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Auditing derivative instruments, hedging activities, and investments in securities, with conforming changes as of June 1, 2011; Audit and accounting guide

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Audit Guide: Auditing Derivative Instruments, Hedging Activities, and Investments in Securities

June 1, 2011

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A U D I T G U I D E

Auditing Derivative Instruments, Hedging Activities, and Investments in Securities

June 1, 2011

AICPA®

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Auditing Derivative Instruments, Hedging Activities, and Investments in Securities

With conforming changes as of
June 1, 2011

This edition of the AICPA Audit Guide *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities*, which was originally issued in 2001, has been modified by the AICPA staff to include certain changes necessary because of the issuance of authoritative pronouncements since the guide was originally issued. The schedule of changes identifies all changes made in this edition of the guide. The changes do not include all those that might be considered necessary if the guide was subjected to a comprehensive review and revision.

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Preface

About AICPA Audit Guides

This AICPA Audit Guide has been developed under the supervision of the AICPA Financial Instruments Task Force to provide practical guidance for implementing AU section 332, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* (AICPA, *Professional Standards*).

Auditing guidance included in an AICPA Audit Guide is recognized as an interpretive publication pursuant to AU section 150, *Generally Accepted Auditing Standards* (AICPA, *Professional Standards*). Interpretive publications are recommendations on the application of Statements on Auditing Standards (SASs) in specific circumstances, including engagements for entities in specialized industries. An interpretive publication is issued under the authority of the Auditing Standards Board (ASB) after all ASB members have been provided an opportunity to consider and comment on whether the proposed interpretive publication is consistent with the SASs. The members of the ASB have found this guide to be consistent with existing SASs.

The auditor should be aware of and consider interpretive publications applicable to his or her audit. If an auditor does not apply the auditing guidance included in an applicable interpretive publication, the auditor should be prepared to explain how he or she complied with the SAS provisions addressed by such auditing guidance.

This Audit Guide is intended to be helpful in pointing to U.S. generally accepted accounting principles (GAAP) related to derivative instruments and securities; however, it does not have the authority of the official accounting guidance. Therefore, readers should not use this guide as their source of accounting guidance for derivative instruments and securities but should instead rely on the referred original accounting guidance in its entirety.

Recognition

Richard C. Paul, *Chair*
Financial Reporting Executive Committee

Darrel R. Schubert, *Chair*
Auditing Standards Board

Financial Instruments Task Force
(responsible for original draft of this guide)

Stephen D. Holton, *Chair*

Richard L. Brezovec

Andrew J. Capelli

Andrew E. Nolan

Steven J. Paraggio

Alan Rosenthal

George H. Tucker

The task force thanks W. Gabriel de la Rosa, John M. James, Deborah D. Lambert, Laura J. Phillips, Sri Ramamoorti, and Robert C. Steiner for their

technical assistance with this project and Michael J. Ramos for his assistance with the initial drafting of this guide.

The AICPA also acknowledges the following staff members for their assistance with the March 2001 edition of this guide: Charles E. Landes, Judith M. Sherinsky, and Arleen Thomas.

The AICPA gratefully acknowledges Brian Markley for reviewing the June 2011 edition of this guide.

AICPA Staff

Anne M. Mundinger, CPA
Technical Manager
Accounting and Auditing Publications

Guidance Considered in This Edition

This edition of the guide has been modified by the AICPA staff to include certain changes necessary due to the issuance of authoritative guidance since the guide was originally issued. Authoritative guidance issued through June 1, 2011, has been considered in the development of this edition of the guide. Authoritative guidance discussed in the text of the guide (as differentiated from the temporary footnotes, which are denoted by a symbol rather than a number) is effective for entities with fiscal years ending on or before June 1, 2011. Authoritative guidance discussed only in temporary footnotes is not yet effective as of June 1, 2011, for entities with fiscal years ending after that same date.

This includes relevant guidance issued up to and including the following:

- Financial Accounting Standards Board (FASB) Accounting Standards Update (ASU) No. 2011-04, *Fair Value Measurement (Topic 820): Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRSs*
- SAS No. 121, *Revised Applicability of Statement on Auditing Standards No. 100,* Interim Financial Information (AICPA, *Professional Standards*, AU sec. 722 par. .05)
- Interpretation No. 19, "Financial Statements Prepared in Conformity With International Financial Reporting Standards as Issued by the International Accounting Standards Board," of AU section 508, *Reports on Audited Financial Statements* (AICPA, *Professional Standards*, AU sec. 9508 par. .93–.97)
- Revised interpretations issued through June 1, 2011, including Interpretation Nos. 1–4 of AU section 325, *Communicating Internal Control Matters Identified in an Audit* (AICPA, *Professional Standards*, AU sec. 9325 par. .01–.13)
- Statement of Position 09-1, *Performing Agreed-Upon Procedures Engagements That Address the Completeness, Accuracy, or Consistency of XBRL-Tagged Data* (AICPA, *Technical Practice Aids*, AUD sec. 14,440)
- Statement on Standards for Attestation Engagements No. 16, *Reporting on Controls at a Service Organization* (AICPA, *Professional Standards*, AT sec. 801)

- Interpretation No. 7, "Reporting on the Design of Internal Control," of AT section 101, *Attest Engagements* (AICPA, *Professional Standards*, AT sec. 9101 par. .59–.69)
- Public Company Accounting Oversight Board (PCAOB) Auditing Standard Nos. 8–15 (AICPA, *PCAOB Standards and Related Rules*, Auditing Standards)

Users of this guide should consider guidance issued subsequent to those items listed previously to determine their effect on entities covered by this guide. In determining the applicability of newly issued guidance, its effective date should also be considered.

The changes made to this edition are identified in the schedule of changes in appendix B, "Schedule of Changes Made to the Text From the Previous Edition." The changes do not include all those that might be considered necessary if the guide were subjected to a comprehensive review and revision.

Applicability of U.S. Generally Accepted Auditing Standards and PCAOB Standards

Audits of the financial statements of *nonissuers* (those entities not subject to the Sarbanes-Oxley Act of 2002 or the rules of the Securities and Exchange Commission [SEC]—that is, private entities, generally speaking) are conducted in accordance with U.S. generally accepted auditing standards (GAAS) as issued by the ASB, the senior technical committee of the AICPA with the authority to promulgate auditing standards for nonissuers. The ASB develops and issues standards in the form of SASs through a due process that includes deliberation in meetings open to the public, public exposure of proposed SASs, and a formal vote. The SASs and their related interpretations are codified in the AICPA's *Professional Standards*. Paragraph .03 of AU section 150 establishes that an AICPA member's failure to follow ASB standards for audits of nonissuers is a violation of Rule 202, *Compliance With Standards* (AICPA, *Professional Standards*, ET sec. 202 par. .01).

Audits of the financial statements of *issuers*, as defined by the SEC (those entities subject to the Sarbanes-Oxley Act or the rules of the SEC—that is, public entities, generally speaking), are conducted in accordance with standards established by the PCAOB, a private sector, nonprofit corporation created by the Sarbanes-Oxley Act to oversee the audits of issuers. The SEC has oversight authority over the PCAOB, including the approval of its rules, standards, and budget.

For audits of a nonissuer, in accordance with both GAAS and PCAOB standards, Interpretation No. 18, "Reference to PCAOB Standards in an Audit Report on a Nonissuer," of AU section 508 (AICPA, *Professional Standards*, AU sec. 9508 par. .89–.92), provides reporting guidance applicable to such engagements.

References to Professional Standards

In citing GAAS and their related interpretations, references use section numbers within the codification of currently effective SASs and not the original statement number, as appropriate. For example, SAS No. 54, *Illegal Acts by Clients*, is referred to as AU section 317, *Illegal Acts by Clients* (AICPA,

Professional Standards). In those sections of the guides that refer to specific auditing standards of the PCAOB, references are made to the AICPA's *PCAOB Standards and Related Rules* publication.

FASB *Accounting Standards Codification*™

Overview

Released on July 1, 2009, the FASB *Accounting Standards Codification* (ASC) is a major restructuring of accounting and reporting standards designed to simplify user access to all authoritative U.S. GAAP by topically organizing the authoritative literature. FASB ASC disassembled and reassembled thousands of nongovernmental accounting pronouncements (including those of FASB, the Emerging Issues Task Force, and the AICPA) to organize them under approximately 90 topics.

FASB ASC also includes relevant portions of authoritative content issued by the SEC, as well as selected SEC staff interpretations and administrative guidance issued by the SEC; however, FASB ASC is not the official source of SEC guidance and does not contain the entire population of SEC rules, regulations, interpretive releases, and SEC staff guidance. Moreover, FASB ASC does not include governmental accounting standards.

FASB published a notice to constituents that explains the scope, structure, and usage of consistent terminology of FASB ASC. Constituents are encouraged to read this notice to constituents because it answers many common questions about FASB ASC. FASB ASC and its related notice to constituents can be accessed at http://asc.fasb.org/home and are also offered by certain third party licensees, including the AICPA. FASB ASC is offered by FASB at no charge in a "Basic View" and for an annual fee in a "Professional View."

FASB Statement No. 168

In June 2009, FASB issued the last FASB Statement referenced in that form: FASB Statement No. 168, *The FASB* Accounting Standards Codification™ *and the Hierarchy of Generally Accepted Accounting Principles—a replacement of FASB Statement No. 162*. This standard establishes FASB ASC as the authoritative source of U.S. accounting and reporting standards for nongovernmental entities, in addition to guidance issued by the SEC, and is effective for financial statements issued for interim and annual periods ending after September 15, 2009.

This standard flattened the historic U.S. GAAP hierarchy to two levels: one that is authoritative (in FASB ASC) and one that is nonauthoritative (not in FASB ASC). Exceptions include all rules and interpretive releases of the SEC under the authority of federal securities laws, which are sources of authoritative U.S. GAAP for SEC registrants, and certain grandfathered guidance having an effective date before March 15, 1992.

Issuance of Amendments to FASB ASC

Amendments to FASB ASC are now issued through ASUs and serve only to update FASB ASC. FASB does not consider the ASUs authoritative in their own right; such amendments become authoritative when they are incorporated into FASB ASC.

The ASUs are in the form of ASU No. 20YY-XX, in which "YY" is the last two digits of the year and "XX" is the sequential number for each update. For example, ASU No. 2010-01 is the first update in the calendar year 2010. The ASUs include the amendments to the codification and an appendix of FASB ASC update instructions. ASUs also provide background information about the amendments and explain the basis for FASB's decisions.

Pending Content in FASB ASC

Amendments to FASB ASC issued in the form of ASUs (or other authoritative accounting guidance issued prior to the release date of FASB ASC) that are not fully effective, or became effective within that last six months, for all entities or transactions within its scope are reflected as "Pending Content" in FASB ASC. This pending content is shown in text boxes below the paragraphs being amended in FASB ASC and includes links to the transition information. The pending content boxes are meant to provide users with information about how a paragraph will change when new guidance becomes authoritative. When an amended paragraph has been fully effective for six months, the outdated guidance will be removed, and the amended paragraph will remain without the pending content box. FASB will keep any outdated guidance in the applicable archive section of FASB ASC for historical purposes.

Because not all entities have the same fiscal year-ends, and certain guidance may be effective on different dates for public and nonpublic entities, the pending content will apply to different entities at different times. As such, pending content will remain in place within FASB ASC until the *roll off* date. Generally, the roll off date is six months following the latest fiscal year end for which the original guidance being amended or superseded by the pending content could be applied as specified by the transition guidance. For example, assume an ASU has an effective date for fiscal years beginning after November 15, 2010. The latest possible fiscal year end of an entity still eligible to apply the original guidance being amended or superseded by the pending content would begin November 15, 2010 and end November 14, 2011. Accordingly, the roll-off date would be May 14, 2012.

Entities cannot disregard the pending content boxes in FASB ASC. Instead, all entities must review the transition guidance to determine when the pending content is applicable to them. This Audit Guide identifies pending content where applicable. As explained in the section of the preface "Guidance Considered in This Edition," pending content discussed in the text of the guide (as differentiated from the temporary footnotes, which are denoted by a symbol rather than a number) is effective for entities with fiscal years *ending* on or before June 1, 2011. Pending content discussed only in temporary footnotes is not yet effective as of June 1, 2011, for entities with fiscal years ending after that same date.

New AICPA.org Website

The AICPA encourages you to visit the new website at www.aicpa.org. It was launched in 2010 and provides significantly enhanced functionality and content critical to the success of AICPA members and other constituents. Certain content on the AICPA's website referenced in this guide may be restricted to AICPA members only.

Select Recent Developments Significant to This Guide

Summary of Significant Differences Between the PCAOB and AICPA Risk Assessment Standards

On August 5, 2010, the PCAOB issued Release No. 2010-004, *Auditing Standards Related to the Auditor's Assessment of and Response to Risk and Related Amendments to PCAOB Standards* (AICPA, *PCAOB Standards and Related Rules*, Select PCAOB Releases). This release includes eight auditing standards (collectively referred to as the PCAOB risk assessment standards) as adopted by the PCAOB. The eight standards, which were approved by the SEC on December 23, 2010, and included in *PCAOB Standards and Related Rules*, are as follows:

- Auditing Standard No. 8, *Audit Risk*
- Auditing Standard No. 9, *Audit Planning*
- Auditing Standard No. 10, *Supervision of the Audit Engagement*
- Auditing Standard No. 11, *Consideration of Materiality in Planning and Performing an Audit*
- Auditing Standard No. 12, *Identifying and Assessing Risks of Material Misstatement*
- Auditing Standard No. 13, *The Auditor's Responses to the Risks of Material Misstatement*
- Auditing Standard No. 14, *Evaluating Audit Results*
- Auditing Standard No. 15, *Audit Evidence*

The release also includes conforming amendments to other interim standards related to the PCAOB risk assessment standards. The effective date of the PCAOB risk assessment standards is for audits of financial statements of issuers with fiscal periods beginning on or after December 15, 2010.

In general, the PCAOB risk assessment standards are consistent with the AICPA SASs related to risk assessment (the AICPA risk assessment standards). Where differences exist, they are primarily due to the PCAOB

a. addressing audits of financial statements in conjunction with audits of effectiveness of internal control (often referred to as *integrated audits*). The AICPA risk assessment standards only address audits of financial statements.

b. presenting content in standards different than the AICPA risk assessment standards. For example, the PCAOB

  i. incorporated fraud risk assessment procedures into the PCAOB risk assessment standards,

  ii. created Auditing Standard No. 10 to separately address supervision of the audit engagement,

  iii. created Auditing Standard No. 14 to separately address the evaluation of audit results, and

  iv. moved content related to other audit areas such as analytical review procedures and audits of group financial statements.

The PCAOB risk assessment standards are not as voluminous as the AICPA risk assessment standards because the PCAOB standards do not contain as much application guidance as do the AICPA risk assessment standards. Appendix 11, "Comparison of the Objectives and Requirements of the Accompanying PCAOB Auditing Standards with the Analogous Standards of the International Auditing and Assurance Standards Board and the ASB of the American Institute of Certified Public Accountants," of the release contains a more detailed comparison of the differences between the PCAOB risk assessment standards and the AICPA risk assessment standards.

ASB's Clarity Project

In an effort to make GAAS easier to read, understand, and apply, the ASB launched the Clarity Project. When completed, clarified auditing standards will be issued as one SAS that will supersede all prior SASs. The new audit standards are expected to apply to audits of financial statements for periods ending on or after December 15, 2012.

The foundation of the ASB's Clarity Project is the establishment of an objective for each auditing standard. These objectives will better reflect a principles-based approach to standard-setting. In addition to having objectives, the clarified standards will reflect new drafting conventions that include

- adding a definitions section, if relevant, in each standard.
- separating requirements from application and other explanatory material.
- numbering application and other explanatory material paragraphs using an A prefix and presenting them in a separate section (following the requirements section).
- using formatting techniques, such as bulleted lists, to enhance readability.
- adding special considerations relevant to audits of smaller, less complex entities.
- adding special considerations relevant to audits of governmental audits.

The project also has an international convergence component. The ASB expects that, upon completion of the project, nearly all the requirements of International Standards on Auditing will also be requirements of U.S. GAAS. AICPA Audit and Accounting Guides, as well as other AICPA publications, will be conformed to reflect the new standards resulting from the Clarity Project after issuance and as appropriate based on the effective dates.

International Financial Reporting Standards

International Financial Reporting Standards (IFRSs) consist of accounting standards and interpretations developed and issued by the International Accounting Standards Board (IASB), a London-based independent accounting standard-setting body. The IASB began operations in 2001, when it succeeded the International Accounting Standards Committee (IASC). The IASC was formed in 1973, soon after the formation of FASB. In 2001, when the IASB replaced the IASC, a new, independent oversight body, the IASC Foundation, was created to appoint the members of the IASB and oversee its due process. The IASC Foundation's oversight role is very similar to that of the Financial Accounting Foundation (FAF) in its capacity as the oversight body of FASB.

The term *IFRSs* has both a narrow and a broad meaning. Narrowly, IFRSs refer to the new numbered series of pronouncements issued by the IASB, as differentiated from the International Accounting Standards (IASs) issued by its predecessor, the IASC. More broadly, however, IFRSs refer to the entire body of authoritative IASB pronouncements, including those issued by the IASC and their respective interpretive bodies. Therefore, the authoritative IFRSs literature, in its broadest sense, includes the following:

- Standards, whether labeled IFRSs or IASs
- Interpretations, whether labeled IFRIC (referring to the International Financial Reporting Interpretations Committee, the interpretive body of the IASC Foundation) or SIC (Standing Interpretations Committee, the predecessor to IFRIC and former interpretive body of the IASC)
- IFRS framework

As of March 31, 2010, IFRIC formally changed its name to the IFRS Interpretations Committee, and on July 1, 2010, the IASC Foundation formally changed its name to the IFRS Foundation.

The preface to the *IFRS 2010* bound volume states that IFRSs are designed to apply to the general purpose financial statements and other financial reporting of all profit-oriented entities including commercial, industrial, and financial entities regardless of legal form or organization. Included within the scope of profit-oriented entities are mutual insurance companies and other mutual cooperative entities providing dividends or other economic benefits to their owners, members, or participants.

IFRSs are not designed to apply to not-for-profit entities or those in the public sector, but these entities may find IFRSs appropriate in accounting for their activities. In contrast, U.S. GAAP is designed to apply to all nongovernmental entities, including not-for-profit entities, and includes specific guidance for not-for-profit entities, development stage entities, limited liability entities, and personal financial statements.

The AICPA governing council voted in May 2008 to recognize the IASB as an accounting body for purposes of establishing international financial accounting and reporting principles. This amendment to appendix A, "Council Resolution Designating Bodies to Promulgate Technical Standards," of Rule 202 and Rule 203, *Accounting Principles* (AICPA, *Professional Standards*, ET sec. 203 par. .01), gives AICPA members the option to use IFRSs as an alternative to U.S. GAAP. As a result, private entities in the United States can prepare their financial statements in accordance with U.S. GAAP as promulgated by FASB; an other comprehensive basis of accounting, such as cash- or tax-basis; or IFRSs, among others. However, domestic issuers are currently required to follow U.S. GAAP and rules and regulations of the SEC. In contrast, foreign private issuers may present their financial statements in accordance with IFRSs as issued by the IASB without a reconciliation to U.S. GAAP, or in accordance with non-IFRSs home-country GAAP reconciled to U.S. GAAP as permitted by Form 20-F.

The growing acceptance of the IFRSs as a basis for U.S. financial reporting could represent a fundamental change for the U.S. accounting profession. Acceptance of a single set of high-quality accounting standards for worldwide use by public companies has been gaining momentum around the globe for the past few years. See appendix A, "International Financial Reporting Standards," for

a discerning look at the status of convergence with IFRSs in the United States and the important issues that accounting professionals need to consider now.

FASB's Financial Instruments Project

On May 26, 2010, FASB issued the proposed ASU *Accounting for Financial Instruments and Revisions to the Accounting for Derivative Instruments and Hedging Activities* that addresses the recognition, measurement, classification, and impairment of financial instruments, as well as hedge accounting. The comment period for the proposed ASU ended on September 30, 2010.

Following the issuance of this proposed ASU, FASB and the IASB have "jointly committed to continue attempting to reduce differences in the accounting for financial instruments under U.S. GAAP and IFRS. The strategy calls for both Boards to consider together the comment letters and other feedback received in an effort to try to reconcile differences in views in ways that foster convergence while meeting project objectives." FASB is participating with the IASB in an expert advisory panel that will advise the boards on the operational issues surrounding the IASB's expected cash flow approach and FASB's approach for determining credit impairments.

The proposed ASU would apply to all entities. However, for a nonpublic entity with less than $1 billion in total consolidated assets, the effective date for particular requirements is deferred for 4 years. Readers of this guide should monitor the status of this project. For more information, please refer to the FASB website at www.fasb.org.

Private Company Financial Reporting Blue Ribbon Panel and Standard Setting for Nonpublic Entities

The Blue Ribbon Panel on Private Company Financial Reporting was established in December 2009 and was sponsored by the AICPA, the FAF, and the National Association of State Boards of Accountancy. This panel was formed to consider how U.S. accounting standards can best meet the needs of users of private company financial statements. Members of the panel represent a cross-section of financial reporting constituencies, including lenders, investors, owners, preparers, and auditors.

In late 2010, the Blue Ribbon Panel voted to recommend that the FAF accept a new standard-setting model for private companies and the creation of a separate board to set those standards. In January 2011, the Blue Ribbon Panel submitted a report of its recommendations to the FAF. The Blue Ribbon Panel concluded its work upon the issuance of its report to the FAF. For updates of developments regarding standard setting for nonpublic entities, visit the AICPA website at www.aicpa.org/privateGAAP.

In March 2011, the Board of Trustees of the FAF announced the establishment of a Trustee Working Group to further address the topic of accounting standard setting for nonpublic entities. The working group has elected to include both non-profit entities and private companies in its consideration of this issue. For more information, visit www.accountingfoundation.org/home.

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Chapter 1

Introduction

1.01 Deregulation, foreign exchange interest rate volatility, and tax law changes spawned the creation of innovative and complex derivative instruments and securities. The creation of these instruments gave rise to inconsistent accounting, and solutions developed on an ad hoc basis.

1.02 In the mid-1980s, the Financial Accounting Standards Board (FASB) began a comprehensive project to address several separate, though related, issues, including

- how derivative instruments and investments in debt and equity securities should be measured;
- how to account for transactions that seek to transfer market and credit risks (hedging activities) and for the assets or liabilities to which the risk-transferring items are related (hedged items);
- how to determine when derecognition is appropriate, such as whether securities should be considered sold if there is recourse or other continuing involvement with them;
- how to determine when nonrecognition and offsetting related assets and liabilities are appropriate; and
- how entities should account for instruments that have both debt and equity characteristics.

Currently a wide variety of accounting guidance exists on these and other issues related to derivative instruments, hedging activities, and investments in securities. Both FASB and the Securities and Exchange Commission have issued authoritative guidance on these topics.

1.03 For auditors, the continued increase in the number and use of complex derivative instruments and securities, coupled with the sometimes equally complex accounting guidance, have resulted in changes in the approaches to auditing the financial statements of many entities. For example, evaluating audit evidence related to assertions about derivative instruments frequently requires the use of considerable judgment, particularly for valuation assertions, which can be particularly sensitive to changes in underlying assumptions or based on highly subjective estimates.

1.04 AU section 332, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* (AICPA, *Professional Standards*), provides guidance to auditors in planning and performing auditing procedures for financial statement assertions about derivative instruments, hedging activities, and investments in securities. AU section 332 and this guide refer to derivative instruments as *derivatives* and investments in securities as *securities*.

1.05 Among other things, AU section 332

- cautions that the auditor may need special skill or knowledge to plan and perform auditing procedures for certain assertions about derivative instruments and investments in securities and provides examples of such auditing procedures and the special skills or knowledge that may be necessary to perform these procedures;

- provides guidance on inherent risk assessment for assertions about derivative instruments and investments in securities;
- provides guidance on control risk assessment for assertions about derivative instruments and investments in securities, including considerations when one or more service organizations provide services for the entity's derivative instruments and investments in securities;
- provides guidance on the auditor's considerations in designing substantive procedures based on risk assessments for each of the five broad categories of financial statement assertions (existence or occurrence, completeness, rights and obligations, valuation, and presentation and disclosure);
- cautions that a service organization's services may affect the nature, timing, and extent of substantive procedures in a variety of ways, including the assessment of control risk[1] for assertions about derivative instruments and investments in securities;
- provides guidance on designing substantive procedures of valuation assertions based on cost of securities, investee's financial results, and fair value, including guidance on testing assertions about the fair value based on the specified valuation methods and guidance for evaluating management's consideration of the need to recognize impairment losses;
- cautions that evaluating audit evidence for valuation assertions about derivative instruments and investments in securities may require the auditor to use considerable judgment and provides guidance for those situations;
- provides guidance on auditing assertions about hedging activities; and
- provides guidance on auditing assertions about securities based on management's intent and ability, including consideration of generally accepted accounting principles (GAAP) that require management to document its intentions.

1.06 This guide was originally issued concurrent with Statement on Auditing Standards No. 92, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* (AICPA, *Professional Standards*, AU sec. 332). The purpose of this guide is to provide practical guidance for auditing derivative instruments, hedging activities, and investments in securities for all types of audit engagements. The suggested auditing procedures contained in this guide do not increase or otherwise modify the auditor's responsibilities described in AU section 332. Rather, the suggested procedures in this guide are intended to clarify and illustrate the application of the requirements of AU section 332. The first part of this guide consists of detailed discussions and is followed by several case studies:

- The detailed discussions in chapters 2–7 provide an in-depth look at applying the guidance in AU section 332. This group of chapters begins with an overview of derivative instruments and

[1] This assessment may be expressed in qualitative terms such as *high*, *medium*, or *low* or in quantitative terms such as percentages.

investments in securities and how they are used by various entities (chapter 2, "An Overview of Derivatives and Securities"). Chapter 3, "General Accounting Considerations for Derivatives and Securities," provides general accounting considerations for derivative instruments and investments in securities. Chapter 4, "General Auditing Considerations for Derivative Instruments, Hedging Activities, and Investments in Securities," provides general audit considerations for derivative instruments, hedging activities, and investments in securities. Chapters 5–7 discuss the three elements of the audit risk model: inherent risk assessment, control risk assessment, and designing and performing substantive procedures in response to assessed risks.

- The final seven chapters (chapters 8–14) consist of case studies. Each case study focuses on how AU section 332 would be applied to gather audit evidence about a specific derivative or security. Various types of derivatives are covered, such as swaps, options, forwards and futures, along with embedded derivatives and debt and equity securities.

1.07 The case studies are intended to illustrate the application of AU section 332 in a variety of specific sets of facts and circumstances. The case studies were designed to illustrate basic considerations in auditing assertions about derivatives, for example, by generally assuming that the hedging relationships illustrated are completely effective throughout the hedging period. Accordingly, the auditor may encounter assertions about derivative instruments and investments in securities for which the design of procedures is not illustrated in this guide, such as assertions about hedging relationships that have some ineffectiveness. According to paragraph .102 of AU section 314, *Understanding the Entity and Its Environment and Assessing the Risks of Material Misstatement* (AICPA, *Professional Standards*), the auditor should identify and assess the risks of material misstatement at the financial statement level and at the relevant assertion level related to classes of transactions, account balances, and disclosures. This includes assertions about derivative instruments and investments in securities.

1.08 Chapter 3 and other parts of this guide summarize select accounting guidance on derivative instruments and investments in securities. These summaries are intended merely to provide background information to help auditors understand and implement the auditing guidance contained in AU section 332 and this guide. Auditors considering whether the measurement and disclosure of an entity's derivative instruments and investments in securities are in conformity with U.S. GAAP should refer to the applicable standards and interpretive accounting guidance.

1.09 AU section 328, *Auditing Fair Value Measurements and Disclosures* (AICPA, *Professional Standards*), establishes standards and provides guidance on auditing fair value measurements and disclosures contained in financial statements. This guide has been revised to reflect some of the auditing guidance in AU section 328.

1.10 FASB *Accounting Standards Codification* (ASC) 820-10 defines fair value, establishes a framework for measuring fair value, and requires certain disclosures about fair value measurements. Paragraphs 1.11–.42 summarize FASB ASC 820, *Fair Value Measurement*, but are not intended to be a substitute for reviewing FASB ASC 820 in its entirety.

Definition of *Fair Value*

1.11 FASB ASC 820-10-20, defines *fair value* as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. FASB ASC 820-10-35-5 states that a fair value measurement assumes that the transaction to sell the asset or transfer the liability either occurs in the principal market for the asset or liability or, in the absence of a principal market, the most advantageous market for the asset or liability. The FASB ASC glossary defines the *principal market* as the market in which the reporting entity would sell the asset or transfer the liability with the greatest volume and level of activity for the asset or liability. The principal market (and thus, market participants) should be considered from the perspective of the reporting entity, thereby allowing for differences between and among entities with different activities.

1.12 FASB ASC 820-10-35-3 provides that the hypothetical transaction to sell the asset or transfer the liability is considered from the perspective of a market participant that holds the asset or owes the liability. Therefore, the objective of a fair value measurement focuses on the price that would be received to sell the asset or paid to transfer the liability (an exit price), not the price that would be paid to acquire the asset or received to assume the liability (an entry price). Per FASB ASC 820-10-30-2, conceptually, entry prices and exit prices are different. However, FASB ASC 820-10-30-3 explains that, in many cases, at initial recognition, a transaction price (entry price) will equal the exit price and, therefore, will represent the fair value of the asset or liability at initial recognition. In determining whether a transaction price represents the fair value of the asset or liability at initial recognition, the reporting entity should consider facts specific to the transaction and the asset or liability.

1.13 Paragraphs 7–8 of FASB ASC 820-10-35 provide that the price used in a fair value measurement should not be adjusted for transaction costs. If location is an attribute of the asset or liability (as might be the case for a commodity), the price in the principal (or most advantageous) market used to measure the fair value of the asset or liability should be adjusted for the costs, if any, that would be incurred to transport the asset or liability to (or from) its principal (or most advantageous) market.

Application to Assets

1.14 FASB ASC 820-10-35-10 provides that a fair value measurement of an asset assumes the highest and best use of the asset by market participants, considering the use of the asset that is physically possible, legally permissible, and financially feasible at the measurement date. Highest and best use is determined based on the use of the asset by market participants, even if the intended use of the asset by the reporting entity is different.

1.15 FASB ASC 820-10-35-10 provides that the highest and best use for an asset is established by one of two valuation premises: in-use or in-exchange. The highest and best use of the asset is in-use if the asset would provide maximum value to market participants principally through its use in combination with other assets as a group (as installed or otherwise configured for use). For example, an in-use valuation premise might be appropriate for certain nonfinancial assets. The highest and best use of the asset is in-exchange if the asset would provide maximum value to market participants principally on a

standalone basis. For example, an in-exchange valuation premise might be appropriate for a financial asset. According to paragraphs 12–13 of FASB ASC 820-10-35, when using an in-use valuation premise, the fair value of the asset is determined based on the price that would be received in a current transaction to sell the asset assuming that the asset would be used with other assets as a group and that those other assets would be available to market participants. When using an in-exchange valuation premise, the fair value of the asset is determined based on the price that would be received in a current transaction to sell the asset standalone.

Application to Liabilities

1.16 According to FASB ASC 820-10-35-16, a fair value measurement assumes that both (*a*) the liability is transferred to a market participant at the measurement date (the liability to the counterparty continues; it is not settled), and (*b*) the nonperformance risk relating to that liability is the same before and after its transfer. Paragraphs 17–18 of FASB ASC 820-10-35 provide that the fair value measurement of a liability should reflect its nonperformance risk (the risk that the obligation will not be fulfilled). Because nonperformance risk includes the reporting entity's credit risk, the reporting entity should consider the effect of its credit risk (credit standing) on the fair value of the liability in all periods in which the liability is measured at fair value.

Valuation Techniques

1.17 Paragraphs 24–35 of FASB ASC 820-10-35 describe the valuation techniques that should be used to measure fair value. Valuation techniques consistent with the market approach, income approach, or cost approach should be used to measure fair value, as follows:

- The market approach uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities. Valuation techniques consistent with the market approach include matrix pricing and often use market multiples derived from a set of comparables.
- The income approach uses valuation techniques to convert future amounts (for example, cash flows or earnings) to a single present value amount (discounted). The measurement is based on the value indicated by current market expectations about those future amounts. Valuation techniques consistent with the income approach include present value techniques, option-pricing models, and the multiperiod excess earnings method.
- The cost approach is based on the amount that currently would be paid to replace the service capacity of an asset (often referred to as *current replacement cost*). From the perspective of a market participant (seller), fair value is determined based on the cost to a market participant (buyer) to acquire or construct a substitute asset of comparable utility, adjusted for obsolescence.

1.18 FASB ASC 820-10-35-24 states valuation techniques that are appropriate in the circumstances and for which sufficient data are available should be used to measure fair value. In some cases, a single valuation technique will be appropriate (for example, when valuing an asset or liability using quoted

prices in an active market for identical assets or liabilities). In other cases, multiple valuation techniques will be appropriate (for example, as might be the case when valuing a reporting unit) and the respective indications of fair value should be evaluated and weighted, as appropriate, considering the reasonableness of the range indicated by those results. Example 3 (paragraphs 35–41) of FASB ASC 820-10-55 illustrates the use of multiple valuation techniques. A fair value measurement is the point within that range that is most representative of fair value based upon the facts and circumstances pertaining to that asset or liability.

1.19 As explained by paragraphs 25–26 of FASB ASC 820-10-35, valuation techniques used to measure fair value should be consistently applied. However, a change in a valuation technique or its application is appropriate if the change results in a measurement that is more representative of fair value based upon the circumstances. Such a change would be accounted for as a change in accounting estimate in accordance with the provisions of FASB ASC 250, *Accounting Changes and Error Corrections*.

Present Value Techniques

1.20 Paragraphs 4–20 of FASB ASC 820-10-55 provide guidance on present value techniques. Those paragraphs neither prescribe the use of one specific present value technique nor limit the use of present value techniques to the three techniques discussed therein. This guidance states that a fair value measurement of an asset or liability using present value techniques should capture the following elements from the perspective of market participants as of the measurement date: an estimate of future cash flows, expectations about possible variations in the amount or timing (or both) of the cash flows, the time value of money, the price for bearing the uncertainty inherent in the cash flows (risk premium), other case-specific factors that would be considered by market participants, and in the case of a liability, the nonperformance risk relating to that liability, including the reporting entity's (obligor's) own credit risk.

1.21 FASB ASC 820-10-55-6 provides the general principles that govern any present value technique, as follows:

- Cash flows and discount rates should reflect assumptions that market participants would use in pricing the asset or liability.
- Cash flows and discount rates should consider only factors attributed to the asset (or liability) being measured.
- To avoid double counting or omitting the effects of risk factors, discount rates should reflect assumptions that are consistent with those inherent in the cash flows. For example, a discount rate that reflects expectations about future defaults is appropriate if using the contractual cash flows of a loan, but is not appropriate if the cash flows themselves are adjusted to reflect possible defaults.
- Assumptions about cash flows and discount rates should be applied consistently. For example, nominal cash flows (that include the effects of inflation) should be discounted at a rate that includes the effects of inflation.
- Discount rates should be consistent with the underlying economic factors of the currency in which the cash flows are denominated.

1.22 FASB ASC 820-10-55-9 describes how present value techniques differ in how they adjust for risk and in the type of cash flows they use. For example, the discount rate adjustment technique (also called the traditional present value technique) uses a risk-adjusted discount rate and contractual, promised, or most likely cash flows. In contrast, method 1 of the expected present value technique uses a risk-free rate and risk-adjusted expected cash flows. Method 2 of the expected present value technique uses a risk-adjusted discount rate (which is different from the rate used in the discount rate adjustment technique) and expected cash flows. In the expected present value technique, the probability-weighted average of all possible cash flows is referred to as *expected cash flows*. The traditional present value technique and two methods of expected present value techniques are discussed more fully in FASB ASC 820-10-55.

1.23 This guide includes guidance about measuring assets and liabilities using traditional present value techniques. That guidance is not intended to suggest that the income approach is the only one of the three approaches that is appropriate in the circumstances, nor is it intended to suggest that the traditional present value technique described in the guide is preferred over other present value techniques.

The Fair Value Hierarchy*

1.24 FASB ASC 820-10-35-51D emphasizes that fair value is a market-based measurement, not an entity-specific measurement. Therefore, as stated by FASB ASC 820-10-35-9, a fair value measurement should be determined based on the assumptions that market participants would use in pricing the asset or liability (referred to as *inputs*). Paragraphs 37–62 of FASB ASC 820-10-35 establish a fair value hierarchy that distinguishes between (*a*) market participant assumptions developed based upon market data obtained from sources independent of the reporting entity (observable inputs) and (*b*) the reporting entity's own assumptions about market participant assumptions developed based on the best information available in the circumstances (unobservable inputs). Valuation techniques used to measure fair value should maximize the use of observable inputs and minimize the use of unobservable inputs.

1.25 The fair value hierarchy in FASB ASC 820-10-35 prioritizes the inputs to valuation techniques used to measure fair value into three broad levels. The three levels are as follows:

- FASB ASC 820-10-35-40 states that level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or

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* In May 2011, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2011-04, *Fair Value Measurement (Topic 820): Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRSs*. According to FASB, the objective of this update is to improve the comparability of fair value measurements presented and disclosed in financial statements prepared in accordance with U.S. generally accepted accounting principles (GAAP) and International Financial Reporting Standards (IFRSs) by changing the wording used to describe many of the requirements in U.S. GAAP for measuring fair value and disclosing information about fair value measurements. The amendments include those that clarify FASB's intent about the application of existing fair value measurement and disclosure requirements and those that change a particular principle or requirement for measuring fair value or for disclosing information about fair value measurements. This ASU, which is to be applied prospectively, is effective during interim and annual periods beginning after December 15, 2011. Early application, which is not permitted for public entities, is permitted for nonpublic entities but no earlier than for interim periods beginning after December 15, 2011.

liabilities that the reporting entity has the ability to access at the measurement date. In addition, FASB ASC 820-10-35-41A states that the quoted price for the identical liability when traded as an asset in an active market is also a level 1 fair value measurement for that liability when no adjustments to the quoted price of the asset are required. An *active market*, as defined by the FASB ASC glossary, is a market in which transactions for the asset or liability occur with sufficient frequency and volume to provide pricing information on an ongoing basis. A quoted price in an active market provides the most reliable evidence of fair value and should be used to measure fair value whenever available, except as discussed in FASB ASC 820-10-35-43. FASB ASC 820-10-35-44 provides guidance on how the quoted price should not be adjusted because of the size of the position relative to trading volume (blockage factor), but rather should be measured within level 1 as the product of the quoted price for the individual instrument times the quantity held.

- Paragraphs 47–51 of FASB ASC 820-10-35 explain that level 2 inputs are inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly or indirectly. If the asset or liability has a specified (contractual) term, a level 2 input must be observable for substantially the full term of the asset or liability. Adjustments to level 2 inputs will vary depending on factors specific to the asset or liability. Those factors include the condition and location of the asset or liability, the extent to which the inputs relate to items that are comparable to the asset or liability, and the volume and level of activity in the markets within which the inputs are observed. According to FASB ASC 820-10-35-51, an adjustment that is significant to the fair value measurement in its entirety might render the measurement a level 3 measurement, depending on the level in the fair value hierarchy within which the inputs used to determine the adjustment fall. Level 2 inputs include

  — quoted prices for similar assets or liabilities in active markets;

  — quoted prices for identical or similar assets or liabilities in markets that are not active;

  — inputs other than quoted prices that are observable for the asset or liability (for example, interest rates and yield curves observable at commonly quoted intervals, volatilities, prepayment speeds, loss severities, credit risks, and default rates); and

  — inputs that are derived principally from or corroborated by observable market data by correlation or other means (market-corroborated inputs).

- As discussed in paragraphs 52–55 of FASB ASC 820-10-35, level 3 inputs are unobservable inputs for the asset or liability. Unobservable inputs should be used to measure fair value to the extent that relevant observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for

the asset or liability at the measurement date. Unobservable inputs should be developed based on the best information available in the circumstances, which might include the entity's own data. In developing unobservable inputs, the reporting entity need not undertake all possible efforts to obtain information about market participant assumptions. Unobservable inputs should reflect the reporting entity's own assumptions about the assumptions that market participants would use in pricing the asset or liability (including assumptions about risk). Assumptions about risk include the risk inherent in the inputs to the valuation technique. A measurement (for example, a mark-to-model measurement) that does not include an adjustment for risk would not represent a fair value measurement if market participants would include one in pricing the related asset or liability. The reporting entity should not ignore information about market participant assumptions that is reasonably available without undue cost and effort. Therefore, the entity's own data used to develop unobservable inputs should be adjusted if information is readily available without undue cost and effort that indicates that market participants would use different assumptions. FASB ASC 820-10-55-22 discusses level 3 inputs for particular assets and liabilities.

As explained in FASB ASC 820-10-35-37, in some cases, the inputs used to measure fair value might fall into different levels of the fair value hierarchy. The level in the fair value hierarchy within which the fair value measurement in its entirety falls should be determined based upon the lowest level input that is significant to the fair value measurement in its entirety.

1.26 As discussed in FASB ASC 820-10-35-38, the availability of inputs relevant to the asset or liability and the relative reliability of the inputs might affect the selection of appropriate valuation techniques. However, the fair value hierarchy prioritizes the inputs to valuation techniques, not the valuation techniques. For example, a fair value measurement using a present value technique might fall within level 2 or level 3, depending on the inputs that are significant to the measurement in its entirety and the level in the fair value hierarchy within which those inputs fall.

1.27 As stated by FASB ASC 820-10-35-15, the effect on a fair value measurement of a restriction on the sale or use of an asset by a reporting entity will differ depending on whether the restriction would be considered by market participants in pricing the asset in an active market. Example 6 (paragraphs 51–55) of FASB ASC 820-10-55 illustrates that restrictions that are an attribute of an asset, and therefore would transfer to a market participant, are the only restrictions reflected in fair value.

Fair Value Measurements of Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent)

1.28 Per paragraphs 58–62 of FASB ASC 820-10-35, FASB allows the use of a practical expedient, with appropriate disclosures, when measuring the fair value of an alternative investment that does not have a readily determinable fair value.

1.29 FASB indicated that the practical expedient was provided to reduce complexity and improves consistency and comparability in the application of FASB ASC 820, while reducing the costs of applying FASB ASC 820. This guidance also improves transparency by requiring additional disclosures about investments within its scope to enable users of financial statements to understand the nature and risks of investments and whether the investments are probable of being sold at amounts different from net asset value per share.

1.30 The use of the practical expedient, when measuring the fair value of an alternative investment that does not have a readily determinable fair value, is limited, as described in FASB ASC 820-10-15-4. As stated in that paragraph, this guidance only applies to an investment that meets both of the following criteria:

a. The investment does not have a readily determinable fair value.

b. The investment is in an entity that has all of the attributes specified in FASB ASC 946-10-15-2[2] or, if one or more of the attributes specified in FASB ASC 946-10-15-2 are not present, is in an entity for which it is industry practice to issue financial statements using guidance that is consistent with the measurement principles in FASB ASC 946, *Financial Services—Investment Companies*.

