at the business reporting unit level. Carrying value includes the goodwill amount. If fair value is less than the carrying amount, then firms proceed to the second step, measurement of the impairment loss.

<sup>5</sup>FASB ASC 350-20. Originally Statement of Financial Accounting Standards No. 142. "Goodwill and Other Intangible Assets." Stamford, CT: Financial Accounting Standards Board, 2001.

The second step requires a comparison of the carrying amount of goodwill to its implied fair value. Firms should again make this comparison at the business reporting unit level. If the carrying amount exceeds the implied fair value of the goodwill, the firm must recognize an impairment loss for the difference. The loss amount cannot exceed the carrying amount of the goodwill. Firms cannot reverse previously recognized impairment losses.

Firms should determine the implied fair value of goodwill in the same manner used to originally record the goodwill at the business combination date. Firms allocate the fair value of the reporting unit to all identifiable assets and liabilities as if they purchased the unit on the measurement date. Any excess fair value is the implied fair value of goodwill.

Fair value of assets and liabilities is the value at which they could be sold, incurred, or settled in a current arm's-length transaction. GAAP considers quoted market prices as the best indicators of fair values, although these are often unavailable. When market prices are unavailable, firms may determine fair values using market prices of similar assets and liabilities or other commonly used valuation techniques. For example, firms may employ present value techniques to value estimated future cash flows or earnings. Firms may also employ techniques based on multiples of earnings or revenues.

Firms should conduct the impairment test for goodwill at least annually. GAAP (ASC 350-20) requires more-frequent impairment testing if any of the following events occurs:

- 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 under the Impairment or Disposal of Long-Lived Assets Subsections of Subtopic 360-10 of a significant asset group within a reporting unit*
- g. *Recognition of a goodwill impairment loss in the financial statements of a subsidiary that is a component of a reporting unit<sup>6</sup>*

The goodwill impairment testing is complex and may have significant financial statement impact. An entire industry has sprung up to assist companies in making goodwill valuations.

**AMORTIZATION VERSUS NON-AMORTIZATION** Firms must amortize intangibles with a definite useful life over that life. GAAP defines *useful life* as estimated useful life to the reporting entity. The method of amortization should reflect the expected pattern of consumption of the economic benefits of the intangible. If firms cannot determine a pattern, then they should use straight-line amortization.

If intangibles with an indefinite life later have a life that can be estimated, they should be amortized at that point. Firms should periodically review intangibles that are not being amortized for possible impairment loss.

## DISCLOSURE REQUIREMENTS

GAAP requires significant disclosures about a business combination. FASB requires specific disclosures that are categorized by: (1) disclosures for the reporting period that includes a business combination, (2) disclosures when a business combination occurs after a reporting period ends, but before issuance of the financial statements, (3) disclosures about provisional amounts related to the business combination, and (4) disclosures about adjustments related to business combinations.

The specific information that must be disclosed in the financial statements for the period in which a business combination occurs can be categorized as follows:

1. General information about the business combination such as the name of the acquired company, a description of the acquired company, the acquisition date, the portion of the acquired company's voting stock acquired, the acquirer's reasons for the acquisition, and the manner in which the acquirer obtained control of the acquiree;

<sup>6</sup>FASB ASC 350-20-35-30. Originally Statement of Financial Accounting Standards No. 142. "Goodwill and Other Intangible Assets." Stamford, CT: Financial Accounting Standards Board, 2001.

2. Information about goodwill or a gain from a bargain purchase that results from the business combination;
3. Nature, terms, and fair value of consideration transferred in a business combination;
4. Details about specific assets acquired, liabilities assumed, and any noncontrolling interest recognized in connection with the business combination;
5. Reduction in acquirer's pre-existing deferred tax asset valuation allowance due to the business combination;
6. Information about transactions with the acquiree accounted for separately from the business combination;
7. Details about step acquisitions;
8. If the acquirer is a public company, additional disclosures are required such as pro forma information.

GAAP (ASC 350-20) requires firms to report material aggregate amounts of goodwill as a separate balance sheet line item. Likewise, firms must show goodwill impairment losses separately in the income statement, as a component of income from continuing operations (unless the impairment relates to discontinued operations). GAAP also provides increased disclosure requirements for intangible assets (which are reproduced in Exhibit 1-3).

### EXHIBIT 1-3

#### INTANGIBLE ASSETS DISCLOSURE REQUIREMENTS (ASC 350-20)

*Source:* FASB ASC 350-20. Originally Statement of Financial Accounting Standards No. 142, "Goodwill and Other Intangible Assets." Stamford, CT: Financial Accounting Standards Board, 2001.

For intangible assets acquired either individually or as part of a group of assets (in either an asset acquisition or business combination), all of the following information shall be disclosed in the notes to financial statements in the period of acquisition:

- a. For intangible assets subject to amortization, all of the following:
  1. The total amount assigned and the amount assigned to any major intangible asset class
  2. The amount of any significant residual value, in total and by major intangible asset class
  3. The weighted-average amortization period, in total and by major intangible asset class
- b. For intangible assets not subject to amortization, the total amount assigned and the amount assigned to any major intangible asset class.
- c. The amount of research and development assets acquired in a transaction other than a business combination and written off in the period and the line item in the income statement in which the amounts written off are aggregated.
- d. For intangible assets with renewal or extension terms, the weighted-average period before the next renewal or extension (both explicit and implicit), by major intangible asset class.

This information also shall be disclosed separately for each material business combination or in the aggregate for individually immaterial business combinations that are material collectively if the aggregate fair values of intangible assets acquired, other than goodwill, are significant.

The following information shall be disclosed in the financial statements or the notes to financial statements for each period for which a statement of financial position is presented:

- a. For intangible assets subject to amortization, all of the following:
  1. The gross carrying amount and accumulated amortization, in total and by major intangible asset class
  2. The aggregate amortization expense for the period
  3. The estimated aggregate amortization expense for each of the five succeeding fiscal years
- b. For intangible assets not subject to amortization, the total carrying amount and the carrying amount for each major intangible asset class
- c. The entity's accounting policy on the treatment of costs incurred to renew or extend the term of a recognized intangible asset
- d. For intangible assets that have been renewed or extended in the period for which a statement of financial position is presented, both of the following:
  1. For entities that capitalize renewal or extension costs, the total amount of costs incurred in the period to renew or extend the term of a recognized intangible asset, by major intangible asset class
  2. The weighted-average period before the next renewal or extension (both explicit and implicit), by major intangible asset class

For each impairment loss recognized related to an intangible asset, all of the following information shall be disclosed in the notes to financial statements that include the period in which the impairment loss is recognized:

- a. A description of the impaired intangible asset and the facts and circumstances leading to the impairment
- b. The amount of the impairment loss and the method for determining fair value
- c. The caption in the income statement or the statement of activities in which the impairment loss is aggregated
- d. If applicable, the segment in which the impaired intangible asset is reported under Topic 280

Before completing the chapter, let's take a look at a summary example of required disclosures from a real-world company. In February, 2014, **Google Inc.** completed its acquisition of **Nest Labs, Inc.** Exhibit 1-4 provides Note 5 highlights from Google's 2014 annual report related to this and other acquisitions. Note, in particular, that \$430 million of the \$2.6 billion price tag relates to intangible assets, and another \$2.3 billion is allocated to goodwill.

#### *Nest*

In February 2014, we completed the acquisition of Nest Labs, Inc. (Nest), a company whose mission is to reinvent devices in the home such as thermostats and smoke alarms. Prior to this transaction, we had an approximately 12% ownership interest in Nest. The acquisition is expected to enhance Google's suite of products and services and allow Nest to continue to innovate upon devices in the home, making them more useful, intuitive, and thoughtful, and to reach more users in more countries.

Of the total \$2.6 billion purchase price and the fair value of our previously held equity interest of \$152 million, \$51 million was cash acquired, \$430 million was attributed to intangible assets, \$2.3 billion was attributed to goodwill, and \$84 million was attributed to net liabilities assumed. The goodwill of \$2.3 billion is primarily attributable to synergies expected to arise after the acquisition. Goodwill is not expected to be deductible for tax purposes.

This transaction is considered a "step acquisition" under GAAP whereby our ownership interest in Nest held before the acquisition was remeasured to fair value at the date of the acquisition. Such fair value was estimated by using discounted cash flow valuation methodologies. Inputs used in the methodologies primarily included projected future cash flows, discounted at a rate commensurate with the risk involved. The gain of \$103 million as a result of remeasurement is included in interest and other income, net on our Consolidated Statements of Income for the year ended December 31, 2014.

#### *Dropcam*

In July 2014, Nest completed the acquisition of Dropcam, Inc. (Dropcam), a company that enables consumers and businesses to monitor their homes and offices via video, for approximately \$517 million in cash. With Dropcam on board, Nest expects to continue to reinvent products that will help shape the future of the connected home. Of the total purchase price of \$517 million, \$11 million was cash acquired, \$55 million was attributed to intangible assets, \$452 million was attributed to goodwill, and \$1 million was attributed to net liabilities assumed. The goodwill of \$452 million is primarily attributable to synergies expected to arise after the acquisition. Goodwill is not expected to be deductible for tax purposes.

#### *Skybox*

In August 2014, we completed the acquisition of Skybox Imaging, Inc. (Skybox), a satellite imaging company, for approximately \$478 million in cash. We expect the acquisition to keep Google Maps accurate with up-to-date imagery and, over time, improve internet access and disaster relief. Of the total purchase price of \$478 million, \$6 million was cash acquired, \$69 million was attributed to intangible assets, \$388 million was attributed to goodwill, and \$15 million was attributed to net assets acquired. The goodwill of \$388 million is primarily attributable to the synergies expected to arise after the acquisition. Goodwill is not expected to be deductible for tax purposes.

#### *Other Acquisitions*

During the year ended December 31, 2014, we completed other acquisitions and purchases of intangible assets for total consideration of approximately \$1,466 million, which includes the fair value of our previously held equity interest of \$33 million. In aggregate, \$65 million was cash acquired, \$405 million was attributed to intangible assets, \$1,045 million was attributed to goodwill, and \$49 million was attributed to net liabilities assumed. These acquisitions generally enhance the breadth and depth of our offerings, as well as expanding our expertise in engineering and other functional areas. The amount of goodwill expected to be deductible for tax purposes is approximately \$55 million.

Pro forma results of operations for these acquisitions have not been presented because they are not material to the consolidated results of operations, either individually or in aggregate.

For all acquisitions completed during the year ended December 31, 2014, patents and developed technology have a weighted-average useful life of 5.1 years, customer relationships have a weighted-average useful life of 4.5 years, and trade names and other have a weighted-average useful life of 6.9 years.

### EXHIBIT 1-4

#### Note 5. Acquisitions 2014 Acquisitions

Source: From Google's 2014 Annual Report, Note 5. Acquisitions © 2015 Alphabet Inc.

## THE SARBANES-OXLEY ACT

You have likely heard about Sarbanes-Oxley and are wondering why we haven't mentioned it yet. The financial collapse of *Enron Corporation* and *WorldCom* (among others) and the demise of public accounting firm *Arthur Andersen and Company* spurred Congress to initiate legislation intended to prevent future financial reporting and auditing abuse. The result was the *Sarbanes-Oxley Act of 2002* (SOX). For the most part, the rules focus on corporate governance, auditing, and internal-control issues, rather than the details of financial reporting and statement presentation that are the topic of this text. However, you should recognize that the law will impact all of the types of companies that we study. Here are a few of the important areas covered by SOX:

- Establishes the independent Public Company Accounting Oversight Board (PCAOB) to regulate the accounting and auditing profession
- Requires greater independence of auditors and clients, including restrictions on the types of consulting and advisory services provided by auditors to their clients
- Requires greater independence and oversight responsibilities for corporate boards of directors, especially for members of audit committees
- Requires management (CEO and CFO) certification of financial statements and internal controls
- Requires independent auditor review and attestation on management's internal-control assessments
- Increases disclosures about off-balance sheet arrangements and contractual obligations
- Increases types of items requiring disclosure on Form 8-K and shortens the filing period

Enforcement of Sarbanes-Oxley is under the jurisdiction of the SEC. The SEC treats violations of SOX or rules of the PCAOB the same as violations of the Securities Exchange Act of 1934. Congress also increased the SEC's budget to permit improved review and enforcement activities. SEC enforcement actions and investigations have increased considerably since the Enron collapse. One example is *Krispy Kreme Doughnuts, Inc.* A January 4, 2005, press release on the company's Web site announced that earnings for fiscal 2004, and the last three quarters of 2004, were being restated. Apparently the company did not make as much "dough" as originally reported. Pre-tax income was reduced by between \$6.2 million and \$8.1 million. Another example appeared in a *Reuters Limited* story on January 6, 2005, which noted that former directors of *WorldCom* agreed to a \$54 million settlement in a class-action lawsuit brought by investors. This included \$18 million from personal funds, with the remainder being covered by insurance.

Exhibit 1-5 provides an example of the required management responsibilities under SOX from the 2012 annual report of Chevron Corporation (p. 29). Notice that management's statement reads much like a traditional independent auditor's report. Management takes responsibility for preparation of the financial reports, explicitly notes compliance with GAAP, and declares amounts to be fairly presented. Management also takes explicit responsibility for designing and maintaining internal controls. Finally, the statement indicates the composition and functioning of the Audit Committee, which is designed to comply with SOX requirements. The statement is signed by the CEO, CFO, and comptroller of the company.

### EXHIBIT 1-5

#### Report of Management

Source: Courtesy of Chevron Corporation.

#### MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL STATEMENTS TO THE STOCKHOLDERS OF CHEVRON CORPORATION

Management of Chevron is responsible for preparing the accompanying consolidated financial statements and the related information appearing in this report. The statements were prepared in accordance with accounting principles generally accepted in the United States of America and fairly represent the transactions and financial position of the company. The financial statements include amounts that are based on management's best estimates and judgment.

As stated in its report included herein, the independent registered public accounting firm of PricewaterhouseCoopers LLP has audited the company's consolidated financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States).

The Board of Directors of Chevron has an Audit Committee composed of directors who are not officers or employees of the company. The Audit Committee meets regularly with members of management, the internal

auditors, and the independent registered public accounting firm to review accounting, internal control, auditing, and financial reporting matters. Both the internal auditors and the independent registered public accounting firm have free and direct access to the Audit Committee without the presence of management.

#### MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The company's management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). The company's management, including the Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the effectiveness of the company's internal control over financial reporting based on the Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on the results of this evaluation, the company's management concluded that internal control over financial reporting was effective as of December 31, 2012.

The effectiveness of the company's internal control over financial reporting as of December 31, 2012, has been audited by PriceWaterhouseCoopers LLP, an independent registered public accounting firm, as stated in its report included herein.

JOHN S. WATSON  
Chairman of the Board and  
Chief Executive Officer

PATRICIA E. YARRINGTON  
Vice President and  
Chief Financial Officer

MATTHEW J. FOEHR  
Vice President and  
Comptroller

February 22, 2013

We will note other relevant material from Sarbanes-Oxley throughout the text, as applicable. For example, transactions with related parties and variable interest entities are included in Chapter 11.

### SUMMARY

A business combination occurs when two or more separate businesses join into a single accounting entity. All combinations initiated after December 15, 2008, must be accounted for as acquisitions. Acquisition accounting requires the recording of assets acquired and liabilities assumed at their fair values at the date of the combination.

The illustrations in this chapter are for business combinations in which there is only one surviving entity. Later chapters cover accounting for parent–subsidiary operations in which more than one of the combining companies continue to exist as separate legal entities.

### APPENDIX: POOLING OF INTERESTS ACCOUNTING

Pooling of interests accounting for business combinations is a thing of the past under U.S. GAAP (ASC 805). No new pooling combinations may be recorded after 2001. Many of the detailed issues related to poolings concern the original recording of the combination. The information in this Appendix relates to the initial recording of poolings. Existing poolings were grandfathered in. Grandfathering of prior poolings makes it useful to understand the recording of past poolings, but you will not need this accounting detail for transactions that will not recur in the future.

**CONDITIONS FOR POOLING** The pooling of interests concept was based on the assumption that it was possible to unite ownership interests through the exchange of equity securities without an acquisition of one combining company by another. Accordingly, application of the concept was limited to those business combinations in which the combining entities exchanged equity securities and the operations and ownership interests continued in a new accounting entity.

The third condition for pooling was that *none of the combining companies changed the equity interest* of the voting common stock in contemplation of effecting the combination within two years before initiation of the plan of combination or between the dates of initiation and consummation.

A fourth condition was that each of the combining companies *reacquired shares of voting common stock only for purposes other than business combination*, and that no company reacquired more than a normal number of shares between the dates the plan was initiated and consummated. This restriction on treasury stock transactions generally did not apply to shares purchased for stock option or compensation plans.

The fifth condition required that the proportionate interest of each individual common stockholder in each of the combining companies remain the same as a result of the exchange of stock to

LEARNING  
OBJECTIVE 1.5

effect the combination. For example, if Stockholder A held 100 shares in the other combining company and Stockholder B held 200 shares, then Stockholder B's interest in the pooled entity must have been twice that of A's for the combination to be a pooling of interests.

Condition 6 specified that the voting rights in the combined corporation be immediately exercisable by the stockholders. The final condition required resolution of the combination on the date of consummation, with no provisions pending that related to the issue of securities or other considerations.

**ABSENCE OF PLANNED TRANSACTIONS** The last group of conditions for a pooling of interests focused on planned transactions of the combined entity. First, the combined corporation must *not* have retired or reacquired stock issued to effect the combination. Second, the combined corporation must *not* have entered into financial arrangements (such as long guarantees) for the benefit of former stockholders of a combining company. Finally, the combined corporation must *not* have planned to dispose of a significant part of the assets of the combining companies within two years after the combination. Plans to dispose of assets that represented duplicate facilities were permissible.

If all 12 of these conditions were met, the business combination was accounted for as a pooling of interests; otherwise, the acquisition method was used. Exhibit 1A-1 reviews the 12 conditions for a pooling of interests.

In a pooling of interests, the recorded assets and liabilities of the separate companies became the assets and liabilities of the surviving (combined) corporation. Because total assets and liabilities equal the sum of the combining entities, so must the total equities.

These relationships can be shown through a series of illustrations. Assume that immediately before their pooling of interests business combination, the stockholders' equity accounts for Pam Corporation and Sun Corporation were as follows (all amounts are in thousands):

|                            | Pam Corporation | Sun Corporation | Total        |
|----------------------------|-----------------|-----------------|--------------|
| Capital stock, \$10 par    | \$100           | \$ 50           | \$150        |
| Additional paid-in capital | 10              | 20              | 30           |
| Total paid-in capital      | 110             | 70              | 180          |
| Retained earnings          | 50              | 30              | 80           |
| Net assets and equity      | <u>\$160</u>    | <u>\$100</u>    | <u>\$260</u> |

In cases A1 and A2 that follow, the pooling was in the form of a *merger*, in which Pam Corporation was the issuing corporation and the surviving entity. In cases A3, A4, and A5, the pooling was in the form of a *consolidation*, and Pop Corporation was formed to take over the net assets of Pam and Sun. Pam and Sun Corporations were dissolved.

#### EXHIBIT 1A-1

##### Twelve Conditions for Pooling (APB Opinion No. 16)

Source: © Financial Accounting Standards Board (FASB)

#### Attributes of Combining Companies

1. Autonomous (two-year rule)
2. Independent (10% rule)

#### Manner of Combining Interests

1. Single transaction (or completed within one year after initiation)
2. Exchange of common stock (the "substantially all" rule: 90% or more)
3. No equity changes in contemplation of combination (two-year rule)
4. Shares reacquired only for purposes other than combination
5. No change in proportionate equity interests
6. Voting rights immediately exercisable
7. Combination resolved at consummation (no pending provisions)

#### Absence of Planned Transactions

1. Issuing company cannot reacquire shares
2. Issuing company cannot make deals to benefit former stockholders
3. Issuing company cannot plan to dispose of assets within two years

**CASE A1: MERGER; PAID-IN CAPITAL EXCEEDS STOCK ISSUED**

Pam, the surviving corporation, issued 7,000 shares of its stock for the net assets of Sun. In this case, the \$180,000 total paid in capital of the combining companies exceeded the \$170,000 capital stock of Pam by \$10,000. As a result, Pam had capital stock of \$170,000, additional paid-in capital of \$10,000, and retained earnings of \$80,000, for a total equity of \$260,000. Observe that the net assets of the surviving entity still were equal to the total recorded assets of the combining companies. Pam recorded the pooling as follows (in thousands):

|   |     |    |
|---|-----|----|
| Net assets (+A)   | 100 |    |
| Capital stock, \$10 par (+SE)   |     | 70 |
| Retained earnings (+SE)   |     | 30 |
| To record issuance of 7,000 shares in a pooling with Sun Corporation. |     |    |

**CASE A2: MERGER; STOCK ISSUED EXCEEDS PAID-IN CAPITAL**

Pam, the surviving entity, issued 9,000 shares of its stock for the net assets of Sun. In this case, the \$190,000 capital stock of Pam exceeded the \$180,000 total paid-in capital of the combining companies by \$10,000. The result was that Pam would have capital stock of \$190,000, no additional paid-in capital, and retained earnings of \$70,000. Notice that the maximum retained earnings that can be combined (\$80,000) has been reduced by the \$10,000 excess of capital stock over paid-in capital. The entry on Pam's books was as follows (in thousands):

|   |     |    |
|---|-----|----|
| Net assets (+A)   | 100 |    |
| Additional paid-in capital (–SE)                                      | 10  |    |
| Capital stock \$10 par (+SE)  |     | 90 |
| Retained earnings (+SE)   |     | 20 |
| To record issuance of 9,000 shares in a pooling with Sun Corporation. |     |    |

The previous cases illustrated accounting procedures for a merger accounted for as a pooling of interests. Accounting procedures for consolidation of Pam and Sun are illustrated by assuming that Pop Corporation was formed to take over the net assets of Pam and Sun Corporations.