1.31 Examples of investments to which this guidance may apply include hedge funds, private equity funds, real estate funds, venture capital funds, offshore fund vehicles, and funds of funds.

1.32 FASB ASC 820-10-35-58 states that classification within the fair value hierarchy of a fair value measurement of an investment that is measured at net asset value per share requires judgment. This guidance provides considerations for determining the level within the fair value hierarchy that a fair value measurement of an investment at net asset value per share (or its equivalent) should be categorized.

1.33 Paragraphs 59–62 of FASB ASC 820-10-35 create a practical expedient to measure the fair value of an investment on the basis of the net asset value per share of the investment (or its equivalent) determined as of the measurement date. Therefore, certain attributes of the investment (such as restrictions on redemption) and transaction prices from principal-to-principal or brokered transactions will not be considered in measuring the fair value of the investment if the practical expedient is used. However, disclosures of restrictions on redemptions and other items described in FASB ASC 820-10-50-6A are necessary.

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[2] FASB *Accounting Standards Codification* (ASC) 946-10-15-2 limits the scope of FASB ASC 946, *Financial Services—Investment Companies*, to investment companies that have the following attributes:

a. Investment activity

b. Unit ownership

c. Pooling of funds

d. Reporting entity

Fair Value Determination When the Volume or Level of Activity Has Significantly Decreased

1.34 Paragraphs A–H of FASB ASC 820-10-35-51 clarify the application of FASB ASC 820 in determining fair value when the volume and level of activity for the asset or liability has significantly decreased. Guidance is also included in identifying transactions that are not orderly. In addition, paragraphs A–I of FASB ASC 820-10-55-59 provide illustrations on the application of this guidance.

1.35 This guidance does not apply to quoted prices for an identical asset or liability in an active market (level 1 inputs) or to identical liabilities traded as assets (unadjusted). For example, although the volume and level of activity for an asset or liability may significantly decrease, transactions for the asset or liability may still occur with sufficient frequency and volume to provide pricing information on an ongoing basis.

1.36 Consistent with FASB ASC 820-10-35-51D, when determining fair value when the volume and level of activity for the asset or liability has significantly decreased, the objective of a fair value measurement remains the same. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction (not a forced liquidation or distressed sale) between market participants at the measurement date under current market conditions. FASB ASC 820-10-35-51A lists a number of factors that may be evaluated to determine whether there has been a significant decrease in the volume and level of activity for the asset or liability (or similar assets or liabilities) when compared with normal market activity. According to FASB ASC 820-10-35-51B, if, after evaluating the factors, the conclusion is reached that there has been a significant decrease in the volume and level of activity for the asset or liability in relation to normal market conditions, transactions or quoted prices may not be determinative of fair value. Further analysis of the transactions or quoted prices is needed, and a significant adjustment to the transactions or quoted prices may be necessary to estimate fair value in accordance with FASB ASC 820-10. According to FASB ASC 820-10-35-51C, the objective is to determine the point within the range of fair value estimates that is most representative of fair value under the current market conditions. A wide range of fair value estimates may be an indication that further analysis is needed.

1.37 FASB ASC 820-10-35-51D states that determining the price at which willing market participants would transact at the measurement date under current market conditions if there has been a significant decrease in the volume and level of activity for the asset or liability depends on the facts and circumstances and requires the use of significant judgment. The reporting entity's intention to hold the asset or liability is not relevant however, because fair value is a market-based measurement, not an entity-specific measurement.

1.38 According to FASB ASC 820-10-35-51E, an entity should evaluate the circumstances to determine whether the transaction is orderly based on the weight of the available evidence. Circumstances that may indicate that a transaction is not orderly and guidance that should be considered in the determination are found in paragraphs 51E–51F of FASB ASC 820-10-35. Even if there has been a significant decrease in the volume and level of activity for the asset or liability, it is not appropriate to conclude that all transactions are not orderly (that is, distressed or forced). In making the determination concerning

whether a transaction is orderly, an entity does not need to undertake all possible efforts, but should not ignore information that is readily available without undue cost and effort. The reporting entity would be expected to have sufficient information to conclude whether a transaction is orderly when it is party to the transaction. Refer to FASB ASC 820 for more information.

Disclosures[3]

1.39 FASB ASC 820-10-50 discusses certain disclosures required for assets and liabilities measured at fair value. For assets and liabilities that are measured at fair value on a recurring basis in periods subsequent to initial recognition or that are measured on a nonrecurring basis in periods subsequent to initial recognition, FASB ASC 820-10-50 requires the reporting entity to disclose certain information that enables users of its financial statements to assess the inputs used to develop those measurements. For recurring fair value measurements using significant unobservable inputs (level 3), the reporting entity is required to disclose certain information to help users assess the effect of the measurements on earnings for the period.†

Fair Value Option‡

1.40 FASB ASC 825, *Financial Instruments*, creates a fair value option under which an entity may irrevocably elect fair value as the initial and subsequent measure for many financial instruments and certain other items, with changes in fair value recognized in the statement of activities as those changes

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[3] FASB Staff Position FAS 157-4, *Determining Fair Value When the Volume and Level of Activity for the Asset or Liability Have Significantly Decreased and Identifying Transactions That Are Not Orderly*, amends the disclosure requirements of FASB ASC 820, *Fair Value Measurement*, to disclose in interim and annual periods the inputs and valuation technique(s) used to measure fair value and a discussion of changes in valuation techniques and related inputs, if any, during the period. It also states that for equity and debt securities "major category" should be defined as major security type as described in FASB ASC 942-320-50-2 even if the equity securities or debt securities are not within the scope of FASB ASC 942-320. The revised disclosure requirements can be found in "Pending Content" in paragraphs 2 and 5 of FASB ASC 820-10-50.

† In January 2010, FASB issued ASU No. 2010-06, *Fair Value Measurements and Disclosures (Topic 820): Improving Disclosures about Fair Value Measurements*. This ASU establishes new disclosure requirements regarding transfers in and out of levels 1 and 2 of the fair value hierarchy and activity in level 3 fair value measurements. It also clarifies certain existing disclosures within FASB ASC 820-10-50 regarding level of disaggregation and inputs and valuation techniques. The amendments in this ASU will be effective for interim and annual reporting periods beginning after December 15, 2009, except for the disclosures in the level 3 fair value measurement roll forward. Those disclosures are effective for fiscal years beginning after December 15, 2010, and for interim periods within those fiscal years. Examples related to the guidance in this ASU were added to FASB ASC 820-10-55. The guidance referenced in this paragraph is amended by this ASU. Readers are encouraged to review the ASU in its entirety.

‡ In March 2010, FASB issued ASU No. 2010-11, *Derivatives and Hedging (Topic 815): Scope Exception Related to Embedded Credit Derivatives*. The amendments in this ASU, among other things, clarify the scope exception under paragraphs 8–9 of FASB ASC 815-15 for embedded credit derivative features related to the transfer of credit risk in the form of subordination of one financial instrument to another. Further, the amendments address how to determine which embedded credit derivatives, including those in collateralized debt obligations and synthetic collateralized debt obligations, are considered to be embedded derivatives that should not be analyzed under FASB ASC 815-15-25 for potential bifurcation and separate accounting. At the date of adoption of this ASU, an entity may elect the fair value option for any investment in a beneficial interest in a securitized financial asset (that is, the entity may irrevocably elect to measure that investment in its entirety at fair value [with changes in fair value recognized in earnings]). The amendments in ASU No. 2010-11 are effective for each reporting entity at the beginning of its first fiscal quarter beginning after June 15, 2010. Early adoption is permitted at the beginning of each entity's first fiscal quarter beginning after issuance of this ASU.

occur. FASB ASC 825-10-35-4 explains that a business entity should report unrealized gains and losses on items for which the fair value option has been elected in earnings at each subsequent reporting date. An election is made on an instrument-by-instrument basis (with certain exceptions), generally when an instrument is initially recognized in the financial statements. The fair value option need not be applied to all identical items, except as required by FASB ASC 825-10-25-7. Most financial assets and financial liabilities are eligible to be recognized using the fair value option, as are firm commitments for financial instruments and certain nonfinancial contracts. Paragraphs 4–6 of FASB ASC 815-15-25 discuss the fair value election for hybrid financial instruments.

1.41 As explained in FASB ASC 825-10-15-5, specifically excluded from eligibility are an investment in a subsidiary that the entity is required to consolidate, an interest in a variable interest entity that the entity is required to consolidate, employer's and plan's obligations for pension benefits, other postretirement benefits (including health care and life insurance benefits), postemployment benefits, employee stock option and stock purchase plans, and other forms of deferred compensation arrangements (or assets representing net overfunded positions in those plans), financial assets and liabilities recognized under leases (this does not apply to a guarantee of a third-party lease obligation or a contingent obligation arising from a cancelled lease), deposit liabilities of depository institutions, and financial instruments that are, in whole or in part, classified by the issuer as a component of shareholder's equity (including temporary equity).

1.42 FASB ASC 825-10-45 and 825-10-50 also include presentation and disclosure requirements designed to facilitate comparisons between entities that choose different measurement attributes for similar types of assets and liabilities. Paragraphs 1–2 of FASB ASC 825-10-45 state that entities should report assets and liabilities that are measured using the fair value option in a manner that separates those reported fair values from the carrying amounts of similar assets and liabilities measured using another measurement attribute. To accomplish that, an entity should either (*a*) report the aggregate of both fair value and non-fair-value items on a single line item, with the fair value amount parenthetically disclosed or (*b*) present separate lines for the fair value carrying amounts and the non-fair-value carrying amounts. As discussed in FASB ASC 825-10-25-3, upfront costs and fees, such as debt issuance costs, may not be deferred for items which the fair value option has been elected.

Chapter 2

An Overview of Derivatives and Securities

2.01 History has shown us that businesses have employed creative techniques to maximize profits since ancient times. For example, the Greek philosopher Thales of Miletus studied the weather patterns and astronomical charts and concluded that the upcoming olive crop would be one of the largest on record. Armed with that knowledge, he visited all the olive press owners in the area. In return for a payment from Thales, the press owners granted Thales the exclusive right to use their presses during the upcoming harvest. The harvest came and, as Thales had predicted, it was truly a bumper crop. Olive presses were in high demand. With his exclusive right to all the presses, Thales was able to charge whatever he wanted for their use.

2.02 The story of Thales illustrates two conditions that continue to help shape the creation of derivatives and securities today, a business need and innovation:

- Thales' contract helped solve a business problem faced by the owners of the olive presses. Before Thales, the owners' profits varied according to the size of the olive harvest. Thales gave them a way to guarantee a minimum level of revenue.
- Thales' contract was not just a product of his analytical skills (the ability to predict the weather), but also a function of his imagination. He used his knowledge to create something new.

2.03 Entities enter into derivatives and securities transactions for a wide variety of business purposes; for example,

- debt and equity securities provide a source of income through investment or resale; and
- derivatives are used for investment, risk management, or both.

2.04 If the use of a derivative is to be a viable and useful business strategy, it must fill an economic need. Although the various participants in the derivatives markets have different goals, the fundamental purpose of derivatives is the transfer of risk; that is, the ability to transfer the risk of changes in the fair value or cash flows of an asset, liability, or future transaction. All other financial goals, uses, and activities concerning derivatives and the derivatives markets are based on this fundamental economic purpose.

2.05 Participants in the derivatives markets are made up of

- financial intermediaries;
- exchanges that maintain an orderly market;
- traders who buy and sell derivatives; and
- end users.

Financial intermediaries and exchanges generate earnings by charging commissions and related fees on the purchase and sale of derivatives. Traders seek to generate earnings from the actual purchase and sale of derivatives.

2.06 There are two basic types of end users of derivatives—hedgers and investors:

hedgers. The essential goal of hedgers is to reduce the risk of loss, reduce the variability of future outcomes, or both. The hedger enters into a derivative to protect against changes in the fair value or cash flows of an asset, liability, or future transaction. The expected result is to build or protect core earnings and cash flows. The financial impact of changes in the fair value of the derivative is expected to offset as much as possible the financial impact of changes in the fair value or cash flows of an asset, liability, or future transaction. Hedging is a business practice used by many types of entities, including manufacturers, not-for-profit entities, banks, insurance companies, investment managers, energy companies, and construction-related contractors. It is the predominant business use of derivatives.

investors. Although hedgers want to reduce or eliminate the effect of changes in fair value or cash flows of an asset, liability, or future transaction, investors want to profit from such changes. They take positions, either long or short, in derivatives, based on their expectation of a change in the fair value of the derivatives, in order to generate earnings and cash flows. An arbitrageur is an investor who attempts to lock in near risk-free earnings by simultaneously entering into the purchase and sale of substantially identical financial instruments. The arbitrageur's goal is to profit from price differences between the two instruments by identifying price relationships or differentials that the markets will correct within a short period of time.

2.07 As the nature of business changes, the types and uses of derivatives and securities also change. Since the 1980s, the pace of financial innovation has accelerated sharply. Faced with rapidly changing business conditions and drawing on a large number of creative financial minds, entities have used an ever-growing variety of derivatives and securities. The dynamic nature of financial markets together with the increasing number of complex derivatives and securities pose unique challenges for auditors. The purpose of this chapter is to provide a basic understanding of derivatives and securities, which is critical if auditors are to successfully meet those challenges. This chapter defines *derivatives* and *securities* and then discusses the types, business purpose, and risk characteristics of various instruments.

Definition and Uses of Derivatives

Definition

2.08 Derivatives get their name because they derive their value from movements in an underlying, such as changes in the price of a security or a commodity. For example, a stock option contract derives its value from changes in the price of the underlying stock—as the price of the stock fluctuates, so too does the price of the related option. AU section 332, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* (AICPA, *Professional Standards*), uses the definition of *derivative instrument* that is in paragraphs 83–139 of Financial Accounting Standards Board (FASB) *Accounting Standards Codification* (ASC) 815-10-15. Under that definition, a derivative instrument is a financial instrument or other contract with all three of the following characteristics:

- It has (*a*) one or more underlyings and (*b*) one or more notional amounts or payment provisions, or both. Those terms determine the amount of the settlement or settlements, and, in some cases, whether or not a settlement is required.
- It requires no initial net investment or an initial net investment that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors.
- Its terms implicitly or explicitly require or permit net settlement, it can readily be settled net by a means outside the contract, or it provides for delivery of an asset that puts the recipient in a position not substantially different from net settlement.

Per FASB ASC 815-10-15-71, notwithstanding these characteristics, loan commitments that relate to the origination of mortgage loans that will be held for sale, as discussed in FASB ASC 948-310-25-3, should be accounted for as derivative instruments by the issuer of the loan commitment (that is, the potential lender). Refer to FASB ASC 815-10-15-13 for scope exceptions pertaining to the accounting for loan commitments by issuers of certain commitments to originate loans and all holders of commitments to originate loans (that is, the potential borrowers).[1]

2.09 Knowledge of the following terms that are listed in the glossary of this guide will be helpful in considering whether a financial instrument or other contract meets the definition of a derivative:

- Underlying
- Notional amount
- Payment provision
- Initial net investment
- Net settlement
- Options
- Forward exchange contract
- Futures contract
- Swaps

2.10 A derivative may be a freestanding contract or it may be an embedded feature of a contract. Contracts that do not in their entirety meet the definition of a derivative (for example, bonds, insurance policies, and leases) may contain terms that affect the cash flows or the value of other exchanges in a manner similar to a derivative. The effect of these "embedded derivatives" is that some or all of the cash flows or other exchanges otherwise required by the contract,

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[1] The Securities and Exchange Commission Staff Accounting Bulletin (SAB) No. 109, *Written Loan Commitments Recorded at Fair Value Through Earnings* (Codification of Staff Accounting Bulletins, Topic 5[DD]), supersedes SAB No. 105, *Application of Accounting Principles to Loan Commitments*, and expresses the current view of the staff that, consistent with the guidance in Financial Accounting Standards Board (FASB) *Accounting Standards Codification* (ASC) 860, *Transfers and Servicing*, and FASB ASC 825, *Financial Instruments*, the expected net future cash flows related to the associated servicing of the loan should be included in the measurement of all written loan commitments that are accounted for at fair value through earnings. The expected net future cash flows related to the associated servicing of the loan that are included in the fair value measurement of a derivative loan commitment or a written loan commitment should be determined in the same manner that the fair value of a recognized servicing asset or liability is measured under FASB ASC 860.

whether unconditional or contingent upon the occurrence of a specified event, will be modified based on one or more underlyings.

Examples and Illustrations. The case studies included in later chapters of this guide provide more details on how various derivatives are structured, priced, and entered into:

- Options—chapter 11, "Case Study of the Use of a Put Option to Hedge an Available-for-Sale Security," and chapter 14, "Case Study of the Use of a Foreign-Currency Put Option to Hedge a Forecasted Sale Denominated in a Foreign Currency"
- Embedded derivatives—chapter 12, "Case Study of Separately Accounting for a Derivative Embedded in a Bond"
- Swaps—chapter 13, "Case Study of the Use of an Interest Rate Swap to Hedge Existing Debt"

Hedging Activities and Managing Risk

2.11 Entities that use derivatives to manage risk are involved in hedging activities. Hedging is a risk alteration activity that protects the entity against the risk of adverse changes in the fair values or cash flows of assets, liabilities, or future transactions. A hedge is a defensive strategy. It is used to alter risks by creating a relationship by which losses on certain positions (assets, liabilities, or future transactions) are expected to be counterbalanced in whole or in part by gains on separate positions.

2.12 FASB ASC 815-20 provides guidance on three types of hedging activities:

- A hedge of the exposure to changes in the fair value of a recognized asset or liability, or of an unrecognized firm commitment, that are attributable to a particular risk (referred to as a *fair value hedge*)
- A hedge of the exposure to variability in the cash flows of a recognized asset or liability, or of a forecasted transaction, that is attributable to a particular risk (referred to as a *cash flow hedge*)
- Foreign currency hedges, as described in FASB ASC 815-20-25-28:
  - — A fair value hedge of an unrecognized firm commitment or a recognized asset or liability, including an available-for-sale security (a foreign currency fair value hedge)
  - — A cash flow hedge of a forecasted transaction, an unrecognized firm commitment, the forecasted functional-currency-equivalent cash flows associated with a recognized asset or liability, or a forecasted intraentity transaction (a foreign currency cash flow hedge)
  - — A hedge of a net investment in a foreign operation

2.13 Exhibit 2-1, "Common Fair Value Hedging Strategies," describes fair value hedging strategies, and exhibit 2-2, "Common Cash Flow Hedging Strategies," describes cash flow hedging strategies. Foreign currency hedges are discussed in chapter 3, "General Accounting Considerations for Derivatives and Securities."

Exhibit 2-1

Common Fair Value Hedging Strategies*

Fair Value Exposure	*Hedging Strategy*
Recognized assets and liabilities	
Fixed-rate assets—exposure to changes in fair value	Convert the interest received to variable by entering into an interest rate swap. Terms of the swap call for receipt of interest at a variable rate and payment of interest at a fixed rate.
	Lock in a minimum value by purchasing a put option to sell the asset at a specified price.
Fixed-rate liabilities—exposure to changes in fair value	Convert the interest paid to variable by entering into an interest rate swap. Terms of the swap call for receipt of interest at a fixed rate and payment of interest at a variable rate.
	Lock in a maximum value by purchasing an interest rate floor option.
Firm commitments	
Commitment to issue a fixed-rate debt obligation—exposure to changes in fair value due to changes in market interest rates to date of issuance	Participate in changes in market interest rates from the commitment date through the date of issuance by entering into an interest rate futures contract to purchase U.S. Treasury securities.
Commitment to purchase inventory—exposure to changes in fair value due to changes in market prices to date of purchase	Participate in changes in the fair value of the inventory to date of purchase by entering into a forward contract to sell inventory.
Commitment to sell inventory—exposure to changes in fair value due to changes in market prices to date of sale	Participate in changes in the fair value of the inventory to date of sale by entering into a forward contract to purchase inventory.

* Reproduced from exhibit 5.1 of the *Derivatives and Hedging Accounting Handbook*, by KPMG LLP, p. 5–2. Reprinted by permission. All information provided is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in

(continued)

Exhibit 2-1—continued

Common Fair Value Hedging Strategies

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the future. No one should act upon such information without appropriate professional advice after a thorough examination of the facts of a particular situation. For additional news and information, please access KPMG LLP's website at www.us.kpmg.com.

Examples and Illustrations. Examples of fair value hedges are presented in chapters 11 and 13.

Exhibit 2-2

Common Cash Flow Hedging Strategies*

Cash Flow Exposure	*Hedging Strategy*
Recognized assets and liabilities	
Variable-rate assets—exposure to variability in interest receipts	Convert the interest received to fixed by entering into an interest rate swap for receipt of interest at a fixed rate and payment of interest at a variable rate.
	Lock in a minimum yield by purchasing an interest rate floor option.
Variable-rate liabilities—exposure to variability in interest payments	Convert the interest paid to fixed by entering into an interest rate swap for receipt of interest at a variable rate and payment of interest at a fixed rate.
	Lock in a maximum cost of funds by purchasing an interest rate cap option.
Forecasted transactions	
Forecasted sale of a mortgage loan—exposure to variability in market prices to date of sale	Lock in a minimum price on the forecasted sale of a mortgage loan by purchasing a put option.
Forecasted issuance of a debt obligation—exposure to variability in market interest rates to date of issuance	Fix the contractual interest rate on the forecasted issuance of a debt obligation by entering into an interest rate lock agreement or forward starting interest rate swap.
Forecasted purchase of inventory—exposure to variability in market prices to date of purchase	Lock in the cost of a forecasted purchase of inventory by entering into a forward contract to purchase inventory.
Forecasted sale of inventory—exposure to variability in market prices to date of sale	Lock in the sales price of inventory by entering into a forward contract to sell inventory.

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(continued)

Exhibit 2-2—continued

Common Fair Value Hedging Strategies

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the future. No one should act upon such information without appropriate professional advice after a thorough examination of the facts of a particular situation. For additional news and information, please access KPMG LLP's website at www.us.kpmg.com.

Examples and Illustrations. An example of a cash flow hedge is presented in chapter 14.

Hedging Examples

2.14 The following examples illustrate how derivatives can be used as a hedge to manage risk.

Fair Value Hedge of a Titanium Firm Commitment

Description: Action Sports Co. is required by its supplier to lock in the price of titanium purchases that will occur in 6 months. At January 1, 20X1, Action Sports Co. enters into a firm commitment with its titanium supplier to purchase 10,000 units of titanium at June 30, 20X1, for $310 per unit.

Sensitivity: Action Sports Co. has a long firm commitment, which means that the entity has been placed economically in an ownership position and is locked into a price for titanium. Action Sports Co. does not want to be locked into this price; it wants to pay the market price at June 30, 20X1, but its supplier requires this commitment.

Transaction: To unlock this commitment and be able to pay the market price for titanium at June 30, 20X1, Action Sports Co. takes a short position in titanium by entering into a forward contract on January 1, 20X1. The entity agrees to sell 10,000 units of titanium at the forward price of $310 per unit at June 30, 20X1, to offset the January 1, 20X1, firm commitment to purchase from its supplier. Thus, if prices decrease below $310 per unit, the short position in the forward contract will gain in value, offsetting the above-market cost of the titanium Action Sports Co. is committed to pay at June 30, 20X1.

Settlement: On June 30, 20X1, the spot rate for titanium is $285 per unit. On the forward contract, Action Sports Co. has a gain of $250,000 ($25 [$310 less $285] per unit times 10,000 units). This gain offsets the $250,000 loss on the firm commitment, which is the amount above the then current market price the entity was obligated to pay its supplier.

Cash Flow Hedge of a Forecasted Transaction

Description: On January 1, 20X1, XYZ Company forecasts borrowing $100 million at December 31, 20X1. The debt will be fixed-rate and noncallable, with a 5-year term.

Sensitivity: Because the debt will have a fixed-rate of 6 percent, XYZ is not exposed to variability in interest payments. However, it will be exposed to variability in the proceeds received when the debt is issued. XYZ wants to lock in the variability of the proceeds due to changes in the risk-free rate in effect at January 1, 20X1.

Transaction: XYZ hedges the variability of the debt proceeds by entering into a 1-year futures contract to sell 5-year treasury notes at December 31, 20X1, at the forward rate of 6 percent. If rates increase, the short position in the futures contract will gain in value, offsetting the decrease in the proceeds from the debt issuance at December 31, 20X1.

Settlement: On December 31, 20X1, the interest rate on 5-year treasury notes was 7 percent. This rise in interest rates increased the value of XYZ's futures contract. XYZ closed its futures position (for example, by entering into an offsetting futures contract). Assuming that the hedging relationship is perfectly effective, the gain on the futures contract is included in other comprehensive income and is reclassified into earnings over the 5-year term of the debt, resulting in a 6 percent

risk-free rate component, which was the risk-free rate at January 1, 20X1.

Cash Flow Hedge of a Variable-Rate Debt

Description: On January 1, 20X1, XYZ issued a $100 million note based on the London Interbank Offered Rate (LIBOR), with semiannual payments and semiannual variable-rate reset. The debt is noncallable, with a 5-year term. The current LIBOR rate is 5.7 percent.

Sensitivity: XYZ is exposed to changes in interest rates and wants to lock in an 8 percent fixed rate. (Note: XYZ did not issue fixed-rate debt in the first place because it has a low credit rating and found it more cost-effective to issue a variable-rate debt and then enter into a swap to create a fixed-rate liability.)

Transaction: XYZ enters into an interest rate swap to pay 8 percent fixed and receive LIBOR plus 2 percent. The swap terms include a $100 million notional principal, a 5-year term, and semiannual variable-rate reset. At the hedge inception, the swap is at-the-money. The swap fixes the semiannual net interest expense at $4 million.

Settlement: At each interest payment date, XYZ receives from (or pays to) the counterparty the difference between $4 million (semiannual fixed-rate interest) and the amount due on the variable-rate debt, achieving fixed 8 percent debt.

Definitions and Examples of Securities

2.15 AU section 332 uses the definitions of *debt* and *equity securities* that are in the FASB ASC glossary.[2] However, although AU section 332 uses those definitions, its scope includes securities that meet the definitions but are excluded from the scope of FASB ASC 320-10. For example, investments accounted for by the equity method meet the definition of an equity security and are included in the scope of AU section 332, despite the fact they are excluded from the provisions of FASB ASC 320-10.

Debt Securities

2.16 A *debt security* represents a creditor relationship with the issuer of the security. Under the guidance contained in the FASB ASC glossary, a debt security may also be

- preferred stock that, by its terms, either must be redeemed by the issuing entity or is redeemable at the option of the investor;
- a collateralized mortgage obligation (CMO) or other instrument that is issued in equity form but is required to be accounted for as a nonequity instrument, regardless of how that instrument is classified (that is, whether equity or debt) in the issuer's statement of financial position;

[2] FASB ASC 825-10 permits entities to choose to measure many financial instruments and certain other items at fair value that are not currently required to be measured at fair value. FASB ASC 825-10 also includes presentation and disclosure requirements designed to facilitate comparisons between entities that choose different measurement attributes for similar types of assets and liabilities. FASB ASC 825 does not eliminate disclosure requirements included in other accounting standards, including requirements for disclosures about fair value measurements included in FASB ASC 820, *Fair Value Measurement*.

- U.S. Treasury securities;
- U.S. government agency securities;
- municipal securities;
- corporate bonds;
- convertible debt;
- commercial paper;
- all securitized debt instruments, such as real estate mortgage investment conduits; and
- interest-only and principal-only strips.

2.17 The most common type of securitized debt instruments are CMOs, which are collateralized by a pool of mortgages. The cash flows of the collateral are used to fund the return on the investment to investors. CMOs are issued in segments, or tranches, which allows the issuer to tailor the risks associated with holding the CMOs to meet the needs of particular groups of investors. CMOs are priced based on their own maturity and rate of return rather than that of the underlying mortgages.

2.18 Interest-only and principal-only strips are similar to CMOs in that they are collateralized by a pool of mortgages. However, investors in interest-only securities have rights only to the interest portion of the cash flows from the underlying mortgages, while principal-only investors have the rights to the principal cash flows.

Equity Securities

2.19 According to the FASB ASC glossary, *equity securities* are any securities representing an ownership interest in an entity (such as common, preferred, or other capital stock) or the right to acquire (for example, warrants, rights, and call options) or dispose of (for example, put options) an ownership interest in an entity at a fixed or determinable price. However, the term does not include convertible debt or preferred stock that by its terms either must be redeemed by the issuing entity or is redeemable at the option of the investor.

Risks Associated With Derivatives and Securities

2.20 Derivatives and securities may be subject to a variety of risks related to external factors, such as

- credit risk, which exposes the entity to the risk of loss as a result of the issuer of a debt security or the counterparty to a derivative failing to meet its payment obligation.
- market risk, which exposes the entity to the risk of loss from adverse changes in market factors that affect the fair value of a derivative or security, such as changes in interest rates, foreign exchange rates, and market indexes for equity securities.
- basis risk, which exposes the entity to the risk of loss from ineffective hedging activities. Basis risk is the difference between the fair value (or cash flows) of the hedged item and the fair value (or cash flows) of the hedging derivative. The entity is subject to the risk that fair values (or cash flows) will change so that the hedge will no longer be effective.

- legal risk, which exposes the entity to the risk of loss from a legal or regulatory action that invalidates or otherwise precludes performance by one or both parties to the derivative or security.
- settlement risk, which is the related exposure that a counterparty may fail to perform under a contract after the entity has delivered funds or assets according to its obligation under the contract.
- counterparty risk, which connotes the exposure to the aggregate credit risk posed by all transactions within one counterparty.
- price risk, which relates to changes in the level of prices due to changes in (*a*) interest rates, (*b*) foreign exchange rates, or (*c*) other factors that relate to market volatilities of the rate, index, or price underlying the derivative.
- liquidity risk, which relates to changes in the ability to sell, dispose of, or close out the derivative instruments or investment in securities, thus affecting its value. This may be due to a lack of sufficient contracts or willing counterparties.
- valuation or model risk, which represents the risk associated with the imperfection and subjectivity of models and the related assumptions used to value certain derivative instruments and investments in securities.

The Need for Special Skill or Knowledge

2.21 According to paragraph .05 of AU section 332, the auditor may need special skill or knowledge to plan and perform auditing procedures for certain assertions about derivatives and securities. Examples of such auditing procedures and the special skill or knowledge required include the following:

- Information systems
- Service organization controls
- Application of generally accepted accounting principles
- Estimates of fair value
- Inherent and control risks for hedging activities

2.22 Just as auditors may need special skills or knowledge to plan and perform audit procedures, the complex nature of derivative instruments may necessitate management's use of a specialist. In today's environment, primarily driven by independence concerns, a nonissuer may engage an accountant in public practice (or his or her firm), other than the entity's independent auditor, as an advisory accountant to assist management in certain accounting or reporting functions. In this capacity, an advisory accountant may be frequently asked to provide advice (not a second opinion) on the application of accounting principles or to assist management in formulating its accounting positions prior to discussing such positions with its auditor. For example, an advisory accountant may be engaged by an entity to advise on the proper accounting for a complex derivative transaction. Interpretation No. 1, "Requirement to Consult With the Continuing Accountant," of AU section 625, *Reports on the Application of Accounting Principles* (AICPA, *Professional Standards*, AU sec. 9625 par. .01–.09), provides guidance to an advisory accountant on the requirement to consult with the continuing accountant (or independent auditor).

Summary: Audit Implications

- The pace of financial innovation has accelerated sharply. The added variety of derivatives and securities and their increasing complexity pose unique challenges for auditors.
- The nature of derivatives or securities transactions an entity enters into may vary, depending on the business objective of the entity. The auditor needs to identify, understand, and differentiate the ways the entity uses derivative instruments and investments in securities and tailor auditing procedures for each type of use.
- Special skill or knowledge may be necessary to plan and perform auditing procedures for derivative instruments and investments in securities.

Chapter 3

General Accounting Considerations for Derivatives and Securities

3.01 This chapter summarizes selected accounting guidance on derivatives and securities and is intended merely to provide background information to help auditors understand and implement the auditing guidance contained in AU section 332, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* (AICPA, *Professional Standards*), and this guide. Reference to applicable standards and accounting guidance is necessary when the auditor considers whether the measurement and disclosure of an entity's derivatives and securities are in conformity with U.S. generally accepted accounting principles (U.S. GAAP).

3.02 Guidance on the accounting for derivatives is provided in Financial Accounting Standards Board (FASB) *Accounting Standards Codification* (ASC) 815, *Derivatives and Hedging*.

3.03 In general, FASB ASC 815-10-25-1 requires an entity to recognize all derivatives as either assets or liabilities in the statement of financial position depending on the rights and obligations under the contracts.

3.04 Unrealized gains and losses attributed to changes in a derivative's fair value are accounted for differently, generally depending on whether the derivative is designated as a hedge and if so, the type of hedge and the degree to which the hedge is effective.

3.05 Paragraphs 2.08–.09 discuss the definition of derivative instruments as provided by paragraphs 83–139 of FASB ASC 815-10-15. Not all contracts that meet the definition of a derivative are subject to the provisions of FASB ASC 815. FASB ASC 815-10-15-13 specifically excludes certain contracts from its provisions, if specified criteria are met. Criteria that must be met for scope exceptions are outlined in paragraphs 15–82 of FASB ASC 815-10-15. FASB ASC 815-10-15-74 describes certain contracts involving an entity's own equity that should not be considered to be derivative instruments. These excluded contracts are listed in exhibit 3-1, "Derivatives Excluded From FASB ASC 815," and are not covered by AU section 332 or this guide.

Exhibit 3-1

Derivatives Excluded From FASB ASC 815

- "Regular-way" security trades
- Normal purchases and normal sales
- Certain insurance contracts
- Certain financial guarantee contracts
- Certain contracts that are not traded on an exchange
- Derivatives that serve as impediments to sales accounting
- Investments in life insurance
- Certain investment contracts

(continued)

Exhibit 3-1—continued

Derivatives Excluded From FASB ASC 815

- Certain loan commitments
- Certain interest-only strips and principal-only strips
- Contracts issued or held by the reporting entity that are both indexed to its own stock and classified as equity in its statement of financial position
- Contracts issued by the entity that are subject to FASB ASC 718, *Compensation—Stock Compensation*, or FASB ASC 505-50
- Contracts between an acquirer and a seller to enter into a business combination or an acquisition by a not-for-profit entity, or contracts between not-for-profit entities to enter into a merger of not-for-profit entities at a future date
- Forward contracts that require settlement by the reporting entity's delivery of cash in exchange for the acquisition of a fixed number of its equity shares (forward purchase contracts for the reporting entity's shares that require physical settlement) that are accounted for under FASB ASC 480, *Distinguishing Liabilities from Equity*
- Leases
- Residual value guarantees
- Registration payment arrangements

3.06 As discussed in chapter 2, "An Overview of Derivatives and Securities," a derivative may be an embedded feature of a contract that does not in its entirety meet the definition of a derivative (for example, bonds, insurance policies, and leases). An embedded derivative modifies the cash flows or other exchanges otherwise required by the contract. An entity cannot circumvent the accounting requirements of FASB ASC 815 by simply embedding a derivative in a nonderivative contract (referred to as the *host contract*). FASB ASC 815-15-25-1 provides guidance when an embedded derivative should be separated from its host contract and accounted for separately. An embedded derivative should be separated from the host contract and accounted for separately as a derivative if and only if all the following criteria are met:

- The economic characteristics and risks of the embedded derivative are not clearly and closely related to the economic characteristics and risks of the host contract.
- The hybrid instrument (the contract that embodies both an embedded derivative and a host contract, according to the FASB ASC glossary) is not remeasured at fair value under otherwise applicable U.S. GAAP with changes in fair value reported in earnings as they occur.
- A separate instrument with the same terms as the embedded derivative would be subject to FASB ASC 815-10-15. (The initial net investment for the hybrid instrument should not be considered to be the initial net investment for the embedded derivative.)

3.07 A put or call option in a note receivable for the holder of the note to convert principal outstanding to equity may be an example of an embedded derivative that should be accounted for separately as a derivative. (However,

the issuer of the note would not separately account for the option as an embedded derivative.)

Examples and Illustrations. Chapter 7, "Performing Audit Procedures In Response to Assessed Risks," provides guidance on evaluating completeness assertions about embedded derivatives, and chapter 12, "Case Study of Separately Accounting for a Derivative Embedded in a Bond," provides a case study on embedded derivatives.

Measurement of Derivatives

3.08 FASB ASC 815-10-30-1 and 815-10-35-1 require all derivatives reported in the statement of financial position to be measured both initially and subsequently at fair value as defined by the FASB ASC glossary.[1] *Fair value* is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

3.09 FASB ASC 820-10-35-41 states that quoted market prices in active markets are the most reliable evidence of fair value and should be used as the basis for the measurement, if available (exceptions are noted in FASB ASC 820-10-35-16D, 820-10-35-42, and 820-10-35-43). Per FASB ASC 820-10-35-44, if the reporting entity holds a position in a single financial instrument (including a block) and the instrument is traded in an active market, the fair value of the position should be measured using level 1 inputs as the product of the quoted price for the individual instrument and the quantity held. The quoted price should not be adjusted because of the size of the position relative to trading volume (blockage factor). The use of a blockage factor in determining fair value is prohibited, even if a market's normal daily trading volume is not sufficient to absorb the quantity held and placing orders to sell the position in a single transaction might affect the quoted price.

3.10 The estimate of fair value may consider quoted prices for similar assets or similar liabilities and the results of valuation techniques to the extent available in the circumstances. Examples of valuation techniques may include the present value of estimated expected future cash flows using discount rates commensurate with the risks involved, option-pricing models, matrix pricing, option-adjusted spread models, and fundamental analysis. Valuation techniques for measuring assets and liabilities should be consistent with the objective of measuring fair value.

3.11 According to FASB ASC 820-10-55-1(d), the appropriate valuation techniques should incorporate assumptions that market participants would use in pricing the asset or liability and the level in the fair value hierarchy within which the inputs fall. Those assumptions may include assumptions

[1] FASB ASC 825, *Financial Instruments*, permits entities to choose to measure many financial instruments and certain other items at fair value that are not currently required to be measured at fair value. FASB ASC 825-10-50 establishes presentation and disclosure requirements designed to facilitate comparisons between entities that choose different measurement attributes for similar types of assets and liabilities. FASB ASC 825-10-50 does not eliminate disclosure requirements included in other FASB ASC topics, including requirements for disclosures about fair value measurements included in FASB ASC 820, *Fair Value Measurement*. Also see paragraph 1.10 in chapter 1, "Introduction."

about interest rates, default, prepayment, and volatility. See paragraphs 2–20 of FASB ASC 820-10-55 for further implementation guidance and illustrations.

Hedge Accounting[2]

3.12 As described in chapter 2, derivatives often are used in hedging activities as a way to manage risk. A hedge involves two separate items—generally the derivative[3] and the hedged item. For example, an entity that uses an interest rate swap as a risk management strategy may enter into an interest rate swap agreement (the derivative) to protect against interest rate risk associated with its debt (the hedged item).

3.13 FASB ASC 815-20-25-75 states that to qualify for hedge accounting, the hedging relationship, both at inception of the hedge and on an ongoing basis, should be expected to be highly effective in achieving either of the following:

- Offsetting changes in fair value attributable to the hedged risk during the period that the hedge is designated (if a fair value hedge).
- Offsetting cash flows attributable to the hedged risk during the term of the hedge (if a cash flow hedge), except as indicated in FASB ASC 815-20-25-50.

3.14 The details of applying hedge accounting will vary depending on the type of risk hedged, for example

- *Fair value hedge.* Per FASB ASC 815-25-35-1, the change in the fair value (gain or loss) of a derivative designated and qualifying as a fair value hedge is recognized currently in earnings and is offset by the portion of the change in the fair value of the hedged asset or liability that is attributable to the risk being hedged. That accounting results in adjusting the carrying amount of the hedged asset or liability for changes in fair value. Per FASB ASC 815-25-35-10, the adjusted carrying amount is then subject to consideration of the need to provide for impairment losses. Because the hedging instrument is recognized separately as an asset or liability, its fair value or expected cash flows should not be considered in applying those impairment requirements to the hedged asset or liability.

  If the hedge is perfectly matched (that is, fully effective), the change in the derivative's fair value will equally offset the change in the hedged item's fair value. Therefore, there will be no net effect on earnings. However, if the hedge is not completely effective (that is, there is some degree of ineffectiveness), earnings will be increased or decreased for the difference between the changes in the fair values of the derivative and the hedged item. The increase or decrease in earnings represents the ineffective portion of the change in the derivative's fair value.

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[2] FASB ASC 815, *Derivatives and Hedging*, provides extensive detailed guidance on the application of hedge accounting, including the circumstances in which hedge accounting is and is not permitted.

[3] Hedge accounting may also be used for a hedge with a nonderivative financial instrument in very limited situations, as discussed in paragraphs 3.32–.34.

- *Cash flow hedge.* As explained by FASB ASC 815-30-35-3, the effective portion of the change in the fair value of a derivative designated and qualifying as a cash flow hedge is reported in other comprehensive income, and the ineffective portion is reported in earnings.[4] If the hedge meets the requirements for hedge accounting and the cumulative change in the derivative's fair value is less than the cumulative change in expected cash flows on the hedged transaction, the hedge is not fully effective.

  Under FASB ASC 815-30-35-3, in this situation, all of the change in the derivative's fair value is reported in other comprehensive income. In the opposite situation, the excess of the change in the derivative's fair value over the change in expected cash flows on the hedged transaction is reported in earnings as the ineffective portion of the change in the derivative's fair value. The effective portion of the change in the derivative's fair value is reported in other comprehensive income.

  There are two basic types of cash flow hedges. In some instances, the entity may hedge its exposure to variability in expected cash flow associated with risks attributable to a recognized asset or liability. For example, for variable rate debt, the entity may elect to hedge the risk of changes in cash flows (future interest payments) attributable to changes in the designated benchmark interest rate. In other instances, an entity may hedge its risks associated with a forecasted transaction, such as a forecasted purchase or sale.

  Amounts in accumulated other comprehensive income should be reclassified into earnings in the same period or periods during which the hedged forecasted transaction affects earnings, as stated in FASB ASC 815-30-35-38.

  However, paragraphs 4–5 of FASB ASC 815-30-40 require reclassifying amounts into earnings sooner in certain circumstances. For example, immediate reclassification generally is required if a hedge is discontinued, and it is probable that the forecasted transaction will not occur by the end of the specified time period, or within an additional two months. See paragraph 3.29 for further information.

3.15 Paragraphs 23–42 of FASB ASC 815-20-25 also provide guidance on accounting for hedges of an entity's foreign currency exposure, which would include the following:

- A fair value hedge of an unrecognized firm commitment or a recognized asset or liability (including an available-for-sale security).
- A cash flow hedge of a forecasted transaction, an unrecognized firm commitment, the forecasted functional-currency-equivalent cash flows associated with a recognized asset or liability, or a forecasted intraentity transaction.
- A hedge of a net investment in a foreign operation.