**CASE A3: CONSOLIDATION; PAID-IN CAPITAL EXCEEDS STOCK ISSUED**

Pop Corporation issued 15,000 shares of \$10 par capital stock, 10,000 to Pam and 5,000 to Sun, for their net assets. Pop opened its books with the following entry (in thousands):

|   |     |     |
|---|-----|-----|
| Net assets (+A)   | 260 |     |
| Capital stock, \$10 par (+SE)   |     | 150 |
| Additional paid-in capital (+SE)  |     | 30  |
| Retained earnings (+SE)   |     | 80  |
| To record issuance of 10,000 shares to Pam and 5,000 shares to Sun in a business combination accounted for as a pooling of interests. |     |     |

The \$180,000 combined paid-in capital of Pam and Sun exceeded the \$150,000 capital stock of Pop, the surviving entity, so the \$30,000 excess was the additional paid-in capital of the pooled entity. Also, the \$80,000 maximum retained earnings was pooled.

**CASE A4: CONSOLIDATION; PAID-IN CAPITAL EXCEEDS STOCK ISSUED**

Pop Corporation issued 17,000 shares of \$10 par capital stock, 11,000 to Pam and 6,000 to Sun, for their net assets. The stockholders' equity of Pop in this case was the same as Pam's stockholders' equity in Case A1. Pop recorded the consolidation as follows (in thousands):

|   |     |     |
|---|-----|-----|
| Net assets (+A)   | 260 |     |
| Capital stock, \$10 par (+SE)   |     | 170 |
| Additional paid-in capital (+SE)  |     | 10  |
| Retained earnings (+SE)   |     | 80  |
| To record issuance of 11,000 shares to Pam and 6,000 shares to Sun in a business combination accounted for as a pooling of interests. |     |     |

The \$180,000 total paid-in capital of the combining entities exceeded the \$170,000 capital stock of Pop; therefore, the \$10,000 excess was the additional paid-in capital of the pooled entity, and the \$80,000 maximum retained earnings was pooled.

**CASE A5: CONSOLIDATION; STOCK ISSUED EXCEEDS PAID-IN CAPITAL**

Pop Corporation issued 19,000 shares of \$10 par capital stock, 12,000 to Pam and 7,000 to Sun, for their net assets. Pop's stockholders' equity in this case was the same as Pam's stockholders' equity in Case A2. The entry on Pop's books to record the pooling was as follows (in thousands):

|   |     |     |
|---|-----|-----|
| Net assets (+A)   | 260 |     |
| Capital stock, \$10 par (+SE)   |     | 190 |
| Retained earnings (+SE)   |     | 70  |
| To record issuance of 12,000 shares to Pam and 7,000 shares to Sun in a business combination accounted for as a pooling of interests. |     |     |

The \$190,000 capital stock of Pop, the surviving entity, exceeded the \$180,000 total paid-in capital of Pam and Sun, so the maximum pooled retained earnings was reduced by the \$10,000 excess to \$70,000, and the pooled entity had no additional paid-in capital.

**SUMMARY BALANCE SHEETS** A summary balance sheet for the surviving entity in each of the five pooling of interests business combinations is shown in Exhibit 1A-2.

**EXPENSES RELATED TO POOLING COMBINATIONS** The costs incurred to effect a business combination and to integrate the operations of the combining companies in a pooling were expenses of the combined corporation. For example, costs of registering and issuing securities, providing stockholders with information, paying accountants' and consultants' fees, and paying finder's fees to those who discovered the "combinable" situation were recorded as expenses of the combined entity in the

**EXHIBIT 1A-2****Summary Balance Sheets for the Five Pooling of Interests Cases**

|                            | Merger Pam's Books |              | Consolidation Pop's Books |              |              |
|----------------------------|--------------------|--------------|---------------------------|--------------|--------------|
|                            | Case A1            | Case A2      | Case A3                   | Case A4      | Case A5      |
| Net assets                 | <u>\$260</u>       | <u>\$260</u> | <u>\$260</u>              | <u>\$260</u> | <u>\$260</u> |
| Capital stock, \$10 par    | \$170              | \$190        | \$150                     | \$170        | \$190        |
| Additional paid-in capital | 10                 | —            | 30                        | 10           | —            |
| Retained earnings          | <u>80</u>          | <u>70</u>    | <u>80</u>                 | <u>80</u>    | <u>70</u>    |
| Stockholders' equity       | <u>\$260</u>       | <u>\$260</u> | <u>\$260</u>              | <u>\$260</u> | <u>\$260</u> |

period in which they were incurred. If Pam or Pop Corporation in the preceding cases had incurred accountants' fees, consultants' fees, costs of security registration, and other costs of combining, the combined net assets of the surviving entity would have been less and combined expenses would have been greater. However, the capital stock recorded at the time of merger or consolidation would have been the same.

Financial statements of a pooled entity for the year of combination should have been presented as if the combination had been consummated at the beginning of the period. In addition, if comparative financial statements for prior years were presented, they must have been restated on a combined basis with disclosure of the fact that the statements of previously separate companies had been combined.

## QUESTIONS

Items marked with an asterisk are based on Appendix materials.

1. What is the accounting concept of a business combination?
2. Is dissolution of all but one of the separate legal entities necessary in order to have a business combination? Explain.
3. What are the legal distinctions between a business combination, a merger, and a consolidation?
4. When does goodwill result from a business combination? How does goodwill affect reported net income after a business combination?
5. What is a bargain purchase? Describe the accounting procedures necessary to record and account for a bargain purchase.

## EXERCISES

### E1-1 General questions

1. A business combination in which a new corporation is formed to take over the assets and operations of two or more separate business entities, with the previously separate entities being dissolved, is a/an:
  - a **Consolidation**
  - b **Merger**
  - c **Pooling of interests**
  - d **Acquisition**
2. In a business combination, the direct costs of registering and issuing equity securities are
  - a **Added to the parent/investor company's investment account**
  - b **Charged against other paid-in capital of the combined entity**
  - c **Deducted from income in the period of combination**
  - d **None of the above**
3. An excess of the fair value of net assets acquired in a business combination over the price paid is
  - a **Reported as a gain from a bargain purchase**
  - b **Applied to a reduction of noncash assets before negative goodwill may be reported**
  - c **Applied to reduce noncurrent assets other than marketable securities to zero before negative goodwill may be reported**
  - d **Applied to reduce goodwill to zero before negative goodwill may be reported**
4. Cork Corporation acquires Dart Corporation in a business combination. Which of the following would be excluded from the process of assigning fair values to assets and liabilities for purposes of recording the acquisition? (Assume Dart Corporation is dissolved.)
  - a **Patents developed by Dart because the costs were expensed under GAAP**
  - b **Dart's mortgage payable because it is fully secured by land that has a market value far in excess of the mortgage**
  - c **An asset or liability amount for over- or underfunding of Dart's defined-benefit pension plan**
  - d **None of the above**

## E1-2 [Based on AICPA] General problems

1. Pop Corporation paid \$100,000 cash for the net assets of Son Company, which consisted of the following:

|                     | Book Value       | Fair Value       |
|---------------------|------------------|------------------|
| Current assets      | \$ 40,000        | \$ 56,000        |
| Plant and equipment | 160,000          | 220,000          |
| Liabilities assumed | (40,000)         | (36,000)         |
|                     | <u>\$160,000</u> | <u>\$240,000</u> |

Assume Son Company is dissolved. The plant and equipment acquired in this business combination should be recorded at:

- a **\$220,000**
- b **\$200,000**
- c **\$183,332**
- d **\$180,000**

2. On April 1, Pam Company paid \$1,600,000 for all the issued and outstanding common stock of Sun Corporation in a transaction properly accounted for as an acquisition. Sun Corporation is dissolved. The recorded assets and liabilities of Sun Corporation on April 1 follow:

|   |           |
|---|-----------|
| Cash  | \$160,000 |
| Inventory   | 480,000   |
| Property and equipment (net of accumulated depreciation of \$640,000) | 960,000   |
| Liabilities   | (360,000) |

On April 1, it was determined that the inventory of Sun had a fair value of \$380,000, and the property and equipment (net) had a fair value of \$1,120,000. What is the amount of goodwill resulting from the acquisition?

- a **0**
- b **\$100,000**
- c **\$300,000**
- d **\$360,000**

## E1-3 Prepare stockholders' equity section

The stockholders' equities of Pop Corporation and Son Corporation at January 1 were as follows (in thousands):

|                         | Pop            | Son            |
|-------------------------|----------------|----------------|
| Capital stock, \$10 par | \$3,000        | \$1,600        |
| Other paid-in capital   | 400            | 800            |
| Retained earnings       | 1,200          | 600            |
| Stockholders' equity    | <u>\$4,600</u> | <u>\$3,000</u> |

On January 2, Pop issued 300,000 of its shares with a market value of \$20 per share for all of Son's shares, and Son was dissolved. On the same day, Pop paid \$10,000 to register and issue the shares and \$20,000 for other direct costs of combination.

**REQUIRED:** Prepare the stockholders' equity section of Pop Corporation's balance sheet immediately after the acquisition on January 2. (*Hint:* Prepare the journal entry.)

## E1-4 Journal entries to record an acquisition

Pam Company issued 480,000 shares of \$10 par common stock with a fair value of \$10,200,000 for all the voting common stock of Sun Company. In addition, Pam incurred the following costs:

|  |           |
|--|-----------|
| Legal fees to arrange the business combination                                   | \$100,000 |
| Cost of SEC registration, including accounting and legal fees                    | 48,000    |
| Cost of printing and issuing net stock certificates                              | 12,000    |
| Indirect costs of combining, including allocated overhead and executive salaries | 80,000    |

Immediately before the acquisition in which Sun Company was dissolved, Sun's assets and equities were as follows (in thousands):

|                   | Book Value | Fair Value |
|-------------------|------------|------------|
| Current assets    | \$ 4,000   | \$ 4,400   |
| Plant assets      | 6,000      | 8,800      |
| Liabilities       | 1,200      | 1,200      |
| Common stock      | 8,000      |            |
| Retained earnings | 800        |            |

**REQUIRED:** Prepare all journal entries on Pam's books to record the acquisition.

### E1-5

#### Journal entries to record an acquisition with direct costs and fair value/book value differences

On January 1, Pop Corporation pays \$400,000 cash and also issues 36,000 shares of \$10 par common stock with a market value of \$660,000 for all the outstanding common shares of Son Corporation. In addition, Pop pays \$60,000 for registering and issuing the 36,000 shares and \$140,000 for the other direct costs of the business combination, in which Son Corporation is dissolved. Summary balance sheet information for the companies immediately before the merger is as follows (in thousands):

|                                      | Pop Book Value | Son Book Value | Son Fair Value |
|--------------------------------------|----------------|----------------|----------------|
| Cash                                 | \$ 700         | \$ 80          | \$ 80          |
| Inventories                          | 240            | 160            | 200            |
| Other current assets                 | 60             | 40             | 40             |
| Plant assets—net                     | 520            | 360            | 560            |
| Total assets                         | <u>\$1,520</u> | <u>\$640</u>   | <u>\$880</u>   |
| Current liabilities                  | \$ 320         | \$ 60          | \$ 60          |
| Other liabilities                    | 160            | 100            | 80             |
| Common stock, \$10 par               | 840            | 400            |                |
| Retained earnings                    | 200            | 80             |                |
| Total liabilities and owners' equity | <u>\$1,520</u> | <u>\$640</u>   |                |

**REQUIRED:** Prepare all journal entries on Pop's books to account for the acquisition.

### E1-6

#### [Appendix] Journal entries to record business combinations

Pop Company issued 120,000 shares of \$10 par common stock with a fair value of \$2,550,000 for all the voting common stock of Son Company. In addition, Pop incurred the following additional costs:

|   |          |
|---|----------|
| Legal fees to arrange the business combination                                  | \$25,000 |
| Cost of SEC registration, including accounting and legal fees                   | 12,000   |
| Cost of printing and issuing new stock certificates                             | 3,000    |
| Indirect costs of combining including allocated overhead and executive salaries | 20,000   |

Immediately before the business combination in which Son Company was dissolved, Son's assets and equities were as follows (in thousands):

|                   | Book Value | Fair Value |
|-------------------|------------|------------|
| Current assets    | \$1,000    | \$1,100    |
| Plant assets      | 1,500      | 2,200      |
| Liabilities       | 300        | 300        |
| Common stock      | 2,000      |            |
| Retained earnings | 200        |            |

**REQUIRED:** Assume that the business combination is a pooling of interests. Prepare all journal entries on Pop's books to record the business combination.

### E1-7

#### [Appendix] Journal entries to record a pooling

On January 1, 2000, Pam Corporation held 2,000 shares of Sun Corporation common stock acquired at \$15 per share several years earlier. On this date, Pam issued 1.5 of its \$10 par value shares for each of the other 98,000 outstanding shares of Sun in a pooling of interests in which Sun Corporation was dissolved. Sun Corporation's after-closing trial balance on December 31, 1999, consisted of the following (in thousands):

|                            |                |                |
|----------------------------|----------------|----------------|
| Current assets             | \$ 800         |                |
| Plant and equipment—net    | 1,500          |                |
| Liabilities                |                | \$ 200         |
| Capital stock, \$5 par     |                | 500            |
| Additional paid-in capital |                | 1,000          |
| Retained earnings          |                | 600            |
|                            | <u>\$2,300</u> | <u>\$2,300</u> |

**REQUIRED:** Prepare a journal entry (or entries) on Pam's books to account for the pooling of interests. (*Hint:* Do not forget to consider the 2,000 shares of Sun held by Pam on January 1, 2000.)

## PROBLEMS

### P1-1

#### Prepare balance sheet after acquisition

Comparative balance sheets for Pop and Son Corporations at December 31, 2015, are as follows (in thousands):

|                            | Pop             | Son            |
|----------------------------|-----------------|----------------|
| Current assets             | \$2,080         | \$ 960         |
| Land                       | 800             | 1,600          |
| Buildings—net              | 4,800           | 1,600          |
| Equipment—net              | 3,520           | 3,840          |
| Total assets               | <u>\$11,200</u> | <u>\$8,000</u> |
| Current liabilities        | \$ 800          | \$ 960         |
| Capital stock, \$10 par    | 8,000           | 3,200          |
| Additional paid-in capital | 800             | 2,240          |
| Retained earnings          | 1,600           | 1,600          |
| Total equities             | <u>\$11,200</u> | <u>\$8,000</u> |

On January 2, 2016, Pop issues 240,000 shares of its stock with a market value of \$40 per share for all the outstanding shares of Son Corporation in an acquisition. Son is dissolved. The recorded book values reflect fair values, except for the buildings of Pop, which have a fair value of \$6,400,000, and the current assets of Son, which have a fair value of \$1,600,000.

Pop pays the following expenses in connection with the business combination:

|   |           |
|---|-----------|
| Costs of registering and issuing securities | \$240,000 |
| Other direct costs of combination           | \$400,000 |

**REQUIRED:** Prepare the balance sheet of Pop Corporation immediately after the acquisition.

### P1-2

#### Prepare balance sheet after an acquisition

On January 2, 2016, Pop Corporation enters into a business combination with Son Corporation in which Son is dissolved. Pop pays \$1,650,000 for Son, the consideration consisting of 66,000 shares of Pop \$10 par common stock with a market value of \$25 per share. In addition, Pop pays the following expenses in cash at the time of the merger:

|   |                  |
|---|------------------|
| Finder's fee                                  | \$ 70,000        |
| Accounting and legal fees                     | 130,000          |
| Registration and issuance costs of securities | 80,000           |
|   | <u>\$280,000</u> |

Balance sheet and fair value information for the two companies on December 31, 2015, immediately before the merger, is as follows (in thousands):

|                                      | Pop Book Value | Son Book Value | Son Fair Value |
|--------------------------------------|----------------|----------------|----------------|
| Cash                                 | \$ 300         | \$ 60          | \$ 60          |
| Accounts receivable—net              | 460            | 100            | 80             |
| Inventories                          | 1,040          | 160            | 240            |
| Land                                 | 800            | 200            | 300            |
| Buildings—net                        | 2,000          | 400            | 600            |
| Equipment—net                        | 1,000          | 600            | 500            |
| Total assets                         | <u>\$5,600</u> | <u>\$1,520</u> | <u>\$1,780</u> |
| Accounts payable                     | \$ 600         | \$ 80          | \$ 80          |
| Note payable                         | 1,200          | 400            | 360            |
| Capital stock, \$10 par              | 1,600          | 600            |                |
| Other paid-in capital                | 1,200          | 100            |                |
| Retained earnings                    | 1,000          | 340            |                |
| Total liabilities and owners' equity | <u>\$5,600</u> | <u>\$1,520</u> |                |

**REQUIRED:** Prepare a balance sheet for Pop Corporation as of January 2, 2016, immediately after the merger, assuming the merger is treated as an acquisition.

### P1-3 Journal entries and balance sheet for an acquisition

On January 2, 2016, Pam Corporation issues its own \$10 par common stock for all the outstanding stock of Sun Corporation in an acquisition. Sun is dissolved. In addition, Pam pays \$40,000 for registering and issuing securities and \$60,000 for other costs of combination. The market price of Pam's stock on January 2, 2016, is \$60 per share. Relevant balance sheet information for Pam and Sun Corporations on December 31, 2015, just before the combination, is as follows (in thousands):

|                                      | Pam Historical Cost | Sun Historical Cost | Sun Fair Value |
|--------------------------------------|---------------------|---------------------|----------------|
| Cash                                 | \$ 240              | \$ 20               | \$ 20          |
| Inventories                          | 100                 | 60                  | 120            |
| Other current assets                 | 200                 | 180                 | 200            |
| Land                                 | 160                 | 40                  | 200            |
| Plant and equipment—net              | 1,300               | 400                 | 700            |
| Total assets                         | <u>\$2,000</u>      | <u>\$700</u>        | <u>\$1,240</u> |
| Liabilities                          | <u>\$ 400</u>       | <u>\$100</u>        | <u>\$ 100</u>  |
| Capital stock, \$10 par              | 1,000               | 200                 |                |
| Additional paid-in capital           | 400                 | 100                 |                |
| Retained earnings                    | 200                 | 300                 |                |
| Total liabilities and owners' equity | <u>\$2,000</u>      | <u>\$700</u>        |                |

### REQUIRED

- Assume that Pam issues 25,000 shares of its stock for all of Sun's outstanding shares.
  - Prepare journal entries to record the acquisition of Sun.
  - Prepare a balance sheet for Pam Corporation immediately after the acquisition.
- Assume that Pam issues 15,000 shares of its stock for all of Sun's outstanding shares.
  - Prepare journal entries to record the acquisition of Sun.
  - Prepare a balance sheet for Pam Corporation immediately after the acquisition.

### P1-4 Allocation schedule and balance sheet

The balance sheets of Pop Corporation and Son Corporation at December 31, 2015, are summarized with fair-value information as follows (in thousands):

|                         | <i>Pop Corporation</i> |                   | <i>Son Corporation</i> |                   |
|-------------------------|------------------------|-------------------|------------------------|-------------------|
|                         | <b>Book Value</b>      | <b>Fair Value</b> | <b>Book Value</b>      | <b>Fair Value</b> |
| <i>Assets</i>           |                        |                   |                        |                   |
| Cash                    | \$115                  | \$115             | \$ 10                  | \$ 10             |
| Receivables—net         | 40                     | 40                | 20                     | 20                |
| Inventories             | 120                    | 150               | 50                     | 30                |
| Land                    | 45                     | 100               | 30                     | 100               |
| Buildings—net           | 200                    | 300               | 100                    | 150               |
| Equipment—net           | 180                    | 245               | 90                     | 150               |
| Total assets            | <u>\$700</u>           | <u>\$950</u>      | <u>\$300</u>           | <u>\$460</u>      |
| <i>Equities</i>         |                        |                   |                        |                   |
| Accounts payable        | \$ 90                  | \$ 90             | \$ 30                  | \$ 30             |
| Other liabilities       | 100                    | 90                | 60                     | 70                |
| Capital stock, \$10 par | 300                    |                   | 100                    |                   |
| Other paid-in capital   | 100                    |                   | 80                     |                   |
| Retained earnings       | 110                    |                   | 30                     |                   |
| Total equities          | <u>\$700</u>           |                   | <u>\$300</u>           |                   |

On January 1, 2016, Pop Corporation acquired all of Son's outstanding stock for \$300,000. Pop paid \$100,000 cash and issued a five-year, 12 percent note for the balance. Son was dissolved.

#### REQUIRED

1. Prepare a schedule to show how the investment cost is allocated to identifiable assets and liabilities.
2. Prepare a balance sheet for Pop Corporation on January 1, 2016, immediately after the acquisition.

### P1-5 Journal entries and balance sheet for an acquisition

Pam Corporation paid \$10,000,000 for Sun Corporation's voting common stock on January 2, 2016, and Sun was dissolved. The purchase price consisted of 200,000 shares of Pam's common stock with a market value of \$8,000,000, plus \$2,000,000 cash. In addition, Pam paid \$200,000 for registering and issuing the 200,000 shares of common stock and \$400,000 for other costs of combination. Balance sheet information for the companies immediately before the acquisition is summarized as follows (in thousands):

|                         | <i>Pam</i>        |                   | <i>Sun</i>        |                   |
|-------------------------|-------------------|-------------------|-------------------|-------------------|
|                         | <b>Book Value</b> | <b>Book Value</b> | <b>Book Value</b> | <b>Fair Value</b> |
| Cash                    | \$ 12,000         | \$ 960            |                   | \$ 960            |
| Accounts receivable—net | 5,200             | 1,440             |                   | 1,440             |
| Notes receivable—net    | 6,000             | 1,200             |                   | 1,200             |
| Inventories             | 10,000            | 1,680             |                   | 2,000             |
| Other current assets    | 2,800             | 720               |                   | 800               |
| Land                    | 8,000             | 400               |                   | 800               |
| Buildings—net           | 36,000            | 2,400             |                   | 4,800             |
| Equipment—net           | 40,000            | 3,200             |                   | 2,400             |
| Total assets            | <u>\$120,000</u>  | <u>\$12,000</u>   |                   | <u>\$14,400</u>   |
| Accounts payable        | \$ 4,000          | \$ 1,200          |                   | \$ 1,200          |
| Mortgage payable—10%    | 20,000            | 2,800             |                   | 2,400             |
| Capital stock, \$10 par | 40,000            | 4,000             |                   |                   |
| Other paid-in capital   | 32,000            | 2,400             |                   |                   |
| Retained earnings       | 24,000            | 1,600             |                   |                   |
| Total equities          | <u>\$120,000</u>  | <u>\$12,000</u>   |                   |                   |

**REQUIRED**

1. Prepare journal entries for Pam Corporation to record its acquisition of Sun Corporation, including all allocations to individual asset and liability accounts.
2. Prepare a balance sheet for Pam Corporation on January 2, 2016, immediately after the acquisition and dissolution of Sun.

**P1-6****[Appendix] Prepare balance sheets of pooled companies**

Pop Corporation issued its own common stock for all the outstanding shares of Son Corporation in a pooling of interests business combination on January 1, 2000. The balance sheets of the two companies at December 31, 1999, were as follows (in thousands):

|                            | <u>Pop</u>      | <u>Son</u>      |
|----------------------------|-----------------|-----------------|
| Current assets             | \$15,000        | \$ 4,000        |
| Plant assets—net           | 40,000          | 6,000           |
| Total assets               | <u>\$55,000</u> | <u>\$10,000</u> |
| Liabilities                | \$10,000        | \$ 3,000        |
| Common stock, \$10 par     | 30,000          | 4,000           |
| Additional paid-in capital | 3,000           | 2,000           |
| Retained earnings          | 12,000          | 1,000           |
| Total equities             | <u>\$55,000</u> | <u>\$10,000</u> |

**REQUIRED:** Prepare balance sheets for Pop Corporation on January 1, 2000, immediately after the pooling of interests in which Son was dissolved under the following assumptions:

1. Pop issued 800,000 of its common shares for all of Son's outstanding shares.
2. Pop issued 1,000,000 of its common shares for all of Son's outstanding shares.

**P1-7****[Appendix] Journal entries to record pooling business combinations**

Pam and Sun Corporations entered into a business combination accounted for as a pooling of interests in which Sun was dissolved. Net assets and stockholders' equities of the two companies immediately before the pooling follow (in thousands):

|                            | <u>Pam</u>     | <u>Sun</u>   |
|----------------------------|----------------|--------------|
| Net assets                 | <u>\$1,000</u> | <u>\$800</u> |
| Capital stock, \$10 par    | \$ 400         | \$200        |
| Additional paid-in capital | 200            | 300          |
| Total paid-in capital      | <u>600</u>     | <u>500</u>   |
| Retained earnings          | 400            | 300          |
| Total stockholders' equity | <u>\$1,000</u> | <u>\$800</u> |

**REQUIRED**

1. Prepare the journal entry on Pam Corporation's books to record the pooling with Sun if Pam issued 35,000, \$10 par common shares in exchange for all of Sun common shares.
2. Prepare the journal entry on Pam Corporation's books to record the pooling with Sun if Pam issued 77,000, \$10 par common shares in exchange for all of Sun common shares.

**P1-8****[Appendix] Journal entries and balance sheet for a pooling of interests**

On January 2, 2000, Pop and Son Corporation merged their operations through a business combination accounted for as a pooling of interests. The \$300,000 direct costs of combination were paid in cash by the surviving entity on January 2, 2000. At December 31, 1999, Son held 25,000 shares of Pop stock

acquired at \$20 per share. Summary balance sheet information for Pop and Son Corporations at December 31, 1999, was as follows (in thousands):

|                            | <b>Pop Corporation</b> | <b>Son Corporation</b> |
|----------------------------|------------------------|------------------------|
| Current assets             | \$ 6,500               | \$ 4,500               |
| Plant and equipment—net    | 10,000                 | 10,000                 |
| Investment in Pop          |                        | 500                    |
| Total assets               | <u>\$16,500</u>        | <u>\$15,000</u>        |
| Liabilities                | \$ 1,500               | \$ 3,000               |
| Common stock, \$10 par     | 10,000                 | 8,000                  |
| Additional paid-in capital | 2,000                  | 3,000                  |
| Retained earnings          | 3,000                  | 1,000                  |
| Total equities             | <u>\$16,500</u>        | <u>\$15,000</u>        |

**REQUIRED:** Assume that the surviving corporation was Pop Corporation and that Pop issued 1,000,000 shares of its own stock for all the outstanding shares of Son Corporation.

- a. Prepare journal entries on the books of Pop Corporation to record the business combination.
- b. Prepare a balance sheet for Pop Corporation on January 2, 2000, immediately after the business combination.

### PROFESSIONAL RESEARCH ASSIGNMENTS

Answer the following questions by reference to the FASB Codification of Accounting Standards. Include the appropriate reference in your response.

- PR 1-1** What are the required disclosures related to goodwill included in the consolidated balance sheet?
- PR 1-2** Does current GAAP provide any exceptions to the fair-value measurement principle for business combinations?

# Stock Investments—Investor Accounting and Reporting

Chapter 1 illustrated business combinations in which one surviving entity acquired the net assets of other companies. A single legal accounting entity, with one record-keeping system, integrated the net assets and operations of all combining companies. In Chapter 1, we recorded the business combination in an investment account and immediately eliminated the account through allocation to individual asset and liability accounts.

This chapter focuses on equity investments in which the investor maintains the investment account on a continuous basis. It includes accounting for investments under the fair value/cost (fair value for marketable securities and cost for nonmarketable securities) method, in which the investor does not have the ability to influence the activities of the investee, as well as the equity method of accounting, in which an investor can exercise significant influence over the investee's operations. Generally accepted accounting principles (GAAP) generally prescribe equity method accounting for investments that represent a 20 percent ownership through a 50 percent ownership in the investee.

Investors also use the equity method for parent-company accounting for investments in subsidiaries. This situation arises when the investor controls the operating, investing, and financing decisions of the investee through ownership of more than 50 percent of the voting stock of the investee as the result of a combination in which one or more companies became subsidiaries. For financial-reporting purposes, business combinations require preparation of consolidated financial statements.

This chapter covers parent-company accounting for its investments in subsidiaries under the acquisition method, but it does *not* cover consolidated financial statements. Consolidated financial statement preparation is covered in Chapter 3 and subsequent chapters.

## ACCOUNTING FOR STOCK INVESTMENTS

Generally accepted accounting principles (GAAP) for recording common stock acquisitions requires that the investor record the investment at cost (which is equal to fair value at acquisition). The basic guidelines measure investment costs by including cash disbursed; the fair value of other assets given or securities issued; and additional direct costs of obtaining the investment, other than the costs of registering and issuing equity securities, which GAAP charges to additional paid-in capital.

One of the two basic methods of accounting for common stock investments generally applies—the **fair value (cost) method** (ASC 320-10) or the **equity method**. (ASC 323-10)

### Concepts Underlying Fair Value/Cost and Equity Methods

Under the fair value/cost method, we record investments in common stock at cost and report dividends received as dividend income. There is an exception. Dividends received in excess of the

#### LEARNING OBJECTIVES

- 2.1 Recognize investors' varying levels of influence or control, based on the level of stock ownership.
- 2.2 Understand how accounting adjusts to reflect the economics underlying varying levels of investor influence.
- 2.3 Identify factors beyond stock ownership that affect an investor's ability to exert influence or control over an investee.
- 2.4 Apply the fair value/cost and equity methods of accounting for stock investments.
- 2.5 Apply the equity method to stock investments.
- 2.6 Learn how to test goodwill for impairment.

#### LEARNING OBJECTIVE 2.1

#### LEARNING OBJECTIVE 2.2

investor's share of earnings after the stock is acquired are considered a return of capital (or liquidating dividend) and recorded as reductions in the investment account. We classify equity securities that have a readily determinable fair value as either trading securities (securities bought and held principally for the purpose of resale in the near term) or available-for-sale securities (investments not classified as trading securities). (ASC 320-10-35)

Both classifications use fair values to report the investments at the end of each reporting period and report realized gains, losses, and dividends in net income. GAAP also includes unrealized gains and losses (changes in fair value) from the trading-securities classification in net income. However, we report unrealized gains and losses from the available-for-sale securities classification at a net amount as a separate line item under other comprehensive income. GAAP allows other comprehensive income to be reported either on the income statement, or as (ASC 220-10-45) a separate statement of comprehensive income. These amounts accumulate in the equity section of the balance sheet in the account titled *Accumulated other comprehensive income*. This treatment does not apply to investments in equity securities accounted for under the equity method or to investments in consolidated subsidiaries. (ASC 220)

The equity method of accounting is essentially accrual accounting for equity investments that enable the investor to exercise significant influence over the investee. Under the equity method, we record the investments at cost (which is equal to acquisition date fair value) and adjust for earnings, losses, and dividends. The investor reports its share of investee earnings as investment income and its share of the investee losses as investment loss. We increase the investment account for investment income and decrease it for investment losses. Dividends received from investees are disinvestments under the equity method, and they are recorded as decreases in the investment account. Thus, investment income under the equity method reflects the investor's share of the net income of the investee, and the investment account reflects the investor's share of investee net assets.

We account for an investment in voting stock that gives the investor the ability to exercise significant influence over the financial and operating policies of the investee using the equity method of accounting. GAAP requires the equity method of accounting for an investment in common stock by an investor whose investment in common stock gives the investor the ability to exercise significant influence over operating and financial policies of an investee even though the investor holds 50 percent or less of the voting shares. (ASC 323-10-15)

GAAP bases the ability to exert significant influence on a 20 percent ownership test:

*An investment (direct or indirect) of 20 percent or more of the voting stock of an investee shall lead to a presumption that in the absence of predominant evidence to the contrary an investor has the ability to exercise significant influence over an investee. Conversely, an investment of less than 20 percent of the voting stock of an investee shall lead to a presumption that an investor does not have the ability to exercise significant influence unless such ability can be demonstrated. (ASC 325)<sup>1</sup>*

## LEARNING OBJECTIVE 2.3

GAAP (ASC 323-10-15) cites (1) opposition by the investee that challenges the investor's influence, (2) surrender of significant stockholder rights by agreement between the investor and investee, (3) concentration of majority ownership in another group rather than the investor, (4) inadequate or untimely information to apply the equity method, and (5) failure to obtain representation on the investee's board of directors as indicators of an investor's inability to exercise significant influence. Application of the equity method is discontinued when the investor's share of losses reduces the carrying amount of the investment to zero.

The equity method is important for several reasons. First, these investments represent a significant component of total assets, net income, or both for some firms. Second, corporate joint ventures and other special-purpose entities widely use the equity method. Third, the equity method is used in the discussion of the preparation of consolidated financial statements in later chapters.

Many well-known firms report using the equity method for investments in other companies. *AT&T* reports investments in equity method affiliates of \$250 million in its 2014 Annual Report. Net income was \$6.224 billion in 2014, including \$175 million from these equity method investments. *Chevron's* 2014 Annual Report discloses income from equity method investments of \$7.098 billion (36.9 percent of total net income).

<sup>1</sup>FASB ASC 325. Originally Accounting Principles Board Opinion No. 18. "The Equity Method of Accounting for Investments in Common Stock." New York © 1971 American Institute of Certified Public Accountants.

A parent may use the equity method to account for investments even though the financial statements of the subsidiaries will be subsequently included in the consolidated financial statements. In other words, the parent maintains the “investment in subsidiary account” by taking up its share of subsidiary income and reducing the investment account for its share of subsidiary dividends declared. Under the equity method, the parent’s net income and parent’s share of consolidated net income are equal. The consolidated income statement reflects the income of the parent and its subsidiaries as a single economic entity.

GAAP requires that all majority-owned subsidiaries be consolidated, except when control does not lie with the majority interest. Examples of control of a subsidiary not resting with the parent include a subsidiary in legal reorganization or in bankruptcy, or a subsidiary operating under severe foreign-exchange restrictions or other governmentally imposed uncertainties. (ASC 323-10-15) An investment in an unconsolidated subsidiary is reported in the parent’s financial statements by either the fair value/cost or the equity method. Chapter 3 discusses situations in which certain subsidiaries should not be consolidated.

**Fair Value/Cost and Equity Method Accounting Procedures**

LEARNING OBJECTIVE **2.4**

Assume that Pop Corporation acquires 2,000 of the 10,000 outstanding shares of Son Corporation at \$25 per share on July 1. Assume the book value and fair value of Son’s assets and liabilities are equal. Further, the cash paid equals 20 percent of the fair value of Son’s net assets. Son’s net income for the fiscal year ending December 31 is \$25,000, and dividends of \$10,000 are paid on November 1. If there is evidence of an inability to exercise significant influence, Pop should apply the fair value/cost method, revaluing the investment account to fair market value at the end of the accounting period. Otherwise, the equity method is required. Accounting by Pop under the two methods is as follows:

**Entry on July 1 to Record the Investment:**

|                               |        |                        |        |
|-------------------------------|--------|------------------------|--------|
| <i>Fair Value/Cost Method</i> |        | <i>Equity Method</i>   |        |
| Investment in Son (+A)        | 50,000 | Investment in Son (+A) | 50,000 |
| Cash (–A)                     | 50,000 | Cash (–A)              | 50,000 |

**Entry on November 1 to Record Dividends:**

|                               |       |                        |       |
|-------------------------------|-------|------------------------|-------|
| <i>Fair Value/Cost Method</i> |       | <i>Equity Method</i>   |       |
| Cash (+A)                     | 2,000 | Cash (+A)              | 2,000 |
| Dividend income (R, +SE)      | 2,000 | Investment in Son (–A) | 2,000 |

**Entry on December 31 to Recognize Earnings:**

|   |  |                           |       |
|---|--|---------------------------|-------|
| <i>Fair Value/Cost Method</i>   |  | <i>Equity Method</i>      |       |
| None (Assume that the stock is either nonmarketable or has a market price = \$25 per share so that no revaluing is needed.) |  | Investment in Son (+A)    | 2,500 |
|   |  | Income from Son (R, +SE)  | 2,500 |
|   |  | (25,000 × 1/2 year × 20%) |       |

Under the fair value/cost method, Pop recognizes income of \$2,000 and reports its investment in Son at its \$50,000 cost at December 31. Under the equity method, Pop recognizes \$2,500 in income and reports the investment in Son at \$50,500 at December 31. Here is a summary of Pop’s equity method investment account activity:

|             |  |                 |
|-------------|--|-----------------|
| July 1      | Initial cost                                   | \$50,000        |
| November 1  | Dividends received                             | (2,000)         |
| December 31 | Recognize 20% of Son’s net income for 1/2 year | 2,500           |
| December 31 | Ending balance                                 | <u>\$50,500</u> |

The entries to illustrate the fair value/cost method reflect the usual situation in which the investor records dividend income equal to dividends actually received. An exception arises when dividends received exceed the investor’s share of earnings after the investment has been acquired. From the investor’s point of view, the excess dividends since acquisition of the investment are a return of capital, or liquidating dividends. For example, if Son’s net income for the year had been \$15,000, Pop’s share would have been \$1,500 (\$15,000 × 1/2 year × 20%). The \$2,000 dividend received

exceeds the \$1,500 equity in Son's income, so the \$500 excess would be considered a return of capital and credited to the Investment in Son account. Assuming that Pop records the \$2,000 cash received on November 1 as dividend income, a year-end entry to adjust dividend income and the investment account is needed. Pop would record as follows:

|   |     |     |
|---|-----|-----|
| Dividend income (–R, – SE)  | 500 |     |
| Investment in Son (–A)  |     | 500 |
| To adjust dividend income and investment accounts for dividends received in excess of earnings. |     |     |

This entry reduces dividend income to Pop's \$1,500 share of income earned after July 1 and reduces the investment in Son to \$49,500, the new fair value/cost basis for the investment. If, after the liquidating dividend, the stock (classified as an available-for-sale security) had a fair value of \$60,000 at December 31, then another entry would be required to increase the investment to fair value:

|  |        |        |
|--|--------|--------|
| Allowance to adjust available-for-sale securities to market value (+A) | 10,500 |        |
| Unrealized gain on available-for-sale securities (+SE)                 |        | 10,500 |

The unrealized gain on available-for-sale securities is included in reporting other comprehensive income for the period.

### Economic Consequences of Using the Fair Value/Cost and Equity Methods

The different methods of accounting (fair value/cost and equity) result in different investment amounts in the balance sheet of the investor and different income amounts in the income statement. When the investor can significantly influence or control the operations of the investee, including dividend declarations, the fair value/cost method is unacceptable. By influencing or controlling investee dividend decisions, the investor could manipulate reported investment income. The possibility of income manipulation does not exist when the financial statements of a parent company/investor are consolidated with the statements of a subsidiary/investee because the consolidated statements are the same, regardless of which method of accounting is used.

Although the equity method is not a substitute for consolidation, the income reported by a parent in its separate income statement under the equity method is generally the same as the parent's share of consolidated net income reported in consolidated financial statements.

## LEARNING OBJECTIVE 2.5

### EQUITY METHOD—A ONE-LINE CONSOLIDATION

The equity method of accounting is often called a **one-line consolidation**. This is because the investment is reported in a single amount on one line of the investor's balance sheet, and investment income is reported in a single amount on one line of the investor's income statement (except when the investee has discontinued operations items that require separate disclosure). "One-line consolidation" also means that a parent-company/investor's income and stockholders' equity are the same when a subsidiary company/investee is accounted for under a complete and correct application of the equity method and when the financial statements of a parent and subsidiary are consolidated. Consolidated financial statements show the same income and the same net assets but include the details of revenues and expenses and assets and liabilities.

The equity method creates many complexities; in fact, it requires the same computational complexities encountered in preparing consolidated financial statements. For this reason, the equity method is the standard of parent-company accounting for subsidiaries, and the one-line consolidation is integrated throughout the consolidation chapters of this book. This parallel one-line consolidation/consolidation coverage permits you to check your work just as practitioners do, by making alternative computations of such key financial statement items as consolidated net income and consolidated retained earnings.