In addition, FASB ASC 815-20-25-58 allows using hedge accounting for a foreign-currency denominated nonderivative financial instrument to be used

[4] FASB ASC 815-30 provides detailed guidance on the amounts to be reported in earnings and other comprehensive income for cash flow hedges.

to hedge changes in the fair value of an unrecognized firm commitment, or a specific portion thereof, attributable to foreign currency exchange rates. The designated hedging relationship qualifies for the accounting specified in FASB ASC 815-25 if all the fair value hedge conditions in FASB ASC 815-25 and the conditions in FASB ASC 815-20-25-30 are met.

> *Examples and Illustrations.* Exhibit 2-1, "Common Fair Value Hedging Strategies," and exhibit 2-2, "Common Cash Flow Hedging Strategies," provide examples of common fair value and cash flow hedging strategies.

3.16 The specific criteria for qualifying for hedge accounting vary depending on the type of hedge (see FASB ASC 815-20-25-4). FASB ASC 815-20-25-3 prescribes requirements for designation and documentation of the hedge at inception for cash flow and fair value hedges. One additional aspect of qualification is an assessment of the expectation of achieving highly effective offsetting changes in fair values or cash flows during the term of the hedge for the risk being hedged, as stated in FASB ASC 815-10-10-1(d). To meet those requirements, at the inception of the hedge, management should designate the derivative as a hedge and contemporaneously formally document the hedging relationship, including identification of all of the following:

- The hedging relationship
- The entity's risk management objective and strategy for undertaking the hedge, including identification of all of the following:
  - — The hedging instrument.
  - — The hedged item or transaction.
  - — The nature of the risk being hedged.
  - — The method that will be used to retrospectively and prospectively assess the hedging instrument's effectiveness in offsetting the exposure to changes in the hedged item's fair value (if a fair value hedge) or hedged transaction's variability in cash flows (if a cash flow hedge) attributable to the hedged risk. There should be a reasonable basis for how the entity plans to assess the hedging instrument's effectiveness.
  - — The method that will be used to measure hedge ineffectiveness (including those situations in which the change in fair value method as described in paragraphs 31–32 of FASB ASC 815-30-35 will be used).
  - — If the entity is hedging foreign currency risk on an after-tax basis, that the assessment of the effectiveness, including the calculation of ineffectiveness, will be on an after-tax basis (rather than on a pretax basis).

3.17 FASB ASC 815-20-25-3(c)–(d) also include additional documentation requirements applicable specifically to either fair value hedges or cash flows hedges.

3.18 Consistent with FASB ASC 815-20-25-3, concurrent designation and documentation of a hedge is critical. Without rigorous requirements for the

timeliness and detail of hedge documentation, an entity could freely manipulate its financial statement results by retroactively identifying a hedged item, a hedged transaction, a method of assessing effectiveness or the method for measuring ineffectiveness.

3.19 The entity should maintain detailed records of all its hedged transactions and the historical effectiveness of these transactions. This can be effectively done through the use of spreadsheets or proprietary databases, among other methods.

3.20 To qualify for hedge accounting, FASB ASC 815-20-25-75 also requires that an entity, both at inception of the hedge and on an ongoing basis, must expect that the hedging relationship will be highly effective in achieving offsetting changes in fair value (if a fair value hedge) or cash flows (if a cash flow hedge) attributable to the hedged risk during the period the hedge is designated. Additionally, FASB ASC 815-20-25-80 requires the assessment of effectiveness to be consistent with the risk management strategy originally documented for that particular hedging relationship. An entity should use the method defined at inception consistently during the hedge period to assess at inception and on an ongoing basis whether it expects the hedging relationship to be highly effective in achieving offset and to measure the ineffective portion of the hedge. Finally, FASB ASC 815-20-25-81 provides that an entity should assess effectiveness for similar hedges in a similar manner, including whether a component of the gain or loss on a derivative instrument is excluded in assessing effectiveness for similar hedges. Entities should also justify the use of different methods for assessing effectiveness for similar hedges. The mechanics of isolating the change in time value of an option should be applied consistently.

Hedged Items for Which Hedge Accounting Is Not Permitted

3.21 Under the provisions of FASB ASC 815-20-25, an entity is prohibited from designating certain items as the hedged item. Thus, entering into a derivative for the stated purpose of "hedging" one of these prohibited items would not qualify for hedge accounting. The derivative would be carried at fair value with the changes reported in earnings, and the related item would be accounted for in accordance with U.S. GAAP. FASB ASC 815-20-25-43(b) lists items that are ineligible for both fair value hedges and cash flow hedges, as follows:

- An investment accounted for by the equity method in accordance with the requirements of FASB ASC 323-10.
- A noncontrolling interest in one or more consolidated subsidiaries.
- Transactions with stockholders, such as projected purchases of treasury stock, or payments of dividends.
- Intraentity transactions (except for foreign-currency-denominated forecasted intraentity transactions) between entities included in consolidated financial statements.
- The price of stock expected to be issued pursuant to a stock option plan for which recognized compensation expense is not based on changes in stock prices after the date of grant.

3.22 Exhibit 3-2, "Items That Cannot Be Considered Hedged Items," summarizes the additional items that cannot be considered a hedged item under FASB ASC 815-20-25 specifically for either fair value or cash flow hedges.

Exhibit 3-2

Items That Cannot Be Considered Hedged Items

Fair Value Hedge	*Cash Flow Hedge*
If the entire asset or liability is an instrument with variable cash flows, an implicit fixed-to-variable swap (or similar instrument) perceived to be embedded in a host contract with fixed cash flows	If variable cash flows of the forecasted transaction relate to a debt security that is classified as held-to-maturity under FASB ASC 320, *Investments—Debt and Equity Securities*, the risk of changes in its cash flows attributable to interest rate risk
For a held-to-maturity security, the risk of changes in its fair value attributable to interest rate risk	In a cash flow hedge of a variable-rate financial asset or liability, either existing or forecasted, the risk of changes in its cash flows attributable to changes in the specifically identified benchmark interest rate if the cash flows of the hedged transaction are explicitly based on a different index, for example, based on a specific bank's prime rate, which cannot qualify as the benchmark rate. That is, the hedged risk cannot be designated as interest rate risk unless the cash flows of the hedged transaction are explicitly based on that same benchmark interest rate. However, the risk designated as being hedged could potentially be the risk of overall changes in the hedged cash flows related to the asset or liability, if the other criteria for a cash flow hedge have been met. This restriction does not apply to a cash flow hedge of the forecasted issuance or forecasted purchase of fixed-rate debt.
An asset or liability that is remeasured with the changes in fair value attributable to the hedged risk reported currently in earnings	
An equity investment in a consolidated subsidiary	
A firm commitment either to enter into a business combination or to acquire or dispose of a subsidiary, a noncontrolling interest, or an equity method investee	
An equity instrument issued by the entity and classified in stockholders' equity in the statement of financial position	
A component of an embedded derivative in a hybrid instrument (see FASB ASC 815-20-25-43(c)(7) for an example)	

Determining Whether Hedge Accounting Is Permitted for the Hedged Risk

3.23 An entity enters into a fair value or cash flow hedge in order to mitigate the risks associated with the hedged item. For example, an entity may plan to issue debt in the future. In an attempt to eliminate the risk of interest rates rising in the future, the entity could enter into a derivative to hedge that exposure.

3.24 FASB ASC 815 requires entities that enter into a fair value or cash flow hedge to be quite specific in designating the risks being hedged. Under the provisions of paragraphs 12 and 15 of FASB ASC 815-20-25, hedge accounting may be used for hedges of some risks but not others. These are summarized

in exhibit 3-3, "Summary of the Availability of Hedge Accounting for Various Hedged Risks—Fair Value Hedges," and exhibit 3-4, "Summary of the Availability of Hedge Accounting for Various Hedged Risks—Cash Flow Hedges."

Exhibit 3-3

Summary of the Availability of Hedge Accounting for Various Hedged Risks—Fair Value Hedges

Hedged Item	*Can Hedge*	*Cannot Hedge*
Held-to-maturity debt security	The risk of changes in the security's fair value attributable to credit risk, foreign exchange risk, or both	Risk of changes in the security's fair value attributable to interest rate risk
Prepayment option component of a held-to-maturity debt security	The risk of changes in the entire fair value of the option component	Risk of changes in the security's overall fair value
Nonfinancial asset or liability*	Risk of changes in the fair value of the entire hedged asset or liability (reflecting its actual location, if a physical asset)	Risk of changes in the price of • a similar asset in a different location; and • a major ingredient of the asset or liability.
Financial asset or liability †	Risk of changes in the overall fair value of the entire hedged item, or risks attributable to changes in • the designated benchmark interest rate (interest rate risk); • the related foreign currency exchange rates (foreign exchange risk); and • both changes in the obligor's creditworthiness and changes in the spread over the benchmark interest rate with respect to the hedged item's credit sector at inception of the hedge.	

(continued)

Exhibit 3-3—continued

Summary of the Availability of Hedge Accounting for Various Hedged Risks—Fair Value Hedges

Hedged Item	*Can Hedge*	*Cannot Hedge*
	If the risk designated as being hedged is not the risk of changes in the overall fair value of the hedged item (as described further in FASB ASC 815-20-25-12(f)(1)), two or more of the other risks may simultaneously be designated as being hedged.	Prepayment risk, in addition to items noted in FASB ASC 815-20-25-43 (see exhibit 3-2)

* This does not apply to a recognized loan servicing right or a nonfinancial firm commitment with financial components.

† This also applies to a recognized loan servicing right and a nonfinancial firm commitment with financial components.

Exhibit 3-4

Summary of the Availability of Hedge Accounting for Various Hedged Risks—Cash Flow Hedges

Hedged Item	*Can Hedge*	*Cannot Hedge*
Forecasted transaction related to a held-to-maturity debt security	Risks of changes in cash flows attributable to credit risk, foreign exchange risk, or both	Risk of changes in overall cash flows or those attributable to interest rate risk
Forecasted purchase or sale of a nonfinancial asset	Risk of changes in • the cash flows relating to all changes in the purchase price or sales price of the asset, reflecting its actual location if a physical asset; and • the functional-currency-equivalent cash flows attributable to changes in the related foreign currency exchange rate.	Risk of changes in the cash flows relating to • the purchase or sale of a similar asset in a different location; and • a major ingredient of the asset.

Exhibit 3-4—continued

Summary of the Availability of Hedge Accounting for Various Hedged Risks—Cash Flow Hedges

Hedged Item	*Can Hedge*	*Cannot Hedge*
Forecasted purchase or sale of a financial asset or liability (or the interest payments on that asset or liability), or the variable cash inflow or outflow of an existing financial asset or liability	One or more of the risks attributable to changes in • hedged cash flows related to the asset or liability; • cash flows attributable to changes in the designated benchmark interest rate (interest rate risk); • functional-currency-equivalent cash flows attributable to changes in the related foreign currency exchange rates foreign exchange risk); and • cash flows attributable to default, changes in the obligor's creditworthiness, and changes in the spread over the benchmark interest rate with respect to the hedged item's credit sector at inception of the hedge (credit risk). Two or more of the previous risks may be designated simultaneously as being hedged.	Items noted in FASB ASC 815-20-25-43 (see exhibit 3-2), or FASB ASC 815-20-25-15(d)–(e)

Forecasted Transactions

3.25 FASB ASC 815-20-25 provides guidance on determining whether hedge accounting may be used for a hedge of a forecasted transaction.

3.26 *Determining specific information about the forecasted transaction.* FASB ASC 815-20-25-3(d) states that documentation [of the hedging relationship] should include all relevant details, including the date on or period within which the forecasted transaction is expected to occur, the specific nature of the asset or liability involved (if any), and the expected currency amount or quantity of the forecasted transaction.

3.27 FASB ASC 815-20-25-3(d)(1) goes on to clarify that *expected currency* refers to hedges of foreign currency risk and requires specification of the exact amount of foreign currency being hedged. *Expected quantity* requires specification of the physical quantity (that is, the number of items or units of measure) encompassed by the hedged forecasted transaction. If a forecasted sale or purchase is being hedged for price risk, the hedged transaction should not be specified solely in terms of expected currency amounts, nor can it be specified as a percentage of sales or purchases during a period. The current price of a forecasted transaction also should be identified to satisfy the criteria in FASB ASC 815-20-25-75(b) for offsetting cash flows. Additionally, the hedged forecasted transaction should be described with sufficient specificity so that when a transaction occurs, it is clear whether that transaction is or is not the hedged transaction.

For example, suppose an entity wishes to hedge the 15,000 units of a product it expects to sell during a 3-month period. The entity can designate these sales as the first 15,000 units to be sold during the period, or the first 5,000 units sold in each month during the period, totaling 15,000 units. The entity cannot designate the 15,000 units to be the last to be recorded in the period because it cannot identify the timing of those sales with the requisite level of specificity.

3.28 *Assessing probability*. According to FASB ASC 815-20-25-15(b), in order to qualify for hedge accounting, the occurrence of the forecasted transaction must be probable. FASB ASC 815-20-55-24 requires that the likelihood of occurrence for the transaction not be based solely on management's intent because intent is not verifiable. Instead, the transaction's probability should be supported by observable facts and the attendant circumstances. Consideration should be given to all of the following circumstances in assessing the likelihood that a transaction will occur:

- The frequency of similar past transactions.
- The financial and operational ability of the entity to carry out the transaction.
- Substantial commitments of resources to a particular activity (for example, a manufacturing facility that can be used in the short run only to process a particular type of commodity).
- The extent of loss or disruption of operations that could result if the transaction does not occur.
- The likelihood that transactions with substantially different characteristics might be used to achieve the same business purpose (for example, an entity that intends to raise cash may have several ways of doing so, ranging from a short-term bank loan to a common stock offering).

3.29 According to paragraphs 1–5 of FASB ASC 815-30-40, if it becomes no longer probable that the forecasted transaction will occur by the end of the originally specified time period, the entity should discontinue hedge accounting. The accounting for the net derivative gain or loss related to a discontinued cash flow hedge of a forecasted transaction is described in FASB ASC 815-25-40-2. When the forecasted transaction becomes probable of not occurring by the end of the originally specified time period or within an additional two month period of time thereafter, the entity is to immediately recognize in earnings amounts previously deferred in accumulated other comprehensive income. In rare cases, the existence of extenuating circumstances that are related to the

nature of the forecasted transaction and are outside the control or influence of the reporting entity may cause the forecasted transaction to be probable of occurring on a date that is beyond the additional 2-month period of time, in which case the net derivative instrument gain or loss related to the discontinued cash flow hedge should continue to be reported in accumulated other comprehensive income until it is reclassified into earnings pursuant to paragraphs 38–41 of FASB ASC 815-30-35. A pattern of determining that hedged forecasted transactions are probable of not occurring by the end of the originally specified time period or within an additional 2-month period of time thereafter would call into question the entity's ability to accurately predict forecasted transactions and the propriety of applying hedge accounting for similar forecasted transactions in the future.

3.30 According to FASB ASC 815-30-40-6, derivative instrument gains and losses that had initially been reported in other comprehensive income as a result of a cash flow hedge and then reclassified to earnings (because the entity subsequently concluded that it was probable that the forecasted transaction would not occur within the originally specified time period or the additional 2-month period of time) should not later be reclassified out of earnings and back into accumulated other comprehensive income due to a reassessment of probabilities.

Foreign Currency Hedges

3.31 As discussed in paragraph 3.15, FASB ASC 815 permits using hedge accounting for certain fair value and cash flow hedges of foreign currency exposure and for the hedge of a net investment in a foreign operation.

3.32 *Foreign currency fair value hedges.* FASB ASC 815-20-25-37 provides guidance on fair value hedges of four items.

a. *Unrecognized firm commitment*. FASB ASC 815-20-25-58 states that a derivative instrument or a nonderivative financial instrument that may give rise to a foreign currency transaction gain or loss under FASB ASC 830, *Foreign Currency Matters*, can be designated as hedging changes in the fair value of an unrecognized firm commitment, or a specific portion thereof, attributable to foreign currency exchange rates.

b. *Recognized asset or liability*. A derivative instrument can be designated as hedging the changes in the fair value of a recognized asset or liability, or a specific portion thereof, for which a foreign currency transaction gain or loss is recognized in earnings under the provisions of FASB ASC 830-20-35-1. All recognized foreign-currency-denominated assets or liabilities for which a foreign currency transaction gain or loss is recorded in earnings should qualify for the accounting specified in FASB ASC 815-25 if all the fair value hedge criteria in FASB ASC 815-20 are met.

c. *Available-for-sale debt security.* A derivative instrument can be designated as hedging potential future changes in the fair value of an available-for-sale debt security, or a specific portion thereof, attributable to changes in foreign currency exchange rates, if all of the fair value hedge criteria are met.

d. *Available-for-sale equity security.* An available-for-sale equity security can be hedged for changes in the fair value attributable to

changes in foreign currency exchange rates and qualify for the accounting specified in FASB ASC 815-25 only if the fair value hedge criteria in FASB ASC 815-20 are met and both of the following conditions are satisfied:

i. The security is not traded on an exchange (or other established marketplace) on which trades are denominated in the investor's functional currency.

ii. Dividends or other cash flows to holders of the security are all denominated in the same foreign currency as the currency expected to be received upon sale of the security.

3.33 *Foreign currency cash flow hedges.* A nonderivative financial instrument should not be designated as a hedging instrument in a foreign currency cash flow hedge. However, according to FASB ASC 815-20-25-38, if certain criteria in FASB ASC 815-20-25-39 are met, hedge accounting may be applied for a derivative instrument designated as hedging the foreign currency exposure to variability in the functional-currency-equivalent cash flows associated with any of the following:

a. A recognized asset or liability

b. An unrecognized firm commitment

c. A forecasted transaction (for example, a forecasted export sale to an unaffiliated entity with the price to be denominated in a foreign currency)

d. A forecasted intraentity transaction (for example, a forecasted sale to a foreign subsidiary or a forecasted royalty from a foreign subsidiary)

3.34 *Hedge of a net investment in a foreign operation.* A derivative or a nonderivative financial instrument that may give rise to a foreign currency transaction gain or loss under FASB ASC 830, can be designated as hedging the foreign currency exposure of a net investment in a foreign operation provided certain conditions are met. According to FASB ASC 815-35-35-1, the gain or loss on a hedging derivative (or the foreign currency transaction gain or loss on the nonderivative hedging instrument) that is designated as, and is effective as, an economic hedge of the net investment in a foreign operation should be reported in the same manner as a translation adjustment (that is, reported in the cumulative translation adjustment section of other comprehensive income) to the extent it is effective as a hedge. Consistent with FASB ASC 815-35-35-2, the hedged net investment should be accounted for consistent with FASB ASC 830. The provisions of FASB ASC 815-25 for recognizing the gain or loss on assets designated as being hedged in a fair value hedge do not apply to the hedge of a net investment in a foreign operation.

Assessing Hedge Effectiveness

3.35 FASB ASC 815-20-35-2 establishes the general requirement that in order to use hedge accounting, the entity should assess a hedge's effectiveness at the time it enters into a hedge and at least quarterly thereafter. According to FASB ASC 815-20-25-79, ongoing assessments throughout the life of the hedge should be performed on a prospective and retrospective basis. However, FASB ASC 815-20-25-102 provides an exception when using the shortcut method for an interest rate swap (or a compound hedging instrument composed of an

interest rate swap and a mirror-image call or put option if certain criteria are met) used to hedge benchmark interest rate risk of a recognized interest-bearing asset or liability (or a firm commitment arising on the trade [pricing] date to purchase or issue an interest-bearing asset or liability, provided that the trade date of the asset or liability differs from its settlement date due to generally established conventions in the marketplace in which the transaction is executed), provided certain criteria in paragraphs 104–117 of FASB ASC 815-20-25 are met. If all conditions to apply the shortcut method are met, hedge ineffectiveness is not recognized immediately.

3.36 In the preceding situation, the entity may assume that the hedge is completely effective and elect to use the shortcut method, thereby avoiding the need to formally assess hedging effectiveness at inception and on a continuing basis other than to consider the likelihood of the counterparty's compliance with the contractual terms of the swap.[5] Since the hedge is assumed to be completely effective, no hedging ineffectiveness is measured.

3.37 Under the shortcut method, changes in the fair value of the swap are assumed to equal the changes in the carrying amount of the instrument (for fair value hedges) or are accumulated in other comprehensive income (for cash flow hedges). This greatly simplifies the accounting for the hedging transaction. The entity reports interest based on the effective interest rate resulting from the swap agreement. For example, if an entity with debt bearing interest at 6 percent enters into a swap to receive interest at four percent and pays interest at the London Interbank Offered Rate (LIBOR), interest expense should be reported at LIBOR plus 2 percent. That is the effective rate resulting from paying LIBOR under the swap and receiving interest at a rate that is 2 percent less than the fixed rate on the debt.

3.38 Exhibit 3-5, "Summary of the Conditions That Must Be Met for Use of the Shortcut Method," summarizes the conditions that must be met in order to use the shortcut method. The full text of these requirements can be found in paragraphs 104–106 of FASB ASC 815-20-25.

Exhibit 3-5

Summary of the Conditions That Must Be Met for Use of the Shortcut Method

Type of Hedge	*Hedging Activity*	*Conditions*
Fair value	Interest rate swap hedging benchmark interest rate risk of an existing interest-bearing financial instrument	All of the following are met: • The notional amount of the swap matches the principal amount of the interest-bearing asset or liability being hedged.

(continued)

[5] FASB ASC 815-10-55-72 notes that the shortcut method may not be used for other hedging relationships, even if the critical terms of the hedging instrument and the hedged forecasted transaction are the same.

Exhibit 3-5—continued

Summary of the Conditions That Must Be Met for Use of the Shortcut Method

Type of Hedge	*Hedging Activity*	*Conditions*
	(or a firm commitment arising on the trade [pricing] date to purchase or issue an interest-bearing asset or liability	• If the hedging instrument is solely an interest rate swap, the fair value of the swap at the inception of the hedging relationship is zero, with one exception noted in FASB ASC 815-20-25-104(b). • If the hedging instrument is a compound derivative composed of an interest rate swap and mirror-image call or put option, the premium for the mirror-image call or put option must be paid or received in the same manner as the premium on the call or put option embedded in the hedged item based on the criteria listed in FASB ASC 815-20-25-104(c). • The fixed rate is the same throughout the term, and the variable rate is based on the same index and includes the same constant adjustment or no adjustment. • The interest-bearing asset or liability is not prepayable, except under certain conditions provided in FASB ASC 815-20-25-104(e). • The index on which the variable leg of the swap is based matches the benchmark interest rate designated as the interest rate risk being hedged for that hedging relationship. • Any other terms in the interest-bearing financial instruments or interest rate swaps are typical of those instruments and do not invalidate the assumption of no ineffectiveness. • The expiration date of the swap matches the maturity date of the interest-bearing asset or liability. • There is no floor or cap on the variable interest rate of the swap.

Exhibit 3-5—continued

Summary of the Conditions That Must Be Met for Use of the Shortcut Method

Type of Hedge	*Hedging Activity*	*Conditions*
		• The interval between repricings of the variable interest rate in the swap is frequent enough to justify an assumption that the variable payment or receipt is at market rate (generally three to six months or less). • For fair value hedges of a proportion of the principal amount of the interest-bearing asset or liability, the notional amount of the interest rate swap designated as the hedging instrument (FASB ASC 815-20-25-104(a)) matches the portion of the asset or liability being hedged. • For fair value hedges of portfolios (or proportions thereof) of similar interest-bearing assets or liabilities, the notional amount of the interest rate swap designated as the hedging instrument matches the aggregate notional amount of the hedged item (whether it is all or a proportion of the total portfolio), and the remaining criteria for the shortcut method are met with respect to the interest rate swap and the individual assets or liabilities in the portfolio.
Cash flow	Interest rate swap hedging benchmark interest rate risk of an existing interest-bearing financial instrument (or a firm commitment arising on the trade [pricing] date to purchase or issue an interest-bearing asset or liability)	All of the following are met. • The notional amount of the swap matches the principal amount of the interest-bearing asset or liability being hedged. • If the hedging instrument is solely an interest rate swap, the fair value of the swap at the inception of the hedging relationship is zero, with one exception noted in FASB ASC 815-20-25-104(b). • If the hedging instrument is a compound derivative composed of

(continued)

Exhibit 3-5—continued

Summary of the Conditions That Must Be Met for Use of the Shortcut Method

Type of Hedge	*Hedging Activity*	*Conditions*
		an interest rate swap and mirror-image call or put option, the premium for the mirror-image call or put option must be paid or received in the same manner as the premium on the call or put option embedded in the hedged item, based on the criteria listed in FASB ASC 815-20-25-104(c). • The fixed rate is the same throughout the term, and the variable rate is based on the same index and includes the same constant adjustment or no adjustment. • The interest-bearing asset or liability is not prepayable, except under certain conditions provided in FASB ASC 815-20-25-104(e). • The index on which the variable leg of the swap is based matches the benchmark interest rate designated as the interest rate risk being hedged for that hedging relationship. • Any other terms in the interest-bearing financial instruments or interest rate swaps are typical of those instruments and do not invalidate the assumption of no ineffectiveness. • All interest receipts or payments on the variable-rate asset or liability during the term of the swap are designated as hedged, and no interest payments beyond the term of the swap are designated as hedged. • There is no floor or cap on the variable interest rate of the swap unless the variable-rate asset or liability has a floor or cap. In that case, the swap must have a floor or cap on the variable interest rate

Exhibit 3-5—continued

Summary of the Conditions That Must Be Met for Use of the Shortcut Method

Type of Hedge	*Hedging Activity*	*Conditions*
		that is comparable to the floors or caps on the variable-rate asset or liability. • The repricing dates match those of the variable-rate asset or liability. • For cash flow hedges of the interest payments on only a portion of the principal amount of the interest-bearing asset or liability, the notional amount of the interest rate swap designated as the hedging instrument (see FASB ASC 815-20-25-104(a)) matches the principal amount of the portion of the asset or liability on which the hedged interest payments are based. • For a cash flow hedge in which the hedged forecasted transaction is a group of individual transactions (as permitted by FASB ASC 815-20-25-15(a)), if certain criteria in FASB ASC 815-20-25-106(f) are met.

3.39 In all other hedging activities, the entity must assess the hedge's effectiveness at the inception of the hedge and at least every three months (or whenever earnings are reported) thereafter. In addition, FASB ASC 815-20-25-3 requires the entity to document at the inception of the hedge the method it will use to assess effectiveness.[6] To comply with this requirement, the entity should decide

- the changes in the derivative's fair value (if a fair value hedge) or hedged transaction's variability in cash flows (if a cash flow hedge) that it will consider in assessing the effectiveness and measuring the ineffectiveness of the hedge; and
- the method it will use to assess hedge effectiveness and measure any ineffectiveness.

[6] The shortcut method assumes there is no ineffectiveness in the hedge. While that assumption is not permitted for hedges other than the use of an interest rate swap to hedge benchmark interest rate risk, other hedges may also be completely effective. Accordingly, the use of methods other than the shortcut method may still result in measuring no ineffectiveness.

Deciding Which Changes in the Derivative's Fair Value Will Be Considered in Assessing Hedge Effectiveness and Measuring Ineffectiveness

3.40 The fair value of some derivatives has two components—intrinsic value[7] and time value. The following are examples:

- *Option contracts.* The intrinsic value of a call option is the excess, if any, of the market price of the item underlying the option contract over the price specified in the option contract (known as the strike price or exercise price.) The intrinsic value of a put option is the excess, if any, of the option contract's strike price over the market price of the item underlying the option contract. The intrinsic value of an option cannot be less than zero. For example, suppose an entity owned a call option that granted it the right to purchase a given stock at $50 per share. If the price of the underlying stock is $50, then the intrinsic value of the option is $0. If the price of the stock rises to $55 per share, then the intrinsic value is $5 because the entity can purchase for $50 an asset that has a market value of $55. If the market value of the shares drops to $45 per share, then the option will not be exercised; it has an intrinsic value of $0.

  The time value of an option contract recognizes that the price of the underlying item may move above the strike price (for a call) or below the strike price (for a put) during the exercise period. Again, assume that an entity holds a call option, the strike price is $50, and the price of the underlying stock also is $50. The intrinsic value of the option is $0. But the market may assign a value to the option of $1, indicating that investors believe the stock price will rise during the exercise period. The fair value of the option is equal to the intrinsic value plus the time value—in this case $1.

- *Forward and futures contracts.* The market assigns a value to forward and futures contracts in a manner similar to that applied to options contracts. Unlike option contracts, future or forward contracts do not have an option feature and thus, the value of these contracts can be either positive or negative. The intrinsic value of the contract depends on the relationship between the price specified in the contract and the current spot price. The time value of the forward contract is a market assessment of whether the spot price will rise or fall during the period covered in the agreement. As with an option contract, the time value of a forward or futures contract approaches zero with the passage of time.

3.41 When an entity uses an option, futures, or forward contract as a hedging instrument, FASB ASC 815-20-25-82 permits—but does not require—the entity to exclude all or a part of the contract's time value from the assessment of hedge effectiveness.

- *Options.* If the effectiveness of a hedge with an option contract is assessed based on changes in the option's intrinsic value, the

[7] Although there are other definitions of the term intrinsic value, its use here is consistent with its use in the examples in FASB ASC 815-45-55.

change in the time value of the contract would be excluded from the assessment of hedge effectiveness.

If the effectiveness of a hedge with an option contract is assessed based on changes in the option's minimum value, that is, its intrinsic value plus the effect of discounting, the change in the volatility value of the contract should be excluded from the assessment of hedge effectiveness.

An entity may exclude the portion of the change in an option's time value attributable to the passage of time, changes due to volatility, or changes due to interest rates from the assessment of hedge effectiveness.

- *Forward and futures contracts.* If the effectiveness of a hedge with a forward or futures contract is assessed based on changes in fair value attributable to changes in spot prices, the change in the fair value of the contract related to the changes in the difference between the spot price and the forward or futures price should be excluded from the assessment of hedge effectiveness.

3.42 According to FASB ASC 815-20-25-83, changes in the excluded component should be included currently in earnings, together with any ineffectiveness that results under the defined method of assessing ineffectiveness. No other components of the change in the fair value of the designated hedging instrument should be excluded from the assessment of hedge effectiveness, nor should an entity exclude any aspect of a change in an option's value from the assessment of hedge effectiveness that is not one of the permissible components of the change in an option's time value.

Methods to Assess Hedge Effectiveness

3.43 FASB ASC 815-20-25-79 requires an entity to assess hedge effectiveness in two different ways—in prospective considerations and in retrospective evaluations. However, FASB ASC 815-20-25-81 also states that ordinarily an entity should assess effectiveness for similar hedges in a similar manner and that the use of different evaluation methods for similar hedges should be justified. The mechanics of isolating the change in time value of an option should also be applied consistently.

3.44 Consistent with FASB ASC 815-20-25-79(a), under prospective considerations, an entity, both at inception of the hedging relationship and on an ongoing basis, must be able to justify an expectation that the relationship will be highly effective over future periods in achieving offsetting changes in fair value or cash flows. That expectation, which is forward-looking, can be based upon regression or other statistical analysis of past changes in fair values or cash flows as well as on other relevant information.[8]

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[8] If, at inception, the critical terms of the hedging instrument and of the entire hedged asset or liability or hedged forecasted transaction are the same, the entity could conclude that changes in the fair value or cash flows attributable to the risk being hedged are expected to be completely offset by the hedging derivative, as stated in FASB ASC 815-20-35-9. In that situation, the entity is still required to perform and document an assessment of hedge effectiveness at the inception of the hedging relationship and on an ongoing basis throughout the hedge period. However, subsequent assessments can be performed by verifying and documenting whether the critical terms of the hedging instrument and the forecasted transaction have changed during the period in review.

3.45 According to FASB ASC 815-20-25-79(b), under retrospective evaluations, an entity should perform an assessment of effectiveness, whenever financial statements or earnings are reported, and at least every three months. According to paragraphs 2–4 of FASB ASC 815-20-35, the hedging entity should determine whether the hedging relationship has been highly effective in having achieved offsetting changes in fair value or cash flows through the date of periodic assessment. That assessment can be based upon regression or other statistical analysis of past changes in fair values or cash flows as well as on other relevant information. If an entity elects at the inception of a hedging relationship to use the same regression analysis approach for both prospective considerations and retrospective evaluations of assessing effectiveness, then during the term of that hedging relationship those regression analysis calculations should generally incorporate the same number of data points. The entity must also periodically update its regression analysis (or other statistical analysis). However, electing to use a regression or other statistical analysis approach instead of the dollar-offset approach to perform retrospective evaluations may affect whether an entity can apply hedge accounting for the current assessment period.

3.46 *Regression analysis.* Regression analysis is a method used to determine the correlation between two variables, for example, how the movement in LIBOR interest rates correlates to the movement in the U.S. Treasury rates. The result of a regression analysis is a measurement that compares the expected sensitivity of the movement in one variable with the movement in another variable (referred to as the *correlation coefficient*), which can be useful in an assessment of whether a hedging relationship is likely to be highly effective. When assessing hedge effectiveness, the key measurement in a regression analysis is the coefficient of determination, or *R-squared*, which measures the strength or degree of the correlation coefficient.

3.47 If there is significant correlation between two variables, movements of one variable can be reasonably expected to trigger similar movements in the other variable. The value of R-squared will vary from zero to one. An R-squared value of zero means that the changes in one variable are unrelated to changes in the other variable; a value of one implies perfect correlation.

3.48 For example, if a 1 percent decrease in the fair value or cash flows of item A were to accompany a 0.5 percent increase in the value of item B, and there were an R-squared statistic of 0.90, it would indicate that 90 percent of the variability of B is explained by the movement of A. The price movements would then be said to be highly correlated. In this situation, an entity would need to sell futures contracts on item B in an amount equal to approximately two times the value of the hedged item A in order for the hedge to be highly effective in offsetting the effects of fair value or cash flow changes on item A.

3.49 FASB ASC 815 does not specify a value for R-squared that must be achieved in order to determine that a hedge is highly effective. Some accountants believe that an R-squared value of 0.80 or higher is required to support management's conclusion that a hedge is expected to be highly effective. Additionally, other results of the regression analysis may need to be considered by management when assessing whether a hedge is expected to be highly effective. The use of regression analysis or other statistical methods is complex and requires appropriate interpretation and understanding of the statistical inferences. The auditor may determine that it is necessary to obtain specialized

expertise to assist in gathering the necessary audit evidence when regression analysis or other statistical methods are used to assess hedge effectiveness.

3.50 *Dollar-offset method.* The dollar-offset method essentially compares historical changes in fair value or cash flows of the hedging instrument with changes in fair value or cash flows of the hedged item attributable to the risk being hedged during a specified period or periods. The result is expressed as a percentage. The dollar-offset method may be applied either on a period-to-period basis or on a cumulative basis. If the hedge is completely effective (that is, there is no ineffectiveness), the ratio is 100 percent—for every $1 change in the fair value or cash flows of the hedged item, there is an equal and opposite change in the fair value or cash flows of the hedging instrument. In practice, it is generally assumed that any result between 80 percent and 125 percent would be considered to be highly effective.

Actual Accounting Measurement of Hedge Effectiveness

3.51 As previously discussed in paragraphs 3.43–.45, an entity must have an expectation that the hedging relationship will be highly effective at inception and on an ongoing basis in order to qualify for hedge accounting. Subsequent to the inception of the hedge, an entity using hedge accounting is required to measure the actual hedge results for the current reporting period and recognize in earnings any hedge ineffectiveness resulting from the hedging relationship. The hedge ineffectiveness recognized in earnings in each reporting period is based on the extent to which exact offset is not achieved for the fair value or cash flow hedging relationship as specified in FASB ASC 815-20-25-83. This requirement applies even if a regression or other statistical analysis approach for both prospective considerations and retrospective evaluations of assessing effectiveness supports an expectation that the hedging relationship will be highly effective and demonstrates that it has been highly effective, respectively.

General Disclosure Considerations for Derivatives

3.52 According to FASB ASC 815-10-50-1, an entity with derivative instruments (or nonderivative instruments that are designated and qualify as hedging instruments pursuant to paragraphs 58 and 66 of FASB ASC 815-20-25) should disclose information to enable users of the financial statements to understand all of the following:

- How and why an entity uses derivative (or such nonderivative) instruments
- How derivative (or such nonderivative) instruments and related hedged items are accounted for under FASB ASC 815
- How derivative (or such nonderivative) instruments and related hedged items affect an entity's financial position, financial performance, and cash flows

3.53 Exhibit 3-6, "Derivatives Checklist of General Disclosure Considerations," provides a checklist of the additional general disclosure considerations for various types of derivatives. However, auditors must consider FASB ASC 815-10-50, 815-15-50, 815-20-50, 815-25-50, 815-30-50, 815-35-50, 815-40-50, and 815-45-50 in evaluating the adequacy of disclosure.

Examples and Illustrations. Chapter 14, "Case Study of the Use of a Foreign-Currency Put Option to Hedge a Forecasted Sale Denominated in a Foreign Currency," presents a case study on hedging a forecasted transaction, including the audit considerations necessary to assess the probability of the forecasted transaction.

Exhibit 3-6

Derivatives Checklist of General Disclosure Considerations

Type of Derivative	*Required Disclosures*
Derivatives used in a hedging activity, other derivatives, and nonderivative instruments that are denominated in a foreign currency and used in a hedging activity*	For every annual and interim reporting period for which a statement of financial position and statement of financial performance are presented • disclose the objectives for entering into or issuing the instruments, the context needed to understand those objectives, the strategies for achieving those objectives[9] and information that would enable users of its financial statements to understand the volume of its activity in those instruments[10] The description should distinguish between *a*. derivative and nonderivative instruments designated as hedging instruments, distinguished between each of the following: i. Derivative and nonderivative instruments designated as fair value hedging instruments. ii. Derivatives designated as cash flow hedging instruments. iii. Derivatives and nonderivative instruments designated as hedging instruments for hedges of the foreign currency exposure of a net investment in a foreign operation.

[9] According to FASB ASC 815-10-50-1B, these three items should be disclosed in the context of each instrument's primary underlying risk exposure (for example, interest rate, credit, foreign exchange rate, interest rate and foreign exchange rate, or overall price). Further, those instruments should be distinguished between those used for risk management purposes and those used for other purposes.

[10] According to FASB ASC 815-10-50-1B, an entity should select the format and the specifics of disclosures relating to its volume of such activity that are most relevant and practicable for its individual facts and circumstances.

Exhibit 3-6—continued

Derivatives Checklist of General Disclosure Considerations

Type of Derivative	*Required Disclosures*
	b. derivative and nonderivative instruments used as economic hedges and for other purposes related to the entity's risk exposures *c*. derivative instruments used for other purposes. • disclose the location and fair value amounts of derivative and nonderivative financial instruments reported in the statement of financial position.[11] These disclosures should be presented in a tabular format, except for the information required for hedged items by FASB ASC 815-10-50-4C(a), which can be presented in a tabular or nontabular format. • disclose the location and amount of the gains and losses on derivative and nonderivative financial instruments and related hedges items in the statement of financial performance or the statement of financial position (for example, gains and losses initially recognized in other comprehensive income), as applicable.[12] These disclosures should be presented in a tabular format, except for the information required for hedged items by FASB ASC 815-10-50-4C(a), which can be presented in a tabular or nontabular format.
Derivatives or nonderivative instruments with credit-risk-related contingent features[13]	• The existence and nature of credit-risk-related contingent features. • The circumstances in which credit-risk-related contingent features could be triggered in derivative (or such nonderivative instruments) that are in a net liability position at the end of the reporting period.

(continued)

[11] These disclosures should comply with the requirements of FASB ASC 815-10-50-4B and 815-10-50-4E.

[12] The gains and losses should be presented separately for all of the types of contracts discussed in FASB ASC 815-10-50-4C and 815-10-50-4D. In addition, FASB ASC 815-10-55-182 illustrates the disclosure of fair value amounts of derivative (and such nonderivative) instruments reported in the statement of financial performance and the statement of financial position.

[13] FASB ASC 815-10-55-185 illustrates a credit-risk-related contingent feature disclosure.

Exhibit 3-6—continued

Derivatives Checklist of General Disclosure Considerations

Type of Derivative	*Required Disclosures*
	• The aggregate fair value amounts of derivative (or such nonderivative financial instruments) that contain credit-risk-related contingent features that are in a net liability position at the end of the reporting period. • The aggregate fair value of assets that are already posted as collateral at the end of the reporting period. • The aggregate fair value of additional assets that would be required to be posted as collateral if the credit-risk-related contingent features were triggered at the end of the reporting period. • The aggregate fair value of assets needed to settle the instrument immediately if the credit-risk-related contingent features were triggered at the end of the reporting period.
Nonhedging derivatives covered under FASB ASC 815-20	• Describe the purpose of the derivative activity. • If an entity's policy is to include its nonhedging derivatives in its trading activities, the entity can elect to not separately disclose gains and losses as required by FASB ASC 815-10-50-4C(e), provided that the entity discloses the information required by FASB ASC 815-10-50-4F. Sample disclosures can be found in paragraphs 182 and 184 of FASB ASC 815-10-55.
Credit derivatives[14]	For every annual and interim reporting period for which a statement of financial position and statement of financial performance are presented, the seller of a credit derivative should disclose the following information for each credit derivative, or each group of similar credit derivatives, even if the likelihood of the seller's having to make any payments under the credit derivative is remote:

[14] As defined in the FASB ASC glossary, the term *credit derivative* refers to a derivative instrument that has one or more of its underlyings related to either the credit risk of a specified entity (or a group of entities), or an index based on the credit risk of a group of entities. It also exposes the seller to potential loss from credit-risk-related events specified in the contract. Examples of credit derivatives include, but are not limited to, credit default swaps, credit spread options, and credit index products.

Exhibit 3-6—continued

Derivatives Checklist of General Disclosure Considerations

Type of Derivative	*Required Disclosures*
	• The nature of the credit derivative, including — the approximate term of the credit derivative; — the reason(s) for entering into the credit derivative; — the events or circumstances that would require the seller to perform under the credit derivative; — the current status (that is, as of the date of the statement of financial position) of the payment/performance risk of the credit derivative, which could be based on either recently issued external credit ratings or current internal groupings used by the seller to manage its risk; and — if the entity uses internal groupings for purposes of the previous item, how those groupings are determined and used for managing risk. • All of the following information about the maximum potential amount of future payments under the credit derivative: — The maximum potential amount of future payments (undiscounted) that the seller could be required to make under the credit derivative, which should not be reduced by the effect of any amounts that may possibly be recovered under recourse or collateralization provisions in the credit derivative. — If the terms of the credit derivative provide for no limitation to the maximum potential future payments under the contract, that fact should be disclosed. — If the seller is unable to develop an estimate of the maximum potential amount of future payments under the credit derivative, the reasons why it cannot estimate the maximum potential amount.