Basic accounting procedures for applying the equity method are the same whether the investor has the ability to exercise significant influence over the investee (20 percent to 50 percent ownership) or the ability to control the investee (more than 50 percent ownership). This is important because investments of more than 50 percent are business combinations and require preparation of consolidated financial statements. Thus, the accounting principles that apply to the acquisition method of accounting for business combinations also apply to accounting for investments of 50 percent or

greater under the equity method. The difference between the way combination provisions are applied in this chapter and the way they are applied in Chapter 1 arises because:

1. Both the investor and investee continue to exist as separate legal entities with their own accounting systems (an acquisition).
2. The equity method applies to only one of the entities—the investor.
3. The investor's equity interest may range from 20 percent to 100 percent.

### Equity Investments at Acquisition<sup>2</sup>

Equity investments in voting common stock of other entities measure the investment cost by the cash disbursed or the fair value of other assets distributed or securities issued. Similarly, we charge direct costs of registering and issuing equity securities against additional paid-in capital, and we expense other direct costs of acquisition. We enter the total investment cost in an investment account under the one-line consolidation concept.

Assume that Pam Company purchases 30 percent of Sun Company's outstanding voting common stock on January 1 from existing stockholders for \$2,000,000 cash plus 200,000 shares of Pam Company \$10 par common stock with a market value of \$15 per share. Additional cash costs of the equity interest consist of \$50,000 for registration of the shares and \$100,000 for consulting and advisory fees. Pam Company records these events with the following journal entries (in thousands):

|  |       |       |
|--|-------|-------|
| <i>January 1</i>   |       |       |
| Investment in Sun (+A)   | 5,000 |       |
| Common stock (+SE)   |       | 2,000 |
| Additional paid-in capital (+SE)                                 |       | 1,000 |
| Cash (−A)  |       | 2,000 |
| To record acquisition of a 30% equity investment in Sun Company. |       |       |

|   |     |     |
|---|-----|-----|
| <i>January 1</i>  |     |     |
| Investment expense (E, − SE)  | 100 |     |
| Additional paid-in capital (−SE)  | 50  |     |
| Cash (−A)   |     | 150 |
| To record additional direct costs of purchasing the 30% equity interest in Sun. |     |     |

Under a one-line consolidation, these entries can be made without knowledge of book value or fair value of Sun Company's assets and liabilities.

### Assignment of Excess Investment Cost over Underlying Book Value of Equity

Information about the individual assets and liabilities of Sun Company at acquisition is important because subsequent accounting under the equity method requires accounting for any differences between the investment cost and the underlying book value of equity in the net assets of the investee.

Assume that the following book value and fair value information for Sun Company at January 1 is available (in thousands):

|  | Book Value      | Fair Value      |
|--|-----------------|-----------------|
| Cash                                       | \$ 1,500        | \$ 1,500        |
| Receivables—net                            | 2,200           | 2,200           |
| Inventories                                | 3,000           | 4,000           |
| Other current assets                       | 3,300           | 3,100           |
| Equipment—net                              | 5,000           | 8,000           |
| Total assets                               | <u>\$15,000</u> | <u>\$18,800</u> |
| Accounts payable                           | \$ 1,000        | \$ 1,000        |
| Note payable, due in five years            | 2,000           | 1,800           |
| Common stock                               | 10,000          |                 |
| Retained earnings                          | 2,000           |                 |
| Total liabilities and stockholders' equity | <u>\$15,000</u> |                 |

<sup>2</sup>GAAP differs in equity method accounting for 20 percent to 50 percent ownership versus ownership greater than 50 percent, which will require preparation of consolidated financial statements. Our remaining discussion of equity method accounting focuses on application of the acquisition method for investments greater than 50 percent owned, unless otherwise noted.

**EXHIBIT 2-1**

**Schedule for Allocating the Excess of Investment Cost (Fair Value) over the Book Value of the Interest Acquired**

| <b>PAM COMPANY AND ITS 30 PERCENT-OWNED EQUITY INVESTEE, SUN COMPANY (IN THOUSANDS)</b> |            |   |            |   |                     |                   |
|---|------------|---|------------|---|---------------------|-------------------|
| Investment in Sun   |            |   |            |   |                     | \$5,000           |
| Book value of the interest acquired (30% × \$12,000,000 equity of Sun)                  |            |   |            |   |                     | (3,600)           |
| Total excess of cost over book value acquired   |            |   |            |   |                     | <u>\$1,400</u>    |
| Assignment to Identifiable Net Assets and Goodwill                                      |            |   |            |   |                     |                   |
|   | Fair Value | — | Book Value | × | % Interest Acquired | = Amount Assigned |
| Inventories   | \$4,000    |   | \$3,000    |   | 30%                 | \$300             |
| Other current assets  | 3,100      |   | 3,300      |   | 30                  | (60)              |
| Equipment   | 8,000      |   | 5,000      |   | 30                  | 900               |
| Note payable  | 1,800      |   | 2,000      |   | 30                  | 60                |
| Total assigned to identifiable net assets   |            |   |            |   |                     | <u>1,200</u>      |
| Remainder assigned to goodwill  |            |   |            |   |                     | 200               |
| Total excess of cost over book value acquired   |            |   |            |   |                     | <u>\$1,400</u>    |

The underlying book value of equity in the net assets of Sun Company is \$3,600,000 (30 percent of the \$12,000,000 book value of Sun's net assets), and the difference between the investment cost and the underlying book value of equity is \$1,400,000. The investor assigns this difference to identifiable assets and liabilities, based on their fair values and assigns the remaining difference to goodwill. Exhibit 2-1 illustrates the assignment to identifiable net assets and goodwill.

Pam Company does not record separately the asset and liability information given in Exhibit 2-1. The \$1,400,000 excess of cost over the underlying book value of equity is already reflected in Pam's Investment in Sun account. Under the equity method of accounting, we eliminate this difference by periodic charges (debits) and credits to income from the investment and by equal charges or credits to the investment account. Thus, the original difference between investment cost and book value acquired disappears over the remaining lives of identifiable assets and liabilities. Exceptions arise for land, goodwill, and intangible assets having an indefinite life, which are not amortized under GAAP.

We determined the \$200,000 assigned to goodwill in Exhibit 2-1 as a remainder of the total excess of cost/fair value over book value acquired (\$1,400,000) over amounts assigned to identifiable assets and liabilities (\$1,200,000). However, we can also compute goodwill as the excess of the investment cost of \$5,000,000 over the \$4,800,000 fair value of Sun's identifiable net assets acquired (30 percent × \$16,000,000). We consider the difference as goodwill if it cannot be related to identifiable assets and liabilities.

Recall from our discussion in Chapter 1 that, under current GAAP, firms do not amortize goodwill and other intangible assets that have an indefinite life. Instead, we review such assets for impairment on a periodic basis, and write down the assets when impairment losses become evident.

The same procedure also applies to investments that will be reported under the equity method. However, the impairment test differs. When evaluating an equity method investment for impairment, we recognize impairment losses in the value of the investment as a whole. (ASC 350-20-35)

### Accounting for Excess of Investment Cost over Book Value

Assume that Sun pays dividends of \$1,000,000 on July 1 and reports net income of \$3,000,000 for the year. The excess cost over book value is amortized as follows:

|  | <b>Amortization Rates</b> |
|--|---------------------------|
| Excess allocated to:                                 |                           |
| Inventories—sold in the current year                 | 100%                      |
| Other current assets—disposed of in the current year | 100%                      |
| Equipment—depreciated over 20 years                  | 5%                        |
| Note payable—due in 5 years                          | 20%                       |

Pam makes the following entries under a one-line consolidation to record its dividends and income from Sun (in thousands):

|   |     |     |
|---|-----|-----|
| <i>July 1</i>   |     |     |
| Cash (+A)   | 300 |     |
| Investment in Sun (−A)  |     | 300 |
| To record dividends received from Sun ( $\$1,000,000 \times 30\%$ ).  |     |     |
| <i>December 31</i>  |     |     |
| Investment in Sun (+A)  | 900 |     |
| Income from Sun (R, +SE)  |     | 900 |
| To record equity in income of Sun ( $\$3,000,000 \times 30\%$ ).  |     |     |
| <i>December 31</i>  |     |     |
| Income from Sun (−R, −SE)   | 300 |     |
| Investment in Sun (−A)  |     | 300 |
| To record write-off of excess allocated to inventory items that were sold in the current year.                                    |     |     |
| <i>December 31</i>  |     |     |
| Investment in Sun (+A)  | 60  |     |
| Income from Sun (R, +SE)  |     | 60  |
| To record income credit for overvalued other current assets disposed of in the current year.                                      |     |     |
| <i>December 31</i>  |     |     |
| Income from Sun (−R, −SE)   | 45  |     |
| Investment in Sun (−A)  |     | 45  |
| To record depreciation on excess allocated to undervalued equipment with a 20-year remaining useful life ( $\$900,000 \div 20$ ). |     |     |
| <i>December 31</i>  |     |     |
| Income from Sun (−R, −SE)   | 12  |     |
| Investment in Sun (−A)  |     | 12  |
| To amortize the excess allocated to the overvalued note payable over the remaining life of the note ( $\$60,000 \div 5$ years).   |     |     |

The last five journal entries involve the income and investment accounts, so Pam could record its income from Sun in a single entry at December 31, as follows:

|   |       |              |
|---|-------|--------------|
| Investment in Sun (+A)  | 603   |              |
| Income from Sun (R, +SE)  |       | 603          |
| To record equity income from 30% investment in Sun calculated as follows: |       |              |
| Equity in Sun's reported income ( $\$3,000,000 \times 30\%$ )             |       | \$900        |
| Amortization of excess cost over book value:                              |       |              |
| Inventories sold in the current year ( $\$300,000 \times 100\%$ )         | (300) |              |
| Other current assets sold in the current year ( $\$60,000 \times 100\%$ ) | 60    |              |
| Equipment ( $\$900,000 \times 5\%$ depreciation rate)                     | (45)  |              |
| Note payable ( $\$60,000 \times 20\%$ amortization rate)                  | (12)  |              |
| Total investment income from Sun  |       | <u>\$603</u> |

Pam reports its investment in Sun at December 31 on one line of its balance sheet at \$5,303,000 (see the following summary) and its income from Sun at \$603,000 on one line of its income statement. Sun's book value of net assets (stockholders' equity) increased by \$2,000,000 to \$14,000,000, and Pam's share of this underlying equity is 30 percent, or \$4,200,000. The \$1,103,000 difference between the investment balance and the underlying book value of equity at December 31 represents the unamortized excess of investment cost/fair value over book value acquired. Confirm this amount by subtracting the \$297,000 net amortization from the original excess of \$1,400,000.

Here is a summary of Pam's equity method investment account activity (in thousands):

|             |   |                |
|-------------|---|----------------|
| January 1   | Initial cost  | \$5,000        |
| July 1      | Dividends received  | (300)          |
| December 31 | Recognize 30% of Sun's net income   | 900            |
| December 31 | Write off excess allocated to inventory                                     | (300)          |
| December 31 | Record income from Sun's overvalued current assets sold in the current year | 60             |
| December 31 | Additional equipment depreciation   | (45)           |
| December 31 | Amortize note payable excess  | (12)           |
| December 31 | Ending balance  | <u>\$5,303</u> |

When the full \$1,400,000 excess has been amortized (or written off as an impairment loss in the case of goodwill), the investment balance will equal its underlying book value, which is 30 percent of the stockholders' equity of Sun. A summary of these observations follows (in thousands):

|                 | Stockholders' Equity of Sun (A) | Underlying Equity (30% of Sun's Equity) (B) | Investment in Sun Account Balance (C) | Unamortized Cost/Book Value (C – B) |
|-----------------|---------------------------------|---|---------------------------------------|-------------------------------------|
| January 1       | \$12,000                        | \$3,600                                     | \$5,000                               | \$1,400                             |
| Dividends, July | (1,000)                         | (300)                                       | (300)                                 | —                                   |
| Income          | 3,000                           | 900   | 900                                   | —                                   |
| Amortization    | —                               | —   | (297)                                 | (297)                               |
| December 31     | <u>\$14,000</u>                 | <u>\$4,200</u>                              | <u>\$5,303</u>                        | <u>\$1,103</u>                      |

### Excess of Book Value over Cost

The book value of the interest acquired in an investee may be greater than the investment cost or fair value. This indicates that the identifiable net assets of the investee are overvalued or that the interest was acquired at a bargain price. The bargain purchase gain is recorded as an ordinary gain, as explained in Chapter 1.

To illustrate, assume that Pop Corporation purchases 50 percent of the outstanding voting common stock of Son Corporation on January 1 for \$40,000 in cash. A summary of the changes in Son's stockholders' equity during the year appears as follows (in thousands):

|                                  |              |
|----------------------------------|--------------|
| Stockholders' equity January 1   | \$100        |
| Add: Income                      | 20           |
| Deduct: Dividends paid July 1    | (5)          |
| Stockholders' equity December 31 | <u>\$115</u> |

The \$10,000 excess of book value acquired over investment cost ( $\$100,000 \times 50\%$ ) – \$40,000 was due to inventory items and equipment that were overvalued on Son's books. Son's January 1 inventory was overvalued by \$2,000 and was sold in December. The remaining \$18,000 overvaluation related to equipment with a 10-year remaining useful life from January 1. No goodwill results because the \$40,000 cost is equal to the fair value of the net assets acquired ( $50\% \times \$80,000$ ).

The assignment of the difference between book value acquired and investment cost is as follows (in thousands):

|   |               |
|---|---------------|
| Cost of the investment in Son   | \$ 40         |
| Less: Underlying book value of Pop's 50% interest in Son ( $\$100,000$ stockholders' equity $\times$ 50%) | (50)          |
| Excess book value over cost   | <u>\$(10)</u> |
| Excess assigned to:   |               |
| Inventories ( $\$2,000$ overvaluation $\times$ 50% owned)   | \$ (1)        |
| Equipment ( $\$18,000$ overvaluation $\times$ 50% owned)  | (9)           |
| Excess book value over cost   | <u>\$(10)</u> |

Journal entries to account for Pop's investment in Son are as follows (in thousands):

|  |     |     |
|--|-----|-----|
| <i>January 1</i>   |     |     |
| Investment in Son (+A)   | 40  |     |
| Cash (–A)  |     | 40  |
| To record purchase of 50% of Son's outstanding voting stock.       |     |     |
| <i>July 1</i>  |     |     |
| Cash (+A)  | 2.5 |     |
| Investment in Son (–A)   |     | 2.5 |
| To record dividends received ( $5,000 \times 50\%$ ).              |     |     |
| <i>December 31</i>   |     |     |
| Investment in Son (+A)   | 10  |     |
| Income from Son (R, +SE)   |     | 10  |
| To recognize equity in the income of Son ( $20,000 \times 50\%$ ). |     |     |

December 31

|  |              |
|--|--------------|
| Investment in Son (+A)   | 1.9          |
| Income from Son (R, +SE)   | 1.9          |
| To amortize excess of book value over investment cost assigned to: |              |
| Inventory (1,000 × 100%)   | \$1.0        |
| Equipment (9,000 × 10%)  | .9           |
| Total  | <u>\$1.9</u> |

Because assets were purchased at less than book value, Pop reports investment income from Son of \$11,900 (\$10,000 + \$1,900) and an Investment in Son balance at December 31 of \$49,400. Amortization of the excess of book value over investment cost increases Pop's Investment in Son balance by \$1,900 during the year.

Here is a summary of the equity method investment account activity:

|             |   |                 |
|-------------|---|-----------------|
| January 1   | Initial cost  | \$40,000        |
| July 1      | Dividends received  | (2,500)         |
| December 31 | Recognize 50% of Son's net income                         | 10,000          |
| December 31 | Amortization of excess of book value over investment cost | 1,900           |
| December 31 | Ending balance  | <u>\$49,400</u> |

### Bargain Purchase

Assume that Pop also acquires a 25 percent interest in Sax Corporation for \$110,000 on January 1, at which time Sax's net assets consist of the following (in thousands):

|                      | Book Value   | Fair Value   | Excess Fair Value |
|----------------------|--------------|--------------|-------------------|
| Inventories          | \$240        | \$260        | \$20              |
| Other current assets | 100          | 100          |                   |
| Equipment—net        | 50           | 50           |                   |
| Buildings—net        | 140          | 200          | 60                |
|                      | <u>530</u>   | <u>610</u>   |                   |
| Less: Liabilities    | 130          | 130          |                   |
| Net assets           | <u>\$400</u> | <u>\$480</u> | <u>\$80</u>       |

Sax's net income and dividends for the year are \$60,000 and \$40,000, respectively. The undervalued inventory items were sold during the year, and the undervalued buildings had a four-year remaining useful life when Pop acquired its 25 percent interest. Exhibit 2-2 illustrates the assignment of the excess cost over book value.

In reviewing Exhibit 2-2, notice that the excess cost over book value is first assigned to fair values of identifiable net assets. Because the fair value of the net assets acquired exceeds the cost of the investment, the difference is a bargain purchase gain. This bargain purchase gain is recognized as an ordinary gain on the books of the investor.

| <b>POP CORPORATION AND ITS 25 PERCENT-OWNED EQUITY INVESTEE, SAX CORPORATION (IN THOUSANDS)</b> |                                     |                            |                             |
|---|-------------------------------------|----------------------------|-----------------------------|
| Investment cost   |                                     | \$110                      |                             |
| Book value acquired (\$400,000 × 25%)   |                                     | (100)                      |                             |
| Excess cost over book value acquired  |                                     | <u>\$ 10</u>               |                             |
|   | <i>Assignment to<br/>Fair Value</i> | <i>Negative<br/>Excess</i> | <i>Final<br/>Assignment</i> |
| Inventory (\$20,000 × 25%)  | \$ 5                                |                            | \$ 5                        |
| Buildings—net (\$60,000 × 25%)  | <u>15</u>                           |                            | 15                          |
| Gain from bargain purchase  |                                     | <u>\$10</u>                | <u>(10)</u>                 |
| Excess  | <u>\$20</u>                         | <u>\$10</u>                | <u>\$10</u>                 |

#### EXHIBIT 2-2

**Schedule for Allocating the Excess of Investment Cost (Fair Value) over the Book Value of the Interest Acquired**

Journal entries for Pop to account for its investment in Sax follow (in thousands):

|  |      |                 |
|--|------|-----------------|
| <i>January 1</i>   |      |                 |
| Investment in Sax (+A)                                       | 120  |                 |
| Cash (−A)  |      | 110             |
| Gain on bargain purchase (Ga, +SE)                           |      | 10              |
| To record purchase of a 25% interest in Sax's voting stock.  |      |                 |
| <i>Throughout the year</i>                                   |      |                 |
| Cash (+A)  | 10   |                 |
| Investment in Sax (−A)                                       |      | 10              |
| To record dividends received (\$40,000 × 25%).               |      |                 |
| <i>December 31</i>   |      |                 |
| Investment in Sax (+A)                                       | 6.25 |                 |
| Income from Sax (R, +SE)                                     |      | 6.25            |
| To recognize investment income from Sax computed as follows: |      |                 |
| 25% of Sax's \$60,000 net income                             |      | \$15,000        |
| Excess allocated to inventories                              |      | (5,000)         |
| Excess allocated to buildings (\$15,000 ÷ 4 years)           |      | (3,750)         |
|  |      | <u>\$ 6,250</u> |

Pop's investment in Sax balance at December 31 is \$116,250, and the underlying book value of the investment is \$105,000 ( $\$420,000 \times 25\%$ ) on that same date. The \$11,250 difference is due to the \$11,250 unamortized excess assigned to buildings.

### Interim Acquisitions of Investment Interest

Accounting for equity investments becomes more specific when a firm makes acquisitions within an accounting period (interim acquisitions). Additional computations determine the underlying equity at the time of acquisition and the investment income for the year. We compute stockholders' equity of the investee by adding income earned since the last statement date to the date of purchase to the beginning stockholders' equity and subtracting dividends declared since the last statement date to the date of purchase. In accounting for interim acquisitions, we assume that income of the investee is earned proportionately throughout the year unless there is evidence to the contrary.

Assume that Pop Corporation acquires 40 percent of the voting common stock of Son Company for \$80,000 on October 1. Son's net assets (owners' equity) at January 1 are \$150,000, and it reports net income of \$25,000 for the year ended December 31 and declares \$15,000 dividends on July 1. The book values of Son's assets and liabilities are equal to fair values on October 1, except for a building with a fair value of \$60,000 and recorded at \$40,000. The building has a 20-year remaining useful life from October 1. GAAP requires application of the equity method and assignment of any difference between investment cost and book value acquired first to identifiable assets and liabilities and then to goodwill.

The excess of Pop's investment cost over book value of its 40 percent interest in Son is computed and assigned to identifiable assets and goodwill, as shown in Exhibit 2-3.

#### EXHIBIT 2-3

##### Schedule for Allocating the Excess of Investment Cost (Fair Value) over Book Value of Interest Acquired

| POP CORPORATION AND ITS 40 PERCENT-OWNED EQUITY INVESTEE, SON CORPORATION |           |                 |
|---|-----------|-----------------|
| Investment cost   |           | \$80,000        |
| Less: Share of Fair equity on October 1                                   |           |                 |
| Beginning equity  | \$150,000 |                 |
| Add: Income to October 1  | 18,750    |                 |
| Less: Dividends   | (15,000)  |                 |
|   | 153,750   |                 |
| Times: Interest purchased   | 40%       | (61,500)        |
| Excess cost over book value   |           | <u>\$18,500</u> |
| Excess assigned to:   |           |                 |
| Buildings [(\$60,000 − \$40,000) × 40%]                                   |           | \$ 8,000        |
| Goodwill (remainder)  |           | 10,500          |
| Excess cost over book value   |           | <u>\$18,500</u> |

Journal entries on Pop's books to account for the 40 percent interest in Son for the current year are as follows (in thousands):

|   |     |     |
|---|-----|-----|
| <i>October 1</i>  |     |     |
| Investment in Son (+A)  | 80  |     |
| Cash (-A)   |     | 80  |
| To record acquisition of 40% of Son's voting stock.   |     |     |
| <i>December 31</i>  |     |     |
| Investment in Son (+A)  | 2.5 |     |
| Income from Son (R, +SE)  |     | 2.5 |
| To record equity in Son's income<br>(40% × \$25,000 × 1/4 year).  |     |     |
| <i>December 31</i>  |     |     |
| Income from Son (-R, -SE)   | .1  |     |
| Investment in Son (-A)  |     | .1  |
| To record amortization of excess of cost over book value<br>allocated to the undervalued building<br>( $\$8,000 \div 20 \text{ years} \times 1/4 \text{ year}$ ). |     |     |

At December 31, after the entries are posted, Pop's Investment in Son account will have a balance of \$82,400 (\$80,000 cost + \$2,400 income). This investment account balance is \$18,400 more than the \$64,000 underlying book value of Pop's interest in Son on that date (40% × \$160,000). The \$18,400 consists of the original excess cost over book value of \$18,500 less the \$100 amortized in the current year.

Here is a summary of Pop's equity method Investment in Son account activity:

|             |   |          |
|-------------|---|----------|
| October 1   | Initial cost  | \$80,000 |
| December 31 | Recognize 40% of Son's net income for 1/4 year              | 2,500    |
| December 31 | Amortization of excess of cost over book value for 1/4 year | (100)    |
| December 31 | Ending balance  | \$82,400 |

Notice that we do not recognize 40 percent of the dividends declared and paid by Son. The dividends were paid on July 1, prior to Pop's investment. Under the equity method, investors recognize dividends received, not their proportional share of total dividends declared and/or paid. Of course, if the investment is owned for the entire year, these amounts will be the same.

## INVESTMENT IN A STEP-BY-STEP ACQUISITION

An investor may acquire significant influence over the operating and financial policies of an investee in a series of stock acquisitions, rather than in a single purchase. For example, the investor may acquire a 10 percent interest in an investee and later acquire another 10 percent interest. We account for the original 10 percent interest by the fair value/cost method until we reach a 20 percent interest. Then we adopt the equity method and adjust the investment and retained earnings accounts retroactively.

Assume that Pop Corporation acquires a 10 percent interest in Son Corporation for \$750,000 on January 2, 2016, and another 10 percent interest for \$850,000 on January 2, 2017. The stockholders' equity of Son Corporation on the dates of these acquisitions is as follows (in thousands):

|                            | January 2, 2016 | January 2, 2017 |
|----------------------------|-----------------|-----------------|
| Capital stock              | \$5,000         | \$5,000         |
| Retained earnings          | 2,000           | 2,500           |
| Total stockholders' equity | \$7,000         | \$7,500         |

Pop Corporation is not able to relate the excess of investment cost over book value to identifiable net assets. Accordingly, the excess of cost over book value from each acquisition is goodwill.

On January 2, 2017, when the second 10 percent is acquired, Pop adopts the equity method of accounting for its 20 percent interest. This requires converting the carrying value of the original 10

percent interest from its \$750,000 cost to its correct carrying value on an equity basis. The entry to adjust the investment account of Pop is as follows (in thousands):

|   |    |
|---|----|
| <i>January 2, 2017</i>  |    |
| Investment in Son (+A)  | 50 |
| Retained earnings (+SE)   | 50 |
| To adjust the Investment in Son account from a cost to an equity basis as follows: Share of Son's retained earnings increase during 2016 of \$50,000 [ $\$500,000 \times 10\%$ interest held during the year] equals the retroactive adjustment from accounting change of \$50,000. |    |

Son's \$500,000 retained earnings increase for 2016 represents its income less dividends for 2016. Pop reports its share of dividends received from Son as income under the cost method; therefore, Pop's income for 2016 under the equity method is greater by 10 percent of Son's retained earnings increase for 2016.

Changes in the cost, equity, and consolidation methods of accounting for subsidiaries and investments are changes in the reporting entity that require restatement of prior-period financial statements if the effect is material. (ASC 250-10-45)

### SALE OF AN EQUITY INTEREST

When an investor sells a portion of an equity investment that reduces its interest below 20 percent or to less than a level necessary to exercise significant influence, the equity method of accounting is no longer appropriate for the remaining interest. We account for the investment under the fair value/cost method from this time forward, and the investment account balance after the sale becomes the new basis. We require no other adjustment, and the investor accounts for the investment under the fair value/cost method in the usual manner. Gain or loss from the equity interest sold is the difference between the selling price and the book value of the equity interest immediately before the sale.

To illustrate, Pam Industries acquires 320,000 shares (a 40 percent interest) in Sun Corporation on January 1, 2016, for \$580,000. Sun's stockholders' equity is \$1,200,000, and the book values of its assets and liabilities equal their fair values. Pam accounts for its investment in Sun under the equity method during the years 2016 through 2017. At December 31, 2017, the balance of the investment account is \$700,000, equal to 40 percent of Sun's \$1,500,000 stockholders' equity plus \$100,000 goodwill.

On January 1, 2018, Pam sells 80 percent of its holdings in Sun (256,000 shares) for \$600,000, reducing its interest in Sun to 8 percent ( $40\% \times 20\%$ ). The book value of the interest sold is \$560,000, or 80 percent of the \$700,000 balance of the Investment in Sun account. Pam recognizes a gain on the sale of its interest in Sun of \$40,000 (\$600,000 selling price less \$560,000 book value of the interest sold). The balance of the Investment in Sun account after the sale is \$140,000 (\$700,000 less \$560,000 interest sold). Pam determines that it can no longer exercise significant influence over Sun, and accordingly, it switches to the fair value/cost method and accounts for its investment with the \$140,000 balance becoming the new basis of the investment. (ASC 320-10-30)

### STOCK PURCHASES DIRECTLY FROM THE investee

We have assumed up to now that the investor purchased its shares from existing stockholders of the investee. In that situation, the interest acquired was equal to the shares acquired divided by the investee's outstanding shares. If an investor purchases shares directly from the issuing corporation, however, we determine the investor's interest by the shares acquired divided by the shares outstanding after the investee issues the new shares.

Assume that Pop Corporation purchases 20,000 shares of previously unissued common stock directly from Son Corporation for \$450,000 on January 1, 2016. Son's stockholders' equity at December 31, 2015, consists of \$200,000 of \$10 par common stock and \$150,000 retained earnings.

We compute Pop's 50 percent interest in Son as follows:

|   |   |               |               |
|---|---|---------------|---------------|
| A | Shares purchased by Pop                         |               | 20,000 shares |
| B | Shares outstanding after new shares are issued: |               |               |
|   | Outstanding December 31, 2015                   | 20,000        |               |
|   | Issued to Pop                                   | <u>20,000</u> | 40,000 shares |
|   | Pop's interest in Son: A/B = 50%                |               |               |

The book value of the interest acquired by Pop is \$400,000, which is determined by multiplying the 50 percent interest acquired by Son's \$800,000 stockholders' equity immediately after the issuance of the additional 20,000 shares. Computations are as follows:

|   |                  |
|---|------------------|
| Son's stockholders' equity before issuance              | \$350,000        |
| (\$200,000 capital stock + \$150,000 retained earnings) |                  |
| Sale of 20,000 shares to Pop                            | 450,000          |
| Son's stockholders' equity after issuance               | <u>800,000</u>   |
| Pop's percentage ownership                              | 50%              |
| Book value acquired by Pop                              | <u>\$400,000</u> |

### INVESTEES CORPORATION WITH PREFERRED STOCK

The equity method applies to investments in common stock, and some adjustments are necessary when an investee has both preferred and common stock outstanding. These adjustments require the following:

1. Allocation of the investee's stockholders' equity into preferred and common equity components upon acquisition in order to determine the book value of the common stock investment
2. Allocation of the investee's net income into preferred and common income components to determine the investor's share of the investee's income to common stockholders

Assume that Sun Corporation's stockholders' equity is \$6,000,000 at the beginning of the year and \$6,500,000 at the end of the year. Its net income and dividends for the year are \$700,000 and \$200,000, respectively.

| (Amounts in Thousands)                    | January 1      | December 31    |
|---|----------------|----------------|
| 10% cumulative preferred stock, \$100 par | \$1,000        | \$1,000        |
| Common stock, \$10 par                    | 3,000          | 3,000          |
| Other paid-in capital                     | 500            | 500            |
| Retained earnings                         | <u>1,500</u>   | <u>2,000</u>   |
|   | <u>\$6,000</u> | <u>\$6,500</u> |

If Pam Corporation pays \$2,500,000 on January 2 for 40 percent of Sun's outstanding common stock, the investment is evaluated as follows (in thousands):

|                                       |              |               |
|---------------------------------------|--------------|---------------|
| Cost of 40% common interest in Sun    |              | \$2,500       |
| Book value (and fair value) acquired: |              |               |
| Stockholders' equity of Sun           | \$6,000      |               |
| Less: Preferred stockholders' equity  | 1,000        |               |
| Common stockholders' equity           | <u>5,000</u> |               |
| Percent acquired                      | <u>× 40%</u> | 2,000         |
| Goodwill                              |              | <u>\$ 500</u> |

The equity of preferred stockholders is equal to the par value of outstanding preferred stock, increased by the greater of any call or liquidating premium and by preferred dividends in arrears. We assume Sun's preferred stock has no dividends in arrears and no call or liquidation premium.

Pam's income from Sun for the year from its 40 percent interest is computed as follows (in thousands):

|  |              |
|--|--------------|
| Sun's net income                               | \$700        |
| Less: Preferred income (\$1,000,000 × 10%)     | 100          |
| Income to common                               | <u>\$600</u> |
| Share of Sun's common income (\$600,000 × 40%) | <u>240</u>   |

GAAP provides that when an investee has cumulative preferred stock outstanding, an investor in common stock computes its share of earnings or losses after deducting preferred dividends, whether or not preferred dividends are declared. Additional coverage of accounting matters related to investees with preferred stock outstanding is provided in Chapter 10.

### DISCONTINUED OPERATIONS AND OTHER CONSIDERATIONS

In accounting for an investment under the equity method, the investor reports its share of the ordinary income of an investee on one line of its income statement. However, the one-line consolidation does not apply to the reporting of investment income when the investee's income includes discontinued operations. In this case, the investment income must be separated into its ordinary and discontinued operations components and reported accordingly.

Assume that Pop Corporation owns 40 percent of the outstanding stock of Son Corporation and that Son's income consists of the following (in thousands):

|   |              |
|---|--------------|
| Income from continuing operations                                       | \$500        |
| Discontinued operations—loss (less applicable income taxes of \$25,000) | (50)         |
| Net income  | <u>\$450</u> |

Pop records its investment income from Son as follows (in thousands):

|   |     |     |
|---|-----|-----|
| Investment in Son (+A)                    | 180 |     |
| Discontinued operations loss—Son (E, −SE) | 20  |     |
| Income from Son (R, +SE)                  |     | 200 |
| To record investment income from Son.     |     |     |

Pop reports the \$200,000 income from Son as investment income and reports the \$20,000 discontinued operations loss along with any discontinued operations that Pop may have had during the year. A gain on an investee's disposal of a segment of a business would be treated similarly.

### Other Requirements of the Equity Method

In reporting earnings and losses of an investee under the equity method, an investor must eliminate the effect of profits and losses on transactions between the investor and investee until they are realized. This means adjusting the investment and investment income accounts as we have illustrated to amortize over- or undervalued identifiable net assets. Transactions of an investee that change the investor's share of the net assets of the investee also require adjustments under the equity method of accounting. These and other complexities of the equity method are covered in subsequent chapters, along with related consolidation procedures. Chapter 10 covers preferred stock, earnings per share, and income tax considerations.

### DISCLOSURES FOR EQUITY INVESTEEES

The extent to which separate disclosure should be provided for equity investments depends on the significance (materiality) of such investments to the financial position and results of operations of the investor. If equity investments are significant, the investor should disclose the following information, parenthetically or in financial statement notes or schedules:

1. The name of each investee and percentage of ownership in common stock
2. The accounting policies of the investor with respect to investments in common stock

3. The difference, if any, between the amount at which an investment is carried and the amount of underlying equity in net assets, including the accounting treatment of the difference (ASC 323-10-50)

Additional disclosures for material equity investments include the aggregate value of each identified investment for which quoted market prices are available and summarized information regarding the assets, liabilities, and results of operations of the investees. An excerpt from *The Dow Chemical Company and Subsidiaries' 2014* annual report is presented in Exhibit 2-4 to illustrate the disclosure requirements. Financial information is separately presented for all significant equity investees as a group. Dow includes its share of the underlying net assets of these investees as “Investments” in the balance sheet and includes its share of the investees’ net income in the income statement as “Equity in income of investees.” The operating-activities section of Dow’s consolidated statement of cash flows shows both “Equity in income of investees” and “Cash distributions from equity investees” as adjustments to net income.

#### NOTE 8—NONCONSOLIDATED AFFILIATES AND RELATED COMPANY TRANSACTIONS (EXCERPT)

Sales to and purchases from nonconsolidated affiliates were not material to the consolidated financial statements. Balances due to or due from nonconsolidated affiliates at December 31, 2014 and 2013 are as follows:

#### BALANCES DUE TO OR DUE FROM NONCONSOLIDATED AFFILIATES AT DECEMBER 31

| <i>In millions</i>                  | 2014         | 2013          |
|-------------------------------------|--------------|---------------|
| Accounts and notes receivable—other | \$511        | \$ 512        |
| Noncurrent receivables              | 212          | 5             |
| Total assets                        | <u>\$723</u> | <u>\$ 517</u> |
| Notes payable                       | \$189        | \$ 137        |
| Accounts payable—other              | 274          | 221           |
| Total current liabilities           | <u>\$463</u> | <u>\$ 358</u> |

#### Principal Nonconsolidated Affiliates

Dow had an ownership interest in 59 nonconsolidated affiliates at December 31, 2014 (63 at December 31, 2013). The Company’s principal nonconsolidated affiliates and its ownership interest (direct or indirect) for each at December 31, 2014, 2013, and 2012 are as follows:

#### PRINCIPAL NONCONSOLIDATED AFFILIATES AT DECEMBER 31

|   | <i>Ownership Interest</i> |        |        |
|---|---------------------------|--------|--------|
|   | 2014                      | 2013   | 2012   |
| Dow Corning Corporation                 | 50%                       | 50%    | 50%    |
| EQUATE Petrochemical Company K.S.C.     | 42.5%                     | 42.5%  | 42.5%  |
| The Kuwait Olefins Company K.S.C.       | 42.5%                     | 42.5%  | 42.5%  |
| The Kuwait Styrene Company K.S.C.       | 42.5%                     | 42.5%  | 42.5%  |
| Map Ta Phut Olefins Company Limited (3) | 32.77%                    | 32.77% | 32.77% |
| MEGlobal (1)                            | 50%                       | 50%    | 50%    |
| Sadara Chemical Company                 | 35%                       | 35%    | 35%    |
| The SCG-Dow Group:                      |                           |        |        |
| Siam Polyethylene Company Limited       | 50%                       | 50%    | 50%    |
| Siam Polystyrene Company Limited        | 50%                       | 50%    | 50%    |
| Siam Styrene Monomer Co., Ltd.          | 50%                       | 50%    | 50%    |
| Siam Synthetic Latex Company Limited    | 50%                       | 50%    | 50%    |
| Univation Technologies LLC              | 50%                       | 50%    | 50%    |

The Company’s investment in its principal nonconsolidated affiliates was \$3,487 million at December 31, 2014, and \$3,625 million at December 31, 2013. Equity earnings from these companies were \$845 million in 2014, \$951 million in 2013, and \$479 million in 2012. Equity earnings from principal nonconsolidated affiliates decreased in 2014 compared with 2013, primarily due to lower equity earnings at EQUATE Petrochemical Company K.S.C., The Kuwait Styrene Company K.S.C., and MEGlobal as well as increased equity losses from Sadara which were partially offset by increased earnings from Dow Corning. In 2014, Dow Corning’s equity earnings were unfavorably impacted by an impairment charge related to the abandonment of a polycrystalline silicon plant expansion in Clarksville, Tennessee, which was partially offset by a reduction to its implant liability reserve. In 2012, Dow Corning’s equity earnings were negatively impacted by asset impairment and restructuring charges.

(continued)

#### EXHIBIT 2-4

#### The Dow Chemical Company and Subsidiaries Notes to the Consolidated Financial Statements

Source: From The Dow Chemical Company 2014 Annual Report  
© The Dow Chemical Company (1995-2015)

The summarized financial information that follows represents the combined accounts (at 100 percent) of the principal nonconsolidated affiliates.

### SUMMARIZED BALANCE SHEET INFORMATION AT DECEMBER 31

| <i>In millions</i>       | 2014      | 2013     |
|--------------------------|-----------|----------|
| Current assets           | \$ 9,611  | \$ 8,675 |
| Noncurrent assets        | 27,025    | 24,166   |
| Total assets             | \$ 36,636 | \$32,841 |
| Current liabilities      | \$ 6,321  | \$ 5,972 |
| Noncurrent liabilities   | 21,047    | 17,129   |
| Total liabilities        | \$27,368  | \$23,101 |
| Noncontrolling interests | \$ 666    | \$ 624   |

### SUMMARIZED INCOME STATEMENT INFORMATION

| <i>In millions</i> | 2014     | 2013     | 2012     |
|--------------------|----------|----------|----------|
| Sales              | \$19,333 | \$18,257 | \$17,668 |
| Gross profit       | \$ 1,673 | \$ 3,403 | \$ 2,911 |
| Net income         | \$ 1,673 | \$ 1,906 | \$ 872   |

### Related-Party Transactions

There is no presumption of arm's-length bargaining between related parties. GAAP identifies material transactions between affiliated companies as related-party transactions requiring financial statements disclosure. (ASC 850-10-50) Related-party transactions arise when one of the transacting parties has the ability to influence significantly the operations of the other. The required disclosures include the following:

1. The nature of the relationship
2. A description of the transaction
3. The dollar amounts of the transaction and any change from the previous period in the method used to establish the terms of the transaction for each income statement presented
4. Amounts due to or due from related parties at the balance sheet date for each balance sheet presented

## LEARNING OBJECTIVE 2.6

### TESTING GOODWILL FOR IMPAIRMENT

Chapter 1 introduced the rules for goodwill and other intangible assets. This section provides additional discussion and examples of impairment tests.

Goodwill and certain other intangible assets having an indefinite useful life are not amortized. Recorded intangible assets having a definite useful life continue to be amortized over that life. If an intangible asset has a definite, but unknown, useful life, firms should amortize over the best estimate of useful life.

Those intangibles (including goodwill) having an indefinite life are not amortized but are subject to annual review and testing for impairment. The focus here is impairment testing and reporting for goodwill.

*Time Warner, Inc.* (formerly *AOL Time Warner*) provides an example of significant goodwill and intangible asset impairment write-offs. In its 2003 annual report, the consolidated income statement includes "Impairment of goodwill and other intangible assets" of \$318 million in calculating income from operations. This amount pales in comparison to the 2002 amounts. Operating income for 2002 included an impairment loss for goodwill and intangibles of \$44.039 billion. Net income for 2002 included an additional cumulative effect of accounting changes of (\$54.235) billion, due mostly to goodwill write-offs, and this number is net of tax.

Add up the numbers and you discover that total goodwill impairments (including the discontinued operations) were \$98.884 billion in 2002, and an additional \$1.418 billion in 2003. The note for 2002 also discloses an \$853 million impairment write-off for brands and trademarks for the music

**NOTE 9. GOODWILL AND OTHER INTANGIBLE ASSETS****Goodwill Impairments**

The Company performs an impairment test for goodwill annually during the fourth quarter. Qualitative factors may be assessed by the Company to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying value. The qualitative factors assessed at the Company level include, but are not limited to, GDP growth rates, long-term hydrocarbon and energy prices, equity and credit market activity, discount rates, foreign exchange rates and overall financial performance. Qualitative factors assessed at the reporting unit level include, but are not limited to, changes in industry and market structure, competitive environments, planned capacity and new product launches, cost factors such as raw material prices, and financial performance of the reporting unit.