(continued)

Exhibit 3-6—continued

Derivatives Checklist of General Disclosure Considerations

Type of Derivative	*Required Disclosures*
	• The fair value of the credit derivative as of the date of the statement of financial position. • The nature of any recourse provisions that would enable the seller to recover from third parties any of the amounts paid under the credit derivative. • The nature of any assets held either as collateral or by third parties that, upon the occurrence of any specified triggering event or condition under the credit derivative, the seller can obtain and liquidate to recover all or a portion of the amounts paid under the credit derivative. • If estimable, the approximate extent to which the proceeds from liquidation of assets held either as collateral or by third parties would be expected to cover the maximum potential amount of future payments under the credit derivative. In its estimation of potential recoveries, the seller of credit protection should consider the effect of any purchased credit provision with identical underlying(s). • FASB ASC 815-10-50-4L also provides additional information on suggested presentation of the preceding disclosures.
Fair value hedges[15]	• Disclose the net gain or loss recognized in earnings during the reporting period representing (*a*) the amount of the hedges' ineffectiveness and (*b*) the component of the derivatives' gain or loss, if any, excluded from the assessment of hedge effectiveness. • Disclose the amount of net gain or loss recognized in earnings when a hedged firm commitment no longer qualifies as a fair value hedge.
Cash flow hedges[16]	• Describe the transactions or other events that will result in the reclassification into earnings of gains and losses that are reported in accumulated other comprehensive income.

[15] These disclosures are in addition to the general disclosures required by FASB ASC 815-10-50. In addition, for information on qualitative disclosures, see FASB ASC 815-10-50-5.

[16] See footnote 6.

Exhibit 3-6—continued

Derivatives Checklist of General Disclosure Considerations

Type of Derivative	*Required Disclosures*
	• Disclose the estimated net amount of the existing gains or losses that are reported in accumulated other comprehensive income at the reporting date that is expected to be reclassified into earnings within the next 12 months.[17] • Disclose the maximum length of time over which the entity is hedging its exposure to the variability in future cash flows for forecasted transactions, excluding those forecasted transactions related to the payment of variable interest on existing financial instruments. • Disclose the amount of gains and losses reclassified into earnings as a result of the discontinuance of cash flow hedges because it is probable that the original forecasted transactions will not occur by the end of the originally specified time period or within a certain additional period of time as discussed in paragraphs 4–5 of FASB ASC 815-30-40 (normally two months). • Disclose as a separate component of accumulated other comprehensive income, the beginning and ending accumulated derivatives gain or loss, the related net change associated with current period hedging transactions, and the net amount of any reclassification into earnings.

* Certain nonderivative instruments, because of their hedging instrument designation, are within the scope of FASB ASC 815, *Derivatives and Hedging*. Under FASB ASC 815-20-25-58, a foreign-currency-denominated nonderivative financial instrument can be designated as a hedging instrument of either (*a*) the foreign currency exposure of an unrecognized firm commitment denominated in a foreign currency, or (*b*) the foreign currency exposure of a net investment in a foreign operation. In either case, the foreign-currency-denominated nonderivative hedging instrument is subject to the disclosure requirements of FASB ASC 815-10-50. However, it prohibits applying hedge accounting for other nonderivative instruments.

[17] The amount required to be disclosed could be greater than or less than the net amount reported in accumulated other comprehensive income. See paragraphs 2–3 of FASB ASC 815-30-45 for related guidance.

3.54 In addition to the disclosures listed previously, FASB ASC 815-10-50-5 provides additional information to consider related to qualitative disclosures. Qualitative disclosures about an entity's objectives and strategies for using derivative instruments (and nonderivative instruments that are designated and qualify as hedging instruments pursuant to FASB ASC 815-20-25-58 and 815-20-25-66) may be more meaningful if such objectives and strategies are described in the context of an entity's overall risk exposures relating to interest rate risk, foreign exchange risk, commodity price risk, credit risk, and equity price risk. Those additional qualitative disclosures, if made, should include a discussion of those exposures even though the entity does not manage some of those exposures by using derivative instruments. An entity is encouraged, but not required, to provide such additional qualitative disclosures about those risks and how they are managed.

Reporting Cash Flows of Derivative Instruments That Contain Financing Elements

3.55 An instrument accounted for as a derivative under FASB ASC 815 that at its inception includes off-market terms, or requires an up-front cash payment, or both often contains a financing element. Identifying a financing element within a derivative instrument is a matter of judgment that depends on facts and circumstances. If an other-than-insignificant financing element is present at inception, other than a financing element inherently included in an at-the-market derivative instrument with no prepayments (that is, the forward points in an at-the-money forward contract),[18] then the borrower shall report all cash inflows and outflows associated with that derivative instrument in a manner consistent with the financing activities as described in paragraphs 14–15 of FASB ASC 230-10-45.

Investments in Certain Debt and Equity Securities

3.56 The following summarizes the accounting considerations of FASB ASC 320, *Investments—Debt and Equity Securities*, for investments in equity securities that have readily determinable fair values and for all investments in debt securities:

- Investments in these securities are classified into one of three categories and accounted for as follows:
  - — *Held-to-maturity*. Debt securities that the entity has the positive intent and ability to hold to maturity are classified as held-to-maturity and reported at amortized cost.

[18] An at-the-money plain-vanilla interest rate swap that involves no payments between the parties at inception would not be considered as having a financing element present at inception even though, due to the implicit forward rates derived from the yield curve, the parties to the contract have an expectation that the comparison of the fixed and floating legs will result in payments being made by one party in the earlier periods and being made by the counterparty in the later periods of the swap's term. If a derivative instrument is an at-the-money or out-of-the-money option contract or contains an at-the-money or out-of-the-money option contract, a payment made at inception to the writer of the option for the option's time value by the counterparty should not be viewed as evidence that the derivative instrument contains a financing element. In contrast, if the contractual terms of a derivative have been structured to ensure that net payments will be made by one party in the earlier periods and subsequently returned by the counterparty in the later periods of the derivative's term, that derivative instrument should be viewed as containing a financing element even if the derivative has a fair value of zero at inception.

— *Trading*. Debt and equity securities that are bought and held principally for the purpose of selling them in the near term are classified as trading securities and reported at fair value, with unrealized gains and losses included in earnings.

— *Available-for-sale*. Debt and equity securities that have readily determinable fair values not classified as either held-to-maturity or trading are classified as available-for-sale and reported at fair value, with unrealized gains and losses excluded from earnings and reported in other comprehensive income.

- When the fair value of an available-for-sale or held-to-maturity equity security is less than its amortized cost and the decline is other-than-temporary, the cost basis of the security should be written down to fair value. This amount becomes the new cost basis of the asset, and the amount of the write-down should be included in earnings as a realized loss.
- When the fair value of an available-for-sale or held-to-maturity debt security is less than its amortized cost and the decline is other-than-temporary (because an entity intends to sell the security or more likely than not will be required to sell the security before recovery of its amortized cost basis or a credit loss exists), the amount of the other-than-temporary impairment is recognized in earnings. See paragraphs 34A–34E of FASB ASC 320-10-35 for additional information on the determination of the amounts recognized in earnings and other comprehensive income.
- Exhibit 3-7, "Investments in Certain Securities General Disclosure Considerations," summarizes general disclosure considerations.

3.57 FASB ASC 320-10-35 addresses the determination as to when an investment is considered impaired, whether that impairment is other than temporary, and the measurement of an impairment loss. FASB ASC 320-10-35 also includes accounting considerations subsequent to the recognition of an other-than-temporary impairment and requires certain disclosures about unrealized losses that have not been recognized as other-than-temporary impairments.

Exhibit 3-7

Investments in Certain Securities
General Disclosure Considerations

According to FASB ASC 320-10-50-2, for securities classified as available-for-sale, disclose by major security type as of the date of each statement of financial position presented

- amortized cost basis;
- aggregate fair value;
- total other-than-temporary impairment recognized in accumulated other comprehensive income;

(continued)

Exhibit 3-7—continued

Investments in Certain Securities
General Disclosure Considerations

- total gains for securities with net gains in accumulated other comprehensive income;
- total losses for securities with net losses in accumulated other comprehensive income; and
- information about the contractual maturities of those securities as of the date of the most recent statement of financial position presented.

According to FASB ASC 320-10-50-5, for securities classified as held-to-maturity, disclose by major security type as of the date of each statement of financial position presented

- amortized cost basis;
- aggregate fair value;
- gross unrecognized holding gains;
- gross unrecognized holding losses;
- net carrying amount;
- total other-than-temporary impairment recognized in accumulated other comprehensive income;
- gross gains and losses in accumulated other comprehensive income for any derivatives that hedged the forecasted acquisition of the held-to-maturity securities; and
- information about the contractual maturities of those securities as of the date of the most recent statement of financial position presented. (Maturity information may be combined in appropriate groupings. Securities not due at a single maturity date, such as mortgage-backed securities, may be disclosed separately rather than allocated over several maturity groupings; if allocated, the basis for allocation also should be disclosed.)

According to FASB ASC 320-10-50-9, for each period for which the results of operations are presented, disclose

- the proceeds from sales of available-for-sale securities and the gross realized gains and gross realized losses that have been included in earnings as a result of those sales;
- the basis on which the cost of a security sold or the amount reclassified out of accumulated other comprehensive income into earnings was determined (that is, specific identification, average cost, or other method used);
- the gross gains and gross losses included in earnings from transfers of securities from the available-for-sale category into the trading category;
- the amount of the net unrealized holding gain or loss on available-for-sale securities for the period that has been included in accumulated other comprehensive income for the period and the amount reclassified out of accumulated other comprehensive income for the period; and

Exhibit 3-7—continued

Investments in Certain Securities
General Disclosure Considerations

- the portion of trading gains and losses for the period that relates to trading securities still held at the reporting date.

For any sales of or transfers from securities classified as held-to-maturity, disclose the net carrying amount of the sold or transferred security, the net gain or loss in accumulated other comprehensive income for any derivative that hedged the forecasted acquisition of the held-to-maturity security, the related realized or unrealized gain or loss, and the circumstances leading to the decision to sell or transfer the security (such sales or transfers should be rare, except for sales and transfers due to the changes in circumstances identified in FASB ASC 320-10-25-6 (a)–(f) for each period for which results of operations are presented.

Per FASB ASC 320-10-50-6, for all investments in an unrealized loss position (including those that fall within the scope of FASB ASC 325-40) for which other-than-temporary impairments have not been recognized in earnings (including investment for which a portion of an other-than-temporary impairment has been recognized in other comprehensive income), disclose

- as of each date for which a statement of financial position is presented, quantitative information, aggregated by category of investment—each major security type that the entity discloses in accordance with FASB ASC 320-10, and cost method investments—in tabular form:
  - — The aggregate amount of unrealized losses (that is, the amount by which cost or amortized cost exceeds fair value) and
  - — The aggregate related fair value of investments with unrealized losses.

The disclosures in items preceding this paragraph should be segregated by those investments that have been in a continuous unrealized loss position for less than 12 months and those that have been in a continuous unrealized loss position for 12 months or longer.

As of the date of the most recent statement of financial position, additional information, in narrative form, that provides sufficient information to allow financial statement users to understand the quantitative disclosures and the information that the entity considered (both positive and negative) in reaching the conclusion that the impairments are not other than temporary. This disclosure could include all of the following:

- The nature of the investment(s)
- The cause(s) of the impairment(s)
- The number of investment positions that are in an unrealized loss position
- The severity and duration of the impairment(s)
- Other evidence considered by the investor in reaching its conclusion that the investment(s) is not other than temporarily

(continued)

Exhibit 3-7—continued

Investments in Certain Securities
General Disclosure Considerations

impaired, including, for example, industry analyst reports, sector credit ratings, volatility of the security's fair value, and any other information that the investor considers relevant. Additional examples are provided in FASB ASC 320-10-50-6(b)(5)

Per FASB ASC 320-10-50-8A, for interim and annual periods in which an other-than-temporary impairment of a debt security is recognized and only the amount related to a credit loss was recognized in earnings, an entity should disclose by major security type, the methodology and significant inputs used to measure the amount related to credit loss. Examples of significant inputs include but are not limited to all of the following:

- Performance indicators, including default rates, delinquency rates, and percentage of nonperforming assets
- Loan-to-collateral-value ratios
- Third-party guarantees
- Current levels of subordination
- Vintage
- Geographic concentration
- Credit ratings

According to FASB ASC 320-10-50-8B, for each interim and annual reporting period presented, an entity should disclose a tabular rollforward of the amount related to credit losses recognized in earnings in accordance with FASB ASC 320-10-35-34D, which shall include, at a minimum, all of the following:

- The beginning balance of the amount related to credit losses on debt securities held by the entity at the beginning of the period for which a portion of an other-than-temporary impairment was recognized in other comprehensive income
- Additions for the amount related to the credit loss for which an other-than-temporary impairment was not previously recognized
- Reductions for securities sold during the period (realized)
- Reductions for securities for which the amount previously recognized in other comprehensive income was recognized in earnings because the entity intends to sell the security or more likely than not will be required to sell the security before recovery of its amortized cost basis
- If the entity does not intend to sell the security and it is not more likely than not that the entity will be required to sell the security before recovery of its amortized cost basis, additional increases to the amount related the credit loss for which an other-than-temporary impairment was previously recognized
- Reductions for increases in cash flows expected to be collected that are recognized over the remaining life of the security (see FASB ASC 320-10-35-35)

Exhibit 3-7—continued

Investments in Certain Securities
General Disclosure Considerations

- The ending balance of the amount related to credit losses on debt securities held by the entity at the end of the period for which a portion of an other-than-temporary impairment was recognized in other comprehensive income

According to FASB ASC 325-20-50-1, for cost method investments, the investor should disclose the following additional information, if applicable, as of each date for which a statement of financial position is presented:

- The aggregate carrying amount of all cost method investments
- The aggregate carrying amount of cost method investments that the investor did not evaluate for impairment (see FASB ASC 325-20-35), and
- The fact that the fair value of a cost method investment is not estimated if there are no identified events or changes in circumstances that may have a significant adverse effect on the fair value of the investment, and any one of the following:
  - — The investor determined, in accordance with paragraphs 16–19 of FASB ASC 825-10-50, that it is not practicable to estimate the fair value of the investment.
  - — The investor is exempt from estimating fair value for annual reporting periods under FASB ASC 825-10.
  - — The investor is exempt from estimating interim fair values because it does not meet the definition of a publicly traded company.

Examples and Illustrations. Chapter 7 provides an example of the accounting for the reclassification of an available-for-sale security as held-to-maturity. The example also illustrates the application of the audit guidance contained in AU section 332, such as the procedures that might be applied to obtain audit evidence supporting management's intent and ability.

Investments in Other Securities

3.58 The requirements for accounting for investments in other securities generally are prescribed by FASB ASC 323, *Investments—Equity Method and Joint Ventures*, and FASB ASC 325, *Investments—Other*.[19] FASB ASC 323 and 325-20 generally require accounting for those investments using either the cost or the equity method of accounting.

[19] Certain investments in securities require consolidating the financial information of the investee with that of the investor. For example, FASB ASC 810, *Consolidation*, generally requires consolidation for investments in controlled entities. This guide does not address investments that require consolidation.

The Cost Method

3.59 Under the cost method of accounting, investments generally are recorded at the amount paid for them, and the carrying amount is not adjusted for subsequent changes in value unless there is a decline in value below the carrying amount that is considered to be other than temporary. In that situation, the investment should be written down to its fair value, with a corresponding charge to earnings. That amount becomes the new cost basis, and subsequent unrealized gains above that amount should not be recognized.

The Equity Method of Accounting

3.60 Under the equity method of accounting, the investment is initially recorded at cost but is subsequently adjusted for the investor's proportionate share of the investee's earnings and losses, and for dividends from the investee. However, certain conditions must exist before the basis of the investment is reduced below zero.[20]

3.61 If there is a difference between the cost of the investment and the investor's proportionate share of the equity at the date the investment is acquired, the difference generally should be amortized to future earnings based on its underlying character. A decline in the value of the investment below its financial basis that is other than temporary should be recognized through a charge to earnings. That becomes the new carrying amount, and subsequent unrealized gains above that amount should not be recognized.

3.62 The equity method of accounting is sometimes referred to as a one-line consolidation because the investor's equity and net income are the same as if the investee's financial results were consolidated with those of the investor. For example, transactions between the investee and the investor generally are eliminated the same as if consolidated financial statements were prepared.

Selecting Between the Two Methods

3.63 Generally the investor should use the equity method of accounting if it has the ability to exercise significant influence over the operating and financial policies of the investee. There is a rebuttable presumption that an equity interest of 20 percent to 50 percent for an investment in a corporate entity and 3 percent to 5 percent for an investment in a limited partnership gives the investor that ability.

3.64 In concluding on the existence of significant influence, FASB ASC 323-10-15-3 requires entities to consider rights conveyed via investments that are in-substance common stock. According to the FASB ASC glossary, an investment that is *in-substance common stock* has subordination provisions and risks and rewards of ownership that are substantially similar to an investment in common stock.

3.65 Additionally, an investment that is in-substance common stock would not obligate the investee entity to transfer value that the common shareholders would not otherwise participate in. Disclosures are required when the method of accounting for the investment differs from the method that would be expected based on the rebuttable presumption.

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[20] FASB ASC 323-10-35 provides guidance on how an investor should account for its proportionate share on an investee's equity adjustments for other comprehensive income upon a loss of significant influence. Please refer to FASB ASC 323-10-35 for more information.

Fair Value Disclosure Considerations

3.66 Securities are financial instruments. FASB ASC 825, *Financial Instruments*, applies to investments that are accounted for using the cost method, but it specifically exempts those accounted for using the equity method. (FASB ASC 825-10-50-3 also exempts from its requirements nonpublic entities that have total assets of less than $100 million and that have no derivatives, although it does allow for optional disclosure. However, for interim reporting periods, only entities that do not meet the definition of a publicly traded company are exempt from its requirements.)

Summary: Audit Implications

- FASB ASC 815 and FASB ASC 320 require that all derivatives and certain debt and equity securities be measured at fair value. The auditor should determine whether FASB ASC 820-10 specifies the method to be used to determine fair value and evaluate whether the determination of fair value is consistent with the specified valuation method. If the determination of fair value requires the use of estimates, AU section 342, *Auditing Accounting Estimates* (AICPA, *Professional Standards*), provides additional guidance.
- FASB ASC 320, 323, and 325 prescribe the manner in which unrealized gains and losses should be reported. The auditor should gather audit evidence to support the amount of unrealized gains and losses that are recognized in earnings or other comprehensive income or that are disclosed because of the ineffectiveness of the hedging relationship.
- FASB ASC 815-20-25 prescribes the conditions that must be met in order for hedge accounting to be applied, including the requirement for management to document certain considerations. The auditor should gather audit evidence to determine whether management complied with these requirements and to support management's expectation at the inception of the hedge that the hedging relationship will be highly effective and its periodic assessment of the ongoing effectiveness of the hedging relationship.
- Accounting for a particular event or transaction might vary depending on management's intent and ability. For example, whether a debt security is classified as held-to-maturity and reported at its amortized cost depends on management's intent and ability to hold the security to its maturity. Auditing assertions based on management's intent and ability necessitates a variety of special considerations. According to paragraph .03 of AU section 333, *Management Representations* (AICPA, *Professional Standards*), the auditor obtains written representations from management to complement other auditing procedures. In many cases, the auditor applies auditing procedures specifically designed to obtain audit evidence concerning matters that also are the subject of written representations. This also includes the testing of derivatives.

3.67 FASB ASC 815 prescribes a variety of presentation and disclosure considerations for derivatives and securities. The auditor should compare the presentation and disclosure used in their client's financial statements with the requirements of FASB ASC 815 and follow the guidance in AU section 431, *Adequacy of Disclosure in Financial Statements* (AICPA, *Professional Standards*), in evaluating the adequacy of disclosures.

Chapter 4

General Auditing Considerations for Derivative Instruments, Hedging Activities, and Investments in Securities

Overview

4.01 In accordance with paragraph .01 of AU section 150, *Generally Accepted Auditing Standards* (AICPA, *Professional Standards*), an independent auditor plans, conducts, and reports the results of an audit in accordance with generally accepted auditing standards (GAAS). Auditing standards provide a measure of audit quality and the objectives to be achieved in an audit. This section of the guide provides guidance, primarily on the application of the standards of fieldwork. Specifically, this section provides guidance on the risk assessment process (which includes, among other things, obtaining an understanding of the entity and its environment, including its internal controls) and general auditing considerations for derivative instruments, hedging activities, and investments in securities.

4.02 Paragraph .03 of AU section 339, *Audit Documentation* (AICPA, *Professional Standards*), states the auditor must prepare audit documentation in connection with each engagement in sufficient detail to provide a clear understanding of the work performed (including the nature, timing, extent, and results of audit procedures performed), the audit evidence obtained and its source, and the conclusions reached.

Planning and Other Auditing Considerations

4.03 The objective in auditing derivative instruments, hedging activities, and investments in securities is to test that these transactions are accounted for and disclosed in accordance with generally accepted accounting principles (GAAP) or another comprehensive basis of accounting. To accomplish that objective, the independent auditor's responsibility is to plan and perform the audit to obtain reasonable assurance (a high, but not absolute, level of assurance) that material misstatements, whether caused by errors or fraud, are detected. This section addresses general planning considerations and other auditing considerations relevant to derivative instruments, hedging activities, and investments in securities.

Audit Planning

4.04 The first standard of field work states, "the auditor must adequately plan the work and must properly supervise any assistants." AU section 311, *Planning and Supervision* (AICPA, *Professional Standards*), establishes requirements and provides guidance on the considerations and activities applicable to planning and supervision of an audit conducted in accordance with GAAS, including appointment of the independent auditor; preliminary engagement activities; establishing an understanding with the client; preparing a detailed, written audit plan; determining the extent of involvement of professionals with specialized skills; and communicating with those charged with governance and

management. Audit planning also involves developing an overall audit strategy for the expected conduct, organization, and staffing of the audit. The nature, timing, and extent of planning vary with the size and complexity of the entity, and with the auditor's experience with the entity and understanding of the entity and its environment, including its internal control.

4.05 Paragraph .03 of AU section 311 states that the auditor must plan the audit so that it is responsive to the assessment of the risks of material misstatement based on the auditor's understanding of the entity and its environment, including its internal control. Planning is not a discrete phase of the audit, but rather an iterative process that begins with engagement acceptance and continues throughout the audit as the auditor performs audit procedures and accumulates sufficient appropriate audit evidence to support the audit opinion.

Considerations for Audits Performed in Accordance With PCAOB Standards

When planning and performing an integrated audit of financial statements and internal control over financial reporting, auditors should refer to Public Company Accounting Oversight Board (PCAOB) Auditing Standard No. 5, *An Audit of Internal Control Over Financial Reporting That Is Integrated with An Audit of Financial Statements* (AICPA, *PCAOB Standards and Related Rules*, Auditing Standards), regarding planning considerations.

Audit Risk

4.06 Paragraph .12 of AU section 312, *Audit Risk and Materiality in Conducting an Audit* (AICPA, *Professional Standards*), states that audit risk is a function of the risk that the financial statements prepared by management are materially misstated and the risk that the auditor will not detect such material misstatement. The auditor should consider audit risk in relation to the relevant assertions related to individual account balances, classes of transactions, and disclosures and at the overall financial statement level.

4.07 At the account balance, class of transactions, relevant assertion, or disclosure level, audit risk consists of (*a*) the risks of material misstatement (consisting of inherent risk and control risk) and (*b*) detection risk. Paragraph .23 of AU section 312 states that auditors should assess the risk of material misstatement at the relevant assertion level as a basis to design and perform further audit procedures (tests of controls or substantive procedures). It is not acceptable to simply deem risk to be "at the maximum." This assessment may be in qualitative terms, such as high, medium and low, or in quantitative terms, such as percentages. Chapter 5, "Inherent Risk Assessment," and chapter 6, "Control Risk Assessment," provide further guidance concerning inherent and control risk considerations.

4.08 Paragraph .15 of AU section 312 states that in considering audit risk at the overall financial statement level, the auditor should consider risks of material misstatement that relate pervasively to the financial statements taken as a whole and potentially affect many relevant assertions. Risks of this nature often relate to the entity's control environment and are not necessarily identifiable with specific relevant assertions at the class of transactions, account balance, or disclosure level. Such risks may be especially relevant to the auditor's consideration of the risks of material misstatement arising from fraud, for example, through management override of internal control.

Planning Materiality

4.09 Paragraph .04 of AU section 312 notes that the auditor's consideration of materiality is a matter of professional judgment and is influenced by the auditor's perception of the needs of users of financial statements. Materiality judgments are made in light of surrounding circumstances and involve both quantitative and qualitative considerations, as necessary.

4.10 In accordance with paragraphs .27–.28 of AU section 312, the auditor should determine a materiality level for the financial statements taken as a whole when establishing the overall audit strategy for the audit. The auditor often may apply a percentage to a chosen benchmark as a step in determining materiality for the financial statements taken as a whole.

Considerations for Audits Performed in Accordance With PCAOB Standards

When performing an integrated audit of financial statements and internal control over financial reporting, refer to paragraph 20 of PCAOB Auditing Standard No. 5 regarding materiality considerations.

Tolerable Misstatement

4.11 The initial determination of materiality is made for the financial statements taken as a whole. When assessing the risks of material misstatements and designing and performing further audit procedures to respond to the assessed risks, the auditor should allow for the possibility that some misstatements of lesser amounts than the materiality levels determined in accordance with paragraphs .11 and .31 of AU section 312 could, in the aggregate, result in a material misstatement of the financial statements. To do so, the auditor should determine one or more levels of tolerable misstatement. Paragraph .34 of AU section 312 defines *tolerable misstatement* (or *tolerable error*) as the maximum error in a population (for example, the class of transactions or account balance) that the auditor is willing to accept. Such levels of tolerable misstatement are normally lower than the materiality levels.

Qualitative Aspects of Materiality

4.12 As indicated previously, judgments about materiality include both quantitative and qualitative information. According to paragraph .59 of AU section 312, as a result of the interaction of quantitative and qualitative considerations in materiality judgments, misstatements of relatively small amounts that come to the auditor's attention could have a material effect on the financial statements.

4.13 Qualitative considerations also influence the auditor in reaching a conclusion about whether misstatements are material. Paragraph .60 of AU section 312 provides qualitative factors that the auditor may consider relevant in determining whether misstatements are material.

Use of Assertions in Obtaining Audit Evidence

4.14 Paragraphs .14–.19 of AU section 326, *Audit Evidence* (AICPA, *Professional Standards*), discuss the use of assertions in obtaining audit evidence. In representing that the financial statements are fairly presented in accordance with GAAP, management implicitly or explicitly makes assertions regarding the recognition, measurement, and disclosure of information in the financial

statements and related disclosures. Assertions used by the auditor fall into the following categories:

Categories of Assertions

	Description of Assertions		
	Classes of Transactions and Events During the Period	*Account Balances at the End of the Period*	*Presentation and Disclosure*
Occurrence/ Existence	Transactions and events that have been recorded have occurred and pertain to the individual.	Assets, liabilities, and equity interests exist.	Disclosed events and transactions have occurred.
Rights and Obligations	—	The entity holds or controls the rights to assets, and liabilities are the obligations of the entity.	Disclosed events and transactions pertain to the entity.
Completeness	All transactions and events that should have been recorded have been recorded.	All assets, liabilities, and equity interests that should have been recorded have been recorded.	All disclosures that should have been included in the financial statements have been included.
Accuracy/ Valuation and Allocation	Amounts and other data relating to recorded transactions and events have been recorded appropriately.	Assets, liabilities, and equity interests are included in the financial statements at appropriate amounts and any resulting valuation or allocation adjustments are recorded appropriately.	Financial and other information is disclosed fairly and at appropriate amounts.
Cut-off	Transactions and events have been recorded in the correct accounting period.	—	—
Classification and Under-standability	Transactions and events have been recorded in the proper accounts.	—	Financial information is appropriately presented and described and information in disclosures is expressed clearly.

4.15 According to paragraph .103 of AU section 314, *Understanding the Entity and Its Environment and Assessing the Risks of Material Misstatement* (AICPA, *Professional Standards*), the auditor should use information gathered by performing risk assessment procedures, including the audit evidence obtained in evaluating the design of controls and determining whether they have been implemented, as audit evidence to support the risk assessment. The auditor should use the risk assessment to determine the nature, timing, and extent of further audit procedures to be performed.

Understanding the Entity, Its Environment, and Its Internal Control

4.16 AU section 314 establishes requirements and provides guidance about implementing the second standard of fieldwork, as follows:

> The auditor must obtain a sufficient understanding of the entity and its environment, including its internal control, to assess the risks of material misstatement of the financial statements whether due to error or fraud, and to design the nature, timing, and extent of further audit procedures.

4.17 Obtaining an understanding of the entity and its environment, including its internal control, is a continuous, dynamic process of gathering, updating, and analyzing information throughout the audit. Throughout this process, AU section 316, *Consideration of Fraud in a Financial Statement Audit* (AICPA, *Professional Standards*), provides additional guidance to the auditor. See paragraphs 4.42–.43 for additional guidance pertaining to AU section 316.

4.18 This section and chapters 5 and 6 address the unique aspects of derivative instruments, hedging activities, and investments in securities that may be helpful in developing the required understanding of the entity, its environment, and its internal control.

Risk Assessment Procedures

4.19 As described in AU section 326, audit procedures performed to obtain an understanding of the entity and its environment, including its internal control, to assess the risks of material misstatement at the financial statement and relevant assertion levels are referred to as *risk assessment procedures*. Paragraph .21 of AU section 326 states that the auditor must perform risk assessment procedures to provide a satisfactory basis for the assessment of risks at the financial statement and relevant assertion levels. Risk assessment procedures by themselves do not provide sufficient appropriate audit evidence on which to base the audit opinion and must be supplemented by further audit procedures in the form of tests of controls, when relevant or necessary and substantive testing procedures.

4.20 In accordance with paragraph .06 of AU section 314, the auditor should perform the following risk assessment procedures to obtain an understanding of the entity and its environment, including its internal control:

- Inquiries of management and others within the entity
- Analytical procedures
- Observation and inspection

See paragraphs .06–.13 of AU section 314 for additional guidance on risk assessment procedures.

Discussion Among the Audit Team

4.21 In obtaining an understanding of the entity and its environment, including its internal control, paragraph .14 of AU section 314 states the members of the audit team, including the auditor with final responsibility for the audit, should discuss the susceptibility of the entity's financial statements to material misstatements. This discussion could be held concurrently with the discussion among the audit team that is specified by AU section 316 to discuss the susceptibility of the entity's financial statements to fraud.

Understanding of the Entity and Its Environment

4.22 AU section 314 requires auditors to obtain an understanding of the entity and its environment, including its internal control. In accordance with paragraph .04 of AU section 314, the auditor should use professional judgment to determine the extent of its understanding of the entity and its environment, including its internal control. The auditor's primary consideration is whether the understanding that has been obtained is sufficient (*a*) to assess risks of material misstatement of the financial statements and (*b*) to design and perform further audit procedures (tests of internal controls and substantive tests).

4.23 According to paragraph .21 of AU section 314, the auditor's understanding of the entity and its environment consists of an understanding of the following aspects:

- Industry, regulatory, and other external factors
- Nature of the entity
- Objectives and strategies and the related business risks that may result in a material misstatement of the financial statements
- Measurement and review of the entity's financial performance
- Internal control, which includes the selection and application of accounting policies (see the following section for further discussion)

Refer to appendix A, "Understanding the Entity and Its Environment," of AU section 314 for examples of matters that the auditor may consider in obtaining an understanding of the entity and its environment relating to categories (*a–d*).

Chapters 5 and 6 provide guidance about (*a*) industry, regulatory, and other external factors; (*b*) nature of the entity; (*c*) client's objectives, strategies, and related business risks; and (*d*) client's measurement and review of the client's financial performance.

Understanding of Internal Control

4.24 Paragraph .40 of AU section 314 states that the auditor should obtain an understanding of the five components of internal control sufficient to assess the risks of material misstatement of the financial statements whether due to error or fraud, and to design the nature, timing, and extent of further audit

procedures. The auditor should obtain a sufficient understanding by performing risk assessment procedures to

- evaluate the design of controls relevant to an audit of financial statements and
- determine whether they have been implemented.

4.25 The auditor should use such knowledge to

- identify types of potential misstatements;
- consider factors that affect the risks of material misstatement; and
- design tests of controls, when applicable, and substantive procedures.

4.26 Paragraph .09 of AU section 318, *Performing Audit Procedures in Response to Assessed Risks and Evaluating the Audit Evidence Obtained* (AICPA, *Professional Standards*), states that because effective internal control generally reduces, but does not eliminate, risks of material misstatement, tests of controls reduce, but do not eliminate, the need for substantive testing procedures. In addition, analytical procedures alone may not be sufficient in some cases. The objective of obtaining an understanding of controls is to evaluate the design of controls and determine whether they have been implemented for the purpose of assessing the risks of material misstatement. In contrast, the objective of testing the operating effectiveness of controls is to determine whether the controls, as designed, prevent or detect a material misstatement.

4.27 Paragraph .41 of AU section 314 defines *internal control* as "a process—effected by those charged with governance, management, and other personnel—designed to provide reasonable assurance about the achievement of the entity's objectives with regard to reliability of financial reporting, effectiveness and efficiency of operations, and compliance with applicable laws and regulations." Internal control consists of five interrelated components:

a. Control environment
b. Risk assessment
c. Information and communication systems
d. Control activities
e. Monitoring

Refer to paragraphs .40–.101 of AU section 314 for a detailed discussion of the internal control components. Chapter 6 provides detailed guidance about the auditor's consideration of internal control in auditing derivative instruments, hedging activities, and investments in securities.

Assessment of Risks of Material Misstatement and the Design of Further Audit Procedures

4.28 As discussed previously, risk assessment procedures allow the auditor to gather the information necessary to obtain an understanding of the entity and its environment, including its internal control. This knowledge provides a basis for assessing the risks of material misstatement of the financial statements. These risk assessments are then used to design further audit procedures, such as tests of controls, substantive tests, or both. This section provides

guidance on assessing the risks of material misstatement and how to design further audit procedures that effectively respond to those risks.

Assessing the Risks of Material Misstatement

4.29 Paragraph .102 of AU section 314 states that the auditor should identify and assess the risks of material misstatement at the financial statement level and at the relevant assertion level related to classes of transactions, account balances, and disclosures. For this purpose, the auditor should

- identify risks throughout the process of obtaining an understanding of the entity and its environment, including relevant controls that relate to the risks, and considering the classes of transactions, account balances, and disclosures in the financial statements;
- relate the identified risks to what can go wrong at the relevant assertion level;
- consider whether the risks are of a magnitude that could result in a material misstatement of the financial statements; and
- consider the likelihood that the risks could result in a material misstatement of the financial statements.

4.30 The auditor should use information gathered by performing risk assessment procedures, including the audit evidence obtained in evaluating the design of controls and determining whether they have been implemented as audit evidence to support the risk assessment. The auditor should use the assessment of the risks of material misstatement at the relevant assertion level as the basis to determine the nature, timing, and extent of further audit procedures to be performed. Paragraph .104 of AU section 314 states the auditor should determine whether the identified risks of material misstatement relate to specific relevant assertions related to classes of transactions, account balances, and disclosures, or whether they relate more pervasively to the financial statements taken as a whole and potentially affect many relevant assertions.

Identification of Significant Risks

4.31 Paragraph .110 of AU section 314 states that, as part of the assessment of the risks of material misstatement, the auditor should determine which of the risks identified are, in the auditor's judgment, risks that require special audit consideration (such risks are defined as *significant risks*). One or more significant risks normally arise on most audits. In exercising this judgment, the auditor should consider inherent risk to determine whether the nature of the risk, the likely magnitude of the potential misstatement including the possibility that the risk may give rise to multiple misstatements, and the likelihood of the risk occurring are such that they require special audit consideration. Paragraphs .45 and .53 of AU section 318 describe the consequences for further audit procedures of identifying a risk as significant. Examples may include valuation of derivatives and securities.

Designing and Performing Further Audit Procedures

4.32 AU section 318 provides guidance about implementing the third standard of fieldwork, as follows:

> The auditor must obtain sufficient appropriate audit evidence by performing audit procedures to afford a reasonable basis for an opinion regarding the financial statements under audit.

4.33 To reduce audit risk to an acceptably low level, the auditor (*a*) should determine overall responses to address the assessed risks of material misstatement at the financial statement level and (*b*) should design and perform further audit procedures whose nature, timing, and extent are responsive to the assessed risks of material misstatement at the relevant assertion level. The purpose is to provide a clear linkage between the nature, timing, and extent of the auditor's further audit procedures and the assessed risks. The overall responses and the nature, timing, and extent of the further audit procedures to be performed are matters for the professional judgment of the auditor and are based on the auditor's assessment of the risks of material misstatement.

Overall Responses

4.34 According to paragraph .04 of AU section 318, the auditor's overall responses to address the assessed risks of material misstatement at the financial statement level may include emphasizing to the audit team the need to maintain professional skepticism in gathering and evaluating audit evidence, assigning more experienced staff or those with specialized skills or using specialists, providing more supervision, or incorporating additional elements of unpredictability in the selection of further audit procedures to be performed. Additionally, the auditor may make general changes to the nature, timing, or extent of further audit procedures as an overall response, for example, performing substantive procedures at period end instead of at an interim date.

Further Audit Procedures

4.35 Further audit procedures provide important audit evidence to support an audit opinion. These procedures consist of tests of controls and substantive tests. According to paragraph .03 of AU section 318, the auditor should design and perform further audit procedures whose nature, timing, and extent are responsive to the assessed risks of material misstatement at the relevant assertion level.

4.36 According to paragraph .08 of AU section 318, an auditor may, in some cases, determine that performing only substantive procedures is appropriate. However, the auditor often will determine that a combined audit approach using both tests of the operating effectiveness of controls and substantive procedures is an effective audit approach.

4.37 According to paragraph .23 of AU section 318, the auditor should perform tests of controls when the auditor's risk assessment includes an expectation of the operating effectiveness of controls or when substantive procedures alone do not provide sufficient appropriate audit evidence at the relevant assertion level.

4.38 According to paragraph .51 of AU section 318, regardless of the assessed risk of material misstatement, the auditor should design and perform substantive procedures for all relevant assertions related to each material class of transactions, account balance, and disclosure.

4.39 The auditor's substantive procedures should include the following audit procedures related to the financial statement reporting process:

- Agreeing the financial statements, including their accompanying notes, to the underlying accounting records

- Examining material journal entries and other adjustments made during the course of preparing the financial statements

The nature and extent of the auditor's examination of journal entries and other adjustments depend on the nature and complexity of the entity's financial reporting system and the associated risks of material misstatement.

Evaluating Misstatements

4.40 Based on the results of substantive procedures, the auditor may identify misstatements in accounts or notes to the financial statements. Paragraph .42 of AU section 312 states that auditors must accumulate all known and likely misstatements identified during the audit, other than those that the auditor believes are trivial and communicate them to the appropriate level of management. Paragraph .50 of AU section 312 further states that auditors must consider the effects, both individually and in the aggregate, of misstatements (known and likely) that are not corrected by the entity. This consideration includes, among other things, the effect of misstatements related to prior periods.

4.41 For detailed guidance on evaluating audit findings and audit evidence, refer to AU sections 312 and 326.

Consideration of Fraud in a Financial Statement Audit

4.42 AU section 316 is the primary source of authoritative guidance about an auditor's responsibilities concerning the consideration of fraud in a financial statement audit. AU section 316 establishes standards and provides guidance to auditors in fulfilling their responsibility to plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether caused by error or fraud as stated in paragraph .02 of AU section 110, *Responsibilities and Functions of the Independent Auditor* (AICPA, *Professional Standards*).

> *Considerations for Audits Performed in Accordance With PCAOB Standards*
>
> When performing an integrated audit of financial statements and internal control over financial reporting, refer to paragraphs 14–15 of PCAOB Auditing Standard No. 5 regarding fraud considerations.

4.43 There are two types of misstatements relevant to the auditor's consideration of fraud in a financial statement audit: (*a*) misstatements arising from fraudulent financial reporting and (*b*) misstatements arising from misappropriation of assets. Additionally, three conditions generally are present when fraud occurs. First, management or other employees have an incentive or are under pressure, which provides a reason to commit fraud. Second, circumstances exist—for example, the absence of controls, ineffective controls, or the ability of management to override controls—that provide an opportunity for a fraud to be perpetrated. Third, those involved are able to rationalize committing a fraudulent act.

The Importance of Exercising Professional Skepticism

4.44 Because of the characteristics of fraud, the auditor's exercise of professional skepticism is important when considering the risk of material misstatement due to fraud. Professional skepticism is an attitude that includes a questioning mind and a critical assessment of audit evidence. Consistent with paragraph .08 of AU section 230, *Due Professional Care in the Performance of Work* (AICPA, *Professional Standards*), gathering and objectively evaluating audit evidence requires the auditor to consider the competency and sufficiency of the evidence. Because evidence is gathered and evaluated throughout the audit, professional skepticism should be exercised throughout the audit process. This would include having a mindset that recognizes the possibility that a material misstatement due to fraud could be present, regardless of any past experience with the entity and regardless of the auditor's belief about management's honesty and integrity. Furthermore, professional skepticism requires an ongoing questioning of whether the information and evidence obtained suggests that a material misstatement due to fraud has occurred.

Discussion Among Engagement Personnel Regarding the Risks of Material Misstatement Due to Fraud [1]

4.45 Members of the audit team should discuss the potential for material misstatement due to fraud in accordance with the requirements of paragraphs .14–.18 of AU section 316. The discussion among the audit team members about the susceptibility of the entity's financial statements to material misstatement due to fraud should include a consideration of the known external and internal factors affecting the entity that might (*a*) create incentives or pressures for management and others to commit fraud, (*b*) provide the opportunity for fraud to be perpetrated, and (*c*) indicate a culture or environment that enables management to rationalize committing fraud. Communication among the audit team members about the risks of material misstatement due to fraud also should continue throughout the audit.

4.46 Refer to AU section 316 for additional guidance on fraud.

Management Representations

4.47 AU section 333, *Management Representations* (AICPA, *Professional Standards*), provides guidance to auditors on obtaining written representations from management. The auditor should obtain written representations from management confirming aspects of management's intent and ability that affect assertions about derivatives and securities, such as its intent and ability to hold a debt security until its maturity or to enter into a forecasted transaction for which hedge accounting is applied. In addition, the auditor should consider obtaining written representations from management confirming other aspects of derivatives and securities transactions that affect assertions about them.[2]

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[1] The brainstorming session to discuss the entity's susceptibility to material misstatements due to fraud could be held concurrently with the brainstorming session required under AU section 314, *Understanding the Entity and Its Environment and Assessing the Risks of Material Misstatement* (AICPA, *Professional Standards*), to discuss the potential of the risk of material misstatement.

[2] Appendix B, "Additional Illustrative Representations," of AU section 333, *Management Representations* (AICPA, *Professional Standards*), provides illustrative representations about derivatives and securities transactions.

Considerations for Audits Performed in Accordance With PCAOB Standards

When performing an integrated audit of financial statements and internal control over financial reporting, refer to paragraphs 75–77 of PCAOB Auditing Standard No. 5 for additional required written representations to be obtained from management.