*2014 Goodwill Impairment Testing*

In 2014, the Company assessed qualitative factors for 9 of the 14 reporting units carrying goodwill. The qualitative assessment indicated that it was more likely than not that the fair value exceeded carrying value for those reporting units included in the qualitative test. The Company performed the first step of the quantitative testing for the remaining five reporting units. The Company utilized a discounted cash flow methodology to calculate the fair value of the reporting units. Based on the fair value analysis, management concluded that fair value exceeded carrying value for all reporting units. As a result, no additional quantitative testing was required for the reporting units.

*2013 Goodwill Impairment Testing*

In 2013, the Company assessed qualitative factors for 14 of the 19 reporting units carrying goodwill. The qualitative assessment indicated that it was more likely than not that the fair value exceeded carrying value for those reporting units included in the qualitative test. The Company performed the first step of the quantitative testing for the remaining five reporting units. The Company utilized a discounted cash flow methodology to calculate the fair value of the reporting units. Based on the fair value analysis, management concluded that fair value exceeded carrying value for all reporting units. As a result, no additional quantitative testing was required for the reporting units.

*2012 Goodwill Impairment Testing*

In 2012, the Company assessed qualitative factors for 11 of the 20 reporting units carrying goodwill. The qualitative assessment indicated that it was more likely than not that the fair value exceeded carrying value for those reporting units included in the qualitative test. The Company performed the first step of the quantitative testing for the remaining nine reporting units. The Company utilized a discounted cash flow methodology to calculate the fair value of the reporting units. Based on the fair value analysis, management concluded that fair value exceeded carrying value for all reporting units except Dow Formulated Systems. Management completed the second step of the quantitative test for Dow Formulated Systems which compared the implied fair value of the reporting unit's goodwill to the carrying value. As a result, the Company recorded an impairment loss of \$220 million in the fourth quarter of 2012, which is included in "Goodwill and other intangible asset impairment losses" in the consolidated statements of income and reflected in the Performance Materials & Chemicals segment. The goodwill impairment loss represented the total amount of goodwill that was carried by the Dow Formulated Systems reporting unit.

**EXHIBIT 2-5**

**Excerpts from Dow Chemical Company 2014 Annual Report (pp. 86-87)**

Source: From The Dow Chemical Company 2014 Annual Report (P 86-87) © The Dow Chemical Company (1995-2015)

segment. To put this in perspective, Time Warner's total assets at December 31, 2001, were \$208.5 billion; the impairment write-offs in 2002 represent almost 50 percent of that amount. Time Warner points out, correctly, that these are noncash charges; however, this is still a lot of shareholders' value wiped off the books.

Exhibit 2-5 provides a more recent example of goodwill impairment charges for **Dow Chemical Company** in the 2014 annual report. **Dow Chemical Company** recorded goodwill impairment charges of \$220 million in 2012. Total remaining goodwill on the December 31, 2014 balance sheet was \$12.632 billion.

### Recognizing and Measuring Impairment Losses

The goodwill impairment test is a two-step process. (ASC 350-20-35) Firms must first compare carrying values (book values) to fair values of all assets and liabilities at the business-reporting-unit level. Carrying value includes the goodwill amount. For purposes of applying the standard, GAAP (ASC 280-10-55-47) defines the reporting unit as an operating segment or one level below an operating segment. The definition of business reporting units is discussed in Chapter 15 on segment reporting.

If the reporting unit's fair value exceeds its carrying value, goodwill is unimpaired. No further action is needed.

If fair value is less than the carrying amount, then firms proceed to step 2, measurement and recognition of the impairment loss. Step 2 requires a comparison of the carrying amount of goodwill

to its implied fair value. Firms should again make this comparison at the business-reporting-unit level. If the carrying amount exceeds the implied fair value of the goodwill, the firm must recognize an impairment loss for the difference. The loss amount cannot exceed the carrying amount of the goodwill. Firms cannot reverse previously recognized impairment losses.

A 2011 amendment issued by the FASB may allow some companies to avoid the two-step impairment testing. The amendment gives companies an option of making a qualitative evaluation to determine whether or not they must take the first step of calculating a reporting unit's fair value. If a company concludes that it is not more likely than not that the fair value of the reporting unit is less than the carrying amount, it need not perform the two-step impairment test.

### Implied Fair Value of Goodwill

Firms should determine the implied fair value of goodwill in the same manner used to originally record the goodwill at the business combination date. Firms allocate the fair value of the reporting unit to all identifiable assets and liabilities, as if they had purchased the unit on the measurement date. Any excess fair value is the implied fair value of goodwill.

Assume that Pam Corporation owns 80 percent of Sun Corporation, which qualifies as a business reporting unit. The consolidated balance sheet carries goodwill of \$6.3 million related to the investment in Sun. Pam assesses the implied fair value of goodwill as follows.

Pam first estimates that if it purchased its investment in Sun today, the total fair value of Sun would be \$36.25 million, based on current market prices for Sun's shares. Pam allocates the total fair value to the identifiable assets and liabilities of Sun as shown (figures are in millions):

|                                | Book Value     | Fair Value     |
|--------------------------------|----------------|----------------|
| Current assets                 | \$11.10        | \$12.85        |
| Property, plant, and equipment | 45.00          | 48.00          |
| Patents                        | 4.00           | 5.40           |
| Current liabilities            | (9.00)         | (9.00)         |
| Long-term liabilities          | (26.00)        | (26.00)        |
| Net                            | <u>\$25.10</u> | <u>\$31.25</u> |
| Total fair value               |                | <u>36.25</u>   |
| Implied fair value of goodwill |                | <u>\$ 5.00</u> |

The fair value of Sun's identifiable assets and liabilities is \$31.25 million. Therefore, goodwill has an implied fair value of \$5 million (\$36.25 million less \$31.25 million). Notice that goodwill applies to the entire business reporting unit.

Because the current carrying value for goodwill is \$6.3 million and its implied fair value is only \$5 million, Pam must record a goodwill impairment loss of \$1.3 million. The carrying value of goodwill is adjusted to \$5 million for purposes of future impairment testing. (If the carrying value for goodwill had been less than \$5 million, no impairment loss would be recognized.)

### Determining the Fair Value of the Reporting Unit

Fair values of assets and liabilities are the amounts at which they could be exchanged in an arm's-length transaction. Therefore, the fair value of a reporting unit is the amount for which it could be purchased or sold in a current transaction. The previous example assumed that a current quoted market price was available for Sun's shares. GAAP considers current market prices (in an active market) to be the most reliable indicator of fair value for a reporting unit.

Of course, these values will not always be available. If Pam owned 100 percent of Sun's common stock, there would be no active market for Sun's shares. The same situation holds if Sun's shares are not publicly traded. In these cases, GAAP suggests estimating fair values by using prices for similar assets and liabilities or by applying other valuation techniques. For example, Pam might estimate future cash flows from Sun's operations and apply present value techniques to estimate the value of the reporting unit. Pam might also employ earnings or revenue multiples techniques to estimate the fair value of Sun.

Firms must conduct the impairment test for goodwill at least annually. GAAP requires more-frequent impairment testing if any of the following events occurs:

- Significant adverse changes in legal factors or business climate
- Adverse regulatory actions or assessments
- New and unanticipated competition

- Loss of key personnel
- A more likely than not expectation that a reporting unit or a significant portion of a reporting unit will be sold or disposed of
- Testing for the recoverability of a significant asset group within a reporting unit
- Recognition of a goodwill impairment loss of a subsidiary that is a component of the reporting unit (ASC 350-20-35-30)<sup>3</sup>

### Fair-Value Option for Equity Method Investments

Historically, equity method investments were not adjusted for changes in fair market value, but GAAP (ASC 825-10-25) now provides firms with an option to record equity method investments at fair value. The option may be elected on an investment-by-investment basis. Firms taking the fair-value option would calculate fair values using methods described earlier. The option must continue as long as the investment is owned. Fair value is recalculated annually. Changes in fair value are reflected in the investor's net income, and the offsetting cumulative amount will be recorded in a valuation allowance. (ASC 820-10-5)

Assume that Pop Corporation purchased a 30 percent interest in Son Company on July 1. Applying the equity procedures described previously, Pop's investment account has a balance of \$202,000 on December 31. Pop elects the fair-value option for this investment. Based on market prices, Son Company is valued at \$700,000 on December 31. Therefore, the fair value of Pop's 30 percent interest is \$210,000. Pop would record the following adjusting entry:

|   |       |       |
|---|-------|-------|
| Allowance to adjust equity method investment to fair value (+A) | 8,000 |       |
| Unrealized gain on equity method investment (Ga, +SE)           |       | 8,000 |

Under GAAP, investors must separately disclose equity method investments using the fair-value option.

### Reporting and Disclosures

GAAP requires firms to report material aggregate amounts of goodwill as a separate line item on the balance sheet. Likewise, firms must show goodwill impairment losses separately in the income statement, as a component of income from continuing operations (unless the impairment relates to discontinued operations). Goodwill impairments from discontinued operations should be reported separately (net of income tax effects) in the discontinued operations section of the income statement.

### Equity Method Investments

The previous discussion on goodwill impairment applies only to goodwill arising from business combinations (i.e., a parent company acquires a controlling interest in a subsidiary). Impairment testing also applies to goodwill reflected in investments reported under the equity method of accounting when the investor has a significant influence, but a noncontrolling interest.

Once again, GAAP eliminates amortization of goodwill, replacing that treatment with periodic tests for impairment. However, impairment tests for equity method investments do not follow the same guidelines. Impairment tests for equity method investments are performed based on fair value versus book value of the investment taken as a whole. An impairment loss may be recognized for the equity method investment as a whole. Goodwill arising from an equity method investment is not separately tested for impairment.

### Potential Problems

The GAAP rules are straightforward in concept, but practical application may be difficult, especially in those cases in which quoted market prices are unavailable to value business reporting units. Alternative valuation methods are highly subjective.

The rules also pose considerable problems for auditors. Fair-value estimations may be very difficult to verify objectively. Auditors may also be faced with earnings-management issues for some clients. If a firm chooses to take a big bath by writing off large amounts of goodwill, the conservative nature of financial reporting makes it difficult to challenge managers' estimates.

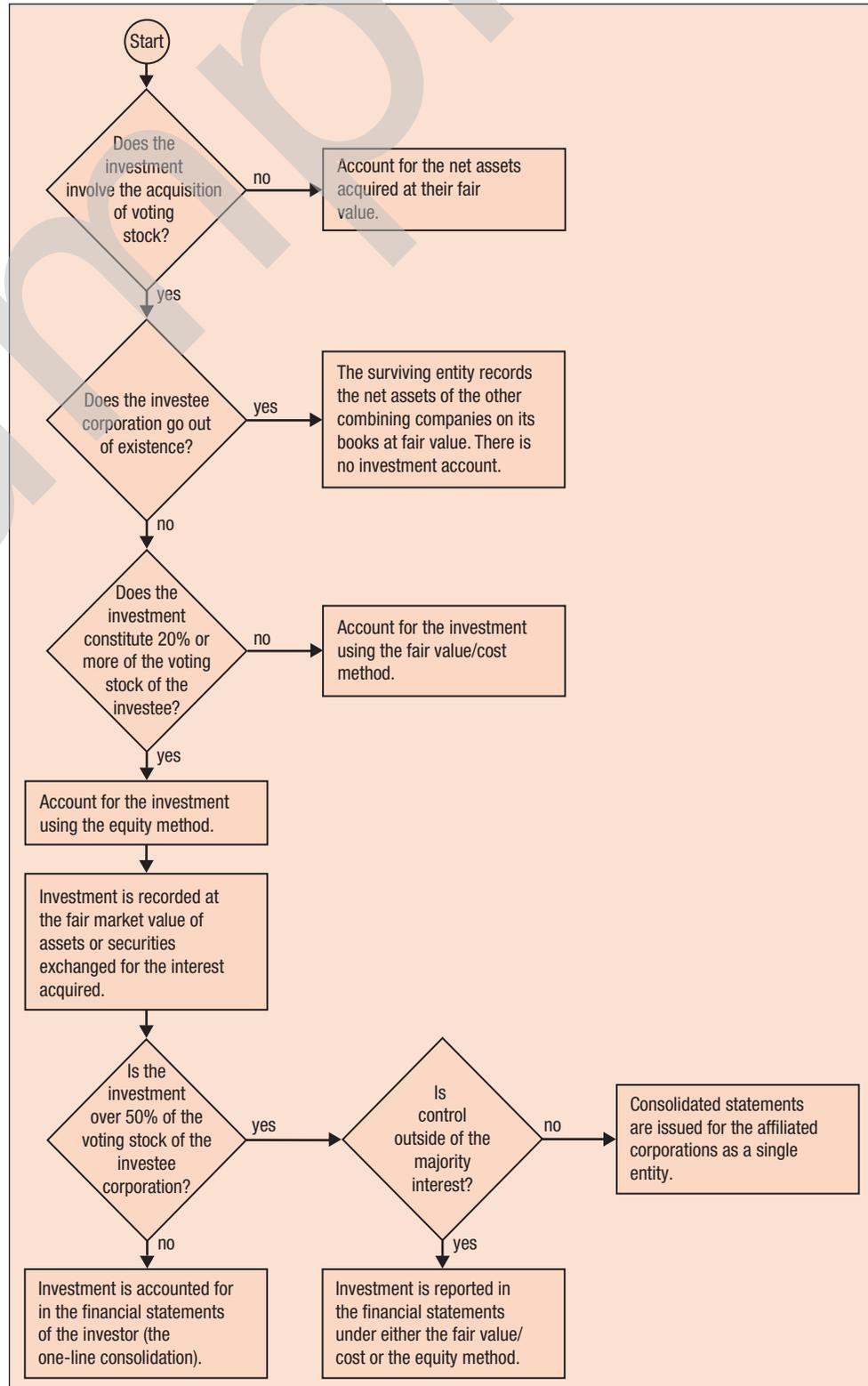
<sup>3</sup>FASB ASC 350-20-35-30. Originally Statement of Financial Accounting Standards No. 121. "Accounting for the Impairment of Long-lived Assets and for long-lived Assets to be Disposed Of." Stamford, CT. © 1995 Financial Accounting Standards Board.

SUMMARY

Exhibit 2-6 is a flowchart summary of accounting procedures for business investments. Investments in the voting common stock of an investee are accounted for under the fair value/cost method if the investment does not give the investor an ability to exercise significant influence over the investee. Otherwise, investors should normally use the equity method (a one-line consolidation). In the absence of evidence to the contrary, a 20 percent-ownership test determines whether the investor has significant influence over the investee.

EXHIBIT 2-6

Accounting for Equity Investments Generally



The equity method is referred to as a one-line consolidation because its application produces the same net income and stockholders' equity for the investor as would result from consolidation of the financial statements of the investor and investee corporations. Under the one-line consolidation, the investment is reflected in a single amount on one line of the investor's balance sheet, and the investor reports income from the investee on one line of the investor's income statement, except when the investee's income includes discontinued operations.

As you can see in the flowchart in Exhibit 2-6, the equity method can be used to account for investments that follow the acquisition method for business combinations. The flowchart also indicates that consolidated statements are generally required for investments in excess of 50 percent of the voting stock of the investee and that the one-line consolidation (equity method) is used in reporting investments of 20 percent to 50 percent in the investor's financial statements.

In solving problems in the areas of business combinations, equity investments, and consolidations, we frequently must make assumptions about the nature of the difference between investment cost (fair value) and book value of the net assets acquired, the timing of income earned within an accounting period, the period in which inventory items affecting intercompany investments are sold, and the source from which an equity interest is acquired. In the absence of evidence to the contrary, you should make the following assumptions:

1. An excess of investment cost (fair value) over book value of the net assets acquired is goodwill.
2. Goodwill is not amortized.
3. Income is earned evenly throughout each accounting period.
4. Inventory items on hand at the end of an accounting period are sold in the immediately succeeding fiscal period.
5. An equity interest is purchased from the stockholders of the investee rather than directly from the investee (that is, the total outstanding stock of the investee does not change).

#### NOTE TO THE STUDENT

### QUESTIONS

1. How are the accounts of investor and investee companies affected when the investor acquires stock from stockholders of the investee (e.g., a New York Stock Exchange purchase)? Does this differ if the investor acquires previously unissued stock directly from the investee?
2. Should goodwill arising from an equity investment of more than 20 percent be recorded separately on the books of the investor? Explain.
3. Under the fair value/cost method of accounting for stock investments, an investor records dividends received from earnings accumulated after the investment is acquired as dividend income. How does an investor treat dividends received from earnings accumulated before an investment is acquired?
4. Describe the equity method of accounting.
5. Why is the equity method referred to as a "one-line consolidation"?
6. Is there a difference between the amount of a parent's net income under the equity method and the consolidated net income for the same parent and its subsidiaries?
7. What is the difference in reporting income from a subsidiary in the parent's separate income statement and in consolidated financial statements?
8. Cite the conditions under which you would expect the balance of an equity investment account on a balance sheet date subsequent to acquisition to be equal to the underlying book value represented by that investment.
9. What accounting procedures or adjustments are necessary when an investor uses the cost method of accounting for an investment in common stock and later increases the investment such that the equity method is required?
10. Ordinarily, the income from an investment accounted for by the equity method is reported on one line of the investor's income statement. When would more than one line of the income statement of the investor be required to report such income?
11. Describe the accounting adjustments needed when a 25 percent equity interest in an investee is decreased to a 15 percent equity interest.

12. Does cumulative preferred stock in the capital structure of an investee affect the way that an investor accounts for its 30 percent common stock interest? Explain.
13. Briefly outline the steps to calculate a goodwill impairment loss.
14. Is there any difference in computing goodwill impairment losses for a controlled subsidiary versus an equity method investment?

## EXERCISES

### E2-1

#### General questions

1. GAAP provides indicators of an investor's inability to exercise significant influence over an investee. Which of the following is *not* included among those indicators?
  - a *Surrender of significant stockholder rights by agreement*
  - b *Concentration of majority ownership in another group rather than the investor*
  - c *Failure to obtain representation on the investee's board of directors*
  - d *Inability to control the investee's operating policies*
2. A 20 percent common stock interest in an investee:
  - a *Must be accounted for under the equity method*
  - b *Is accounted for by the cost method because over 20 percent is required for the application of the equity method*
  - c *Is presumptive evidence of an ability to exercise significant influence over the investee*
  - d *Enables the investor to apply either the cost or the equity method*
3. The cost of a 25 percent interest in the voting stock of an investee that is recorded in the investment account includes:
  - a *Cash disbursed and the book value of other assets given or securities issued, other than the cost of registering and issuing equity securities*
  - b *Cash disbursed and the book value of other assets given or securities issued*
  - c *Cash disbursed and the fair value of other assets given or securities issued, other than the cost of registering and issuing equity securities*
  - d *Cash disbursed and the fair value of other assets given or securities issued*
4. The underlying equity of an investment at acquisition:
  - a *Is recorded in the investment account under the equity method*
  - b *Minus the cost of the investment is assigned to goodwill*
  - c *Is equal to the fair value of the investee's net assets times the percentage acquired*
  - d *Is equal to the book value of the investee's net assets times the percentage acquired*
5. Son Corporation is a 25 percent–owned equity investee of Pop Corporation. During the current year, Pop receives \$12,000 in dividends from Son. How does the \$12,000 dividend affect Pop's financial position and results of operations?
  - a *Increases assets*
  - b *Decreases investment*
  - c *Increases income*
  - d *Decreases income*

### E2-2

#### [Based on AICPA] General problems

1. Pam Company owns 25 percent of Sun Corporation. During the year, Sun had net earnings of \$450,000 and paid dividends of \$28,000. Pam mistakenly recorded these transactions using the cost method rather than the equity method. What effect would this have on the investment account, net earnings, and retained earnings, respectively?
  - a *Understate, overstate, overstate*
  - b *Overstate, understate, understate*
  - c *Overstate, overstate, overstate*
  - d *Understate, understate, understate*
2. A corporation exercises control over an affiliate in which it holds a 25 percent common stock interest. If its affiliate completed a fiscal year profitably but paid *no* dividends, how would this affect the investor?
  - a *Result in an increased current ratio*
  - b *Result in increased earnings per share*
  - c *Increase several turnover ratios*
  - d *Decrease book value per share*

3. An investor uses the cost method to account for an investment in common stock. A portion of the dividends received this year were in excess of the investor's share of investee's earnings after the date of the investment. The amount of dividends revenue that should be reported in the investor's income statement for this year would be:
- Zero
  - The total amount of dividends received this year
  - The portion of the dividends received this year that were in excess of the investor's share of investee's earnings after the date of investment
  - The portion of the dividends received this year that were not in excess of the investor's share of investee's earnings after the date of investment
4. On January 1, Pop Company paid \$600,000 for 20,000 shares of Son Company's common stock, which represents a 15 percent investment in Son. Pop *does not* have the ability to exercise significant influence over Son. Son declared and paid a dividend of \$2 per share to its stockholders during the year. Son reported net income of \$520,000 for the year ended December 31. The balance in Pop's balance sheet account "Investment in Son Company" at December 31 should be:
- \$560,000
  - \$600,000
  - \$638,000
  - \$678,000
5. On January 2, 2016, Pam Corporation bought 15 percent of Sun Corporation's capital stock for \$30,000. Pam accounts for this investment using the cost method. Sun's net income for the years ended December 31, 2016, and December 31, 2017, were \$10,000 and \$50,000, respectively. During 2017 Sun declared a dividend of \$70,000. No dividends were declared in 2016. How much should Pam report on its 2017 income statement as income from this investment?
- \$1,575
  - \$7,500
  - \$9,000
  - \$10,500
6. Pam purchased 10 percent of Sun Company's 100,000 shares of common stock on January 2 for \$100,000. On December 31, Pam purchased an additional 20,000 shares of Sun for \$300,000. There was no goodwill as a result of either acquisition, and Sun had not issued any additional stock during the year. Sun reported earnings of \$600,000 for the year. What amount should Pam report in its December 31 balance sheet as investment in Sun?
- \$340,000
  - \$400,000
  - \$460,000
  - \$580,000
7. On January 1, Pop purchased 10 percent of Son Company's common stock. Pop purchased additional shares, bringing its ownership up to 40 percent of Son's common stock outstanding, on August 1. During October, Son declared and paid a cash dividend on all of its outstanding common stock. How much income from the Son investment should Pop report for the year ended December 31?
- 10 percent of Son's income for January 1 to July 31, plus 40 percent of Son's income for August 1 to December 31
  - 40 percent of Son's income for August 1 to December 31 only
  - 40 percent of Son's income
  - Amount equal to dividends received from Son
8. On January 2, Pam Company purchased a 30 percent interest in Sun Company for \$250,000. On this date, the book value of Sun's stockholders' equity was \$500,000. The carrying amounts of Sun's identifiable net assets approximated fair values, except for land, whose fair value exceeded its carrying amount by \$200,000. Sun reported net income of \$100,000 and paid no dividends. Pam accounts for this investment using the equity method. In its December 31 balance sheet, what amount should Pam report for this investment?
- \$210,000
  - \$220,000
  - \$270,000
  - \$280,000

### E2-3

#### Calculate percentage ownership and goodwill on investment acquired directly from investee

Son Corporation's stockholders' equity at December 31, 2015, consisted of the following (in thousands):

|   |                |
|---|----------------|
| Capital stock, \$10 par, 60,000 shares issued and outstanding | \$600          |
| Additional paid-in capital                                    | 150            |
| Retained earnings   | 250            |
| Total stockholders' equity                                    | <u>\$1,000</u> |

On January 1, 2016, Pop Corporation purchased 20,000 previously unissued shares of Son stock directly from Son Corporation for \$500,000.

### REQUIRED

1. Calculate Pop Corporation's percentage ownership in Son.
2. Determine the goodwill (if any) from Pop's investment in Son. Assume book values of all identifiable assets and liabilities equal the fair values.

### E2-4

#### Calculate income for a midyear investment

Pam Corporation pays \$300,000 for a 30 percent interest in Sun Corporation on July 1, 2016, when the book value of Sun's identifiable net assets equals fair value. Information relating to Sun follows (in thousands):

|   | December 31, 2015 | December 31, 2016 |
|---|-------------------|-------------------|
| Capital stock, \$1 par  | \$ 300            | \$ 300            |
| Retained earnings   | 200               | 250               |
| Total stockholders' equity  | <u>\$ 500</u>     | <u>\$ 550</u>     |
| Sun's net income earned evenly throughout 2016                                  |                   | <u>\$ 100</u>     |
| Sun's dividends for 2016 (paid \$25,000 on March 1 and \$25,000 on September 1) |                   | \$ 50             |

**REQUIRED:** Calculate Pam's income from Sun for 2016.

### E2-5

#### Calculate income and investment balance allocation of excess to undervalued assets

Pop Company acquired a 30 percent interest in Son on January 1 for \$500,000 cash. Assume the cost of the investment equals the fair value of Son's net assets. Pop assigned the \$125,000 excess of fair value over book value of the interest acquired to the following assets:

|             |   |
|-------------|---|
| Inventories | \$25,000 (sold in the current year)           |
| Building    | \$50,000 (4-year remaining life at January 1) |
| Goodwill    | \$50,000                                      |

During the year Son reported net income of \$200,000 and paid \$50,000 dividends.

### REQUIRED

1. Determine Pop's income from Son for the year.
2. Determine the December 31 balance of the Investment in Son account.

### E2-6

#### Journal entry to record income from investee with loss from discontinued operations

Pam Corporation purchased a 40 percent interest in Sun Corporation for \$2,000,000 on January 1, at book value, when Sun's assets and liabilities were recorded at fair values. During the year, Sun reported net income of \$1,200,000 as follows (in thousands):

|   |                |
|---|----------------|
| Income from continuing operations       | \$1,400        |
| Less: Loss from discontinued operations | <u>(200)</u>   |
| Net income                              | <u>\$1,200</u> |

**REQUIRED:** Prepare the journal entry on Pam's books to recognize income from the investment in Sun for the year.

### E2-7

#### General problems

1. On January 3, 2016, Pop Company purchases a 15 percent interest in Son Corporation's common stock for \$50,000 cash. Pop accounts for the investment using the cost method. Son's net income for 2016 is \$20,000, but it declares

no dividends. In 2017, Son's net income is \$80,000, and it declares dividends of \$120,000. What is the correct balance of Pop's Investment in Son account at December 31, 2017?

- a **\$47,000**
- b **\$50,000**
- c **\$62,000**
- d **\$65,000**

2. Son Corporation's stockholders' equity at December 31, 2016, follows (in thousands):

|                            |                |
|----------------------------|----------------|
| Capital stock, \$100 par   | \$3,000        |
| Additional paid-in capital | 500            |
| Retained earnings          | 500            |
| Total stockholders' equity | <u>\$4,000</u> |

On January 3, 2017, Son sells 10,000 shares of previously unissued \$100 par common stock to Pop Corporation for \$1,400,000. On this date the recorded book values of Son's assets and liabilities equal fair values. Goodwill from Pop's investment in Son at the date of purchase is:

- a **\$0**
- b **\$50,000**
- c **\$300,000**
- d **\$400,000**

3. On January 1, Pop Company paid \$300,000 for a 20 percent interest in Son Corporation's voting common stock, at which time Son's stockholders' equity consisted of \$600,000 capital stock and \$400,000 retained earnings. Pop was not able to exercise any influence over the operations of Son and accounted for its investment using the cost method. During the year, Son had net income of \$200,000 and paid dividends of \$150,000. The balance of Pop's Investment in Son account at December 31 is:

- a **\$330,000**
- b **\$310,000**
- c **\$307,500**
- d **\$300,000**

4. Pop Corporation owns a 40 percent interest in Son Products acquired several years ago at book value. Son's income statement contains the following information (in thousands):

|                                   |              |
|-----------------------------------|--------------|
| Income from continuing operations | \$200        |
| Discontinued operations loss      | <u>(50)</u>  |
| Net income                        | <u>\$150</u> |

Pop should report income from Son in its income from continuing operations at:

- a **\$20,000**
- b **\$60,000**
- c **\$80,000**
- d **\$100,000**

## E2-8

### Calculate investment balance four years after acquisition

Pam Corporation owns a 40 percent interest in the outstanding common stock of Sun Corporation, having acquired its interest for \$2,400,000 on *January 1, 2016*, when Sun's stockholders' equity was \$4,000,000. The fair value/book value differential was assigned to inventories that were undervalued by \$100,000 and sold in 2016, to equipment with a four-year remaining life that was undervalued by \$200,000, and to goodwill for the remainder.

The balance of Sun's stockholders' equity at *December 31, 2019*, is \$5,500,000, and all changes therein are the result of income earned and dividends paid.

**REQUIRED:** Determine the balance of Pam's investment in Sun at December 31, 2019.

## E2-9

### Calculate income and investment balance when investee capital structure includes preferred stock

Son Company had net income of \$400,000 and paid dividends of \$200,000 during 2017. Son's stockholders' equity on December 31, 2016, and December 31, 2017, is summarized as follows (in thousands):

|   | December 31, 2016 | December 31, 2017 |
|---|-------------------|-------------------|
| 10% cumulative preferred stock, \$100 par | \$ 300            | \$ 300            |
| Common stock, \$1 par                     | 1,000             | 1,000             |
| Additional paid-in capital                | 2,200             | 2,200             |
| Retained earnings                         | 500               | 700               |
| Total stockholders' equity                | <u>\$4,000</u>    | <u>\$4,200</u>    |

On January 2, 2017, Pop Corporation purchased 300,000 common shares of Son at \$4 per share. Pop also paid \$50,000 in cash for direct costs of acquiring the investment.

**REQUIRED:** Determine (1) Pop's income from Son for 2017 and (2) the balance of the investment in the Son account at December 31, 2017. Assume the fair values of Son's assets and liabilities equal book values.

## E2-10

### Calculate income and investment balance for midyear investment

Pam Corporation acquired 25 percent of Sun Corporation's outstanding common stock on October 1, for \$300,000. A summary of Sun's adjusted trial balances on this date and at December 31 follows (in thousands):

|   | December 31    | October 1      |
|---|----------------|----------------|
| <i>Debits</i>                             |                |                |
| Current assets                            | \$ 250         | \$ 125         |
| Plant assets—net                          | 750            | 775            |
| Expenses (including cost of goods sold)   | 400            | 300            |
| Dividends (paid in July)                  | 100            | 100            |
|   | <u>\$1,500</u> | <u>\$1,300</u> |
| <i>Credits</i>                            |                |                |
| Current liabilities                       | \$ 150         | \$ 100         |
| Capital stock (no change during the year) | 500            | 500            |
| Retained earnings January 1               | 250            | 250            |
| Sales                                     | 600            | 450            |
|   | <u>\$1,500</u> | <u>\$1,300</u> |

Pam uses the equity method of accounting. No information is available concerning the fair values of Sun's assets and liabilities.

## REQUIRED

- Determine Pam's investment income from Sun Corporation for the year ended December 31.
- Compute the correct balance of Pam's investment in Sun account at December 31.

## E2-11

### Adjust investment account and determine income when additional investment qualifies for equity method of accounting

Summary balance sheet and income information for Son Company for two years is as follows (in thousands):

|                   | January 1, 2016 | December 31, 2016 | December 31, 2017 |
|-------------------|-----------------|-------------------|-------------------|
| Current assets    | \$ 50           | \$ 60             | \$ 75             |
| Plant assets      | 200             | 240               | 250               |
|                   | <u>\$250</u>    | <u>\$300</u>      | <u>\$325</u>      |
| Liabilities       | \$ 40           | \$ 50             | \$50              |
| Capital stock     | 150             | 150               | 150               |
| Retained earnings | 60              | 100               | 125               |
|                   | <u>\$250</u>    | <u>\$300</u>      | <u>\$325</u>      |
|                   |                 | <b>2016</b>       | <b>2017</b>       |
| Net income        |                 | \$100             | \$50              |
| Dividends         |                 | 60                | 25                |

On January 2, 2016, Pop Company purchases 10 percent of Son Company for \$25,000 cash, and it accounts for its investment (classified as an available-for-sale security) in Son using the fair-value method. On December 31, 2016,

the fair value of all of Son's stock is \$500,000. On January 2, 2017, Pop purchases an additional 10 percent interest in Son stock for \$50,000 and adopts the equity method to account for the investment. The fair values of Son's assets and liabilities were equal to book values as of the time of both stock purchases.

### REQUIRED

1. Prepare a journal entry to adjust the Investment in Son account to the equity method on January 2, 2017.
2. Determine Pop's income from Son for 2017.

### E2-12

#### Journal entries (investment in previously unissued stock)

The stockholders' equity of Sun Corporation at December 31, 2016, was \$380,000, consisting of the following (in thousands):

|   |              |
|---|--------------|
| Capital stock, \$10 par (24,000 shares outstanding) | \$240        |
| Additional paid-in capital                          | 60           |
| Retained earnings                                   | 80           |
| Total stockholders' equity                          | <u>\$380</u> |

On January 1, 2017, Sun Corporation, which was in a tight working capital position, sold 12,000 shares of previously unissued stock to Pam Corporation for \$250,000. All of Sun's identifiable assets and liabilities were recorded at fair values on this date except for a building with a 10-year remaining useful life that was undervalued by \$60,000. During 2017, Sun Corporation reported net income of \$120,000 and paid dividends of \$90,000.

**REQUIRED:** Prepare all journal entries necessary for Pam Corporation to account for its investment in Sun for 2017.

### E2-13

#### Prepare journal entries and income statement, and determine investment account balance

Pop Corporation paid \$780,000 for a 30 percent interest in Son Corporation on December 31, 2016, when Son's stockholders' equity consisted of \$2,000,000 capital stock and \$800,000 retained earnings. The price paid by Pop reflected the fact that Son's inventory (on an FIFO basis) was overvalued by \$200,000. The overvalued inventory items were sold in 2017.

During 2017 Son paid dividends of \$400,000 and reported income as follows (in thousands):

|  |              |
|--|--------------|
| Income from continuing operations                | \$680        |
| Discontinued operations loss (net of tax effect) | <u>(80)</u>  |
| Net income                                       | <u>\$600</u> |

### REQUIRED

1. Prepare all journal entries necessary to account for Pop's investment in Son for 2017.
2. Determine the correct balance of Pop's Investment in Son account at December 31, 2017.
3. Assume that Pop's net income for 2017 consists of \$4,000,000 sales, \$2,800,000 expenses, and its investment income from Son. Prepare an income statement for Pop Corporation for 2017.

### E2-14

#### Calculate income and investment account balance (investee has preferred stock)

Pam Corporation paid \$290,000 for 40 percent of the outstanding common stock of Sun Corporation on January 2, 2017. During 2017, Sun paid dividends of \$48,000 and reported net income of \$108,000. A summary of Sun's stockholders' equity at December 31, 2016 and 2017 follows (in thousands):

| December 31,                             | 2016         | 2017         |
|--|--------------|--------------|
| 8% cumulative preferred stock, \$100 par | \$100        | \$100        |
| Common stock, \$10 par                   | 300          | 300          |
| Premium on preferred stock               | 10           | 10           |
| Other paid-in capital                    | 90           | 90           |
| Retained earnings                        | <u>100</u>   | <u>160</u>   |
| Total stockholders' equity               | <u>\$600</u> | <u>\$660</u> |

**REQUIRED:** Calculate Pam Corporation's income from Sun for 2017 and its Investment in Sun account balance at December 31, 2017. Assume the book values of all of Sun's assets and liabilities equal fair values.

### E2-15 Goodwill impairment

Pop Corporation recorded goodwill in the amount of \$200,000 in its acquisition of Son Company in 2016. Pop paid a total of \$700,000 to acquire Son. In preparing its 2017 financial statements, Pop estimates that identifiable net assets still have a fair value of \$500,000, but the total fair value of Son is now \$640,000. Calculate the implied value of goodwill at December 31, 2017, and indicate how the change in value (if any) will affect Pop's 2017 income statement.

### E2-16 Goodwill impairment

Pam, Inc. has two primary business reporting units: Alfa and Beta. In preparing its 2017 financial statements, Pam conducts the required annual impairment review of goodwill. Alfa has recorded goodwill of \$35,000 that has an estimated fair value of \$30,000. Beta has recorded goodwill of \$65,000 that has an estimated fair value of \$80,000. What amount of impairment loss, if any, must Pam report in its 2017 income statement? Where in the income statement should this appear?

## PROBLEMS

### P2-1 Computations for a midyear purchase (investee has a discontinued operations gain)

Pop Corporation paid \$686,000 for a 30 percent interest in Son Corporation's outstanding voting stock on April 1, 2016. At December 31, 2015, Son had net assets of \$2,000,000 and only common stock outstanding. During 2016, Son declared and paid dividends of \$40,000 each quarter on March 15, June 15, September 15, and December 15 (\$160,000 in total). At April 1, 2016, the book value of assets and liabilities equals the fair value. Son's 2016 income was reported as follows:

|   |                  |
|---|------------------|
| Income from continuing operations           | \$240,000        |
| Discontinued operations gain, December 2016 | <u>80,000</u>    |
| Net income                                  | <u>\$320,000</u> |

**REQUIRED:** Determine the following items for Pop:

1. Goodwill from the investment in Son
2. Income from Son for 2016
3. Investment in Son account balance at December 31, 2016
4. Pop's equity in Son's net assets at December 31, 2016
5. The amount of discontinued operations gain that Pop will show on its 2016 income statement

### P2-2 Journal entries for midyear investment (cost and equity methods)

Pam Company paid \$440,000 for an 80 percent interest in Sun Company on July 1, 2016, when Sun had total equity of \$220,000. Sun Company reported earnings of \$20,000 for 2016 and declared dividends of \$32,000 on November 1, 2016.

**REQUIRED:** Give the entries to record these facts on the books of Pam Company:

1. Assuming that Pam Company uses the cost method of accounting for its subsidiaries.
2. Assuming that Pam Company uses the equity method of accounting for its subsidiaries. (Any difference between investment cost and book value acquired is to be assigned to equipment and amortized over a 10-year period.)

### P2-3 Computations for investee when excess allocated to inventories, building, and goodwill

Pop Company acquired a 30 percent interest in the voting stock of Son Company for \$331,000 on January 1, 2016, when Son's stockholders' equity consisted of capital stock of \$600,000 and retained earnings of

\$400,000. At the time of Pop's investment, Son's assets and liabilities were recorded at fair values, except for inventories that were undervalued by \$30,000 and a building with a 10-year remaining useful life that was overvalued by \$60,000. Son has income for 2016 of \$100,000 and pays dividends of \$50,000. Assume undervalued inventories are sold in 2016.

### REQUIRED

1. Compute Pop's income from Son for 2016.
2. What is the balance of Pop's Investment in Son account at December 31, 2016?
3. What is Pop's share of Son's recorded net assets at December 31, 2016?

### P2-4

#### Journal entries for midyear investment (excess allocated to land, equipment, and goodwill)

Pam Corporation paid \$190,000 for 40 percent of Sun Corporation's outstanding voting common stock on July 1, 2016. Sun's stockholders' equity on January 1, 2016, was \$250,000, consisting of \$150,000 capital stock and \$100,000 retained earnings.

During 2016, Sun reported net income of \$50,000, and on November 1, 2016, Sun declared dividends of \$25,000.

Sun's assets and liabilities were stated at fair values on July 1, 2016, except for land that was undervalued by \$15,000 and equipment with a five-year remaining useful life that was undervalued by \$25,000.

**REQUIRED:** Prepare all the journal entries (other than closing entries) on the books of Pam Corporation during 2016 to account for the investment in Sun.

### P2-5

#### Prepare an allocation schedule; compute income and the investment balance

Pop Corporation paid \$1,680,000 for a 30 percent interest in Son Corporation's outstanding voting stock on January 1, 2016. The book values and fair values of Son's assets and liabilities on January 1, along with amortization data, are as follows (in thousands):

|  | Book Value     | Fair Value     |
|--|----------------|----------------|
| Cash                                   | \$ 400         | \$ 400         |
| Accounts receivable—net                | 700            | 700            |
| Inventories (sold in 2016)             | 1,000          | 1,200          |
| Other current assets                   | 200            | 200            |
| Land                                   | 900            | 1,700          |
| Buildings—net (10-year remaining life) | 1,500          | 2,000          |
| Equipment—net (7-year remaining life)  | 1,200          | 500            |
| Total assets                           | <u>\$5,900</u> | <u>\$6,700</u> |
| Accounts payable                       | \$ 800         | \$ 800         |
| Other current liabilities              | 200            | 200            |
| Bonds payable (due January 1, 2021)    | 1,000          | 1,100          |
| Capital stock, \$10 par                | 3,000          |                |
| Retained earnings                      | 900            |                |
| Total equities                         | <u>\$5,900</u> |                |

Son Corporation reported net income of \$1,200,000 for 2016 and paid dividends of \$600,000.

### REQUIRED

1. Prepare a schedule to allocate the investment fair values/book value differentials relating to Pop's investment in Son.
2. Calculate Pop's income from Son for 2016.
3. Determine the balance of Pop's Investment in Son account at December 31, 2016.