4.48 In addition, the auditor might obtain written representations from management regarding the reasonableness of significant assumptions, including whether they appropriately reflect management's intent and ability to carry out specific courses of action on behalf of the entity where relevant to the use of fair value measurements or disclosures. Depending on the nature, materiality, and complexity of fair values, management representations about fair value measurements and disclosures contained in the financial statements also may include representations about

- the appropriateness of the measurement methods, including related assumptions, used by management in determining fair value and the consistency in application of the methods;
- the completeness and adequacy of disclosures related to fair values; and
- whether subsequent events require adjustment to the fair value measurements and disclosures included in the financial statements.

4.49 AU section 380, *The Auditor's Communication With Those Charged With Governance* (AICPA, *Professional Standards*), establishes standards and provides guidance on the auditor's communication with those charged with governance in relation to an audit of financial statements. Although this section applies regardless of an entity's governance structure or size, particular considerations apply where all of those charged with governance are involved in managing an entity. This section does not establish requirements regarding the auditor's communication with an entity's management or owners unless they are also charged with a governance role.

4.50 Paragraph .05 of AU section 380 establishes that the auditor must communicate with those charged with governance matters related to the financial statement audit that are, in the auditor's professional judgment, significant and relevant to the responsibilities of those charged with governance in overseeing the financial reporting process.

Communicating Internal Control Related Matters

4.51 Paragraph .04 of AU section 325, *Communicating Internal Control Related Matters Identified in an Audit* (AICPA, *Professional Standards*), states in an audit of financial statements, the auditor is not required to perform procedures to identify deficiencies in internal control or to express an opinion on the effectiveness of the client's internal control. However, during the course of an audit, the auditor may become aware of control deficiencies while obtaining an understanding of the client's internal control; assessing the risks of material misstatement of the financial statements due to error or fraud; performing further audit procedures to respond to assessed risk; communicating with management or others (for example, internal auditors or governmental authorities); or otherwise. The auditor's awareness of deficiencies in internal control varies

with each audit and is influenced by the nature, timing, and extent of audit procedures performed, as well as other factors. According to paragraph .17 of AU section 325, control deficiencies identified during the audit that upon evaluation are considered significant deficiencies or material weaknesses should be communicated in writing to management and those charged with governance as a part of each audit, including significant deficiencies and material weaknesses that were communicated to management and those charged with governance in previous audits, and have not yet been remediated. Significant deficiencies and material weaknesses that previously were communicated and have not yet been remediated may be communicated in writing by referring to the previously issued written communication and the date of that communication. According to paragraph .05 of AU section 325, a *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance. A *material weakness* is a deficiency, or a combination of deficiencies in internal control, such that there is a reasonable possibility[3] that a material misstatement of the financial statements will not be prevented, or detected and corrected, on a timely basis. The written communication to the client about significant deficiencies and material weaknesses is best made by the report release date, (which is the date the auditor grants the entity permission to use the auditor's report in connection with the financial statements) but should be made no later than 60 days following the report release date.

Considerations for Audits Performed in Accordance With PCAOB Standards

When performing an integrated audit of financial statements and internal control over financial reporting, refer to paragraphs 62–70 of PCAOB Auditing Standard No. 5 when evaluating whether a deficiency exists and whether deficiencies, either individually or in combination with other deficiencies, are material weaknesses. Refer to paragraphs 78–84 of PCAOB Auditing Standard No. 5 on communicating certain matters.

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[3] For purposes of this definition, a reasonable possibility exists when the likelihood of the event is either *reasonably possible* or *probable*, as those terms are defined in the Financial Accounting Standards Board *Accounting Standards Codification* glossary.

Chapter 5

Inherent Risk Assessment

Assessing Inherent Risk

5.01 AU section 314, *Understanding the Entity and its Environment and Assessing the Risks of Material Misstatement* (AICPA, *Professional Standards*), establishes standards and provides guidance with respect to the auditor's responsibilities to obtain a sufficient understanding of the entity and its environment, including its internal control for the purposes of identifying and assessing the risks of material misstatement whether due to error or fraud. AU section 312, *Audit Risk and Materiality in Conducting an Audit* (AICPA, *Professional Standards*), describes the term *risk of material misstatement* as the combined assessment of inherent and control risks; however, auditors may make separate assessments of inherent risk and control risk. The inherent risk for an assertion about a derivative or security is its susceptibility to a material misstatement, assuming that there are no related controls. To assess inherent risk, an auditor starts by understanding the nature of the entity's business and the economics and business purpose of its financing and investing activities, all of which may influence the entity's decision to enter into derivatives and securities transactions. For example, when concerns exist about increases in interest rates, an entity may seek to fix the effective interest rate levels of its variable-rate debt by entering into interest rate swap agreements.

5.02 It may be helpful for the auditor to consider whether the entity's derivatives and securities transactions are initiated primarily in response to risk management or profit initiatives. Derivatives and securities transactions initiated primarily in response to cost control initiatives involve risk management activities, such as hedging. On the other hand, derivatives and securities transactions initiated in response to profit initiatives include the use of derivatives and securities as investments. The inherent risks associated with risk management differ from those associated with investing due to the differing objectives of each of those strategic decisions.

5.03 For derivatives, assessing inherent risk can be difficult because of the combination of their characteristics, including the following:

- *Interaction with other activities.* The impact of derivatives on the entity and the related risks usually cannot be considered in isolation because derivatives usually interact (sometimes in complex ways) with other transactions and activities of the entity.
- *Asymmetrical risks.* The risks of some derivatives may not be symmetrical. For example, the writer of an option has the potential to incur an unlimited loss, while the gain on the transaction is limited to the amount of the premium received.
- *Volatility.* The value of a derivative can be volatile, particularly in an uncertain economic environment. Volatility is an increasingly important consideration in the wake of the recent recession and banking industry crisis.

Sources of Information About Inherent Risk

5.04 Paragraph .06 of AU section 314 states that the auditor should perform risk assessment procedures in order to obtain an understanding of the entity and its environment, including its internal control. Risk assessment procedures involve (*a*) inquiries of management and others within the entity, (*b*) analytical review procedures, and (*c*) inspection and observation. As it relates to derivatives and securities, auditors may use a variety of sources to gather the information necessary to assess inherent risk, including

- inquiries of management, particularly those responsible for derivatives and securities activities, including the trading and subsequent valuation of those instruments;
- other information, such as minutes of meetings of those charged with governance, asset or liability, investment, treasury or other similar functions and committees;
- reports prepared by internal auditors that address the entity's finance function;
- activity reports of typical transaction accounts; for example, a register detailing purchases and sales and any interest activity, including interest purchased, sold, and received for certain securities over the course of a given period;
- actual contracts, such as interest rate swap agreements;
- interim financial information that may include derivatives and securities transactions and any changes in the values of those instruments;
- documented cash management, treasury or investment policies or strategic plans; and
- prior experience with the entity or with similar derivatives and securities.

Inherent Risk Factors

5.05 Paragraph .08 of AU section 332, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* (AICPA, *Professional Standards*), gives examples of considerations that might affect the auditor's assessment of the inherent risk for assertions about derivatives and securities:

- Management's objectives
- The complexity of the features of the derivative or security
- Whether the transaction that gave rise to the derivative or security involved the exchange of cash
- The entity's experience with the derivative or security
- Whether a derivative is freestanding or an embedded feature of an agreement
- Whether external factors affect the assertion (including credit risk, market risk, basis risk, and legal risk)
- The evolving nature of derivatives and the applicable generally accepted accounting principles (GAAP)

- Significant reliance on outside parties
- GAAP may require developing assumptions about future conditions

This section provides additional discussion of some of those examples.

Management's Objectives

5.06 The accounting for derivatives and securities may depend on management's intent and its ability to realize those intentions; for example,

- a forecasted transaction must be probable to be eligible as the hedged item, which depends on management's intent and ability. However, paragraph .55 of AU section 332 states that GAAP requires that the likelihood that the transaction will take place not be based solely on management's intent. Instead, the transaction's probability should be supported by observable facts and the attendant circumstances;
- the ability to report debt securities classified as held-to-maturity at their cost may depend on management's intent and ability to hold them to their maturity;
- equity securities reported using the equity method may depend on management's ability to significantly influence the investee; and
- circumstances where the accounting treatment depends on subjective criteria, such as management's intent and ability, tend to increase inherent risk.

> *Examples and Illustrations.* Chapter 7, "Performing Audit Procedures in Response to Assessed Risks," describes procedures auditors may perform to gather evidence relating to management's intent and ability.

5.07 The accounting for derivatives depends on management's objectives in entering into those instruments. As described in chapter 3, "General Accounting Considerations for Derivatives and Securities," derivatives can be held for hedging or investment purposes, which in turn determines how changes in the fair value of those derivatives are reported. Derivatives used as hedges are subject to the risk that market conditions will change yielding the hedged relationship as something less than highly effective, meaning that the continued application of hedge accounting would not be in conformity with GAAP.

Complexity of the Features of the Derivative or Security

5.08 The more complex a derivative or security, the more difficult it is to determine its fair value. The fair values of derivatives and securities that are exchange-traded are available from independent pricing sources, such as financial publications and Web based market monitoring tools. The fair values of other derivatives and securities may be available through broker-dealers not affiliated with the entity. Determining fair value can be particularly difficult, however, if a transaction has been customized to meet individual user needs. For example, determining the value of customized interest rate swaps requires

various quantitative assumptions and modeling. Valuation risk exists whenever models (as opposed to quoted market prices) are used to determine the fair value of a derivative or security. Valuation risk is the risk associated with the imperfections and subjectivity of these models and the assumptions used to build these models.

Transactions Not Involving an Exchange of Cash

5.09 Many derivatives and securities transactions do not involve an exchange of cash when they are initiated. For example, parties to a foreign exchange forward contract may agree to exchange cash at a later date based upon movements in currency rates over the life of the contract. Contracts that do not involve an initial exchange of cash are subject to an increased inherent risk that they will not be identified and recorded in the financial statements.

> *Examples and Illustrations.* Chapter 7 provides example procedures auditors may perform to gather evidence supporting completeness assertions about derivatives that do not involve an exchange of cash.

The Entity's Experience With the Derivative or Security

5.10 In assessing the risk of material misstatement, auditors might assess the experience senior management has with financing and investing activities. Significant use of derivatives and securities, particularly complex derivatives, without relevant expertise within the entity increases inherent risk. In addition, infrequent transactions are more likely to be overlooked by management for consideration of relevant measurement and disclosure issues.

Freestanding Versus Embedded Features

5.11 As described in chapter 3, certain derivatives may be embedded in other contracts. Embedded derivatives are less likely to be identified by management than derivatives that are freestanding contracts, which increases the inherent risk. In making inquiries of management, auditors might become aware of agreements that may contain embedded derivatives, and would therefore be evaluated for valuation and disclosure purposes. Exhibit 5-1, "Examples of Hybrid Instruments That May Contain Embedded Derivatives," provides some examples of agreements that may contain embedded derivatives.

Exhibit 5-1

Examples of Hybrid Instruments That May Contain Embedded Derivatives

Name	*Description*
Inverse floater	A bond with a coupon rate of interest that varies inversely with changes in specified general interest rate levels or indexes (for example, London Interbank Offered Rate).

Exhibit 5-1—continued

Examples of Hybrid Instruments That May Contain Embedded Derivatives

Name	*Description*
Levered inverse floater	A bond with a coupon rate of interest that varies indirectly with changes in general interest rate levels and applies a multiplier (greater than 1.00) to the specified index in its calculation of interest.
Delevered floater	A bond with a coupon rate of interest that lags overall movements in specified general interest rate levels or indexes.
Ratchet floater	A bond that pays a floating rate of interest and has an adjustable cap, adjustable floor, or both that move in sync with each new reset rate.
Equity-indexed note	A bond for which the return of interest, principal, or both is tied to a specified equity security or index (for example, the Standard and Poor's 500 index). This instrument may contain a fixed or varying coupon rate and may place all or a portion of principal at risk.
Variable principal redemption bond	A bond whose principal redemption value at maturity depends on the change in an underlying index over a predetermined observation period. A typical circumstance would be a bond that guarantees a minimum par redemption value of 100 percent and provides the potential for a supplemental principal payment at maturity as compensation for the below-market rate of interest offered with the instrument.
Crude oil knock-in note	A bond that has a 1 percent coupon and guarantees repayment of principal with upside potential based on the strength of the oil market.
Gold-linked bull note	A bond that has a fixed 3 percent coupon and guarantees repayment of principal with upside potential if the price of gold increases.
Disaster bond	A bond that pays a coupon above that of an otherwise comparable traditional bond; however, all or a substantial portion of the principal amount is subject to loss if a specified disaster experience occurs.
Specific equity-linked bond	A bond that pays a coupon slightly below that of traditional bonds of similar maturity; however, the principal amount is linked to the stock market performance of an equity investee of the issuer. The issuer may settle the obligation by delivering the shares of the equity investee or may deliver the equivalent fair value in cash.

(continued)

Exhibit 5-1—continued

Examples of Hybrid Instruments That May Contain Embedded Derivatives

Name	*Description*
Short-term loan with a foreign currency option	A U.S. lender issues a loan at an above-market interest rate. The loan is made in U.S. dollars, the borrower's functional currency, and the borrower has the option to repay the loan in U.S. dollars or in a fixed amount of a specified foreign currency.
Certain purchases in a foreign currency	A U.S. company enters into a contract to purchase corn from a local American supplier in six months for yen, for example; the yen is the functional currency of neither party to the transaction. The corn is expected to be delivered and used over a reasonable period in the normal course of business.
Convertible debt instrument	An investor receives a below-market interest rate and receives the option to convert its debt instrument into the equity of the issuer at an established conversion rate. The terms of the conversion require that the issuer deliver shares of stock to the investor.

[1] This table was derived from paragraphs 165–226 of the Financial Accounting Standards Board *Accounting Standards Codification* 815-15-55, which has additional examples and descriptions of the agreements and provides examples and accounting guidance.

Risks Related to External Factors

5.12 Derivatives and securities may be affected by a variety of risks related to external factors including the following:

- *Credit risk.* According to the Financial Accounting Standards Board (FASB) *Accounting Standards Codification* glossary, for purposes of a hedged item in a fair value hedge, credit risk is the risk of changes in the hedged item's fair value attributable to both changes in the obligor's creditworthiness and changes in the spread over the benchmark interest rate with respect to the hedged item's credit sector at inception of the hedge. For purposes of a hedged transaction in a cash flow hedge, credit risk is the risk of changes in the hedged transaction's cash flows attributable to default, changes in the obligor's creditworthiness, and changes in the spread over the benchmark interest rate with respect to the hedged item's credit sector at inception of the hedge. Entities often quantify this risk of loss as the derivative's replacement cost that is, the current market value of an identical contract. The requirement that participants settle changes in the value of their positions daily mitigates the credit risk of many derivatives traded under uniform rules through an organized exchange (*exchange-traded derivatives*).

- *Counterparty risk* connotes the exposure to the aggregate credit risk posed by all transactions with one counterparty.
- *Settlement risk.* Settlement risk is the related exposure that a counterparty may fail to perform under a contract after the end user has delivered funds or assets according to its obligations. Settlement risk relates almost solely to over-the-counter contracts (that is, nonexchange-traded instruments.) One method for minimizing settlement risk is to enter into a master netting agreement, which allows the parties to offset all their related payable and receivable positions at settlement.
- *Market risk.* Market risk relates broadly to economic losses due to adverse changes in market factors that affect the fair value of the derivative or security. Related risks include the following:
  - — *Price risk*, which relates to changes in the level of prices due to changes in interest rates, foreign exchange rates, or, in the case of derivatives, other factors that relate to market volatility of the underlying rate, index, or price.
  - — *Liquidity risk*, which relates to changes in the ability to sell or dispose of the security or derivative. Derivatives bear the additional risk that a lack of sufficient contracts or willing counterparties may make it difficult to close out the derivative or enter into an offsetting contract.
- *Basis risk.* Derivatives used in hedging transactions bear additional risk for the risk of loss from ineffective hedging activities, referred to as *basis risk*. This risk is the difference between the fair value (or cash flows) of the hedged item and the fair value (or cash flows) of the hedging derivative. The entity is subject to the risk that fair values (or cash flows) will change so that the hedge will no longer be highly effective.
- *Legal risk.* Legal risk relates to losses due to a legal or regulatory action that invalidates or otherwise precludes performance by the end user or its counterparty under the terms of the contract or related netting arrangements. For example, legal risk could arise from insufficient documentation for the contract, an inability to enforce a netting arrangement in bankruptcy, adverse changes in tax laws, or statutes that prohibit entities (such as certain state and local governmental entities) from using certain types of derivatives and securities.

Evolving Nature of GAAP

5.13 As indicated in the first two chapters, the nature and use of derivatives and securities continue to evolve, particularly for derivatives. In addition, as new derivatives come into use, significant issues can arise about the application of existing accounting principles. In some cases, new accounting guidance may have to be developed to address them.

5.14 There are frequent changes to GAAP because of the evolving nature of derivatives and it is therefore important to look to FASB guidance that is most applicable to emerging practice problems in the accounting for derivatives. In addition, see the preface of this guide for a discussion of FASB and the

International Accounting Standards Board's joint project on fair value and financial instruments.

Summary of Considerations

5.15 Exhibit 5-2, "Characteristics That Might Affect Inherent Risk," summarizes the considerations that might affect the auditor's assessment of the inherent risk for assertions about derivatives and securities. Exhibit 5-3, "Questionnaire for Assessing Inherent Risk," is a questionnaire for assessing inherent risk.

Exhibit 5-2

Characteristics That Might Affect Inherent Risk

Characteristic	*Indications of Higher Risk*	*Lower Risk*	*Related Assertion*
Management's objective	Derivatives used as hedges	Derivatives held as investments	Rights and obligations, valuation, and presentation and disclosure
Management's intent and ability	Accounting treatment based on management's intent and ability	Accounting treatment based on objective criteria	Valuation and presentation and disclosure
Complexity of derivative or security	Customized instrument	Less complex instrument traded on an exchange	Rights and obligations, valuation, and presentation and disclosure
Relationship of the derivative to the hedged item	Low degree of correlation	High degree of correlation	Valuation and presentation and disclosure
Entity's experience with the derivative or security	Little experience	Highly experienced	All
Exchange of cash at inception	No exchange of cash at inception	Cash exchanged at inception	Completeness and presentation and disclosure
Freestanding versus embedded	Embedded derivative	Freestanding derivative	Completeness and presentation and disclosure
Credit risk	High counterparty credit risk	Low counterparty credit risk	Valuation
Market risk	Volatile values	Stable values	Valuation
Nature of derivative or security and related accounting principles	Rapidly evolving	Relatively stable	All
Reliance on external expertise	Significant	Minimal	All
Assumptions about future conditions	Significant subjective assumptions	Relatively few, objective and verifiable assumptions	All

Exhibit 5-3

Questionnaire for Assessing Inherent Risk

- How do general economic conditions and the nature of the entity's industry affect its derivatives and securities transactions?
- What derivatives and securities are held by the entity and what is the nature of its main derivatives and securities activities? What is the business purpose of these activities?
- What are the major financing risks facing the entity and how are these managed, for example the
  - — macroeconomic risks faced by the entity;
  - — amount of net debt and cash in each major currency, analyzed between fixed and floating rates;
  - — maturity profile of its cash or debt and committed credit lines;
  - — amount of net debt and cash in each major currency, analyzed between fixed and floating rates;
  - — foreign exchange and interest rate risks; and
  - — translational risk due to net assets being held overseas.
- Are derivatives used in hedging activities or as investments?
- Are quoted market prices from an independent source available to establish the fair value of derivatives and securities?
- Has the entity entered into derivatives transactions that do not involve an initial exchange of cash?
- What is management's level of experience with regard to its derivatives and securities activities?
- Does management rely on external expertise in valuing derivatives?
- Has the entity entered into agreements that might contain embedded derivatives?
- Does the entity hold any new or unique derivative instruments for which interpretive accounting guidance may not yet be available?
- What steps has the entity taken to mitigate the credit risk associated with its derivatives and securities?
- What steps has the entity taken to mitigate the basis risk associated with its derivatives and securities?
- Has management identified the market risks associated with its derivatives and securities? How are these risks managed?

Summary: Audit Implications

- Assessing inherent risk for derivatives and securities, particularly complex derivatives, can be difficult.
- Refer to the examples contained in AU section 332, as well as the examples contained in appendix A, "Understanding the Entity and Its Environment," of AU section 314, and the guidance in this guide to assess the characteristics of the entity and its derivatives and securities transactions that impact inherent risk.
- AU section 316, *Consideration of Fraud in a Financial Statement Audit* (AICPA, *Professional Standards*), provides guidance about an auditor's responsibilities concerning the consideration of fraud in a financial statement audit.

Chapter 6

Control Risk Assessment

The Auditor's Assessment of Control Risk for Assertions [1, 2] About Derivatives and Securities

6.01 AU section 314, *Understanding the Entity and Its Environment and Assessing the Risks of Material Misstatement* (AICPA, *Professional Standards*), establishes standards and provides guidance with respect to the auditor's responsibilities to obtain a sufficient understanding of the entity and its environment, including its internal control for the purposes of identifying and assessing the risks of material misstatement. See chapter 4, "General Auditing Considerations for Derivative Instruments, Hedging Activities, and Investments in Securities," for further guidance. AU section 312, *Audit Risk and Materiality in Conducting an Audit* (AICPA, *Professional Standards*), describes the term *risk of material misstatement* as the auditor's combined assessment of inherent risk and control risk, however, auditors may make separate assessments of inherent risk and control risk. Control risk for assertions about derivatives and securities is the risk that a material misstatement of those assertions could occur and not be detected and corrected on a timely basis by the entity's internal control. In assessing control risk for relevant assertions about derivatives and securities, the auditor should consider the five components of internal control, as discussed in paragraph .41 of AU section 314:

a. *Control environment*, which sets the tone of the entity, influencing the control consciousness of its people, and is the foundation for all other components of internal control, providing discipline and structure

b. *Risk assessment*, which is the entity's identification and analysis of relevant risks to achievement of its objectives, forming a basis for determining how the risks should be managed

c. *Control activities*, which are the policies and procedures that help ensure that management directives are carried out

d. *Information and communication systems*, which support the identification, capture, and exchange of information in a form and time frame that enable people to carry out their responsibilities

e. *Monitoring*, which is a process that assesses the quality of internal control performance over time

However, these components do not necessarily reflect how an entity considers and implements controls for derivatives and securities transactions, and the auditor's primary consideration is whether a control affects assertions about derivatives and securities rather than its classification into a particular component.

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[1] Throughout AU section 332, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* (AICPA, *Professional Standards*), and this guide, the word *assertion* refers to an assertion made in an entity's financial statements.

[2] See AU section 326, *Audit Evidence* (AICPA, *Professional Standards*), for further guidance concerning the use of assertions in obtaining audit evidence.

6.02 An entity's controls address objectives in each of three categories—reliability of financial reporting, effectiveness and efficiency of operations, and compliance with applicable laws and regulations—but some of the controls are not relevant to the auditor in designing procedures for assertions about derivatives and securities. For example, controls related to operations and compliance objectives may not be relevant to the auditor in designing procedures for assertions about derivatives and securities because the auditor does not use the data for which those objectives relate in auditing assertions about derivatives and securities. The auditor need not consider controls that are not relevant to the audit.

Obtaining an Understanding of Internal Control to Assess the Risks of Material Misstatements

6.03 As stated in chapter 4, AU section 314 requires that the auditor obtain an understanding of the five components of internal control sufficient to assess the risks of material misstatement of the financial statements whether due to error or fraud, and to design the nature, timing, and extent of further audit procedures. The auditor should obtain a sufficient understanding of internal controls by performing risk assessment procedures to

- evaluate the design of controls relevant to an audit of financial statements; and
- determine whether they have been implemented.

The auditor should use this knowledge to

- identify types of potential misstatements;
- consider factors that affect the risks of material misstatement; and
- design tests of controls, when applicable, and substantive procedures.

6.04 Paragraph .47 of AU section 314 states there is a direct relationship between an entity's objectives and the internal control components it implements to provide reasonable assurance about their achievement. For example, to achieve its financial reporting control objectives, management of an entity with extensive derivatives transactions may implement controls that call for

- monitoring by a control staff that is fully independent of derivatives activities;
- derivatives traders, risk managers, and senior management to define constraints on derivatives activities, justify identified excesses, and obtain, prior to exceeding limits, at least oral approval (preferably, written documentation for the entity's files) from members of senior management who are independent of derivatives activities;
- senior management to properly address limit excesses and divergences from approved derivatives strategies;
- the accurate transmittal of derivatives positions and the appropriate use of derivatives positions to the risk measurement systems;
- the performance of appropriate reconciliations to ensure data integrity across the full range of derivatives, including any new or

existing derivatives that may be monitored apart from the main processing networks;

- senior management, an independent group, or an individual who management designates to perform a regular review of the identified controls and financial results of the derivatives activities to determine whether controls are being effectively implemented and the entity's business objectives and strategies are being achieved; and
- a review of limits in the context of changes in strategy, risk tolerance of the entity, and market conditions.

6.05 Exhibit 6-2, "Examples of Control Objectives and Related Controls for Securities," provides examples of control objectives and related controls for securities, and exhibit 6-4, "Examples of Control Objectives and Related Controls for Derivatives and Hedging Activities," provides examples of control objectives and related controls for derivatives and hedging activities.

6.06 The extent of the understanding of internal control over derivatives, hedging activities, and securities obtained by the auditor depends on how much information the auditor needs to assess the risks of material misstatement. The understanding obtained may include controls over derivatives and securities transactions from their initiation to their inclusion in the financial statements. It may encompass controls placed in operation by the entity and by service organizations whose services are part of the entity's information system. Paragraph .81 of AU section 314 defines the information system as the procedures whether automated or manual, and records established by an entity initiated to record, process, and report entity transactions (as well as events and conditions) and to maintain accountability for the related assets, liabilities, and equity. Chapter 10, "Case Study of How the Entity's Use of Service Organizations Affects the Auditor's Considerations in Auditing Securities," provides a case study using three scenarios to illustrate how the entity's use of service organizations affects the auditor's considerations in planning and performing auditing procedures for assertions about securities and securities transactions.

Considerations for Audits Performed in Accordance With PCAOB Standards

When performing an integrated audit of financial statements and internal control over financial reporting, Public Company Accounting Oversight Board (PCAOB) Auditing Standard No. 5, *An Audit of Internal Control Over Financial Reporting That Is Integrated with An Audit of Financial Statements* (AICPA, *PCAOB Standards and Related Rules*, Auditing Standards), states that the auditor should test the operating effectiveness of a control by determining whether the control is operating as designed and whether the person operating the control possesses the necessary authority and competence to perform the control effectively. The auditor must evaluate the severity of each deficiency that comes to his or her attention to determine whether deficiencies, either individually or in combination, are material weaknesses as of the date of management's assessment.

The Effect of the Entity's Use of Fair Value Measurements on Internal Control

6.07 Generally accepted accounting principles (GAAP) may require that a derivative or security be valued based on cost, the investee's financial results,

or fair value (chapter 7, "Performing Audit Procedures In Response to Assessed Risks," of this guide provides more detail on these valuation methods). If the valuation is based on fair value, the auditor should consider the guidance in AU section 328, *Auditing Fair Value Measurements and Disclosures* (AICPA, *Professional Standards*).

6.08 In accordance with paragraph .09 of AU section 328, the auditor should obtain an understanding of the entity's process for determining fair value measurements and disclosures and of the relevant controls sufficient to develop an effective audit approach.

6.09 Management is responsible for establishing an accounting and financial reporting process for determining fair value measurements in accordance with Financial Accounting Standards Board (FASB) *Accounting Standards Codification* (ASC) 820, *Fair Value Measurement*. In some cases, the measurement of fair value and therefore the process set up by management to determine fair value may be simple and reliable. For example, management may be able to refer to published price quotations in an active market to determine fair value for marketable securities held by the entity. Some fair value measurements, however, are inherently more complex than others and involve uncertainty about the occurrence of future events or their outcome, and therefore assumptions that may involve the use of judgment need to be made as part of the measurement process.

6.10 Paragraph .40 of AU section 314 states that the auditor should obtain a sufficient understanding of each of the five components of internal control sufficient to assess the risks of material misstatement. In the specific context of this section, the auditor obtains such an understanding related to the determination of the entity's fair value measurements and disclosures in order to assess the risks of material misstatement and to determine the nature, timing, and extent of further audit procedures.

6.11 When obtaining an understanding of the entity's process for determining fair value measurements and disclosures, the auditor considers, for example,

- controls over the process used to determine fair value measurements, including, for example, controls over data and the segregation of duties between those committing the entity to the underlying transactions and those responsible for undertaking the valuations;
- the expertise and experience of those persons determining the fair value measurements;
- the role that information technology has in the process;
- the types of accounts or transactions requiring fair value measurements or disclosures (for example, whether the accounts arise from the recording of routine and recurring transactions or whether they arise from nonroutine or unusual transactions);
- the extent to which the entity's process relies on a service organization to provide fair value measurements or the data that supports the measurement. When an entity uses a service

organization, the auditor considers the requirements of AU section 324, *Service Organizations* (AICPA, *Professional Standards*);[*]

- the extent to which the entity engages or employs specialists in determining fair value measurements and disclosures;
- the significant management assumptions used in determining fair value;
- the documentation supporting management's assumptions;
- the process used to develop and apply management assumptions, including whether management used available market information to develop the assumptions;
- the process used to monitor changes in management's assumptions;
- the integrity of change controls and security procedures for valuation models and relevant information systems, including approval processes; and
- the controls over the consistency, timeliness, and reliability of the data used in valuation models.

The Effect of the Use of Service Organizations on the Auditor's Understanding of Internal Control

6.12 An entity may use a service organization to perform a wide variety of services related to its derivatives and securities. Entities generally use service organizations because they do not have the internal expertise or skills to perform the service or because it is cost-effective to outsource the service. The requirement to obtain an understanding of internal control over derivatives and securities may therefore extend beyond the controls in place at the entity's facilities and extend to service organizations that perform services for the entity's derivatives and securities.

6.13 AU section 324 provides guidance on the factors an auditor should consider when auditing the financial statements of an entity that uses a service organization to process certain transactions. It notes that the understanding of controls the auditor needs to plan the audit may encompass controls placed

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[*] The Audit Guide *Service Organizations: Applying SAS No. 70, as Amended* included illustrative control objectives, as well as interpretations that address responsibilities of service organizations and service auditors with respect to forward looking information and the risk of projecting evaluations of controls to future periods. The guidance contained in AU section 324, *Service Organizations* (AICPA, *Professional Standards*), has now been split into an attest standard and an auditing standard to better reflect the nature of the work being performed. A finalized clarified Statement on Auditing Standards (SAS) on service organizations, *Audit Considerations Relating to an Entity Using a Service Organization*, will supersede AU section 324 and addresses the user auditor's responsibility for obtaining sufficient appropriate audit evidence in an audit of the financial statements of a user entity that uses one or more service organizations. This SAS will be effective for audits of financial statements for periods ending on or after December 15, 2012, and early adoption is not permitted.

In addition, an Auditing Standards Board (ASB) task force has revised the Audit Guide *Service Organizations: Applying SAS No. 70, as Amended* to reflect the requirements and guidance in Statement on Standards for Attestation Engagements (SSAE) No. 16, *Reporting on Controls at a Service Organization* (AICPA, *Professional Standards*, AT sec. 801), by discontinuing the original guide and issuing the new Guide *Service Organizations—Applying Statement on Standards for Attestation Engagements No. 16,* Reporting on Controls at a Service Organization *(SOC 1)*. Also, the Guide *Reporting on Controls at a Service Organization Relevant to Security, Availability, Processing Integrity, Confidentiality, or Privacy (SOC 2)* addresses reporting on a service provider's controls over subject matter other than financial reporting. Both guides are available for purchase at www.cpa2biz.com.

in operation by the entity and by service organizations whose services are part of the entity's information system.

Considerations for Audits Performed in Accordance With PCAOB Standards

When performing an integrated audit of financial statements and internal control over financial reporting, refer to paragraphs B17–B27 of appendix B, "Special Topics," of PCAOB Auditing Standard No. 5 regarding the use of service organizations.

Determining Whether the Service Organization's Services are Part of the Entity's Information System†

6.14 A service organization's services are part of an entity's information system for derivatives and securities if they affect any of the following:

- How the entity's derivatives and securities transactions are initiated
- The accounting records, supporting information, and specific accounts in the financial statements involved in the processing and reporting of the entity's derivatives and securities transactions
- The accounting processing involved from the initiation of those transactions to their inclusion in the financial statements, including electronic means (such as computers and electronic data interchange) used to transmit, process, maintain, and access information
- The process the entity uses to report information about derivatives and securities transactions in its financial statements, including significant accounting estimates and disclosures in the notes to the financial statements

6.15 Examples of a service organization's services for derivatives and securities that would be part of an entity's information system include the following:

- The initiation of the purchase or sale of equity securities by a service organization acting as investment adviser or manager.
- The initiation of hedged positions by a service organization acting in a capacity to reduce that entity's risk and performing the transactions through the entity's information system.
- The initiation of a settlement for an event such as a corporate action by an organization providing outsourced administrative services.
- Services that are ancillary to holding[3] an entity's securities, such as
  - — collecting dividend and interest income and distributing that income to the entity;

† In April 2010, the ASB issued SSAE No. 16, which addresses examination engagements undertaken by a service auditor to report on controls at organizations that provide services to user entities when those controls are likely to be relevant to user entities' internal control over financial reporting. SSAE No. 16 supersedes the guidance for service auditors in AU section 324 and is effective for periods ending after June 15, 2011. Early implementation is permitted.

[3] In AU section 332 and this guide, maintaining custody of securities, either in physical or electronic form, is referred to as *holding* securities, and performing ancillary services is referred to as *servicing* securities.

- receiving notification of corporate actions;
- receiving notification of security purchase and sale transactions;
- receiving payments from purchasers and disbursing proceeds to sellers for security purchase and sale transactions; and
- maintaining records of securities transactions for the entity.

- A pricing service providing fair values of derivatives and securities through paper documents or electronic downloads that the entity uses to value its derivatives and securities for financial statement reporting.

6.16 Examples of a service organization's services for securities that would not be part of an entity's information system are the following:

- The execution by a securities broker of trades that are initiated by either the entity or its investment adviser
- The holding of an entity's securities

Considering the Significance of the Service Organization's Controls

6.17 According to paragraph .06 of AU section 324, the significance of the controls of the service organization to those of the user organization depends on the nature of the services provided by the service organization, primarily

- the nature and materiality of the transactions the service organization processes for the entity; and
- the degree of interaction between the activities of the service organization and the entity.

6.18 *Nature and materiality of the transactions.* The more material the transactions processed by the service organization are to the entity's financial statements, the more likely the service organization's controls are to be significant to the entity's controls.

6.19 *Degree of interaction between the activities of the service organization and those of the entity.* The degree of interaction relates to the extent to which the entity implements effective controls over the services provided by the service organization. For example,

- if the entity implements effective controls over the services, the auditor may not need to gain an understanding of the controls at the service organization in order to plan the audit; and
- if the entity has not placed into operation effective controls over the service organization's services, the auditor most likely will need to gain an understanding of the service organization's controls.

Obtaining Information About a Service Organization's Controls

6.20 An auditor who needs information about the nature of a service organization's services that are part of an entity's information system for derivatives and securities transactions, or its controls over those services, to plan the audit

may be able to gather the information from a variety of sources, such as the following:

- User manuals
- System overviews
- Technical manuals
- The contract between the entity and the service organization
- Reports by auditors,[4] internal auditors, or regulatory authorities on the information system and other controls placed in operation by a service organization
- Inquiry or observation of personnel at the entity or at the service organization

In addition, if the services and the service organization's controls over those services are highly standardized, information about the service organization's services, or its controls over those services, obtained through the auditor's prior experience with the service organization may be helpful in planning the audit.

Using the Report of a Service Auditor

6.21 A service organization may engage an auditor (the service auditor) to perform procedures relating to its controls for the benefit of auditors of entities who use the service organization's services. There are two types of reports a service auditor might issue, which are referred to as a type I report and a type II report and are summarized in exhibit 6-1, "Summary of Service Auditor Reports." The Audit Guide *Service Organizations: Applying SAS No. 70, As Amended*, provides detailed discussions on the content of those reports and guidance to auditors in using them. Whenever an entity receives a Statement on Auditing Standards (SAS) No. 70 report from a service organization, the auditor should read the report and consider whether the service auditor's report is satisfactory for his or her purposes. As a practical matter, a SAS No. 70 report will be an efficient way for the auditor to gain an understanding of the service controls over those services and may be an efficient way for the auditor to obtain information that will be useful in planning the audit.

Exhibit 6-1

Summary of Service Auditor Reports

Title	*Contents*	*Relevance to Auditors*
Reports on controls placed in operation (type I report)	• Describes controls and whether they are suitably designed to achieve specified control objectives • States whether controls had been placed in operation by a specified date	• Helps the auditor gain an understanding of controls necessary to plan the audit • Does not provide a basis for reducing the assessment of control risk as low or moderate

[4] AU section 324 provides guidance on auditors' reports on controls placed in operation by a service organization and the operating effectiveness of those controls.

Exhibit 6-1—continued

Summary of Service Auditor Reports

Title	*Contents*	*Relevance to Auditors*
Report on controls placed in operation and tests of operating effectiveness (type II report)	Includes all elements of the type I report and expresses an opinion regarding whether the controls that were tested were operating effectively	Has the same utility as a type I report and provides a basis for reducing the assessment of control risk as low or moderate

When the Necessary Information Is Not Available

6.22 In the rare circumstance when necessary information about a service organization's controls is not available, the auditor should

- perform or engage another auditor to perform, procedures at the service organization necessary to gather the information necessary to plan the audit; and
- disclaim an opinion or issue a qualified opinion.

Assessing Control Risk

6.23 After obtaining the understanding of internal control over derivatives, hedging activities, and securities, the auditor should assess control risk for the related assertions. Guidance on that assessment is found in AU section 314.

6.24 If the auditor plans to assess control risk as low or moderate for one or more assertions about derivatives and securities, the auditor should identify specific controls relevant to the assertions that are likely to prevent or detect material misstatements and that have been placed in operation by either the entity or the service organization, and gather audit evidence about their operating effectiveness. Audit evidence about the operating effectiveness of a service organization's controls may be gathered through tests performed by the auditor or by an auditor engaged by either the auditor or the service organization

- as part of an engagement in which a service auditor reports on the controls placed in operation by the service organization and the operating effectiveness of those controls, as described in AU section 324.
- as part of an agreed-upon procedures engagement.[5]
- to work under the direction of the auditor of the entity's financial statements.

Confirmations of balances or transactions from a service organization do not provide audit evidence about its controls. Examples of tests of controls the

[5] AT section 201, *Agreed-Upon Procedures Engagements* (AICPA, *Professional Standards*), provides guidance on applying agreed-upon procedures to controls.

auditor may perform to gather audit evidence about the operating effectiveness of controls are in paragraph 6.38 for tests of controls over securities and paragraph 6.44 for tests of controls over derivatives and hedging activities.

6.25 In accordance with paragraph .102 of AU section 314, the auditor should identify and assess the risks of material misstatement at both the overall financial statement level and at the assertion level related to classes of transactions, account balances, and disclosures. The assessment of risks of material misstatement at the assertion level provides the basis to design and perform further audit procedures to test derivatives and securities. For example, if the entity has a variety or high volume of derivatives and securities that are reported at fair value estimated using valuation models, the auditor may be able to reduce the substantive procedures for valuation assertions by gathering audit evidence about the controls over the design and use of the models (including the significant assumptions) and testing their operating effectiveness.

6.26 The entity's use of fair value measurements would be part of the auditor's understanding when assessing the risks of material misstatement. The auditor should use his or her understanding of the entity's process for determining fair value measurements and disclosures, including its complexity, and of the controls when assessing the risks of material misstatement. Based on that assessment of the risks of material misstatement, the auditor should determine the nature, timing, and extent of the further audit procedures. The risks of material misstatement will, most likely, increase as the accounting and financial reporting requirements for fair value measurements become more complex.

6.27 Paragraphs .64–.66 of AU section 314 discuss the inherent limitations of internal control. As fair value determinations often involve subjective judgments by management, this may affect the nature of controls that are capable of being implemented, including the possibility of management override of controls (see AU section 316, *Consideration of Fraud in a Financial Statement Audit* [AICPA, *Professional Standards*]). The auditor considers the inherent limitations of internal control in such circumstances in assessing control risk.

6.28 In some circumstances, it may not be practicable or possible for the auditor to reduce audit risk to an acceptable level without identifying controls placed in operation by the entity or a service organization and gathering audit evidence about the operating effectiveness of those controls. For example, if the entity has a large number of derivatives or securities transactions, the auditor likely would be unable to reduce audit risk to an acceptable level for assertions about the occurrence of earnings on those securities, including gains and losses from sales, without identifying controls over the authorization, recording, custody, and segregation of duties for those transactions and gathering audit evidence about their operating effectiveness.

6.29 One of the characteristics of derivatives is that they may involve only a commitment to perform under a contract and not an initial exchange of tangible consideration, such as cash or cash equivalents. If one or more service organizations provide services that are part of the entity's information system for derivatives, the auditor may be unable to sufficiently reduce audit risk for assertions about the completeness of derivatives without obtaining audit evidence about the operating effectiveness of controls at one or more

service organizations. Because the auditor's concern is that derivatives that do not require an initial exchange of tangible consideration may not have been recorded, testing reconciliations of information provided by two or more service organizations may not sufficiently reduce audit risk for assertions about the completeness of derivatives.

6.30 *Using the report of a service auditor.* A type I report is not intended to provide an auditor with a basis for reducing the auditor's assessment of control risk as low or moderate. In a type II engagement, the service auditor performs the procedures required for a type I engagement and also performs tests of specific controls to evaluate their operating effectiveness in achieving specified control objectives. Tests of operating effectiveness address how controls are applied, how consistently they are applied, and who applies them.

6.31 The Audit Guide *Service Organizations: Applying SAS No. 70, As Amended* provides guidance on using a type II report in assessing control risk as low or moderate. The service auditor's report should not be the only basis for reducing the assessed level of control risk as low or moderate. The user auditor should read and consider both the report and the evidence provided by the tests of operating effectiveness and relate them to the assertions in the user organization's financial statements. Although a type II report may be used to reduce substantive procedures, neither a type I report nor a type II report is designed to provide a basis for assessing control risk sufficiently low to eliminate the need for performing any substantive tests for all the assertions relevant to significant account balances or transaction classes for derivatives, hedging activities, and securities.

Considering Procedures Performed by Internal Auditors

6.32 The auditor may consider the work performed by the entity's internal auditors in obtaining an understanding of the entity's controls over derivatives and securities and gathering audit evidence about the effectiveness of those controls. Guidance on considering the work performed by internal auditors is found in AU section 322, *The Auditor's Consideration of the Internal Audit Function in an Audit of Financial Statements* (AICPA, *Professional Standards*).

> *Considerations for Audits Performed in Accordance With PCAOB Standards*
>
> When performing an integrated audit of financial statements and internal control over financial reporting, refer to paragraphs 16–19 of PCAOB Auditing Standard No. 5 for discussion on using the work of others to alter the nature, timing, and extent of the work that otherwise would have been performed to test controls.