### P2-6 Computations for a midyear acquisition

Pam Corporation purchased for cash 6,000 shares of voting common stock of Sun Corporation at \$16 per share on July 1, 2016. On this date, Sun's equity consisted of \$100,000 of \$10 par capital stock, \$20,000 retained earnings from prior periods, and \$10,000 current earnings (for one-half of 2016).

Sun's income for 2016 was \$20,000, and it paid dividends of \$12,000 on November 1, 2016.

All of Sun's assets and liabilities had book values equal to fair values at July 1, 2016, and any differences between investment cost and book value acquired should be assigned to equipment and amortized over a 10-year period.

**REQUIRED:** Compute the correct amounts for each of the following items using the equity method of accounting for Pam's investment:

1. Pam's income from its investment in Sun for the year ended December 31, 2016.
2. The balance of Pam's Investment in Sun account at December 31, 2016.

(Note: Assumptions on page 49 are needed for this problem.)

### P2-7 Partial income statement with a discontinued operations

Pop Corporation acquired 30 percent of the voting stock of Son Company at book value on July 1, 2016. During 2018, Son paid dividends of \$160,000 and reported income of \$500,000 as follows:

|                                   |                  |
|-----------------------------------|------------------|
| Income from continuing operations | \$300,000        |
| Discontinued operations gain      | <u>200,000</u>   |
| Net income                        | <u>\$500,000</u> |

**REQUIRED:** Show how Pop's income from Son should be reported for 2018 by means of a partial income statement for Pop Corporation.

### P2-8 Computations and journal entries with excess of book value over fair value

Sun Corporation became a subsidiary of Pam Corporation on July 1, 2016, when Pam paid \$1,980,000 cash for 90 percent of Sun's outstanding common stock. The price paid by Pam reflected the fact that Sun's inventories were undervalued by \$50,000, and Sun's plant assets were overvalued by \$500,000. Sun sold the undervalued inventory items during 2016 but continues to hold the overvalued plant assets that had a remaining useful life of nine years from July 1, 2016.

During the years 2016 through 2018, Sun's paid-in capital consisted of \$1,500,000 capital stock and \$500,000 additional paid-in capital. Sun's retained earnings statements for 2016, 2017, and 2018 were as follows (in thousands):

|  | Year Ended<br>December 31, 2016 | Year Ended<br>December 31, 2017 | Year Ended<br>December 31, 2018 |
|--|---------------------------------|---------------------------------|---------------------------------|
| Retained earnings January 1              | \$25                            | \$600                           | \$700                           |
| Add: Net income                          | 250                             | 300                             | 200                             |
| Deduct: Dividends (declared in December) | <u>(175)</u>                    | <u>(200)</u>                    | <u>(150)</u>                    |
| Retained earnings December 31            | <u>\$600</u>                    | <u>\$700</u>                    | <u>\$750</u>                    |

Pam uses the equity method in accounting for its investment in Sun.

#### REQUIRED

1. Compute Pam's income from its investment in Sun for 2016.
2. Determine the balance of Pam's Investment in Sun account at December 31, 2017.
3. Prepare the journal entries for Pam to account for its investment in Sun for 2018.

**P2-9****Prepare allocation schedules under different stock price assumptions (bargain purchase)**

Pop Corporation exchanged 40,000 previously unissued no par common shares for a 40 percent interest in Son Corporation on January 1, 2016. The assets and liabilities of Son on that date (after the exchange) were as follows (in thousands):

|                         | Book Value     | Fair Value     |
|-------------------------|----------------|----------------|
| Cash                    | \$ 200         | \$ 200         |
| Accounts receivable—net | 400            | 400            |
| Inventories             | 1,000          | 1,200          |
| Land                    | 200            | 600            |
| Buildings—net           | 1,200          | 800            |
| Equipment—net           | 800            | 1,000          |
| Total assets            | <u>\$3,800</u> | <u>\$4,200</u> |
| Liabilities             | \$1,800        | \$1,800        |
| Capital stock           | 1,400          |                |
| Retained earnings       | 600            |                |
| Total equities          | <u>\$3,800</u> |                |

The direct cost of issuing the shares of stock was \$20,000, and other direct costs of combination were \$80,000.

**REQUIRED**

1. Assume that the January 1, 2016, market price for Pop's shares is \$24 per share. Prepare a schedule to allocate the investment cost/book value differentials.
2. Assume that the January 1, 2016, market price for Pop's shares is \$16 per share. Prepare a schedule to allocate the investment cost/book value differentials. Assume that other direct costs were \$0.

**P2-10****Computations for a piecemeal acquisition**

Pam Corporation made three investments in Sun during 2016 and 2017, as follows:

| Date Acquired   | Shares Acquired | Cost      |
|-----------------|-----------------|-----------|
| July 1, 2016    | 3,000           | \$ 48,750 |
| January 1, 2017 | 6,000           | 99,000    |
| October 1, 2017 | 9,000           | 162,000   |

Sun's stockholders' equity on January 1, 2016, consisted of 20,000 shares of \$10 par common stock and retained earnings of \$100,000. Pam's intention was to buy a controlling interest in Sun, so it never considered its investment in Sun as a trading security. Sun stock had a market value of \$16.50 on December 31, 2016, and \$19.00 on December 31, 2017.

Sun had net income of \$40,000 and \$60,000 in 2016 and 2017, respectively, and paid dividends of \$15,000 on May 1 and November 1, 2016 and 2017 (\$60,000 total for the two years).

Pam Corporation accounts for its investment in Sun using the equity method. It does not amortize differences between investment cost and book value acquired.

**REQUIRED:** Compute the following amounts:

1. Pam's income from its investment in Sun for 2016
2. The balance of Pam's Investment in Sun account at December 31, 2016
3. Pam's income from its investments in Sun for 2017
4. The balance of Pam's Investment in Sun account at December 31, 2017

### P2-11 Computations and a correcting entry (errors)

Pam Corporation purchased 40 percent of the voting stock of Sun Corporation on July 1, 2016, for \$600,000. On that date, Sun's stockholders' equity consisted of capital stock of \$1,000,000, retained earnings of \$300,000, and current earnings (just half of 2016) of \$100,000. Income is earned proportionately throughout each year.

The Investment in Sun account of Pam Corporation and the retained earnings account of Sun Corporation for 2016 through 2019 are summarized as follows (in thousands):

| RETAINED EARNINGS (SUN)     |       |                         |       |
|-----------------------------|-------|-------------------------|-------|
| Dividends November 1, 2016  | \$80  | Balance January 1, 2016 | \$300 |
| Dividends November 1, 2017  | 80    | Earnings 2016           | 200   |
| Dividends November 1, 2018  | 100   | Earnings 2017           | 160   |
| Dividends November 1, 2019  | 100   | Earnings 2018           | 260   |
|                             |       | Earnings 2019           | 240   |
| INVESTMENT IN SUE (PAM)     |       |                         |       |
| Investment July 1, 2016 40% | \$600 | Dividends 2016          | \$32  |
| Income 2016                 | 80    | Dividends 2017          | 32    |
| Income 2017                 | 64    | Dividends 2018          | 40    |
| Income 2018                 | 104   | Dividends 2019          | 40    |
| Income 2019                 | 96    |                         |       |

#### REQUIRED

- Determine the correct amount of the investment in Sun that should appear in Pam's December 31, 2019, balance sheet. Assume any difference between investment cost and book value acquired is due to goodwill.
- Prepare any journal entry (entries) on Pam's books to bring the Investment in Sun account up to date on December 31, 2019, assuming that the books have not been closed at year-end 2019.

### P2-12 Allocation schedule and computations (excess cost over fair value)

Pop Corporation acquired a 70 percent interest in Son Corporation on April 1, 2016, when it purchased 14,000 of Son's 20,000 outstanding shares in the open market at \$13 per share. Additional costs of acquiring the shares consisted of \$10,000 legal and consulting fees. Son Corporation's balance sheets on January 1 and April 1, 2016, are summarized as follows (in thousands):

|                              | January 1 (per books) | April 1 (per books) | April 1 (fair values) |
|------------------------------|-----------------------|---------------------|-----------------------|
| Cash                         | \$ 40                 | \$ 45               | \$ 45                 |
| Inventories                  | 35                    | 60                  | 50                    |
| Other current assets         | 25                    | 20                  | 20                    |
| Land                         | 30                    | 30                  | 50                    |
| Equipment—net                | 100                   | 95                  | 135                   |
| Total assets                 | <u>\$230</u>          | <u>\$250</u>        | <u>\$300</u>          |
| Accounts payable             | \$ 45                 | \$ 40               | \$ 40                 |
| Other liabilities            | 15                    | 20                  | 20                    |
| Capital stock, \$5 par       | 100                   | 100                 |                       |
| Retained earnings January 1  | 70                    | 70                  |                       |
| Current earnings             |                       | 20                  |                       |
| Total liabilities and equity | <u>\$230</u>          | <u>\$250</u>        |                       |

#### ADDITIONAL INFORMATION

- The overvalued inventory items were sold in September 2016.
- The undervalued items of equipment had a remaining useful life of four years on April 1, 2016.
- Son's net income for 2016 was \$80,000 (\$60,000 from April to December 31, 2016).
- On December 1, 2016, Son declared dividends of \$2 per share, payable on January 10, 2017.
- Any unidentified assets of Son are not amortized.

**REQUIRED**

1. Prepare a schedule showing how the difference between Pop's investment cost and book value acquired should be allocated to identifiable and/or unidentifiable assets.
2. Calculate Pop's investment income from Son for 2016.
3. Determine the correct balance of Pop's Investment in Son account at December 31, 2016.

**PROFESSIONAL RESEARCH ASSIGNMENTS**

Answer the following questions by reference to the FASB Codification of Accounting Standards. Include the appropriate reference in your response.

- PR 2-1** The equity method of accounting is often referred to as a one-line consolidation. Since the net impact on the balance sheet and income statement is the same under both consolidation and the equity method, is it acceptable to report a noncontrolling investment using the simpler equity method?
- PR 2-2** A firm sells a part of its investment interest, reducing its holding from 30% to 10%. The firm decides, correctly, that the equity method is no longer appropriate. What is the basis for the investment in applying the new accounting method?

Sample

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# An Introduction to Consolidated Financial Statements

**T**his chapter contains material necessary to understand consolidated financial statements and provides an overview of the consolidation process. The acquisition method of accounting for business combinations is applied in the chapter. We assume the parent company/investor uses the complete equity method of accounting for subsidiary investments. All further discussions of business combinations in this book assume acquisition accounting.

Required consolidated financial statements include a consolidated balance sheet; a consolidated income statement; a consolidated retained earnings statement, or consolidated statement of changes in stockholders' equity; and a consolidated statement of cash flows.<sup>1</sup> The consolidated balance sheet and consolidated income and retained earnings statements in this chapter are prepared from the separate financial statements of the parent company and its subsidiaries. We prepare the consolidated statement of cash flows (introduced in Chapter 4) from consolidated income statements and consolidated balance sheets.

## BUSINESS COMBINATIONS CONSUMMATED THROUGH STOCK ACQUISITIONS

### LEARNING OBJECTIVE 3.1

The accounting concept of a business combination under generally accepted accounting principles (GAAP) (ASC 805) includes combinations in which one or more companies become subsidiaries of a parent corporation. A corporation becomes a subsidiary when another corporation acquires a controlling interest in its outstanding voting stock. Ordinarily, one company gains control of another directly by acquiring a majority (more than 50 percent) of its voting stock. An investor may also gain control through indirect stock ownership, which is covered in Chapter 9 of this book. Until then, assume that direct ownership of a majority of the voting stock is required for control and to have a parent–subsidiary relationship.

Once a parent–subsidiary relationship is established, the purchase of additional subsidiary stock is not a business combination. In other words, separate entities can combine only once. Increasing a controlling interest is the same as simply making an additional investment. Under GAAP (ASC 810-10), acquisition of additional subsidiary stock is recorded by increasing the investment account and reducing the noncontrolling interest, based on the carrying amount of the noncontrolling interest at the additional acquisition date. (The increase in the investment account presumes that the fair value of the subsidiary increases after the additional investment.) Any difference between the

### LEARNING OBJECTIVES

- 3.1** Recognize the benefits and limitations of consolidated financial statements.
- 3.2** Understand requirements for including a subsidiary in consolidated financial statements.
- 3.3** Apply consolidation concepts to parent company recording of an investment in a subsidiary company at the date of acquisition.
- 3.4** Record the fair value of a subsidiary at the date of acquisition.
- 3.5** Learn the concept of noncontrolling interest when a parent company acquires less than 100 percent of a subsidiary's outstanding common stock.
- 3.6** Prepare consolidated balance sheets subsequent to the acquisition date, including preparation of eliminating entries.
- 3.7** Amortize the excess of the fair value over the book value in periods subsequent to the acquisition.

<sup>1</sup>GAAP (ASC 220) also requires a statement of comprehensive income. We ignore that statement, except in instances where it is particularly relevant to the material being discussed.

- 3.8 Apply the concepts underlying preparation of a consolidated income statement.
- 3.9 Introduce the concept of push-down accounting.
- 3.10 **For the Students:** Create an electronic spreadsheet to prepare a consolidated balance sheet.

LEARNING OBJECTIVE **3.2**

acquisition price and the carrying amount of the noncontrolling interest plus the increase in the investment account is an adjustment to additional paid-in capital of the parent company.

### The Reporting Entity

An acquisition brings two previously separate corporations under the control of a single management team. Although both corporations continue to exist as separate legal entities, the acquisition creates a new reporting entity that encompasses all operations controlled by management of the parent company.

When an investment in voting stock creates a parent–subsidiary relationship, the purchasing entity (parent) and the entity acquired (subsidiary) continue to function as separate entities and maintain accounting records on a separate basis. Separate parent and subsidiary financial statements are converted into consolidated financial statements to reflect the financial position and the results of operations of the combined entities. The new reporting entity is responsible for reporting to the stockholders and creditors of the parent and to other interested parties.

This chapter introduces combining the separate accounting records of the parent and subsidiary into a more meaningful set of consolidated financial statements. As you continue through the remaining chapters on acquisitions, you may at times feel that companies maintain separate legal entities and accounting systems only to make life difficult for advanced accounting students. In fact, there are sound business reasons for keeping these separate identities.

A parent may acquire a subsidiary in a different industry from its own as a means of diversifying its overall business risk. In such cases, the management experience and skills required in the subsidiary’s line of business are already in place and are preserved within the separate entity. Further, the subsidiary may have established supply-chain and distribution systems different from its parent’s. The subsidiary also may have established customer loyalties, which are easier to maintain with a separate identity.

Brand names and trademarks associated with the subsidiary represent extremely valuable intangible assets. If *Quicken Loans* were to purchase *Coca-Cola Company*, it likely would not be a great strategic move to rename it as *Quicken Loans and Cola!*

There are also compelling legal reasons for maintaining separate identities. In a typical investment, the parent buys the common stock of the subsidiary. Under the U.S. legal system, stockholders enjoy limited legal liability. If a lawsuit against a subsidiary results in a significant loss (e.g., from an environmental catastrophe), the parent cannot be held accountable for more than the loss of its investment.

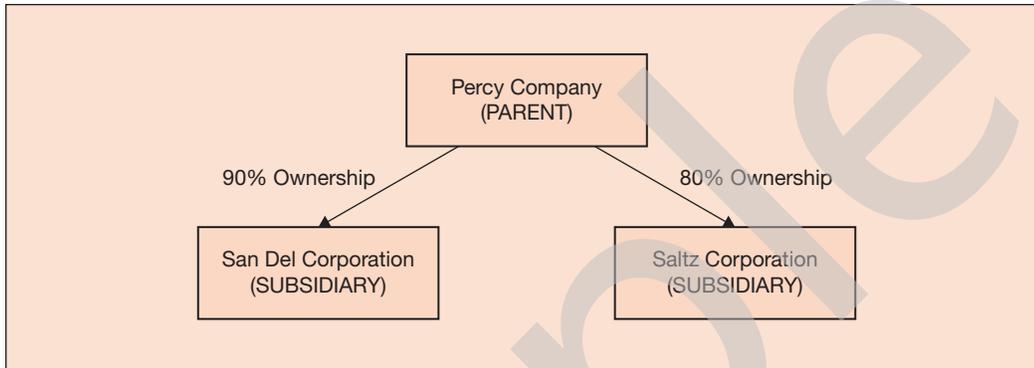
### The Parent–Subsidiary Relationship

We presume that a corporation that owns more than 50 percent of the voting stock of another corporation controls that corporation through its stock ownership, and a parent–subsidiary relationship exists. When parent–subsidiary relationships exist, the companies are affiliated. Often the term **affiliate** is used to mean subsidiary, and the two terms are used interchangeably in this book. In many annual reports, however, the term *affiliate* is used to include all investments accounted for by the equity method. The following excerpt from the *Deere & Company* 2015 annual report (p. 46) is an example of this latter usage of the term *affiliate*: “Unconsolidated affiliated companies are companies in which Deere & Company generally owns 20 percent to 50 percent of the outstanding voting shares. Deere & Company does not control these companies and accounts for its investments in them on the equity basis. . . . Deere & Company’s share of the income or loss of these companies is reported in the consolidated income statement under ‘Equity in income (loss) of unconsolidated affiliates.’ The investment in these companies is reported in the consolidated balance sheet under ‘investments in unconsolidated affiliates.’”<sup>2</sup>

Exhibit 3-1 illustrates an affiliation structure with two subsidiaries, with Percy Company owning 90 percent of the voting stock of San Del Corporation and 80 percent of the voting stock of Saltz Corporation. Percy Company owns 90 percent of the voting stock of San Del, and stockholders outside the affiliation structure own the other 10 percent. These outside stockholders are the noncontrolling stockholders, and their interest is referred to as a **noncontrolling interest**.<sup>3</sup> Outside stockholders have a 20 percent noncontrolling interest in Saltz Corporation.

<sup>2</sup>From Deere & Company Annual Report 2015 (P46) © 2015 Deere & Company.

<sup>3</sup>GAAP prefers the term *noncontrolling interest* to minority interest (ASC 810-10). Some companies retain the more-traditional *minority interest* designation in their annual reports, but we use *noncontrolling* throughout this text.

**EXHIBIT 3-1****Affiliation Structure**

Percy Company and its subsidiaries are separate legal entities that maintain separate accounting records. In its separate records, Percy Company uses the equity method described in Chapter 2 to account for its investments in San Del and Saltz Corporations. For reporting purposes, however, the equity method of reporting usually does not result in the most meaningful financial statements. The parent, through its stock ownership, is able to elect subsidiary directors and control subsidiary decisions, including dividend declarations. Although affiliated companies are separate legal entities, there is really only one economic entity because all resources are under control of a single management—the directors and officers of the parent. Under GAAP (ASC 810-10-10-1):

*The purpose of consolidated financial 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 and all its subsidiaries as if the consolidated group were a single economic entity. There is a presumption that consolidated financial statements are more meaningful than separate financial statements and that they are usually necessary for a fair presentation when one of the entities in the consolidated group directly or indirectly has a controlling financial interest in the other entities.<sup>4</sup>*

Consolidated statements are intended primarily for the parent's investors, rather than for the noncontrolling stockholders and subsidiary creditors. The subsidiary, as a separate legal entity, continues to report the results of its own operations to the noncontrolling shareholders.

### Consolidation Policy

Consolidated financial statements provide information that is not included in the separate statements of the parent, and are usually required for fair presentation of the financial position and results of operations for the affiliated companies. The usual condition for consolidation is ownership of more than 50 percent of the voting stock of another company. Under current GAAP (ASC 810-10-65), a subsidiary can be excluded from consolidation in some situations: (1) when control does not rest with the majority owner, (2) formation of joint ventures, (3) the acquisition of an asset or group of assets that does not constitute a business, (4) acquiring financial assets and liabilities of a consolidated variable interest entity that is a collateralized financing entity, and (5) a combination between not-for-profit entities or the acquisition of a for-profit business by a not-for-profit entity. Control does not rest with the majority owner if the subsidiary is in legal reorganization or bankruptcy or is operating under severe foreign-exchange restrictions, controls, or other governmentally imposed uncertainties.

**DISCLOSURE OF CONSOLIDATION POLICIES** GAAP (ASC 235-10) requires a description of significant accounting policies for financial reporting and traditionally, consolidation-policy disclosures were among the most frequent of all policy disclosures. Consolidation-policy disclosures are needed to report exceptions (e.g., inability to control) to the required consolidation of all majority-owned subsidiaries. In addition, GAAP requires an extensive list of disclosures. Disclosures are required for:

1. the reporting period that includes a business combination
  - a. general information about the business combination such as name of target and acquisition date
  - b. information about goodwill or bargain purchase gain

<sup>4</sup>FASB ASC 810-10-10-1. Originally Statement of Financial Accounting Standards No. 160. "Noncontrolling Interests." Norwalk, CT © 2007 Financial Accounting Standards Board.