6.33 Examples of reports of internal auditors that may be helpful to the auditor in assessing control risk for assertions about the entity's derivatives and securities are those that

- review the appropriateness of policies and procedures related to derivatives and securities transactions and the entity's compliance with them;
- assess the effectiveness of relevant controls;

- review the information systems used to process derivatives and securities transactions;
- determine that established policies are communicated and understood throughout the entity;
- assess whether new risks relating to derivatives and securities transactions are being identified, assessed, and managed;
- evaluate whether the accounting for derivatives and securities is in accordance with GAAP;
- review trader (front office) to operations (back office) cash and position reconciliations for both open and closed positions;
- review the profit and loss statements to evaluate whether the activity for derivatives and securities was recorded properly; and
- review the valuation processes and sources for data inputs.

Examples of Control Objectives, Controls, and Tests of Controls for Assertions About Securities

6.34 Examples of control objectives for the financial reporting of securities include the following:

- Securities transactions are initiated in accordance with management's established policies and procedures.
- Information relating to securities and securities transactions is complete and accurate.
- Securities are on hand or held in custody or for safekeeping by others.
- The carrying amount of debt and equity securities covered by FASB ASC 320, *Investments—Debt and Equity Securities*, is adjusted to fair value[6] and changes in the fair value of those securities are accounted for in conformity with GAAP.
- Securities are monitored on an ongoing basis to recognize and measure events affecting related financial statement assertions.

6.35 Exhibit 6-2 gives examples of controls that may be designed to ensure that these examples of control objectives are met.

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[6] Financial Accounting Standards Board (FASB) *Accounting Standards Codification* (ASC) 825, *Financial Instruments*, permits entities to choose to measure many financial instruments and certain other items at fair value that are not currently required to be measured at fair value. FASB ASC 825 also establishes presentation and disclosure requirements designed to facilitate comparisons between entities that choose different measurement attributes for similar types of assets and liabilities. FASB ASC 825 does not eliminate disclosure requirements included in other FASB ASC topics, including requirements for disclosures about fair value measurements as described in FASC 820, *Fair Value Measurement*.

Exhibit 6-2

Examples of Control Objectives and Related Controls for Securities

Control Objective	*Related Controls*
Securities transactions are initiated in accordance with management's established policies and procedures.	• Guidelines have been prescribed for acceptable risk and rate of return levels for the entity's securities. Securities personnel must obtain approval to purchase securities that do not conform with the prescribed guidelines. Supervisory personnel monitor securities purchases to determine whether approval was obtained to purchase securities that do not conform with the prescribed guidelines. • Lists of authorized securities dealers are maintained and updated periodically, and supervisory personnel periodically review documentation of securities transactions to determine whether only authorized dealers were used. • The board of directors, generally through its finance, asset or liability, investment, or other committee, reviews reports of securities transactions to determine whether the entity's guidelines for securities transactions are being complied with. • The board of directors, generally through its finance, asset or liability, investment, or other committee, must approve changes in securities policies, and approval must be documented.
Information relating to securities and securities transactions is complete and accurate.	• Duties among those who initiate securities transactions, have access to securities, and post or reconcile related accounting records are appropriately segregated, and supervisory personnel regularly review reconciliations of information provided by individuals performing these functions. • Supervisory personnel periodically review documentation supporting the acquisition and transfer of securities to ensure that classification of the securities was made and documented at acquisition (and date of transfer, if applicable) and is in accordance with the entity's securities policies, management's intent, and generally accepted accounting principles (GAAP). • Supervisory personnel periodically review accounting entries supporting securities transactions. • Supervisory personnel periodically review reconciliations of subsidiary ledgers with general ledger accounts.

(continued)

Exhibit 6-2—continued

Examples of Control Objectives and Related Controls for Securities

Control Objective	*Related Controls*
	• Supervisory personnel periodically review trader (front office) to operations (back office) reconciliations for open positions and profit and loss. • Supervisory personnel periodically analyze recorded interest and dividend income, including comparing actual yields during the period with expected yields based on previous results and current market trends, and investigate significant differences from the expected results.
Securities are on hand or held in custody or for safekeeping by others.	• Supervisory personnel periodically review recorded securities, compare them with safekeeping ledgers and timely custodial confirmations, and investigate significant differences.
The carrying amount of debt and equity securities covered by Financial Accounting Standards Board *Accounting Standards Codification* 320, *Investments—Debt and Equity Securities*, is adjusted to fair value, and changes in the fair value of those securities are accounted for in conformity with GAAP.	• Supervisory personnel periodically review the recorded fair values of securities and investigate significant differences from the amounts expected. • Supervisory personnel monitor realized gains and losses to determine that appropriate amounts have been reclassified from accumulated other comprehensive income.
Securities are monitored on an ongoing basis to recognize and measure events affecting related financial statement assertions.	• Supervisory personnel regularly review recorded securities to determine that events affecting their presentation and disclosure are considered, such as factors indicating impairment, loans of the securities to other entities, or pledging securities as collateral.

6.36 Many of the controls for securities may be performed directly by senior management. Although management's close attention to securities transactions can be an effective control, the auditor needs to be alert to potential abuses and overrides of policies and procedures.

6.37 As discussed in paragraph 6.25, the auditor should identify and assess the risks of material misstatement at the assertion level as the basis to design and perform further audit procedures to test securities. Gathering audit evidence about the operating effectiveness of controls placed in operation by the entity or a service organization may enable the auditor to vary the nature, timing, or extent of substantive tests. In addition, as discussed in paragraphs 6.28–.29, in some circumstances, it may not be practicable or possible for the auditor to reduce audit risk to an acceptable level without identifying controls placed in operation by the entity or a service organization and gathering audit evidence about their operating effectiveness.

6.38 Illustrations of the tests an auditor may perform to gather audit evidence about the operating effectiveness of controls over securities follow.

- Tests of controls that the entity has implemented to ensure that securities transactions are initiated in accordance with management's established policies may include the following:
  - — Inspecting documentation of the monitoring by supervisory personnel to determine whether approval was obtained to purchase securities that do not conform with the prescribed guidelines and testing some of the purchases the supervisory personnel reviewed
  - — Inspecting documentation of the review by supervisory personnel of securities transactions to determine whether only authorized dealers were used and testing some of the transactions the supervisory personnel reviewed
  - — Inspecting minutes of meetings of the board of directors, or its finance, asset or liability, investment, or other committee, for evidence of review of reports of securities transactions and for evidence of approval of changes in securities policies
- Tests of controls that the entity has implemented to ensure that information relating to securities and securities transactions is complete and accurate may include the following:
  - — Inspecting documentation of the review by supervisory personnel of reconciliations of information about securities transactions provided by the segregated functions and testing some of the reconciliations they reviewed
  - — Inspecting documentation of the review by supervisory personnel of the documentation supporting the acquisition and transfer of securities and inspecting a sample of the documentation they reviewed
  - — Inspecting documentation of the review by supervisory personnel of accounting entries and testing a sample of the entries they reviewed
  - — Inspecting documentation of the review by supervisory personnel of reconciliations of subsidiary ledgers with general ledger accounts and testing a sample of the reconciliations they reviewed

- — Inspecting documentation of the analysis by supervisory personnel of recorded interest and dividend income and testing the resolution of significant differences from their expectations

- Tests of controls that the entity has implemented to ensure that securities are on hand or held in custody or for safekeeping by others may include the following:
  - — Inspecting documentation of the review by supervisory personnel
  - — Inspecting a sample of the confirmations they reviewed
  - — Testing their investigation of significant differences

- Tests of controls that the entity has implemented to determine that the carrying amount of debt and equity securities covered by FASB ASC 320 is adjusted to fair value and changes in the fair value of those securities are accounted for in conformity with GAAP may include the following:
  - — Inspecting documentation of the review by supervisory personnel of recorded fair values and testing a sample of the significant differences investigated during those reviews
  - — Inspecting documentation of the monitoring by supervisory personnel of realized gains and losses and testing a sample of the gains and losses they reviewed to determine whether appropriate amounts were reclassified from accumulated other comprehensive income

- Tests of controls that the entity has implemented to ensure that securities are monitored on an ongoing basis to recognize and measure events affecting related financial statement assertions may include the following:
  - — Inquiring of supervisory personnel about whether securities portfolios and related transactions, including impairments, are being monitored on a timely basis
  - — Inspecting documentation of the review of recorded securities and testing a sample of the securities they reviewed

Examples of Control Objectives, Controls, and Tests of Controls for Assertions About Derivatives and Hedging Activities

6.39 Exhibit 6-3, "Questions That May Be Helpful to the Auditor in Obtaining an Understanding of an Entity's Controls Over Its Derivatives and Hedging Activities," has questions that may be helpful to the auditor in obtaining an understanding of controls to plan the audit of assertions about derivatives and hedging activities. The questions may also be helpful to top management and those charged with governance in gaining a better understanding of their entity's derivatives and hedging activities.

Exhibit 6-3

Questions That May Be Helpful to the Auditor in Obtaining an Understanding of an Entity's Controls Over Its Derivatives and Hedging Activities

Have those charged with governance, or the finance, asset or liability, investment, or other committee, established a clear and internally consistent risk management policy, including appropriate risk limits?

- Are the entity's objectives and goals for derivatives clearly stated and communicated?
- To what extent are the entity's operational objectives for derivatives being achieved?
- Are derivatives used to mitigate risk or do they create additional risk?
- If the risk is being assumed, are trading limits established?
- Is the entity's strategy for derivatives use designed to further its economic, regulatory, industry, or operating objectives?

Are management's strategies and implementation policies consistent with its board of directors' authorization?

Management's philosophy and operating style create an environment that influences the actions of treasury and other personnel involved in derivatives and hedging activities. The assignment of authority and responsibility for derivatives transactions sends an important message.

- Is that message clear?
- Is compliance with these or related policies and procedures evaluated regularly?
- Does the treasury function view itself, or is it evaluated, as a profit center? This might cause members of the treasury department to attempt to enhance earnings through derivatives use.

Do key controls exist to ensure that only authorized transactions take place and that unauthorized transactions are quickly detected and appropriate action is taken?

Are controls over derivatives transactions monitored on an ongoing basis and subject to separate evaluations? If so,

- who is evaluating controls over derivatives transactions?
- do they possess the appropriate technical expertise?
- are deficiencies being identified and reported upstream?
- are duties involving initiation of derivatives transactions segregated from other duties (for example, the accounting and internal audit functions and the valuation of those derivatives)?

Are the magnitude, complexity, and risks of the entity's derivatives commensurate with the entity's objectives?

Internal analyses might include quantitative and qualitative information about the entity's derivatives transactions and might address the risks associated with derivatives, such as

Exhibit 6-3—continued

Questions That May Be Helpful to the Auditor in Obtaining an Understanding of an Entity's Controls Over Its Derivatives and Hedging Activities

- credit risk, which exposes the entity to the risk of loss as a result of the counterparty to a derivative failing to meet its obligation;
- market risk, which exposes the entity to the risk of loss from adverse changes in market factors that affect the fair value of a derivative, such as interest rates and foreign exchange rates;
- basis risk, which exposes the entity to the risk of loss from ineffective hedging activities. Basis risk is the difference between the fair value (or cash flows) of the hedged item and the fair value (or cash flows) of the hedging derivative. The entity is subject to the risk that fair values (or cash flows) will change so that the hedge will no longer be completely effective; and
- legal risk, which exposes the entity to the risk of loss from a legal or regulatory action that invalidates or otherwise precludes performance by one or both parties to the derivative.

The entity's risk assessment may result in a determination about how to manage identified risks of derivative activities.

- What are the entity's risk exposures, including derivatives?
- Are the entity's derivatives transactions standard for their class (such as simple derivatives like exchange-traded futures contracts) or are they complex (such as nonexchange-traded derivatives based on relationships between diverse markets)?
- Is the complexity of derivatives inconsistent with the risks being managed?
- Has management anticipated how it will manage potential derivatives risks before assuming them?

Are personnel with authority to engage in and monitor derivatives transactions well qualified and appropriately trained?

- Who are the key derivatives players within the entity?
- Is the knowledge vested only in one individual or a small group?
- Are other employees being appropriately educated before they become involved with derivatives transactions?
- Does the entity have personnel that have been cross-trained in case of the absence or departure of key personnel involved with derivatives transactions?
- How can the entity ensure the integrity, ethical values, and competence of personnel involved with derivatives transactions?

Do the right people have the right information to make decisions?

The information might address both external and internal events, activities, and conditions.

- What information about derivatives transactions is the entity identifying and capturing?

Exhibit 6-3—continued

Questions That May Be Helpful to the Auditor in Obtaining an Understanding of an Entity's Controls Over Its Derivatives and Hedging Activities

- Is the entity capturing and communicating information about market changes affecting the derivatives?
- Is the entity capturing and communicating changes in the entity's strategy for the mix of assets and liabilities that are the focus of risk management activities involving derivatives?
- How is this information being communicated and is this information being communicated to all affected parties?

The entity's analysis and internal reporting might include how well the entity is achieving its strategy of using derivatives.

- Are the analysis and internal reporting of risks the entity is managing and the effectiveness of its strategies comprehensive, reliable and well designed to facilitate oversight?

Those charged with governance, or the finance, asset or liability, investment, or other committee, might consider derivatives transactions in the context of how related risks affect the achievement of the entity's objectives (for example, economic, regulatory, industry, or operating).

- Do derivatives transactions increase the entity's exposure to risks that might frustrate, rather than further, achievement of the entity's objectives?

In assessing "if the right people have the right information," there are transactional questions that may be asked and answered.

- Does the entity have good systems for marking transactions to market?
- Have these mark-to-market systems been tested by persons independent of the derivatives function?
- Does the entity know how the value of its derivatives will change under extreme market conditions?
- Is the entity's published financial information being prepared reliably and in conformity with GAAP?

6.40 In 1996, the Committee of Sponsoring Organizations of the Treadway Commission (COSO) published *Internal Control Issues in Derivatives Usage: An Information Tool for Considering the COSO* Internal Control—Integrated Framework *in Derivatives Applications*. COSO noted that the document was not intended to be an authoritative pronouncement and therefore was not subjected to due process procedures. Instead, COSO intended that the purpose of the document be to serve as a reference document, illustrating how the COSO framework can be employed by end users to evaluate the effectiveness of internal controls surrounding use of derivatives. The document is presented in three parts:

a. The Executive Summary

b. Statement 1—Formulating Policies Governing Derivatives Used for Risk Management

c. Statement 2—Illustrative Control Procedures Reference Tool

Although the document precedes FASB ASC 815, *Derivatives and Hedging*, its guidance may still be useful to entities in developing controls over derivatives transactions and to auditors in assessing control risk for assertions about those transactions.

6.41 Examples of control objectives for the financial reporting of derivatives and hedging activities include the following:

- Derivatives transactions are initiated in accordance with management's established policies and procedures
- Information relating to derivatives and derivatives transactions is complete and accurate
- Derivatives accounted for as hedges meet the designation, documentation, and assessment requirements of GAAP
- The carrying amount of derivatives is adjusted to fair value, and changes in the fair value of derivatives are accounted for in conformity with GAAP
- Derivatives are monitored on an ongoing basis to recognize and measure events affecting related financial statement assertions

Exhibit 6-4 gives examples of controls that may be designed to ensure that these examples of control objectives are met.

Exhibit 6-4

Examples of Control Objectives and Related Controls for Derivatives and Hedging Activities

Control Objective	*Related Controls*
Derivatives transactions are initiated in accordance with management's established policies.	• Guidelines have been prescribed for acceptable risk levels for the entity's derivatives, such as credit risk and prepayment and extension risk, and derivatives personnel must analyze the sensitivity of derivatives* before they are entered into. Computer controls prohibit the entering into of transactions beyond established limits. • Lists of authorized derivatives brokers and counterparties are maintained and updated periodically, and supervisory personnel periodically review documentation of derivatives transactions to determine whether only authorized brokers and counterparties were used. • Those charged with governance, generally through the finance, asset or liability, investment, or other committee, review reports of derivatives transactions to determine that the entity's guidelines for derivatives transactions are being complied with. • Those charged with governance, generally through the finance, asset or liability, investment, or other committee, must approve changes in derivatives policies, and approval must be documented.

Exhibit 6-4—continued

Examples of Control Objectives and Related Controls for Derivatives and Hedging Activities

Control Objective	*Related Controls*
Information relating to derivatives and derivatives transactions is complete and accurate.	• Duties among those who initiate derivatives transactions, have access to the underlying instruments, and post or reconcile related accounting records, are appropriately segregated, and supervisory personnel regularly review reconciliations of information provided by individuals performing these functions.
Information relating to derivatives and derivatives transactions is complete and accurate.	• Duties among those who initiate derivatives transactions, have access to the underlying instruments, and post or reconcile related accounting records, are appropriately segregated, and supervisory personnel regularly review reconciliations of information provided by individuals performing these functions. • Deal initiation records are sufficient to identify the nature and purpose of individual transactions. • Supervisory personnel obtain counterparty confirmations, match them against the entity's records, and investigate significant differences. • Supervisory personnel monitor agreements to determine that embedded derivatives have been identified and properly accounted for. • Supervisory personnel periodically review accounting entries supporting derivatives transactions. • Supervisory personnel periodically review reconciliations of subsidiary ledgers with general ledger accounts. • Those charged with governance, generally through the finance, asset or liability, investment, or other committee, monitor activities that present risks that may be hedged through derivatives to determine whether derivatives were entered into and recorded.
Derivatives accounted for as hedges meet the designation, documentation, and	• Documentation, designation, and review are dated. • Supervisory personnel review documentation and designation at the time a derivative is entered into to determine that it conforms with GAAP.

(continued)

Exhibit 6-4—continued

Examples of Control Objectives and Related Controls for Derivatives and Hedging Activities

Control Objective	*Related Controls*
assessment requirements of generally accepted accounting principles (GAAP).	• Supervisory personnel review the periodic assessments to determine that they conform with GAAP. • Those charged with governance, generally through the finance, asset or liability, investment, or other committee, monitor the documentation, designation, and assessment.
The carrying amount of derivatives is adjusted to fair value, and changes in the fair value of derivatives are accounted for in conformity with GAAP.	• Supervisory personnel periodically review the recorded fair values of derivatives and investigate significant differences from the amounts expected. • Supervisory personnel periodically review the accounting for unrealized appreciation and depreciation in the fair value of derivatives to determine that it is in conformity with GAAP.
Derivatives are monitored on an ongoing basis to recognize and measure events affecting related financial statement assertions.	• Supervisory personnel regularly review recorded derivatives and amounts included in accumulated other comprehensive income to determine that events affecting their presentation and disclosure are considered, such as hedged transactions that are no longer probable.

* The entity may have procedures to analyze alternative derivatives and extensions according to the entity's intent. For example, analyses prepared for derivatives the entity is considering entering into may include sensitivity analyses that show the effect on the carrying amount and net interest income of various interest-rate and prepayment scenarios. Such analyses may also evaluate the effect of derivatives on the entity's overall exposure to interest-rate risk. An analysis might also be performed to evaluate the reasonableness of interest-rate and prepayment assumptions provided by the counterparty or selling broker. Relevant controls may also include a review by management of contractual documents to ascertain the rights and obligations of all parties to the transaction, as well as the recourse available to each party.

6.42 Many of the controls for derivatives may be performed directly by senior management. Although management's close attention to derivatives transactions can be an effective control, the auditor needs to be alert to potential abuses and overrides of policies and procedures.

6.43 As discussed in paragraph 6.25, the auditor should identify and assess the risks of material misstatement at the assertion level as the basis

to design and perform auditing procedures to test derivatives. Gathering audit evidence about the operating effectiveness of controls placed in operation by the entity or a service organization may enable the auditor to vary the nature, timing, or extent of substantive tests. In addition, as discussed in paragraphs 6.28–.29, in some circumstances, it may not be practicable or possible for the auditor to reduce audit risk to an acceptable level without identifying controls placed in operation by the entity or a service organization and gathering audit evidence about their operating effectiveness.

6.44 Illustrations of the tests an auditor may perform to gather audit evidence about the operating effectiveness of controls over derivatives and hedging activities follow.

- Tests of controls that the entity has implemented to ensure that derivatives transactions are initiated in accordance with management's established policies may include the following:
  - — Testing the computer controls that prohibit the entering into of transactions beyond established limits
  - — Inspecting documentation of the review by supervisory personnel of documentation of derivatives transactions to determine whether only authorized brokers and counterparties were used and testing a sample of the transactions the supervisory personnel reviewed
  - — Inspecting minutes of meetings of those charged with governance, or the finance, asset or liability, investment, or other committee, for evidence of review of reports of derivatives transactions and for evidence of approval of changes in derivatives policies
- Tests of controls that the entity has implemented to ensure that information relating to derivatives and derivatives transactions is complete and accurate may include the following:
  - — Inspecting documentation of the review by supervisory personnel of reconciliations of information about derivatives transactions provided by the segregated functions and testing a sample of the reconciliations they reviewed
  - — Inspecting documentation of the confirmation procedures performed by supervisory personnel and testing a sample of the reconciliations of recorded derivatives to counterparty confirmations noting the timeliness of the confirmations
  - — Inspecting documentation of the monitoring by supervisory personnel of agreements for embedded derivatives and testing a sample of the conclusions they reached
  - — Inspecting documentation of the review by supervisory personnel of accounting entries and testing a sample of the entries they reviewed
  - — Inspecting documentation of the review by supervisory personnel of reconciliations of subsidiary ledgers with general ledger accounts and testing a sample of the reconciliations they reviewed

— Inspecting minutes of meetings of those charged with governance, or the finance, asset or liability, investment, or other committee, for evidence of monitoring activities that present risks that may be hedged through derivatives and testing a sample of the conclusions they reached.

- Tests of controls that the entity has implemented to ensure that derivatives accounted for as hedges meet the designation, documentation, and assessment requirements of GAAP may include the following:

  — Inspecting documentation of the review by supervisory personnel of the documentation, designation, and initial and continuing assessments and for some of the hedges reviewed examining the documentation and testing the assessments

  — Inspecting minutes of meetings of those charged with governance, or the finance, asset or liability, investment, or other committee, for evidence of review of hedging activities

- Tests of controls that the entity has implemented to ensure that the carrying amount of derivatives is adjusted to fair value and changes in the fair value of derivatives are accounted for in conformity with GAAP may include the following:

  — Inspecting documentation of the review by supervisory personnel of recorded fair values and testing a sample of the significant differences investigated during those reviews

  — Inspecting documentation of the review by supervisory personnel of the accounting for unrealized appreciation and depreciation in the value of derivatives and testing a sample of the reclassifications they reviewed

- Tests of controls that the entity has implemented to ensure that derivatives are monitored on an ongoing basis to recognize and measure events affecting related financial statement assertions may include the following:

  — Inquiring of supervisory personnel about whether derivatives transactions are being monitored on a timely basis

  — Inspecting documentation of the review by supervisory personnel of recorded derivatives and amounts included in accumulated other comprehensive income and testing a sample of the derivatives and amounts in accumulated other comprehensive income they reviewed

Summary: Audit Implications

- The auditor should obtain an understanding of the entity and its environment, including its internal control. The assessment of the risks of material misstatement provides the appropriate basis to design and perform the further audit procedures to test derivatives and securities transactions. If a service organization provides services that are part of the entity's information system, the auditor should consider whether information about the service organization's controls will be needed to assess the risks of material misstatement.
- Paragraph .40 of AU section 314 states that the auditor should obtain a sufficient understanding of the five components of internal control by performing risk assessment procedures to evaluate the design of controls relevant to an audit of financial statements and to determine whether they have been implemented. This will include controls over derivatives and securities transactions. Those controls may include controls implemented by one or more service organizations that provide services that are part of the entity's information system, as well as those implemented by the entity.

Chapter 7

Performing Audit Procedures in Response to Assessed Risks

7.01 In accordance with AU section 314, *Understanding the Entity and Its Environment and Assessing the Risks of Material Misstatement* (AICPA, *Professional Standards*), the auditor should assess the risks of material misstatement for relevant assertions related to derivatives and securities to enable him or her to determine the nature, timing, and extent of the further procedures, including tests of operating effectiveness of controls, where relevant or necessary, and substantive procedures to be performed. A single procedure may address more than one assertion, or the auditor may need to perform a number of procedures to address a single assertion. The number and types of procedures to be performed depend on the auditor's assessment of the risks of material misstatements at the assertion level as well as the auditor's judgment about the effectiveness of the procedures.

Financial Statement Assertions About Derivatives and Securities [1]

7.02 This chapter describes the categories of assertions and presents examples of procedures the auditor might perform to address these assertions. See paragraph 4.14 of this guide for a table representing the categories of assertions and descriptions of each.

7.03 According to paragraph .17 of AU section 326, *Audit Evidence* (AICPA, *Professional Standards*), the auditor should use relevant assertions for classes of transactions, account balances, and presentation and disclosures in sufficient detail to form a basis for the assessment of risks of material misstatement and the design and performance of further audit procedures. The auditor should use relevant assertions in assessing risks by considering the different types of potential misstatements that may occur and then designing further audit procedures that are responsive to the assessed risks.

Assertions About Existence or Occurrence

7.04 Existence assertions address whether the derivatives and securities reported in the financial statements exist at the balance sheet date. Occurrence assertions address whether derivatives and securities transactions reported in the financial statements as a part of earnings, other comprehensive income, or cash flows occurred. Examples of substantive procedures that address existence or occurrence assertions about derivatives and securities are as follows:

- Confirmation with the issuer of the security.

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[1] AU section 326, *Audit Evidence* (AICPA, *Professional Standards*), recategorizes assertions by classes of transactions, account balances, and presentation and disclosure. This section will be revised to reflect the new assertion categories in a future edition of the guide.

- Confirmation with the holder of the security, including securities in electronic form, or with the counterparty to the derivative.[2]
- Confirmation of settled and unsettled transactions with the broker-dealer or counterparty.
- Physical inspection of the security or derivative contract.
- Reading executed partnership or similar agreements.
- Inspecting underlying agreements and other forms of supporting documentation (in paper or electronic form) for the following:
  - — Amounts reported.
  - — Evidence that would preclude the sales treatment of a transfer.
  - — Unrecorded repurchase agreements.
- Inspecting supporting documentation for subsequent realization or settlement after the end of the reporting period.
- Performing analytical procedures.[3] For example, the absence of a material difference from an expectation that interest income will be a fixed percentage of a debt security based on the effective interest rate when the security was purchased provides evidence about the existence of the security.

Assertions About Completeness

7.05 Assertions about completeness address whether all of the entity's derivatives and securities are reported in the financial statements and whether all derivatives and securities transactions are reported in the financial statements as a part of earnings, other comprehensive income, or cash flows. Because derivatives may not involve an initial exchange of tangible consideration, it may be difficult to reduce audit risk for completeness assertions to an acceptable level by performing substantive procedures alone and not performing tests

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[2] AU section 330, *The Confirmation Process* (AICPA, *Professional Standards*), provides guidance to auditors in using confirmations as substantive tests of financial statement assertions. Confirmations may be used as a substantive test of various financial statement assertions about derivatives and securities. For example, a confirmation may be designed to

- obtain information about valuation assertions or assumptions underlying valuations;
- determine whether there are any side agreements that affect assertions about the entity's rights and obligations associated with a transaction, such as an agreement to repurchase securities sold or an agreement to pledge securities as collateral for a loan; and
- determine whether the holder of the entity's securities agrees to deliver the securities reported or their value when required by the entity.

If quoted market prices are not available and the value of the security cannot easily be confirmed, the auditor could recompute the fair value based on established valuation techniques, such as present value analysis and pricing models, previously defined as level 2 or 3 inputs in the fair value hierarchy. The auditor could also determine whether the assumptions used in computing fair value represent the appropriate assumptions as of the reporting date. See Interpretation No. 1, "Auditing Investments in Securities Where a Readily Determinable Fair Value Does Not Exist," of AU section 332, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* (AICPA, *Professional Standards*, AU sec. 9332 par. .01–.04), for further information on auditing investments in securities where a readily determinable fair value does not exist.

[3] AU section 329, *Analytical Procedures* (AICPA, *Professional Standards*), provides guidance to auditors in using analytical procedures as substantive tests.

of controls. The following are examples of substantive procedures that address completeness assertions about derivatives and securities:

- Requesting the counterparty to a derivative or the holder of a security to provide information about the instrument, such as whether there are any side agreements or agreements to repurchase securities that have been sold.
- Requesting counterparties or holders who were frequently used in the past, but with whom the accounting records indicate there are presently no derivatives or securities, to state whether they are counterparties to derivatives with the entity or holders of its securities.[4]
- Inspecting financial instruments and other agreements to identify embedded derivatives.
- Inspecting documentation in paper or electronic form for activity subsequent to the end of the reporting period.
- Performing analytical procedures. For example, a difference from the expectation that interest expense will be a fixed percentage of a note based on the interest provisions of the underlying agreement may indicate the existence of an interest rate swap agreement.
- Comparing previous and current account detail to identify assets that have been removed from the accounts and further testing of those items to determine whether the criteria for sales treatment have been met.
- Reading other information, such as minutes of meetings of the board of directors or finance, asset or liability, investment, or other committees.

7.06 As noted in paragraph 7.05, one of the characteristics of derivatives is that they may involve only a commitment to perform under a contract and not an initial exchange of tangible consideration. Therefore, auditors designing tests of the completeness assertion should not focus exclusively on evidence relating to cash receipts and disbursements. When testing for completeness, auditors might consider making inquiries, inspecting agreements, and reading other information, such as minutes of meetings of the board of directors or finance, asset or liability, investment, or other committees. Auditors also may consider making inquiries about aspects of operations for which risks may have been hedged through the use of derivatives. For example, if the entity conducts business with foreign entities, the auditor might inquire about any arrangements the entity has made for purchasing foreign currency. Or, if the entity is in an industry in which commodity contracts are common, the auditor might inquire about any commodity contracts with fixed prices that run for unusual durations or involve unusually large quantities. The auditor also may consider inquiring whether the entity has converted interest-bearing debt from fixed to variable, or vice versa, using derivatives.

7.07 If one or more service organizations provide services that are part of an entity's information system for derivatives, the auditor may be unable to

[4] Paragraph .17 of AU section 330 discusses the blank form of positive confirmation in which the auditor does not state the amount or other information but instead asks the respondent to provide information.

sufficiently limit audit risk for assertions about the completeness of derivatives without obtaining audit evidence about the operating effectiveness of controls at those service organizations. Because derivatives transactions may not require an initial exchange of tangible consideration, they may not be recorded; therefore, testing reconciliations of information provided by two or more service organizations, as discussed in paragraph 7.62, may not sufficiently limit audit risk for assertions about the completeness of derivatives.

Assertions About Rights and Obligations

7.08 Assertions about rights and obligations address whether the entity has the rights and obligations associated with derivatives and securities, including the right to pledge the derivatives and securities reported in the financial statements. The following are examples of substantive procedures that address assertions about rights and obligations related to derivatives and securities:

- Confirming significant terms with the counterparty to a derivative or the holder of a security, including the absence of any side agreements
- Inspecting underlying agreements and other forms of supporting documentation, in paper or electronic form
- Considering whether the findings of other auditing procedures, such as reviewing minutes of meetings of the board of directors and reading contracts and other agreements, provide evidence about rights and obligations, such as pledging of securities as collateral or selling securities with a commitment to repurchase them

Assertions About Valuation

7.09 Assertions about the valuation of derivatives and securities address whether the amounts reported in the financial statements were determined in conformity with generally accepted accounting principles (GAAP). Tests of valuation assertions are based on the valuation method used. GAAP may require that a derivative or security be valued based on cost, the investee's financial results, or fair value. GAAP also may require disclosures about the value of a derivative or security and require that impairment losses be recognized in earnings prior to their realization. Also, accounting for securities may vary depending on the type of security, the nature of the transaction, management's objectives related to the security, and the type of entity. Procedures for evaluating management's consideration of the need to recognize impairment losses are discussed in paragraphs 7.42–.45.

Valuation Based on Cost

7.10 Procedures to obtain evidence about the cost of securities may include inspecting documentation that identifies the purchase price, confirming with the issuer or holder, and testing discount or premium amortization, either by recomputation or analytical procedures. The auditor might evaluate management's conclusion about the need to recognize an impairment loss for a decline in the security's fair value below its cost that is other-than-temporary.

Auditing considerations concerning impairment losses are discussed in paragraphs 7.42–.45.

Valuation Based on an Investee's Financial Results

7.11 For valuations based on an investee's financial results, including but not limited to the equity method of accounting, the auditor should obtain sufficient evidence in support of the investee's financial results. The auditor should read available financial statements of the investee and the accompanying audit report, if any. Financial statements of the investee that have been audited by an auditor whose report is satisfactory, for this purpose,[5] may constitute sufficient audit evidence to the investor's auditor. If in the auditor's judgment additional audit evidence is needed, the auditor should perform procedures to gather such evidence. For example, the auditor may conclude that additional audit evidence is needed because of significant differences in fiscal year ends, significant differences in accounting principles, changes in ownership, changes in conditions affecting the use of the equity method, or the materiality of the investment to the investor's financial position or results of operations. Examples of procedures the auditor may perform include reviewing information in the investor's files that relates to the investee such as investee minutes, budgets, and cash flows information and making inquiries of investor management about the investee's financial results.

7.12 If the investee's financial statements are not audited, or if the investee auditor's report is not satisfactory to the investor's auditor for this purpose, the investor's auditor should apply, or should request that the investor arrange with the investee to have another auditor apply appropriate auditing procedures to such financial statements, considering the materiality of the investment in relation to the financial statements of the investor.

7.13 If the carrying amount of the security in the investor's financial statements reflects factors that are not recognized in the investee's financial statements (for example goodwill), or fair values of assets that are materially different from the investee's carrying amounts (for example, appreciated land), the auditor should obtain sufficient evidence in support of these amounts. Paragraphs 7.17–.41 provide guidance on audit evidence that may be used to corroborate assertions about the fair value of derivatives and securities, and paragraphs 7.42–.44 provide guidance on procedures for evaluating management's consideration of the need to recognize impairment losses.

7.14 There may be a time lag in reporting between the date of the financial statements of the investor and that of the investee. The time lag in reporting should be consistent from period to period. If a time lag between the date of the entity's financial statements and those of the investee has a material effect on the entity's financial statements, the auditor should determine whether the entity's management has properly considered the lack of comparability. The effect may be material, for example, because the time lag is not consistent with the prior period in comparative statements or because a significant transaction occurred during the time lag. If a change in time lag occurs that has a material effect on the investor's financial statements, an explanatory paragraph

[5] In determining whether the report of another auditor is satisfactory for this purpose, the auditor may consider performing procedures, such as making inquiries regarding the professional reputation and standing of the other auditor, visiting the other auditor and discussing the audit procedures followed and the results thereof, and reviewing the audit program or working papers of the other auditor.

should be added to the auditor's report because of the change in reporting period.[6]

7.15 The auditor should evaluate management's conclusion about the need to recognize an impairment loss for a decline in the security's fair value below its carrying amount that is other-than-temporary. In addition, with respect to subsequent events and transactions of the investee occurring after the date of the investee's financial statements but before the date of the investor auditor's report, the auditor should read available interim financial statements of the investee and make appropriate inquiries of the investor to identify subsequent events and transactions that are material to the investor's financial statements. Such events or transactions of the type contemplated in paragraphs .05–.06 of AU section 560, *Subsequent Events* (AICPA, *Professional Standards*), should be disclosed in the notes to the investor's financial statements and (where applicable) labeled as unaudited information. For the purpose of recording the investor's share of the investee's results of operations, recognition should be given to events or transactions of the type contemplated in paragraph .03 of AU section 560.

7.16 The auditor should obtain evidence relating to material transactions between the entity and the investee to evaluate (*a*) the propriety of the elimination of unrealized profits and losses on transactions between the entity and the investee that is required when the equity method of accounting is used to account for an investment under GAAP and (*b*) the adequacy of disclosures about material related party transactions.

Valuation Based on Fair Value[7]

7.17 The auditor should obtain evidence supporting management's assertions about the fair value of derivatives and securities measured or disclosed at fair value. The method for determining fair value may be specified by GAAP and may vary depending on the industry in which the entity operates or the nature of the entity. Such differences may affect the auditor's consideration of price quotations from inactive markets and significant liquidity discounts, control premiums, and commissions and other costs that would be incurred to dispose of the derivative or security. The auditor should determine whether GAAP specifies the method to be used to determine the fair value of the entity's derivatives and securities and evaluate whether the determination of fair value is consistent with the specified valuation method. Paragraphs 3.08–.11 summarize the basic requirements of generally accepted accounting for determining fair value. Paragraphs 7.17–.41 provide guidance on audit evidence that may be used to support assertions about fair value. That guidance should be considered in the context of the relevant accounting requirements. Refer to

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[6] See paragraphs .16–.18 of AU section 508, *Reports on Audited Financial Statements* (AICPA, *Professional Standards*).

[7] The Financial Accounting Standards Board (FASB) *Accounting Standards Codification* (ASC) glossary defines *fair value*. FASB ASC 820, *Fair Value Measurement*, establishes a framework for measuring fair value, as well as fair value related disclosures.

FASB ASC 825, *Financial Instruments*, permits entities to choose to measure many financial instruments and certain other items at fair value that are not currently required to be measured at fair value. FASB ASC 825 also establishes presentation and disclosure requirements designed to facilitate comparisons between entities that choose different measurement attributes for similar types of assets and liabilities. FASB ASC 825 does not eliminate disclosure requirements included in other accounting standards, including requirements for disclosures about fair value measurements included in FASB ASC 820.

paragraphs 7.68–.99 for additional guidance on auditing fair value measurements and disclosures.

7.18 If the determination of fair value requires the use of estimates, see AU section 342, *Auditing Accounting Estimates* (AICPA, *Professional Standards*). In addition, paragraph .58 of AU section 312, *Audit Risk and Materiality in Conducting an Audit* (AICPA, *Professional Standards*), provides guidance on the auditor's considerations when there is a difference between an estimated amount best supported by audit evidence and the estimated amount included in the financial statements.

7.19 Quoted market prices for derivatives and securities listed on national exchanges or over-the-counter markets are available from sources such as financial publications, the exchanges, the National Association of Securities Dealers Automated Quotations System, or pricing services that base their quotes on those sources. Quoted market prices obtained from these sources generally are considered to provide sufficient evidence of the fair value of the derivatives and securities.

7.20 For certain other derivatives and securities, quoted market prices may be obtained from broker-dealers who are market makers in them or through the National Quotation Bureau. However, using such price quotes to test valuation assertions may require special knowledge to understand the circumstances in which the quote was developed. For example, quotations published by the National Quotation Bureau such as *pink sheets* may not be based on recent trades and may only be an indication of interest and not an actual price for which a counterparty will purchase or sell the underlying derivative or security.

7.21 If quoted market prices are not available for a derivative or security, estimates of fair value frequently can be obtained from broker-dealers or other third-party sources based on proprietary valuation models or from the entity based on internally or externally developed valuation models. The auditor should understand the method used by the broker-dealer or other third-party source in developing the estimate, for example, whether a pricing model or a cash flow projection was used. Information about the Black-Scholes-Merton option-pricing model is presented in paragraph 7.32 and the zero-coupon method for estimating the fair value of interest rate swaps is presented in paragraph 7.33.

7.22 The auditor may also determine that it is necessary to obtain estimates from more than one pricing source. For example, this may be appropriate if the pricing source has a relationship with the entity that might impair its objectivity, such as an affiliate or a counterparty involved in selling or structuring the product, or if the valuation is based on assumptions that are highly subjective or particularly sensitive to changes in the underlying circumstances.

7.23 For fair-value estimates obtained from broker-dealers and other third-party sources, consider the applicability of the guidance in AU section 336, *Using the Work of a Specialist* (AICPA, *Professional Standards*), or AU section 324, *Service Organizations* (AICPA, *Professional Standards*).[*] The

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[*] The Audit Guide *Service Organizations: Applying SAS No. 70, as Amended* included illustrative control objectives, as well as interpretations that address responsibilities of service organizations and service auditors with respect to forward looking information and the risk of projecting

(continued)

auditor's decision about whether such guidance is applicable and which guidance is applicable will depend on the circumstances. The guidance in AU section 336 may be applicable if the third-party source derives the fair value of the derivative or security by using modeling or similar techniques. If the entity uses a pricing service to obtain prices of securities and derivatives, the guidance in AU section 324[†] may be appropriate.

7.24 In accordance with AU section 328, *Auditing Fair Value Measurements and Disclosures* (AICPA, *Professional Standards*), when planning to use the work of a specialist in auditing fair value measurements, the auditor considers whether the specialist's understanding of the definition of fair value and the method that the specialist will use to determine fair value are consistent with those of management and with GAAP. For example, the method used by a specialist for estimating the fair value of a complex derivative may not be consistent with the measurement principles specified in GAAP. Accordingly, the auditor considers such matters, often through discussions with the specialist, to better understand the procedures performed, or by reading the report of the specialist.

7.25 AU section 336 provides that, although the reasonableness of assumptions and the appropriateness of the methods used and their application are the responsibility of the specialist, the auditor should obtain an understanding of the assumptions and methods used. However, if the auditor believes the findings are unreasonable in the circumstances, he or she applies additional procedures as required in AU section 336.

7.26 The fair value of some derivatives and securities may be estimated by the entity using a valuation model. Examples of valuation models include the present value of expected future cash flows, option-pricing models, matrix pricing, option-adjusted spread models, and fundamental analysis. When valuation models are used, the auditor should obtain evidence supporting management's assertions about fair value by performing procedures such as

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(footnote continued)

evaluations of controls to future periods. The guidance contained in AU section 324, *Service Organizations* (AICPA, *Professional Standards*), has now been split into an attest standard and an auditing standard to better reflect the nature of the work being performed. A finalized clarified Statement on Auditing Standards (SAS) on service organizations, *Audit Considerations Relating to an Entity Using a Service Organization*, will supersede AU section 324 and addresses the user auditor's responsibility for obtaining sufficient appropriate audit evidence in an audit of the financial statements of a user entity that uses one or more service organizations. This SAS will be effective for audits of financial statements for periods ending on or after December 15, 2012, and early adoption is not permitted.

In addition, an Auditing Standards Board (ASB) task force has revised the Audit Guide *Service Organizations: Applying SAS No. 70, as Amended* to reflect the requirements and guidance in Statement on Standards for Attestation Engagements (SSAE) No. 16, *Reporting on Controls at a Service Organization* (AICPA, *Professional Standards*, AT sec. 801), by discontinuing the original guide and issuing the new Guide *Service Organizations—Applying Statement on Standards for Attestation Engagements No. 16,* Reporting on Controls at a Service Organization *(SOC 1)*. Also, the Guide *Reporting on Controls at a Service Organization Relevant to Security, Availability, Processing Integrity, Confidentiality, or Privacy (SOC 2)* addresses reporting on a service provider's controls over subject matter other than financial reporting. Both guides are available for purchase at www.cpa2biz.com.

[†] In April 2010, the ASB issued SSAE No. 16, which addresses examination engagements undertaken by a service auditor to report on controls at organizations that provide services to user entities when those controls are likely to be relevant to user entities' internal control over financial reporting. SSAE No. 16 supersedes the guidance for service auditors in AU section 324 and is effective for periods ending after June 15, 2011. Early implementation is permitted.

- assessing the reasonableness and appropriateness of the model. The auditor should determine whether the valuation model is appropriate for the derivative or security to which it is applied and whether the assumptions used are reasonable and appropriately supported. The evaluation of the appropriateness of valuation models and each of the assumptions used in the models may require considerable judgment and knowledge of valuation techniques, market factors that affect value, and actual and expected market conditions, particularly in relation to similar derivatives and securities that are traded. Accordingly, the auditor may consider it necessary to involve a specialist in assessing the model;
- calculating the value, for example using a model developed by the auditor or by a specialist engaged by the auditor, to develop an independent expectation to corroborate the reasonableness of the value recorded by the entity; and
- comparing the fair value with subsequent settlement or recent transactions.

A valuation model should not be used to determine fair value when GAAP requires that the fair value of a security be determined using quoted market prices.

7.27 When the derivative or security is valued by the entity using a valuation model, the auditor does not function as an appraiser and is not expected to substitute his or her judgment for that of the entity's management.[8]

7.28 In evaluating the reasonableness of the fair value of derivatives and securities calculated with a model, auditors might concentrate on key factors and assumptions that are

- significant to the estimate;
- sensitive to variations;
- deviations from historical patterns; and
- subjective and susceptible to misstatement and bias.

7.29 It may be useful to perform sensitivity analysis on key factors to determine how they affect the estimate. For example, when an estimate of the fair value of a nonexchange-traded option includes an assumption about the volatility of the underlying security, the auditor may perform an analysis to determine how the fair value of the option will differ if that volatility is changed. The results of this analysis will help the auditor determine which factors and assumptions have the most significant impact on the estimate.

7.30 Paragraph .11 of AU section 342 provides guidance on how an auditor assesses the reasonableness of an estimate when testing the process used by management to develop that estimate. Exhibit 7-1, "Assessing the Valuation Model," presents the audit procedures included in paragraph .11 of AU section

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[8] Independence Standards Board Interpretation No. 99-1, *FAS 133 Assistance*, provides guidance to auditors of public companies on services an auditor may provide management to assist with the application of FASB ASC 815, *Derivatives and Hedging*, that would and would not impair the auditor's independence. Ethics Interpretation No. 101-3, "Performance of Nonattest Services," of Rule 101, *Independence* (AICPA, *Professional Standards*, ET sec. 101 par. .05), provides general guidance to auditors of all entities on the effect of nonattest services on the auditor's independence. This interpretation also provides specific guidance regarding when appraisal, valuation and actuarial services may impair a member's independence.

342 that are applicable when management has developed the estimate through the use of a model.

Exhibit 7-1

Assessing the Valuation Model

In some situations, the entity may use a model* to estimate the fair value of a derivative or security. If this is the case, the auditor may assess the reasonableness and appropriateness of the model by testing the procedures used by management. Paragraph .11 of AU section 342, *Auditing Accounting Estimates* (AICPA, *Professional Standards*), provides the following procedures.

- Identify whether there are controls over the preparation of the estimate of fair value and supporting data that may be useful in the evaluation of the results.
- Identify the sources of data and factors that management used in forming the assumptions, and consider whether such data and factors are relevant, reliable, and sufficient for the purpose based on information gathered in other audit tests.
- Consider whether there are additional key factors or alternative assumptions about the factors.
- Evaluate whether the assumptions are consistent with each other, the supporting data, relevant historical data, and industry data.
- Analyze historical data used in developing the assumptions to assess whether the data is comparable and consistent with data of the period under audit, and consider whether such data are sufficiently reliable for the purpose.
- Consider whether changes in the business or industry may cause other factors to become significant to the assumptions.
- Review available documentation of the assumptions used in developing the accounting estimates and inquire about any other plans, goals, and objectives of the entity, as well as consider their relationship to the assumptions.
- Consider using the work of a specialist regarding certain assumptions (see AU section 336, *Using the Work of a Specialist* [AICPA, *Professional Standards*]).
- Test the calculations used by management to translate the assumptions and key factors into the accounting estimate.

* Refer to AU section 336 when the model has been developed by a third party.

7.31 Paragraphs 7.32–.33 provide an overview of how to evaluate fair values calculated by an entity using the Black-Scholes-Merton option-pricing model and the zero-coupon method. Although these models ordinarily may involve complex calculations, the following illustrations focus only on the elements of the calculations that are typically most relevant to auditors. Refer to guidance in AU section 336 when evaluating fair values derived by a specialist.

7.32 The following table discusses evaluating fair values derived using the Black-Scholes-Merton option-pricing model.

What is it?	The Black-Scholes-Merton option-pricing model is a mathematical model for estimating the price of options. To estimate fair value, the model uses five variables: • Time to expiration of the option • Exercise or strike price of the option • Risk-free interest rate • Price of the underlying stock • Volatility of the price of the underlying stock
Who uses it?	The Black-Scholes-Merton model is not the only model for estimating the price of options (some others are the Monte-Carlo simulation and binomial trees); however, Black-Schole-Merton is the best known and most widely used. Computer versions of this model are widely available, and virtually any broker who trades options has access to them.
What are the key assumptions?	Strictly speaking, the Black-Scholes-Merton model applies only to European style options (in which the buyer of the option can exercise the option only on the expiration date) that pay no dividends. Adjustments should be made to the model to address other situations. Of the five variables used in the model, the first three (time to expiration, strike price, and risk-free interest rate) are easy to corroborate. The fourth variable, the price of the underlying stock, also may be easy to verify if the stock is publicly traded. If the stock is not publicly traded, then its price must be estimated. Typically, the fifth factor, volatility of the underlying stock, is the most subjective and difficult to estimate of the five variables.
More about volatility	Price volatility can be viewed in the context of the bell-shaped curve. In a bell-shaped curve, the mean and median of a population are at the apex of the curve. The standard deviation describes the shape of the curve. Approximately 68 percent of the values in a normal distribution are within $\pm$ 1 standard deviation of the mean; 95 percent of the values are within $\pm$ 2 standard deviations, and 99.7 percent of the values are included within 3 standard deviations. The standard deviation describes 2 factors: how dispersed the data are, and the probability that any specified outcome will fall within the standard deviation selected. The greater the standard deviation, the "flatter" the bell-shaped curve, and the more dispersed the data. Volatility is nothing more than the standard deviation of the price of a particular stock. Usually, it is expressed as a percentage of the stock value. For example, assume that

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	the stock of XYZ is trading at $40 and its volatility is 20 percent. Over the course of a year its trading range would be projected to be within 20 percent of its current price approximately 68 percent of the time. That is, approximately 68 percent of the time, the stock would trade between $32 and $48. Going out to 2 standard deviations, 95 percent of the time, the stock would trade between $24 and $56. Annual volatility can be adjusted to a daily rate. The Black-Scholes-Merton model does this by dividing the annual volatility by the square root of the number of trading periods. In any year, there are about 256 trading days (this excludes weekends and holidays), and the square root of 256 is 16. To convert an annual volatility rate to a daily rate, divide it by 16. Thus, if the annual volatility was 20 percent, the daily volatility would equal 20 percent ÷ 16, or 1.25 percent. In the example of the XYZ Company stock trading at $40 per share, standard deviation on the first day would be $0.50 ($40 × 1.25 percent). At the end of the first day of trading, there is approximately a 68 percent chance that the value of the stock will be between $39.50 and $40.50 per share.
How might the auditor audit a Black-Scholes-Merton derived value?	Understand how the five variables affect the estimate of the value of the stock option. The following table summarizes the effects.

	Call		*Put*	
Variable	*If the variable...*	*the option price...*	*If the variable...*	*the option price...*
Time to expiration	Increases	Increases	Increases	Increases
Exercise price	Increases	Decreases	Increases	Increases
Risk-free interest rate	Increases	Increases	Increases	Decreases
Stock price	Increases	Increases	Increases	Decreases
Volatility	Increases	Increases	Increases	Increases

Understand what, if any, adjustments to the Black-Scholes-Merton model were made. Identify the key assumptions underlying those adjustments.

Test the assumptions used in the model for which objective evidence exists.

If the stock is not publicly traded, the price of the stock needs to be estimated. Test the process and method used to make this estimate. Determine whether the estimate is adequately supported. If possible, compare the estimated stock price with stock prices of comparable companies in the same industry.

Assess the assumed volatility for reasonableness. If the stock is publicly traded, volatility ordinarily correlates to the historical price movement of the stock: approximately 68 percent of the values of the stock should fall within 1 standard deviation of the median. The auditor may consider recalculating the volatility assumptions by referring to historical stock price movements. If the stock is not traded publicly, compare the assumed volatility with other entities in the same industry. Financial Accounting Standards Board (FASB) *Accounting Standards Codification* (ASC) 718, *Compensation—Stock Compensation*, requires companies to disclose the volatility used to value employee stock options—these disclosures could be a source of information.

Determine how sensitive the estimate of fair value is to changes in volatility. Ask the entity to run the model several times using different volatility rates while all other variables are held constant. This will indicate how sensitive the estimate is to assumptions about volatility. Evaluate the results of this test in light of materiality. For example, if large changes in the volatility rate do not produce a material impact on the financial statements, the auditor may be able to reduce audit risk to an acceptable level with a minimum of other test work.

As an alternative to these procedures, the auditor may recalculate the option price using a different model and assumptions the auditor deems appropriate.

7.33 The following table discusses evaluating the fair value of interest rate swaps derived using the zero-coupon method.

What is it?	The zero-coupon method is a present value model in which the net settlements from the swap are estimated and discounted back to their current value. Like any present value model, key variables include the following: • Timing of the cash flows • Discount rate • Estimated net settlement cash flows
Who uses it?	The zero-coupon method for estimating the fair value of swaps is not the only acceptable method. However, most other methods use a present value-based model, and the assumptions would be similar.
What are the key assumptions?	The timing of the cash flows usually is a contractual matter that will likely be easy to verify. For the zero-coupon method, the discount rates used are the spot interest rates implied by the current yield curve for hypothetical zero-coupon bonds due on the date of each future net settlement on the swap. These rates, too, will likely be easy to corroborate. Difficulties arise in estimating the amount of future cash flows.

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More about estimating future cash flows.	Suppose that ABC entered into an agreement to swap payments on a fixed-rate liability for a variable rate. If interest rates decline, ABC will receive a net positive cash flow from the swap because the amount received on the fixed rate will be greater than the amount due on the variable rate. The opposite is true if rates increase. Thus, the future net settlements are a function of the future price of the underlying, in this case, interest rates. The zero-coupon method simplifies the estimate of future cash flows by calculating the net settlement that would be required if future interest rates are equal to the rates implied by the current yield curve. Any changes in the yield curve are accounted for prospectively.
How might the auditor audit the fair value of a swap derived using the zero-coupon method?	The audit approach would be the same as for any other present value-based estimate. The auditor focuses on the discount rate and the estimate of future cash flows. Of the two, the future cash flows usually have the bigger impact on the final estimate of fair value. Understand the assumptions underlying the discount rate and, to the extent possible, verify the objective elements of this rate. Understand the assumptions underlying the estimate of future cash flows. Examine management's documentation to see whether these assumptions are adequately supported.

7.34 Evaluating audit evidence for assertions about derivatives and securities may require the auditor to use considerable judgment. That may be because the assertions, especially those about valuation, are based on highly subjective assumptions or because they are particularly sensitive to changes in the underlying circumstances. Valuation assertions may be based on assumptions about the occurrence of future events for which expectations are difficult to develop or on assumptions about conditions expected to exist over a long period, for example, default rates or prepayment rates. Accordingly, competent persons could reach different conclusions about estimates of fair values or estimates of ranges of fair values.

7.35 Considerable judgment also may be required to evaluate audit evidence for assertions based on complex features of a derivative or security, and complex accounting principles. For example, in evaluating audit evidence about the valuation of a structured note, the auditor may need to consider several features of the note that react differently to changes in economic conditions. In addition, one or more other derivatives may be designated to hedge changes in cash flows that arise from the note. Evaluating audit evidence to support the fair value of the note, the determination of whether the hedge is highly effective, and the allocation of changes in fair value to earnings and other comprehensive income may require considerable judgment.

7.36 In situations requiring considerable judgment, refer to the guidance in

- AU section 342 on obtaining and evaluating sufficient appropriate audit evidence to support significant accounting estimates; and
- AU section 336 on the use of the work of a specialist in performing substantive procedures.

7.37 When derivatives and securities are not traded regularly or are traded only in principal-to-principal markets, it may be possible for management to use a substitute for the fair value of the instrument. For example, for some securities, cost may approximate fair value because of the relatively short period of time the security has been held. Some derivatives may be custom-tailored to meet the specific needs of an entity. In these situations, fair value might be based on the quoted market price of a similar derivative adjusted for the effects of the tailoring. Alternatively, the estimate might be based on the estimated current replacement cost of that instrument.

7.38 Negotiable securities, real estate, chattels, or other property is often assigned as collateral for debt securities. If the collateral is an important factor in evaluating fair value and collectability of the security, the auditor should obtain evidence regarding the existence, fair value, and transferability of such collateral as well as the investor's rights to the collateral.

7.39 U.S. GAAP specifies how to account for unrealized appreciation and depreciation of the fair value of a derivative or security. For example, Financial Accounting Standards Board (FASB) *Accounting Standards Codification* (ASC) 320, *Investments—Debt and Equity Securities*, and FASB ASC 815, *Derivatives and Hedging*, require an entity to report a change in the unrealized appreciation or depreciation in the fair value of the following:

- A derivative that is designated as a fair value hedge in earnings, with disclosure of the ineffective portion of the hedge
- A derivative that is designated as a cash flow hedge in two components, with the ineffective portion reported in earnings and the effective portion reported in other comprehensive income
- A derivative that was previously designated as a hedge but is no longer highly effective, or a derivative that is not designated as a hedge, in earnings
- An available-for-sale security in other comprehensive income

7.40 U.S. GAAP also may require the entity to reclassify amounts from accumulated other comprehensive income to earnings. For example, such reclassifications may be required because a hedged transaction is determined to no longer be probable of occurring, a hedged forecasted transaction affects earnings for the period, or a decline in fair value of an available-for-sale security is determined to be other than temporary.

7.41 The auditor should evaluate management's conclusion about the need to recognize in earnings an impairment loss for a decline in fair value that is other-than-temporary as discussed in paragraphs 7.42–.46. The auditor should also gather audit evidence to support the amount of unrealized appreciation or depreciation in the fair value of a derivative that is recognized in earnings or other comprehensive income or that is disclosed because of the ineffectiveness of a hedge. That requires an understanding of the methods used to determine whether the hedge is highly effective and to determine the ineffective portion of the hedge.

Impairment Losses

7.42 Regardless of the valuation method used, U.S. GAAP might require recognizing in earnings an impairment loss for a decline in fair value that is other-than-temporary. Determining whether losses are other-than-temporary often involves estimating the outcome of future events. Accordingly, judgment is required in determining whether factors exist that indicate that an impairment loss has been incurred at the end of the reporting period. These judgments are based on subjective as well as objective factors, including knowledge and experience about past and current events and assumptions about future events. The following are examples of such factors:

- Fair value is significantly below cost and
  - — the decline is attributable to adverse conditions specifically related to the security or to specific conditions in an industry or in a geographic area;
  - — the decline has existed for an extended period of time; and
  - — management does not possess both the intent and the ability to hold the security for a period of time sufficient to allow for any anticipated recovery in fair value.
- The security has been downgraded by a rating agency.
- The financial condition of the issuer or counterparty has deteriorated.
- Dividends have been reduced or eliminated, or scheduled interest payments have not been made.
- The entity recorded losses from the security subsequent to the end of the reporting period.

7.43 The auditor should evaluate (*a*) whether management has considered relevant information in determining whether factors such as those listed in paragraph 7.42 exist and (*b*) management's conclusions about the need to recognize an impairment loss. That evaluation requires the auditor to obtain evidence about such factors that tend to corroborate or conflict with management's conclusions. When the entity has recognized an impairment loss, the auditor should gather evidence supporting the amount of the impairment adjustment recorded and determine whether the entity has appropriately followed GAAP.

7.44 The auditor is not responsible for designing procedures to detect the presence of these factors per se. Rather, the auditor might evaluate whether management has considered information that would be relevant in determining whether such factors exist. For example, the auditor would not be responsible for determining whether the financial condition of the issuer of a security has deteriorated, but instead, would ask management how it considered the issuer's financial condition. Once the auditor has determined that the entity considered relevant information, the auditor is responsible for evaluating management's conclusion about the need to recognize an impairment loss. To perform this evaluation the auditor should gather evidence about factors that tend to corroborate or conflict with management's conclusions. See paragraph 7.03 for a description of requirements under AU section 326.

7.45 If the entity has recognized an impairment loss, and the auditor agrees with that conclusion, the auditor would

- determine that the write-down of an investment to a new cost basis is accounted for as a realized loss;
- test the calculation of the loss recorded;
- determine that the new cost basis of investments previously written down is not changed for subsequent recoveries in fair value;
- review a summary of investments written down for completeness and unusual items;
- assess the credit rating of the counterparty; and
- conclude on the adequacy of impairment adjustments recorded.

Assertions About Presentation and Disclosure

7.46 Assertions about presentation and disclosure address whether the classification, description, and disclosure of derivatives and securities in the entity's financial statements are in conformity with GAAP. The auditor should evaluate whether the presentation and disclosure of derivatives and securities are in conformity with GAAP.

7.47 For some derivatives and securities, GAAP may prescribe the following presentation and disclosure requirements, for example:

- Whether changes in the fair value of derivatives used to hedge risks are required to be reported as a component of earnings or other comprehensive income depends on whether they are intended to hedge the risk of changes in the fair value of assets and liabilities or changes in expected future cash flows and on the degree of effectiveness of the hedge
- Certain securities are required to be classified into categories according to management's intent and ability, such as held-to-maturity
- Specific information is required to be disclosed about derivatives and securities

7.48 In evaluating the adequacy of presentation and disclosure, the auditor should consider the form, arrangement, and content of the financial statements and their notes, including, for example, the terminology used, the amount of detail given, the classification of items in the statements, and the bases of amounts reported. This also includes evaluating whether the financial statements and accompanying notes are clear and understandable for the users of the information. The auditor should compare the presentation and disclosure with the requirements of GAAP. The guidance in AU section 431, *Adequacy of Disclosure in Financial Statements* (AICPA, *Professional Standards*), may assist the auditor in evaluating the adequacy of disclosure that is not specifically required by GAAP.

Other Considerations Regarding Substantive Procedures

Inspection

7.49 Traded securities typically are maintained in electronic form and in street name, and accordingly cannot be inspected. For example, even though stock certificates are on file at a depository (for example, the Depository Trust Company), those shares are allocated to broker-dealers, and the issuer has no record of who owns shares. The broker-dealers send such documents as proxy statements to stockholders. Confirmation of the security provides evidence about the existence of securities.[9] Evidence about existence also may be gathered by examining supporting documentation, such as

- instructions to portfolio managers or directed custodians;
- transaction confirmations;
- agreements;
- contracts; and
- minutes of investment committees.

7.50 Paragraph .84 of AU section 314 states that when IT is used to initiate, authorize, record, process, or report transactions or other financial data for inclusion in financial statements, the systems and programs may include controls related to the corresponding assertions for significant accounts or may be critical to the effective functioning of manual controls that depend on IT. Paragraph .87 of AU section 314 states the auditor should obtain an understanding of the entity's information system relevant to financial reporting in a manner that is appropriate to the entity's circumstances. This includes obtaining an understanding of how transactions originate within the entity's business processes.

7.51 As previously stated, many derivatives do not involve an initial exchange of cash. Also, they may be embedded in agreements and difficult to identify. Finally, securities may be donated to entities such as not-for-profit organizations. When inspecting documents such as minutes, agreements, and contracts, the auditor's overriding objective is to identify derivatives and securities that may not have been recognized in the accounting records of the entity.

7.52 If the physical inspection of securities is possible, the auditor might consider the following:

- *The timing of the inspection.* Typically, securities would be inspected at the same time cash and other negotiable assets (for example, bearer bonds) are counted. If securities, cash, and other negotiable assets cannot be counted at the same time, the auditor might use other means to prevent the substitution of one type of negotiable asset for another. For example, bags, boxes, safes, or whole rooms may be sealed and counted at a later time.

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[9] If quoted market prices are not available and the value of the security cannot easily be confirmed, the auditor could recompute the fair value based on established valuation techniques, such as present value analysis and pricing models. The auditor could also determine whether the assumptions used in computing fair value represent the appropriate assumptions as of the reporting date. See Interpretation No. 1 of AU section 332 for further information on auditing investments in securities where a readily determinable fair value does not exist.

- *What to look for.* The following attributes normally can be observed when inspecting securities:
  - — The name of the issuer
  - — The description of the security
  - — The name of the owner of the security
  - — Any evidence of pledging or restrictions on disposal shown on the certificate
  - — The number of shares of stock or face amount of debt securities
- *Interim or year-end procedures.* According to paragraph .05 of AU section 318, *Performing Audit Procedures in Response to Assessed Risks and Evaluating the Audit Evidence Obtained* (AICPA, *Professional Standards*), the assessment of the risks of material misstatement at the financial statement level is affected by the auditor's understanding of the control environment. An effective control environment may allow the auditor to have more confidence in internal control and the reliability of audit evidence generated internally within the entity and thus, for example, allow the auditor to perform some audit procedures at an interim date rather than at period end. Furthermore, paragraph .16 of AU section 318 states the auditor may perform tests of controls or substantive procedures at an interim date or at period end. The higher the risk of material misstatement, the more likely it is that the auditor may decide it is more effective to perform substantive procedures nearer to, or at, the period end rather than at an earlier date, or to perform audit procedures unannounced or at unpredictable times (for example, performing audit procedures at selected locations on an unannounced basis). On the other hand, performing audit procedures before the period end may assist the auditor in identifying significant matters at an early stage of the audit, and consequently resolving them with the assistance of management or developing an effective audit approach to address such matters. If the auditor performs tests of the operating effectiveness of controls or substantive procedures before period end, the auditor should consider the additional evidence that is necessary for the remaining period.

Confirmation

7.53 Paragraph .24 of AU section 330, *The Confirmation Process* (AICPA, *Professional Standards*), states when designing confirmation requests, the auditor should consider the types of information respondents will be readily able to confirm because the nature of the information being confirmed may directly affect the competence of the evidence obtained as well as the response rate. For example, a custodian would be able to confirm the existence of securities but may be unable to confirm their valuation, the entity's rights and obligations with respect to the securities, or their completeness.[10] Additionally, certain respondents' accounting systems may facilitate the confirmation of single transactions rather than of entire account balances. Or, respondents may not

[10] See footnote 9.

be able to confirm the balances of their installment loans, but they may be able to confirm whether their payments are up-to-date, the amount of the payment, and the key terms of their loans. Understanding the entity's arrangements and transactions with third parties is key to determining the information to be confirmed.

7.54 Paragraph .17 of AU section 330 states if information about the respondent's competence, knowledge, motivation, ability, or willingness to respond, or about the respondent's objectivity and freedom from bias with respect to the audited entity comes to the auditor's attention, the auditor should consider the effects of such information on designing the confirmation request and evaluating the results, including determining whether other procedures are necessary. In addition, there may be circumstances (such as for significant, unusual year end transactions that have a material effect on the financial statements or where the respondent is the custodian of a material amount of the audited entity's assets) in which the auditor should exercise a heightened degree of professional skepticism relative to these factors about the respondent. For example, a great degree of professional skepticism would be exercised when confirming the value of a derivative with an investment banker who is the counterparty to the transaction.

7.55 Paragraph .16 of AU section 330 states confirmation requests should be tailored to the specific audit objectives. Paragraph .11 of AU section 330 states the relevance of evidence depends on its relationship to the financial statement assertion being addressed. When designing confirmations of derivatives and securities, it is important for auditors to consider what information will provide evidence about the completeness assertion. For example, the auditor might wish to confirm the absence of written or oral side agreements, such as an agreement to repurchase securities sold, or the terms of an agreement that may have a significant impact on whether an embedded derivative is accounted for separately.

7.56 When designing confirmations for derivatives and securities, auditors might consider confirming the following attributes, as applicable:

- The name of the issuer
- The description of the derivative or security
- The name of the owner of the security or the parties to the derivative
- The terms of the derivative or security
- Any evidence of pledging or restrictions on disposal
- The investment certificate numbers on the documents
- The number of shares of stock or face amount of debt securities

7.57 Paragraph .31 of AU section 330 states when the auditor has not received replies to positive confirmation requests, he or she should apply alternative procedures to the nonresponses to obtain the evidence necessary to reduce audit risk to an acceptably low level. These procedures may include the following:

- Examining source documents, such as invoices or broker's statements
- Inspecting executed agreements

- Examining cash receipts, disbursements, and trade confirmations subsequent to year end

7.58 In November 2008, the Auditing Standards Board issued revised Interpretation No. 1, "Use of Electronic Confirmations," of AU section 330 (AICPA, *Professional Standards*, AU sec. 9330 par. .01–.08). The interpretation clarifies, among other matters, that the use of an electronic confirmation process is not precluded by AU section 330. Although no confirmation process with a third party is without some risk of interception or alternation, including the risk that the confirmation respondent will not be the intended respondent, paragraph .05 of Interpretation No. 1 of AU section 330 states that confirmations obtained electronically can be considered to be reliable audit evidence if the auditor is satisfied that (*a*) the electronic confirmation process is secure and properly controlled, (*b*) the information obtained is a direct communication in response to a request, and (*c*) the information is obtained from a third party who is the intended respondent. The interpretation also provides guidance to assist the auditor in assessing the confirmation process.

Analytical Procedures

7.59 Analytical procedures are based on relationships between data. The more predictable the relationships are, the more precise the auditor's expectation of the financial statement account. The value of many derivatives and securities can be highly volatile, making valuation assertions about them ill-suited to testing via analytical procedures. Additionally, the accounting for many derivatives and securities is based on underlying assumptions that oftentimes are quite subjective. Finally, the accounting for derivatives and securities may be highly dependent on management's intention. For example, the classification of debt and equity securities depends on management's ability and intent with regard to selling those securities. The accounting for derivatives depends on management's objectives in entering into those securities transactions.

7.60 For these reasons, performing analytical procedures alone may not sufficiently reduce audit risk for some assertions about derivatives and securities. For example, analytical procedures would not be effective in determining whether an embedded derivative has been properly recognized in the financial statements or in evaluating the fair value of a derivative whose value fluctuates greatly. However, they may be effective in pointing out unrecorded derivatives such as interest rate swaps that contractually require no cash at inception. For example, a difference from an expectation that interest expense will be a fixed percentage of a note based on the interest provisions of the underlying agreement may indicate the existence of an interest rate swap agreement. Also, analytical procedures based on expectations of relationships between income and assets may provide some evidence about existence and completeness assertions.

7.61 Analytical procedures may also be effective in corroborating the occurrence of income and expenses, and sometimes gains and losses associated with a derivative or security. For example, the absence of a material difference from an expectation that interest income will be a fixed percentage of a debt security based on the effective interest rate when the entity purchased the security provides evidence about the existence of the income (and of the security). However, auditors might consider that the income, expenses, gains, and losses associated with a derivative or security may involve a complex interplay of many factors. For example, if the fair value of a derivative is derived

from the interrelationship of exchange rates, interest rates, rate differentials, or a combination of these, any attempts to develop an expectation of a financial statement amount may be difficult.

How the Use of a Service Organization May Affect the Auditor's Procedures

7.62 The provision by a service organization of services that are part of an entity's information system may affect the nature, timing, and extent of the auditor's substantive procedures for assertions about derivatives and securities. For example, if supporting documentation, such as derivative contracts or securities purchase and sales advices are located at a service organization, it may be necessary for the auditor of the entity's financial statements, an auditor working under the direction of that auditor, or an auditor engaged by the service organization to visit the service organization to inspect the documentation. Also, if investment advisers, holders of securities, recordkeepers, and other service organizations electronically transmit, process, maintain, or access significant information about an entity's securities, it may not be practicable or possible for the auditor to reduce audit risk to an acceptable level without identifying controls placed in operation by the service organization or the entity, and gathering audit evidence about the operating effectiveness of those controls.

7.63 Paragraph 7.62 and the case study in chapter 10, "Case Study of How the Entity's Use of Service Organizations Affects the Auditor's Considerations in Auditing Securities," discuss the effect on the auditor's control risk considerations if one or more service organizations provides securities services to the entity under a discretionary arrangement. Those discussions address the following two types of situations.

- *Two separate service organizations.* In this situation, one service organization initiates transactions as an investment adviser and a second service organization holds and services the securities. The auditor may corroborate information provided by the two organizations. For example, the auditor may confirm holdings with the holder of the securities and apply other substantive tests to transactions reported by the entity based on information provided by the investment adviser. Depending on the facts and circumstances, the auditor also may confirm transactions or holdings with the investment adviser and review the reconciliation of differences. Paragraph 7.07 provides additional guidance on the auditor's considerations.
- *One service organization.* In this situation, one service organization initiates transactions as an investment adviser and also holds and services the securities. All of the information available to the auditor is based on one service organization's information. Therefore, the auditor may have to obtain evidence about the operating effectiveness of the service organization's controls. The auditor may be unable to sufficiently limit audit risk without obtaining audit evidence about the operating effectiveness of relevant service organization controls. An example of such controls is establishing independent departments that provide the investment advisory services and the holding and servicing of securities,

then reconciling the information about the securities provided by each department.

Additional Considerations About Hedging Activities

7.64 To account for a derivative as a hedge, FASB ASC 815 requires management at the inception of the hedge to designate the derivative as a hedge and contemporaneously formally document[11] the hedging relationship, the entity's risk management objective and strategy for undertaking the hedge, and the method of assessing the effectiveness of the hedge. In addition, to qualify for hedge accounting, FASB ASC 815 requires that management have an expectation, both at the inception of the hedge and on an ongoing basis, that the hedging relationship will be highly effective in achieving the hedging strategy.[12]

7.65 The auditor should gather audit evidence to determine whether management complied with the hedge accounting requirements of FASB ASC 815, including designation and documentation requirements. In addition, the auditor should gather audit evidence to support management's expectation at the inception of the hedge that the hedging relationship will be highly effective and its periodic assessment of the ongoing effectiveness of the hedging relationship as required by FASB ASC 815.

7.66 When the entity designates a derivative as a fair value hedge, FASB ASC 815-25 requires that the entity adjust the carrying amount of the hedged item for the change in the hedged item's fair value that is attributable to the hedged risk. The auditor should gather audit evidence supporting the recorded change in the hedged item's fair value that is attributable to the hedged risk. Additionally, the auditor should gather audit evidence to determine whether management has properly applied FASB ASC 815-25 to the hedged item.

7.67 For a cash flow hedge of a forecasted transaction, FASB ASC 815-30 requires management to determine that the forecasted transaction is probable of occurring. Those principles require that the likelihood that the transaction will take place not be based solely on management's intent. Instead, the transaction's probability should be supported by observable facts and the attendant circumstances, such as

- the frequency of similar past transactions;
- the financial and operational ability of the entity to carry out the transaction;
- the extent of loss that could result if the transaction does not occur; and
- the likelihood that transactions with substantially different characteristics might be used to achieve the same business purpose.

The auditor should evaluate management's determination of whether a forecasted transaction is probable.

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[11] FASB ASC 815-20-25 requires formal documentation of prescribed aspects of hedging relationships at the inception of the hedge.

[12] FASB ASC 815 requires management to periodically reassess the effectiveness of hedging relationships whenever financial statements or earnings are reported, and at least every three months. It also requires that all assessments of effectiveness be consistent with the risk management strategy documented for the particular hedging relationship.

Auditing Fair Value Measurements and Disclosures

7.68 AU section 328 establishes standards and provides guidance on auditing fair value measurements and disclosures contained in financial statements. Although this section of the guide discusses some of the guidance on auditing fair value measurements and disclosures, evidence obtained from other audit procedures also may provide evidence relevant to the measurements and disclosure of fair values.

7.69 The measurement of fair value may be relatively simple for certain assets or liabilities, for example, investments that are bought and sold in active markets that provide readily available and reliable information on the prices at which actual exchanges occur. For those items, the existence of published price quotations in an active market is the best evidence of fair value. The measurement of fair value for other assets or liabilities may be more complex. A specific asset may not have an observable market price or may possess such characteristics that it becomes necessary for management to estimate its fair value based on the best information available in the circumstances (for example, a complex derivative financial instrument). The estimation of fair value may be achieved through the use of a valuation method (for example, a model premised on discounting of estimated future cash flows).

Evaluating Conformity of Fair Value Measurements and Disclosures With GAAP

7.70 When auditing fair value measurements and disclosures, the auditor should obtain sufficient appropriate audit evidence to provide reasonable assurance that fair value measurements and disclosures are in conformity with GAAP. The auditor's understanding of the requirements of GAAP and knowledge of the business and industry, together with the results of other audit procedures, are used to evaluate the accounting for assets or liabilities requiring fair value measurements, and the disclosures about the basis for the fair value measurements and significant uncertainties related thereto.

7.71 The evaluation of the entity's fair value measurements and of the audit evidence depends, in part, on the auditor's knowledge of the nature of the business. This is particularly true where the asset or liability or the valuation method is highly complex. For example, derivative financial instruments may be highly complex, with a risk that differing assumptions used in determining fair values will result in different conclusions. Also, the auditor's knowledge of the business, together with the results of other audit procedures, may help identify assets for which management should assess the need to recognize an impairment loss under applicable GAAP.

7.72 The auditor should evaluate management's intent to carry out specific courses of action where intent is relevant to the use of fair value measurements, the related requirements involving presentation and disclosures, and how changes in fair values are reported in financial statements. The auditor also should evaluate management's ability to carry out those courses of action. Management often documents plans and intentions relevant to specific assets or liabilities and GAAP may require it to do so. Although the extent of evidence to be obtained about management's intent and ability is a matter of professional judgment, the auditor's procedures ordinarily include inquiries of management, with appropriate corroboration of responses, for example, by

- considering management's past history of carrying out its stated intentions with respect to assets or liabilities;
- reviewing written plans and other documentation, including, where applicable, budgets, minutes, and other such items;
- considering management's stated reasons for choosing a particular course of action; and
- considering management's ability to carry out a particular course of action given the entity's economic circumstances, including the implications of its contractual commitments.

7.73 When there are no observable market prices and the entity estimates fair value using a valuation method, the auditor should evaluate whether the entity's method of measurement is appropriate in the circumstances. That evaluation requires the use of professional judgment. It also involves obtaining an understanding of management's rationale for selecting a particular method by discussing with management its reasons for selecting the valuation method. The auditor considers whether

- management has sufficiently evaluated and appropriately applied the criteria, if any, provided by GAAP to support the selected method;
- the valuation method is appropriate in the circumstances given the nature of the item being valued; and
- the valuation method is appropriate in relation to the business, industry, and environment in which the entity operates.

Management may have determined that different valuation methods result in a range of significantly different fair value measurements. In such cases, the auditor evaluates how the entity has investigated the reasons for these differences in establishing its fair value measurements.

7.74 The auditor should evaluate whether the entity's method for determining fair value measurements is applied consistently and if so, whether the consistency is appropriate considering possible changes in the environment or circumstances affecting the entity, or changes in accounting principles. If management has changed the method for determining fair value, the auditor considers whether management can adequately demonstrate that the method to which it has changed provides a more appropriate basis of measurement or whether the change is supported by a change in the GAAP requirements or a change in circumstances.[13] For example, the introduction of an active market for an equity security may indicate that the use of the discounted cash flows method to estimate the fair value of the security is no longer appropriate.

7.75 FASB ASC 320-10-35 addresses the determination regarding when an investment is considered impaired, whether that impairment is other-than-temporary, and the measurement of an impairment loss. FASB ASC 320-10-35 also includes accounting considerations subsequent to the recognition of an other-than-temporary impairment and requires certain disclosures about unrealized losses that have not been recognized as other-than-temporary impairments.

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[13] FASB ASC 250-10-45-2 states that the presumption that an entity should not change an accounting principle may be overcome only if (*a*) the change is required by a newly issued Codification Update or (*b*) the entity justifies the use of an allowable alternative acceptable accounting principle on the basis that it is preferable.

Testing the Entity's Fair Value Measurements and Disclosures

7.76 Based on the auditor's assessment of the risks of material misstatement, the auditor should test the entity's fair value measurements and disclosures. Because of the wide range of possible fair value measurements, from relatively simple to complex, and the varying levels of risks of material misstatement associated with the process for determining fair values, the auditor's planned audit procedures can vary significantly in nature, timing, and extent. For example, substantive procedures of the fair value measurements may involve (*a*) testing management's significant assumptions, the valuation model, and the underlying data (see paragraphs 7.79–.92), (*b*) developing independent fair value estimates for corroborative purposes (see paragraph 7.93), or (*c*) reviewing subsequent events and transactions (see paragraphs 7.94–.95).

7.77 Some fair value measurements are inherently more complex than others. This complexity arises either because of the nature of the item being measured at fair value or because of the valuation method used to determine fair value. For example, in the absence of quoted prices in an active market, an estimate of a security's fair value may be based on valuation methods such as the discounted cash flow method or the transactions method. Complex fair value measurements normally are characterized by greater uncertainty regarding the reliability of the measurement process. This greater uncertainty may be a result of

- the length of the forecast period;
- the number of significant and complex assumptions associated with the process;
- a higher degree of subjectivity associated with the assumptions and factors used in the process;
- a higher degree of uncertainty associated with the future occurrence or outcome of events underlying the assumptions used; and
- lack of objective data when highly subjective factors are used.

7.78 The auditor uses both the understanding of management's process for determining fair value measurements and his or her assessment of the risk of material misstatement to determine the nature, timing, and extent of the audit procedures. The following are examples of considerations in the development of audit procedures:

- The fair value measurement (for example, a valuation by an independent appraiser) may be made at a date that does not coincide with the date at which the entity is required to measure and report that information in its financial statements. In such cases, the auditor obtains evidence that management has taken into account the effect of events, transactions, and changes in circumstances occurring between the date of the fair value measurement and the reporting date.
- Collateral often is assigned for certain types of investments in debt instruments that either are required to be measured at fair value or are evaluated for possible impairment. If the collateral is an important factor in measuring the fair value of the investment or evaluating its carrying amount, the auditor obtains sufficient appropriate audit evidence regarding the existence, value, rights,

and access to or transferability of such collateral, including consideration of whether all appropriate liens have been filed, and considers whether appropriate disclosures about the collateral have been made.

- In some situations, additional procedures, such as the inspection of an asset by the auditor, may be necessary to obtain sufficient appropriate audit evidence about the appropriateness of a fair value measurement. For example, inspection of a security may reveal a restriction on its marketability that may affect its value.

Testing Management's Significant Assumptions, the Valuation Model, and the Underlying Data

7.79 The auditor's understanding of the reliability of the process used by management to determine fair value is an important element in support of the resulting amounts and therefore affects the nature, timing, and extent of audit procedures. When testing the entity's fair value measurements and disclosures, the auditor evaluates whether

- management's assumptions are reasonable and reflect, or are not inconsistent with, market information;
- the fair value measurement was determined using an appropriate model, if applicable; and
- management used relevant information that was reasonably available at the time.

7.80 Estimation methods and assumptions, and the auditor's consideration and comparison of fair value measurements determined in prior periods, if any, to results obtained in the current period, may provide evidence of the reliability of management's processes. However, the auditor also considers whether variances from the prior-period fair value measurements result from changes in market or economic circumstances.

7.81 Where applicable, the auditor should evaluate whether the significant assumptions used by management in measuring fair value, taken individually and as a whole, provide a reasonable basis for the fair value measurements and disclosures in the entity's financial statements.

7.82 Assumptions are integral components of more complex valuation methods, for example, valuation methods that employ a combination of estimates of expected future cash flows together with estimates of the values of assets or liabilities in the future, discounted to the present. Auditors pay particular attention to the significant assumptions underlying a valuation method and evaluate whether such assumptions are reasonable and reflect, or are not inconsistent with, market information.

7.83 Specific assumptions will vary with the characteristics of the item being valued and the valuation approach used (for example, cost, market, or income). For example, where the discounted cash flows method (a method under the income approach) is used, there will be assumptions about the level of cash flows, the period of time used in the analysis, and the discount rate.

7.84 Assumptions ordinarily are supported by differing types of evidence from internal and external sources that provide objective support for the assumptions used. The auditor evaluates the source and reliability of evidence

supporting management's assumptions, including consideration of the assumptions in light of historical and market information.

7.85 Audit procedures dealing with management's assumptions are performed in the context of the audit of the entity's financial statements. The objective of the audit procedures is therefore not intended to obtain sufficient appropriate audit evidence to provide an opinion on the assumptions themselves. Rather, the auditor performs procedures to evaluate whether the assumptions provide a reasonable basis for measuring fair values in the context of an audit of the financial statements taken as a whole.

7.86 Identifying those assumptions that appear to be significant to the fair value measurement requires the exercise of judgment by management. The auditor focuses attention on the significant assumptions that management has identified. Generally, significant assumptions cover matters that materially affect the fair value measurement and may include those that are

- sensitive to variation or uncertainty in amount or nature. (For example, assumptions about short-term interest rates may be less susceptible to significant variation compared to assumptions about long-term interest rates.)
- susceptible to misapplication or bias.

7.87 The auditor considers the sensitivity of the valuation to changes in significant assumptions, including market conditions that may affect the value. Where applicable, the auditor encourages management to use techniques such as sensitivity analysis to help identify particularly sensitive assumptions. If management has not identified particularly sensitive assumptions, the auditor considers whether to employ techniques to identify those assumptions.

7.88 The evaluation of whether the assumptions provide a reasonable basis for the fair value measurements relates to the whole set of assumptions as well as to each assumption individually. Assumptions are frequently interdependent and therefore need to be internally consistent. A particular assumption that may appear reasonable when taken in isolation may not be reasonable when used in conjunction with other assumptions. The auditor considers whether management has identified the significant assumptions and factors influencing the measurement of fair value.

7.89 To be reasonable, the assumptions on which the fair value measurements are based (for example, the discount rate used in calculating the present value of future cash flows), individually and taken as a whole, need to be realistic and consistent with

- the general economic environment, the economic environment of the specific industry, and the entity's economic circumstances;
- existing market information;
- the plans of the entity, including what management expects will be the outcome of specific objectives and strategies;
- assumptions made in prior periods, if appropriate;
- past experience of, or previous conditions experienced by, the entity to the extent currently applicable;
- other matters relating to the financial statements, for example, assumptions used by management in accounting estimates for

financial statement accounts other than those relating to fair value measurements and disclosures; and

- the risk associated with cash flows, if applicable, including the potential variability in the amount and timing of the cash flows and the related effect on the discount rate.

Where assumptions are reflective of management's intent and ability to carry out specific courses of action, the auditor considers whether they are consistent with the entity's plans and past experience.

7.90 If management relies on historical financial information in the development of assumptions, the auditor considers the extent to which such reliance is justified. However, historical information might not be representative of future conditions or events, for example, if management intends to engage in new activities or if circumstances change.

7.91 For items valued by the entity using a valuation model, the auditor does not function as an appraiser and is not expected to substitute his or her judgment for that of the entity's management. Rather, the auditor reviews the model and evaluates whether the assumptions used are reasonable and the model is appropriate considering the entity's circumstances. For example, it may be inappropriate to use discounted cash flows for valuing an equity investment in a start-up enterprise if there are no current revenues on which to base the forecast of future earnings or cash flows.

7.92 The auditor should test the data used to develop the fair value measurements and disclosures and evaluate whether the fair value measurements have been properly determined from such data and management's assumptions. Specifically, the auditor evaluates whether the data on which the fair value measurements are based, including the data used in the work of a specialist, is accurate, complete, and relevant; and whether fair value measurements have been properly determined using such data and management's assumptions. The auditor's tests also may include, for example, procedures such as verifying the source of the data, mathematical recomputation of inputs, and reviewing of information for internal consistency, including whether such information is consistent with management's intent and ability to carry out specific courses of action discussed in paragraph .17 of AU section 328.

Developing Independent Fair Value Estimates for Corroborative Purposes

7.93 The auditor may make an independent estimate of fair value (for example, by using an auditor-developed model) to corroborate the entity's fair value measurement.[14] When developing an independent estimate using management's assumptions, the auditor evaluates those assumptions as discussed in paragraphs 7.79–.92. Instead of using management's assumptions, the auditor may develop his or her own assumptions to make a comparison with management's fair value measurements. In that situation, the auditor nevertheless understands management's assumptions. The auditor uses that understanding to ensure that his or her independent estimate takes into consideration all significant variables and to evaluate any significant difference from management's estimate. The auditor also should test the data used to develop the fair value measurements and disclosures as discussed in paragraph 7.93.

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[14] See AU section 329.

Reviewing Subsequent Events and Transactions‡

7.94 Events and transactions that occur after the balance-sheet date but before completion of fieldwork (for example, a sale of an investment shortly after the balance-sheet date), may provide audit evidence regarding management's fair value measurements as of the balance-sheet date.[15] In such circumstances, the audit procedures described in paragraphs 7.79–.92 may be minimized or unnecessary because the subsequent event or transaction can be used to substantiate the fair value measurement.

7.95 Some subsequent events or transactions may reflect changes in circumstances occurring after the balance-sheet date and thus do not constitute competent evidence of the fair value measurement at the balance-sheet date (for example, the prices of actively traded marketable securities that change after the balance-sheet date). When using a subsequent event or transaction to substantiate a fair value measurement, the auditor considers only those events or transactions that reflect circumstances existing at the balance-sheet date.

Disclosures About Fair Values

7.96 The auditor should evaluate whether the disclosures about fair values made by the entity are in conformity with GAAP.[16] Disclosure of fair value information is an important aspect of financial statements. Often, fair value disclosure is required because of the relevance to users in the evaluation of an entity's performance and financial position. In addition to the fair value information required under GAAP, some entities disclose voluntary additional fair value information in the notes to the financial statements.

7.97 When auditing fair value measurements and related disclosures included in the notes to the financial statements, whether required by GAAP or disclosed voluntarily, the auditor ordinarily performs essentially the same types of audit procedures as those employed in auditing a fair value measurement recognized in the financial statements. The auditor obtains sufficient appropriate audit evidence that the valuation principles are appropriate under GAAP and are being consistently applied, and that the method of estimation and significant assumptions used are adequately disclosed in accordance with GAAP.

7.98 The auditor evaluates whether the entity has made adequate disclosures about fair value information. If an item contains a high degree of measurement uncertainty, the auditor assesses whether the disclosures are sufficient to inform users of such uncertainty.[17]

7.99 According to paragraph .46 of AU section 328, when disclosure of fair value information under GAAP is omitted because it is not practicable to

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‡ The ASB has issued SAS *Subsequent Events and Subsequently Discovered Facts*. This SAS is part of the ASB's Clarity Project, which has redrafted existing SASs to apply the ASB's clarity drafting conventions and converge them with International Standards on Auditing. The SAS is effective for audits of financial statements ending on or after December 15, 2012. Readers should refer to www.aicpa.org to read the SAS in its entirety.

[15] The auditor's consideration of a subsequent event or transaction, as contemplated in this paragraph, is a substantive test and thus differs from the review of subsequent events performed pursuant to AU section 560, *Subsequent Events* (AICPA, *Professional Standards*).

[16] See AU section 431, *Adequacy of Disclosure in Financial Statements* (AICPA, *Professional Standards*).

[17] See FASB ASC 275, *Risks and Uncertainties*, as well as FASB ASC 820-10-50 and FASB ASC 825-10-50 for more information.

determine fair value with sufficient reliability, the auditor should evaluate the adequacy of disclosures in these circumstances. If the entity has not appropriately disclosed fair value information required by GAAP, the auditor should evaluate whether the financial statements are materially misstated.

Evaluating the Results of Audit Procedures

7.100 The auditor should evaluate the sufficiency and competence of the audit evidence obtained from auditing fair value measurements and disclosures as well as the consistency of that evidence with other audit evidence obtained and evaluated during the audit. The auditor's evaluation of whether the fair value measurements and disclosures in the financial statements are in conformity with GAAP is performed in the context of the financial statements taken as a whole (see paragraphs .62–.66 of AU section 312).

Assertions About Securities Based on Management's Intent and Ability

7.101 U.S. GAAP requires that management's intent and ability be considered in valuing certain securities; for example, whether

- debt securities are classified as held-to-maturity and reported at their cost depends on management's intent and ability to hold them to their maturity, as well as their assessment of whether it is more-likely-than-not that they will be required to sell the security before the recovery of its amortized cost basis;
- equity securities are reported using the equity method depends on management's ability to significantly influence the investee; and
- equity securities are classified as trading or available-for-sale depends on management's intent and objectives in investing in the securities.

7.102 In evaluating management's intent and ability, the auditor might

- obtain an understanding of the process used by management to classify securities as trading, available-for-sale, or held-to-maturity;
- for an investment accounted for using the equity method, inquire of management regarding whether the entity has the ability to exercise significant influence over the operating and financial policies of the investee and evaluate the attendant circumstances that serve as a basis for management's conclusions;
- if the entity accounts for the investment contrary to the presumption established by GAAP for use of the equity method, obtain sufficient appropriate audit evidence about whether that presumption has been overcome and whether appropriate disclosure is made regarding the reasons for not accounting for the investment in keeping with that presumption;
- consider whether management's activities corroborate or conflict with its stated intent. For example, the auditor might evaluate an assertion that management intends to hold debt securities to their maturity by examining evidence such as documentation of

management's strategies and sales and other historical activities with respect to those securities and similar securities;

- determine whether GAAP requires management to document its intentions and specify the content and timeliness of that documentation.[18] The auditor might inspect the documentation and obtain audit evidence about its timeliness. Unlike the formal documentation required for hedging activities, audit evidence supporting the classification of debt and equity securities may be more informal;[19] and
- determine whether management's activities, contractual agreements, or the entity's financial condition provide evidence of its ability. For example:

  — The entity's financial position, working capital needs, operating results, debt agreements, guarantees, alternate sources of liquidity, and other relevant contractual obligations, as well as laws and regulations, may provide evidence about an entity's ability to hold debt securities to their maturity

  — Management's cash flow projections may suggest that it does not have the ability to hold debt securities to their maturity

  — Management's inability to obtain information from an investee may suggest that it does not have the ability to significantly influence the investee

  — If the entity asserts that it maintains effective control over securities transferred under a repurchase agreement, the contractual agreement may be such that the entity actually surrendered control over the securities and therefore should account for the transfer as a sale instead of a secured borrowing

[18] Paragraphs 1–2 of FASB ASC 320-10-25 require an investor to document the classification of debt and equity securities into one of three categories—held-to-maturity, available-for-sale, or trading—at their acquisition.

[19] FASB ASC 825-10-05-5 permits entities to choose to measure many financial instruments and certain other items at fair value that are not currently required to be measured at fair value. FASB ASC 825-10-50 also establishes presentation and disclosure requirements designed to facilitate comparisons between entities that choose different measurement attributes for similar types of assets and liabilities. FASB ASC 825-10-50 does not eliminate disclosure requirements included in other accounting standards, including requirements for disclosures about fair value measurements included in FASB ASC 820.

For more information on hybrid instruments, please refer to FASB ASC 815.

Summary: Audit Implications

- A one-size-fits all approach will not be effective for auditing derivatives and securities. Substantive audit procedures will depend on the auditor's assessment of the risks of material misstatement related to derivatives or securities and management's intended use of the instrument(s).
- Audit procedures such as inspection, confirmation, and analytical procedures may need to be modified to meet the particular audit needs unique to derivatives and securities.
- The entity's use of a service organization may affect the overall audit approach and the design of certain procedures.
- Estimates of fair value may be highly subjective and difficult to audit.
- Because derivatives transactions may not require an initial exchange of cash, the completeness assertion may be difficult to audit.

Chapter 8

Case Study of Changing the Classification of a Security to Held-to-Maturity[*]

8.01 In this case study, the entity changes the classification of a debt security from available-for-sale to held-to-maturity. The change in classification results from a change in management's intent in holding the security.

8.02 The accounting considerations portion of this case study illustrates the entity's accounting for the change in the classification of the security. The auditing considerations section highlights the potential misstatements that can occur for the change in classification and how various inherent risk considerations affect substantive procedures.

Accounting Considerations[1]

8.03 BEV manufactures parts for high-performance bicycles. Several years ago, BEV purchased a 6 percent, AA-rated bond of a publicly traded copper mining company at its $800,000 face amount. The intent of BEV's management was to invest in a relatively stable security that would be available to finance BEV's plant expansion, which they anticipated would take place within a short period of time. Accordingly, the bond was classified as available-for-sale.

8.04 For the last 2 years, competition for BEV's products has increased dramatically, and as a result, BEV has failed to continue to grow. At the end of the current year, management dropped its plans to expand the plant, decided to hold the bond to maturity, and changed the classification of the bond to held-to-maturity. Several months before the change in classification, the bond's fair value began to decline. By the time the classification was changed, the bond's fair value had declined by $150,000, from $800,000[2] to $650,000.

8.05 According to Financial Accounting Standards Board (FASB) *Accounting Standards Codification* (ASC) 320, *Investments—Debt and Equity Securities*, BEV should record the unrealized loss through the date of change in classification through a $150,000 charge to other comprehensive income and a $150,000 credit directly to the bond. The $650,000 fair value at the date the classification is changed becomes the bond's new cost basis. With the exception of a decline in fair value that is other than temporary, changes in the

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[*] The following case study does not include any additional audit considerations or risks of misstatement related to Financial Accounting Standards Board Staff Position (FSP) FAS 115-2 and 124-2, *Recognition and Presentation of Other-Than-Temporary Impairments*. This FSP amends the other-than-temporary impairment guidance in U.S. generally accepted accounting principles for debt securities to make the guidance more operational and to improve the presentation and disclosure of other-than-temporary impairments on debt and equity securities in the financial statements. This FSP does not amend existing recognition and measurement guidance related to other-than-temporary impairments of equity securities. This FSP incorporates other-than-temporary impairment guidance for debt securities from Staff Accounting Bulletin Topic 5M, *Other Than Temporary Impairment of Certain Investments in Debt and Equity Securities* and other authoritative literature, modifies and expands it to address the unique features of debt securities, and clarifies the interaction of the factors that should be considered when determining whether a debt security is other than temporarily impaired. The FSP is effective for interim and annual reporting periods ending after June 15, 2009. Additional audit considerations related to this FSP will be added in a future edition of this guide.

[1] For simplicity, this case study ignores income tax consequences.

[2] For simplicity, this case study assumes that at the end of the prior year, the bond's fair value equaled its $800,000 face amount.

fair value of the bond after the change in classification should only be recognized when they are realized. However, any decline in value that is other than temporary should be recognized in accordance with the requirements of paragraphs 34A–34E of FASB ASC 320-10-35. The measurement of the decline in value (impairment) should not include partial recoveries after the balance sheet date. The fair value of the bond would then become the new cost basis and should not be adjusted for subsequent recoveries in fair value. However, the amortized cost basis should be adjusted for accretion and amortization as discussed in FASB ASC 320-10-35-35.

8.06 FASB ASC 825, *Financial Instruments*, creates a fair value option under which an organization may irrevocably elect fair value as the initial and subsequent measure for many financial instruments and certain other items, with changes in fair value recognized in the statement of activities as those changes occur. An election is made on an instrument-by-instrument basis (with certain exceptions), generally when an instrument is initially recognized in the financial statements. Paragraphs 4–5 of FASB ASC 815-15-25, similarly permit an elective fair value remeasurement for any hybrid financial instrument that contains an embedded derivative, if that embedded derivative would otherwise have to be separated from its debt host contract in conformity with FASB ASC 815-15-25-1.

8.07 According to FASB ASC 825-10-15-4, most financial assets and financial liabilities are eligible to be recognized using the fair value option, as are firm commitments for financial instruments and certain nonfinancial contracts. Per FASB ASC 825-10-15-5, specifically excluded from eligibility are investments in other entities (either subsidiaries or variable interest entities) that are required to be consolidated, employer's and plan's obligations for pension benefits, postemployment benefits, other postretirement benefits, employee stock option and stock purchase plans, and other forms of deferred compensation arrangements (or assets representing net overfunded positions in those plans), financial assets and liabilities recognized under leases under FASB ASC 840-10, deposit liabilities of depository institutions, and financial instruments that are, in whole or in part, classified by the issuer as a component of shareholders equity. Additionally, the election cannot be made for most nonfinancial assets and liabilities or for current or deferred income taxes.

8.08 FASB ASC 825-10-45 also establishes presentation and disclosure requirements designed to facilitate comparisons between entities that choose different measurement attributes for similar types of assets and liabilities. Entities should report assets and liabilities that are measured using the fair value option in a manner that separates those reported fair values from the carrying amounts of similar assets and liabilities measured using another measurement attribute. Per FASB ASC 825-10-45-2, to accomplish that, an entity should either (*a*) report the aggregate carrying amount for both fair value and non-fair-value items on a single line, with the fair value amount parenthetically disclosed or (*b*) present two separate lines for the fair value carrying amounts and the non-fair-value carrying amounts.

8.09 When a bond is reclassified as held-to-maturity, the unrealized appreciation or depreciation in its value at the date of reclassification continues to be reported as a separate component of equity (such as accumulated other comprehensive income). However, it is treated as a premium or discount and amortized over future years as a yield adjustment. The bond's amortized cost basis, which is its carrying amount, is its $800,000 face amount less the unamortized

portion of the $150,000 unrealized loss at the date of reclassification.[3] Therefore, when the bond matures, its carrying amount will be its face amount. In financial statements after the reclassification, BEV's financial statements should disclose, among other things, the bond's amortized cost basis, its fair value, and the unrealized appreciation or depreciation in its value. The unrealized appreciation or depreciation disclosed in the financial statements should be the difference between the bond's fair value and its new amortized cost basis (that is, the fair value at the date of reclassification adjusted for unamortized premium or discount).

8.10 BEV could use the following entries to record the change in classification of the bond from available-for-sale to held-to-maturity.

Other comprehensive income	$150,000	
Investment in available-for-sale bond		$150,000
To recognize the decline in the bond's fair value through the date its classification was changed		
Investment in held-to-maturity bond	$650,000	
Investment in available-for-sale bond		$650,000
To record the change in the bond's classification		

8.11 The $150,000 unrealized holding loss related to the bond at the time of the reclassification would continue to be reported in accumulated other comprehensive income. Each year, BEV will receive $48,000 in cash from the issuer of the bond, which is 6 percent of the bond's $800,000 face amount. The effective interest rate that would discount five annual payments of $48,000 and an $800,000 principal payment at the end of the fifth year to the bond's $650,000 carrying amount when the classification is changed is 11.08393 percent. Accordingly, the difference between the result of applying this rate to the bond's carrying amount and the $48,000 stated interest should be recorded as amortization of the discount. As the following table illustrates, the substance of the accounting is that each year cash increases $48,000, the bond's carrying amount increases by the discount amortization, and equity increases by the result of applying 11.08393 percent to the carrying amount of the bond at the beginning of the year.

Year	*Carrying Amount of the Bond*	*Cash Received*	*Discount Amortization*	*Total Increase in Equity*
1	$650,000	$48,000	$24,046	$72,046
2	674,046	48,000	26,711	74,711
3	700,757	48,000	29,671	77,671
4	730,428	48,000	32,960	80,960
5	763,388	48,000	36,612	84,612
	$800,000	$240,000	$150,000	$390,000

[3] It may also be viewed as the $650,000 fair value at the date of reclassification plus cumulative amortization of the $150,000 unrealized loss at the date of reclassification.

The $390,000 cumulative increase in equity over the 5 remaining years the bond is outstanding equals the $240,000 interest received plus the amortization of the $150,000 unrealized loss at the date of reclassification.

8.12 The increase in equity should be split between interest income and other comprehensive income. Since BEV will not realize the $150,000 unrealized loss charged to other comprehensive income, the effective rate of return on the bond reported in earnings is equal to the bond's stated interest rate. Therefore, interest income equals interest received. In substance, the excess of the increase in equity over the interest income equals the amortization of the discount and is reported as other comprehensive income. To illustrate the accounting, the following journal entry shows the combined effect of how BEV should record the increase in equity for the first year:

Cash	$48,000	
Discount on investment in held-to-maturity bond	24,046	
Interest income		$48,000
Other comprehensive income		24,046

8.13 However, FASB ASC 320-10-35-10 actually looks at the accounting through three adjustments.[4] For example, the three entries for the first year would be

Cash	$48,000	
Interest income		$48,000
To record interest received.		
Discount on investment in held-to-maturity bond	$24,046	
Interest income		$24,046
To record amortization of the discount on the held-to-maturity bond.		
Interest income	$24,046	
Other comprehensive income		$24,046
To record amortization of the unrealized loss included in accumulated other comprehensive income.		

8.14 Paragraphs 17–35 of FASB ASC 320-10-35 address the determination regarding when an investment is considered impaired, whether that impairment is other than temporary and the measurement of an impairment loss. FASB ASC 320-10-35 also includes accounting considerations subsequent to the recognition of an other-than-temporary impairment and requires certain disclosures about unrealized losses that have not been recognized as other-than-temporary impairments.

8.15 At the end of the fifth year when the principal is collected

- the discount will have been amortized, and the carrying amount of the bond will be $800,000, the principal due on the bond.

[4] Looking at the accounting through three adjustments facilitates accounting for amortization of a premium or discount that arose on the initial issuance of the bond and for income tax effects.

- the $150,000 unrealized loss in accumulated other comprehensive income will have been eliminated through credits to other comprehensive income.

Auditing Considerations

Description of the Entity

8.16 BEV manufactures parts for high-performance bicycles. Recently, BEV hired a new controller, who came to the entity with five years of experience in public accounting. During the years of BEV's growth, the owners of the entity became less involved with the daily operations of the business, and the reliability of controls suffered. One of the first tasks of the new controller was to design and implement a more formal system of internal control that emphasized segregation of duties and strong oversight and monitoring of all accounting functions by supervisors. Included in this formal system is the requirement that one of BEV's owners personally review the month-end investment statements sent by the broker-dealer who holds and services the bond. These documents are then sent to the accounting department for entry into the accounting system. Based largely on the improvements made by the new controller, the auditor determined that BEV's control environment is well designed and capable of mitigating control risk.

Summary of Accounting

8.17 At the date of reclassification from available-for-sale to held-to-maturity, BEV should reduce the carrying amount of the bond to its fair value, as defined by FASB ASC 820, *Fair Value Measurement*, through a charge to other comprehensive income and a credit to the carrying amount of the bond. The unrealized loss at that date should be amortized over the remaining life of the bond as a discount, thereby increasing the carrying amount of the bond over the remaining life of the bond so that it equals the bond's face amount when the bond matures. The loss charged to other comprehensive income should continue to be reported in accumulated other comprehensive income but amortized over the remaining life of the bond through credits to other comprehensive income in amounts equal to the discount amortization. As a result of this accounting, each year BEV will report in earnings interest at the bond's 6 percent stated rate and other comprehensive income equal to the discount amortization.

Types of Potential Misstatements

8.18 *Improper accounting.* During the audit period, BEV reclassified the bond from available-for-sale to held-to-maturity. The accounting for the change in classification and subsequent amortization may not conform to the requirements of FASB ASC 320.

8.19 *Improper change in classification.* The classification of a bond as held-to-maturity requires BEV to have both the intent and the ability to hold the bond to maturity. BEV may have reclassified the bond in the absence of a positive intent to hold it until maturity and the ability to do so.

Inherent Risk Factors to Consider for This Transaction in Assessing the Risks of Material Misstatements

8.20 Because the classification of the bond had been changed from available-for-sale to held-to-maturity, the auditor assessed inherent risk to be high based on the following:

- *The entity's experience.* The accounting personnel's lack of experience with changes in bond classifications and the special accounting considerations increase the inherent risk the change is accounted for incorrectly.
- *Management's objectives.* During the audit period, management changed its objective in holding the bond. Previously, management intended it to be available-for-sale, but now their stated objective was to hold the security to its maturity.

Control Risk

8.21 BEV uses a broker-dealer to hold and service its securities, including the investment in the bond. However, the fact that the entity uses a service organization to process some of its securities transactions does not, in and of itself, require the auditor to obtain information about the broker-dealer's controls. Paragraph .03 of AU section 314, *Understanding the Entity and Its Environment and Assessing the Risks of Material Misstatement* (AICPA, *Professional Standards*), states that obtaining an understanding of the entity and its environment is an essential aspect of performing an audit in accordance with generally accepted auditing standards. Paragraph .57 of AU section 314 states that an entity's use of information technology may affect any of the five components of internal control relevant to the achievement of the entity's financial reporting, operations, or compliance objectives, and its operating units or business functions. This understanding should be sufficient for the auditor to

- identify the types of potential misstatement of the assertions;
- consider factors that affect the risk that the potential misstatements would be material to the financial statements; and
- design substantive tests.

8.22 The types of potential material misstatements relating to BEV's investment in the bond relate primarily to the change in classification from available-for-sale to held-to-maturity, which is a risk that will not be addressed by the controls at the broker-dealer. BEV maintains all the information necessary to perform substantive procedures on investments. Accordingly, the auditor does not have to obtain an understanding of controls in operation at the broker-dealer in order to plan the audit.

8.23 Because the purchase and subsequent reclassification of the bond was considered to be an isolated transaction, control risk was assessed as high.

Considerations for Audits Performed in Accordance With PCAOB Standards

When performing an integrated audit of financial statements and internal control over financial reporting, paragraph B4 of appendix B, "Special Topics," of Public Company Accounting Oversight Board Auditing Standard No. 5, *An Audit of Internal Control Over Financial*

Reporting That Is Integrated with An Audit of Financial Statements (AICPA, *PCAOB Standards and Related Rules*, Auditing Standards), states that to assess control risk for specific financial statement assertions at less than maximum, the auditor is required to obtain evidence that the relevant controls operated effectively during the entire period upon which the auditors plans to place reliance on these controls. However, the auditor is not required to assess control risk at less than maximum for all relevant assertions and, for a variety of reasons, the auditor may choose not to do so.

Timing of Procedures

8.24 All relevant assertions associated with this transaction will be substantively tested at year end.

Materiality

8.25 The transaction is considered material.

Design of Substantive Procedures

8.26 The auditor defined the following objectives and related procedures for the audit of assertions about the transaction.

Audit Objective	*Procedure*
The bond exists and is owned by BEV.	• Confirm existence and ownership with the broker-dealer.
Management authorized the change in classification of the bond from available-for-sale to held-to-maturity.	• Review minutes of meetings or any applicable internal memorandums of relevant groups for evidence that management authorized the change. • Absent written evidence in the minutes or other documentation, perform other procedures to determine whether the change was authorized, such as inquiry or obtaining a representation in the management representation letter.
The bond's fair value at the date its classification was changed was properly determined.	• Test the fair value of the bond at the date of reclassification by agreeing market price to independent published sources. • Review any notes from periodic pricing meetings with the traders/management of the entity to determine whether steps were taken to properly value the bond.

(continued)

Audit Objective	*Procedure*
The difference between the bond's fair value and its face amount at the date the bond's classification was changed was properly recorded and amortized.	• Recalculate the difference between the bond's face amount and fair value at the date the bond's classification was changed to held-to-maturity. Confirm the assumptions used in the calculation, including the notional amount and rate of the bond as these inputs are used to determine the face amount and fair value. • Recalculate the amortization of the resulting discount.
Management has the positive intent and ability to hold the bond to maturity.	• Review management's cash flow forecasts or perform other procedures as considered necessary to assess BEV's ability to hold the security to maturity. • Obtain a representation in the management representation letter confirming management's intent to hold the security to maturity.[5]
Presentation and disclosure are appropriate.	• Read the financial statements and compare the presentation and disclosure with the requirements of FASB ASC 320, *Investments—Debt and Equity Securities*.

[5] A written representation of management's intent and ability with regard to held-to-maturity securities does not constitute sufficient audit evidence. Paragraph .57 of AU section 332, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* (AICPA, *Professional Standards*), provides additional guidance on the types of auditing procedures the auditor might perform to corroborate management's stated intent and ability to realize that intent.

Chapter 9

Case Study of a Written Put Option on Stock of a Closely Held Entity

9.01 In this case study, the entity is closely held and writes a put option indexed to its own stock. A put option on stock gives the holder of the option the right (but not the obligation) to sell a specified number of shares to the writer of the option at a fixed price during a given period. Depending on the specific terms, the option contract may have characteristics of both debt and equity for its writer.

9.02 The accounting considerations portion of the case study illustrates the entity's accounting for the put option and discusses why the option is not subject to the requirements of Financial Accounting Standards Board (FASB) *Accounting Standards Codification* (ASC) 815, *Derivatives and Hedging*. The auditing considerations section highlights the potential misstatements that can occur when accounting for the put option and how various inherent risk considerations affect substantive procedures.

Accounting Considerations [1]

9.03 Rosebud.com is a closely held start-up entity developing new technologies for the filmmaking industry. Charles Foster, one of the entity's founders, has been negotiating the terms of a divorce from his wife. He has agreed to give her half of his 500,000 shares in Rosebud.com. Mrs. Foster also has requested that the entity guarantee the value of the stock by granting her the option to resell the stock to the entity for a stated price at a given future date. During 20X0, the stockholders agreed to grant Mrs. Foster the option of reselling her shares to the entity at $8 per share.

9.04 In effect, Rosebud.com has written a put option on its own stock. The put option is not a derivative as that term is defined in FASB ASC 815-10-15 because the option contract permits only physical settlement and therefore does not meet one of the net settlement criteria required to be considered a derivative. Guidance on the accounting for this transaction is provided by FASB ASC 480, *Distinguishing Liabilities from Equity*. According to FASB ASC 480-10-25-8, an entity should classify as a liability (or an asset in some circumstances) any financial instrument, other than an outstanding share, that, at inception, has both of the following characteristics:

a. It embodies an obligation[2] to repurchase the issuer's equity shares, or is indexed to such an obligation.

b. It requires or may require the issuer to settle the obligation by transferring assets.

FASB ASC 480-10-25-10 notes examples including forward purchase contracts or written put options on the issuer's equity shares that are to be physically settled or net cash settled. The put option contract in this case study requires

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[1] For simplicity, this case study ignores income tax consequences.

[2] Per the Financial Accounting Standards Board (FASB) *Accounting Standards Codification* (ASC) glossary, the term *obligation* in this context is defined as "a conditional or unconditional duty or responsibility to transfer assets or to issue equity shares."

physical settlement. If Mrs. Foster exercises her option, Rosebud.com is required to deliver the full stated amount of cash to Mrs. Foster, and she is required to deliver her entire 250,000 shares to Rosebud.com.

9.05 Under the guidance contained in FASB ASC 480, a written put option requiring physical settlement should be reported as a liability and measured at fair value both initially and for subsequent periods. Subsequent changes in the fair value of the option should be recognized in earnings. At the date the option was granted, Rosebud.com estimated that the fair value of the option was $100,000 and made the following journal entry.

Other expense[3]	$100,000	
Other liability		$100,000
To record the put option		

9.06 The option contract is a financial instrument.[4] However, Rosebud.com is a nonpublic entity, and therefore FASB ASC 825-10-50-3 would not require disclosure about the contract's fair value if the entity has total assets less than $100 million and has no derivatives subject to the requirements of FASB ASC 815. Although fair value disclosures are not required under FASB ASC 825, *Financial Instruments*, Rosebud.com is required to disclose the following under FASB ASC 480-10-50:

- The nature, terms, rights, obligations, and settlement alternatives (including the entity that controls the settlement alternatives) embodied in the option.
- The amount that would be paid, or the number of shares that would be issued and their fair value, determined under the conditions specified in the contract if the settlement were to occur at the reporting date.
- How changes in the fair value of the issuer's equity shares would affect those settlement amounts. For example, "the issuer is obligated to issue additional X shares or pay additional Y dollars in cash for each $1 decrease in the fair value of 1 share."
- The maximum amount that the issuer could be required to pay in cash to redeem the instrument by physical settlement, if applicable.
- The maximum number of shares that could be required to be issued, if applicable.
- The fact that a contract does not limit the amount the issuer could be required to pay or the number of shares that the issuer could be required to issue, if applicable.

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[3] The objective of the discussion of accounting considerations in this case study is to provide background information necessary to look at the auditing considerations. For illustrative purposes, this case study assumes that the fair value of the option is recorded through other expense.

[4] The FASB ASC glossary defines a *financial instrument* as cash, evidence of an ownership interest in an entity, or a contract that both

- imposes on one entity a contractual obligation (*a*) to deliver cash or another financial instrument to a second entity or (*b*) to exchange financial instruments on potentially unfavorable terms with the second entity; and
- conveys to that second entity a contractual right (*a*) to receive cash or another financial instrument from the first entity or (*b*) to exchange other financial instruments on potentially favorable terms with the first entity.

- The forward price or option strike price, the number of issuer's shares to which the contract is indexed, and the settlement date(s) of the contract, as applicable.

9.07 At the date Mrs. Foster exercised her option, Rosebud.com made the following entry (based on the sales price of $8 per share and 250,000 shares).

Other liability	$2,000,000	
Cash		$2,000,000

To record the payment due under the put option.

The net increase of $1,900,000 in the liability represents the increase in the fair value of the option over time and would have been reflected in earnings during the periods from the issuance of the option to its exercise.

Auditing Considerations

Description of the Entity

9.08 Rosebud.com is a start-up entity in the process of developing technology to deliver movies over the Internet. The entity is actively pursuing venture capital financing.

9.09 Founders of the entity have considerable technical expertise in the type of technology Rosebud.com is developing. The management group also has experience in managing a start-up technology entity and in taking that entity public. The entity has an outside board of directors. It is advised by highly regarded professional services firms with expertise in intellectual property, initial public offerings, and Securities Exchange Commission matters.

9.10 Because of the quality of the management team, its technical expertise, and previous experience, the auditor assesses the entity's control environment as good.

Summary of Accounting

9.11 The contract with Mrs. Foster should be reported as a liability and measured at fair value. Any subsequent changes in the fair value of the contract should be recognized in earnings.

Types of Potential Misstatements

9.12 *Inaccurate estimate of fair value.* Estimating the value of a nonexchange-traded option usually is done using an options pricing model. Some of the assumptions necessary to use the model may require a great deal of judgment when the underlying stock is not publicly traded (in this case study, the volatility of Rosebud.com's stock will be quite subjective.) Unsupportable assumptions may result in fair value estimates that are materially incorrect.

9.13 *Improper classification.* A written put option has the elements of both debt and equity. The entity may improperly classify the contract.

Inherent Risk Factors to Consider for This Transaction in Assessing the Risks of Material Misstatements

9.14 In assessing inherent risk, the auditor considered the following:

- *The complexity of the instrument.* As described previously, it will be difficult to determine the fair value of the option because both the option and the underlying stock are not publicly traded.
- *Whether the transaction involved the exchange of cash.* The contract did not involve an initial exchange of cash, which increases the risk that the transaction was not captured by the entity's accounting system.
- *The entity's experience with the instrument.* Because the entity has no previous experience writing put options on its own stock, the risk that it would be accounted for improperly is increased.

9.15 Because of the presence of these factors and the potential material impact the put option could have on the entity's financial position, the auditor assessed inherent risk as high and determined that the situation warranted the direct involvement of the most experienced audit firm members.

Control Risk

9.16 The transaction that resulted in the entity writing a put option was an unusual, one-time event. As such, it was reviewed and approved by the stockholders and board of directors and was not subject to the entity's usual operating control procedures. Therefore, control risk was assessed at high.

Considerations for Audits Performed in Accordance With PCAOB Standards

When performing an integrated audit of financial statements and internal control over financial reporting, appendix B, "Special Topics," paragraph B4 of Public Company Accounting Oversight Board Auditing Standard No. 5, *An Audit of Internal Control Over Financial Reporting That Is Integrated with An Audit of Financial Statements* (AICPA, *PCAOB Standards and Related Rules*, Auditing Standards), states that to assess control risk for specific financial statement assertions at less than maximum, the auditor is required to obtain evidence that the relevant controls operated effectively during the entire period upon which the auditors plan to place reliance on these controls. However, the auditor is not required to assess control risk at less than maximum for all relevant assertions and, for a variety of reasons, the auditor may choose not to do so.

Timing of Procedures

9.17 The relevant assertions associated with this transaction will be substantively tested at year end. This decision is influenced by the assessment of control risk as high, the fact that this is an isolated transaction, and the design of the substantive procedures (confirmation and recomputation) as discussed in the following paragraphs.

Materiality

9.18 The transaction is considered material.

Design of Procedures

9.19 The auditor defined the following objectives and related procedures for the audit of assertions about the put option.

Audit Objective	*Procedure*
The option was captured by the accounting system.	• Read the minutes of the board of directors. • Make inquiries of management regarding the presence of significant, unusual transactions. • Send and review related party questionnaires.
The option exists and was authorized by management.	• Read the contract between Mrs. Foster and the entity, Rosebud.com. • Confirm the existence and terms of the contract with the counterparty.
The option has been measured and reported at fair value.	• Test the model and assumptions used by the entity to calculate the fair value of the option, or • Recalculate the fair value, or • Use the work of a specialist, as described in AU section 336, *Using the Work of a Specialist* (AICPA, *Professional Standards*).
Presentation and disclosure are appropriate.	• Read the financial statements and compare the presentation and disclosure with the requirements of FASB ASC 480-10-50.

Chapter 10

Case Study of How the Entity's Use of Service Organizations Affects the Auditor's Considerations in Auditing Securities[*, †, ‡]

10.01 This case study uses three scenarios to illustrate how the entity's use of service organizations affects the auditor's considerations in planning and performing auditing procedures for assertions about securities and securities transactions as follows:

a. Scenario A is a directed investing arrangement with one service organization, a broker-dealer. In this scenario, the entity initiates trades, and the broker-dealer executes the trades and holds and services securities purchased.[1]

b. Scenario B is a discretionary investing arrangement with two service organizations, an investment adviser and a broker-dealer. In this scenario, the investment adviser initiates trades under a discretionary arrangement with the entity, and the broker-dealer[2] executes the trades and holds and services securities purchased.

c. Scenario C is a discretionary investing arrangement with one service organization, a broker-dealer. In this scenario, the broker-dealer initiates trades under a discretionary arrangement with the entity and also executes the trades and holds and services securities purchased.

10.02 The following section contains information that applies to each of these scenarios:

- A description of the entity

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[*] See footnote * in paragraph 6.11 and footnote † in the heading before paragraph 6.14.

[†] The following case study does not include any additional audit considerations or risks of misstatement related to Financial Accounting Standards Board (FASB) Staff Position FAS 115-2 and 124-2, *Recognition and Presentation of Other-Than-Temporary Impairments*.

[‡] The AICPA has developed Audit Risk Alert *Service Organizations: New Reporting Options*, which provides user auditors with an overview of the changes to Statement on Auditing Standards (SAS) No. 70, *Service Organizations* (AICPA, *Professional Standards*, AU sec. 324), and introduces a series of three different service organization control (SOC) reports: SOC 1, SOC 2, and SOC 3. This series encompasses the new Statement on Standards for Attestation Engagements (SSAE) No. 16, *Reporting on Controls at a Service Organization* (AICPA, *Professional Standards*, AT sec. 801), which retains the original purpose of SAS No. 70, and adds two new reporting options. The *SOC 1 report* is another way to refer to the *SSAE No. 16 report*. Audit Risk Alert *Service Organizations: New Reporting Options* is available for purchase at www.cpa2biz.com via product code 0224811.

[1] In AU section 332, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* (AICPA, *Professional Standards*), and this guide, maintaining custody of securities, either in physical or electronic form, is referred to as *holding*, and performing ancillary services is referred to as *servicing*. Examples of servicing transactions are collecting dividends and interest and distributing that income to the entity and receiving notification of corporate actions, such as stock splits.

[2] As discussed further in the AICPA Audit and Accounting Guide *Brokers and Dealers in Securities*, generally only a clearing broker-dealer can execute trades and hold and service securities. Entities and investment advisers may work with a clearing broker-dealer or with a local or regional broker-dealer that is an introducing broker-dealer and in turn works with a separate clearing broker-dealer. The clearing broker-dealer, rather than the introducing broker-dealer, handles execution, holding, and servicing. Typically, the introducing broker-dealer in substance only acts as a conduit and therefore does not provide services that are part of the entity's information system.

- A summary of the accounting considerations
- Types of potential misstatements of the entity's assertions about its securities and securities transactions
- Inherent risk factors the auditor considers in planning the audit
- Timing of substantive tests
- Materiality considerations

10.03 That section is followed by separate sections for each of the three scenarios that discuss the following:

- The understanding of controls the auditor needs to plan the audit
- The auditor's assessment of control risk
- The auditor's design of procedures, including, where applicable, the auditor's considerations in identifying controls that reduce control risk and the procedures the auditor uses to gather audit evidence about the operating effectiveness of those controls

Information That Applies to Each of the Scenarios

Description of the Entity

10.04 Lane Components, Inc. (Lane) manufactures electrical connectors and distributes them nationally and internationally, primarily to manufacturers. Several years ago, it sold a large division and used the proceeds to begin building a portfolio of equity securities traded on an exchange regulated by the Securities Exchange Commission (SEC). Lane views the portfolio as a source of funds for future business acquisitions and plant expansions.

Summary of the Accounting Considerations

10.05 Lane accounts for the securities as available-for-sale under Financial Accounting Standards Board (FASB) *Accounting Standards Codification* (ASC) 320, *Investments—Debt and Equity Securities*,[3] and accordingly reports the securities at their fair value, with unrealized changes in fair value recognized in other comprehensive income and reclassified into earnings when they are realized.

Types of Potential Misstatements of the Entity's Assertions About Its Securities and Securities Transactions

10.06 The auditor identifies the following seven types of potential misstatements of Lane's assertions about its securities and securities transactions:

a. The recorded securities do not exist and the recorded securities transactions did not occur.

b. Lane does not have the rights and obligations associated with ownership of the recorded securities.

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[3] FASB *Accounting Standards Codification* (ASC) 825, *Financial Instruments*, permits entities to choose to measure many financial instruments and certain other items at fair value that are not currently required to be measured at fair value. FASB ASC 825 also establishes presentation and disclosure requirements designed to facilitate comparisons between entities that choose different measurement attributes for similar types of assets and liabilities. FASB ASC 825 does not eliminate disclosure requirements included in other FASB ASC subtopics, including requirements for disclosures about fair value measurements included in FASB ASC 820, *Fair Value Measurement*.

c. Securities and securities transactions were not recorded.

d. The fair value of the recorded securities was determined incorrectly.

e. Realized and unrealized holding gains and losses are not properly reported as earnings or other comprehensive income.

f. The securities are not classified correctly.

g. Disclosures about securities and securities transactions are not adequate.

Inherent Risk Factors the Auditor Considers in Planning the Audit

10.07 The securities are traded on an exchange regulated by the SEC and the features of the instruments, underlying transactions, and accounting considerations are relatively straightforward. The auditor assesses inherent risk for all assertions about securities and securities transactions as low.

Timing of Substantive Tests

10.08 The auditor decides to perform substantive tests of assertions about securities at year end because of the relatively small number of securities and securities transactions.

Materiality Considerations

10.09 The carrying amount of the securities, and the realized and unrealized gains and losses on them, are material to Lane's financial statements, but dividends on the securities are not material to the statements.

Scenario A—Directed Investing Arrangement With One Service Organization, a Broker-Dealer

10.10 In this scenario, Lane initiates trades, and the broker-dealer executes the trades and holds and services securities purchased.

The Understanding of Controls the Auditor Needs to Plan the Audit

10.11 In order to plan the audit, the auditor obtains the following understanding of controls:

- Lane initiates trades and directs the broker-dealer to execute them.
- Lane maintains records of the trades it directs the broker-dealer to execute.
- The broker-dealer sends a confirmation of each trade to Lane, which Lane usually receives within three business days.
- Lane compares the information in the trade confirmation with its record of the trade that it directed the broker-dealer to execute and investigates significant differences.
- Lane then records the trade in general ledger accounts.
- At the end of the year, Lane adjusts the general ledger accounts for trades that it has initiated but for which confirmations have not been received. Information for that adjustment is obtained

from Lane's record of trades that it directed the broker-dealer to execute and the confirmations of those trades that it received subsequent to year end.

- Monthly, the broker-dealer sends Lane a statement that shows trades, servicing transactions, a description of the securities held, and the fair value of each of those securities.
- Monthly, Lane compares the information about trades and the components of its securities portfolio that is shown in its accounting records with the broker-dealer's monthly statement and investigates significant differences.
- Monthly, Lane records servicing transactions and changes in unrealized holding gains and losses based on information in the broker-dealer's monthly statement. Lane compares the broker-dealer information with its expectations based on published information and investigates significant differences.

10.12 Following the guidance in paragraphs .12–.13 of AU section 332, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* (AICPA, *Professional Standards*), the auditor concludes the following:

- Servicing securities and providing fair value information are broker-dealer services that are part of Lane's information system.
- The broker-dealer's execution of trades and holding of securities are not part of Lane's information system.

10.13 With respect to whether obtaining an understanding of the broker-dealer's controls is necessary to plan the audit, the auditor concludes one of the following:

- The broker-dealer's controls over servicing securities and providing fair value information are not significant to Lane's controls because Lane does both of the following:
  - — Compares broker-dealer information about servicing and fair values with its expectations based on published information
  - — Investigates significant differences

  Accordingly, obtaining an understanding of the broker-dealer's controls over those services is not necessary.
- Because the broker-dealer's execution of trades and holding of securities are not part of Lane's information system, obtaining an understanding of the broker-dealer's controls over those services is not necessary.

The Auditor's Assessment of Control Risk

10.14 The auditor concludes that audit risk can be reduced to an acceptable level without testing internal controls. In addition, the auditor concludes that the number of securities and securities transactions is small enough that gathering audit evidence about the operating effectiveness of Lane's controls sufficient to support an assessment of control risk as low or moderate is not likely to significantly improve audit efficiency.

Considerations for Audits Performed in Accordance With PCAOB Standards

When performing an integrated audit of financial statements and internal control over financial reporting, appendix B, "Special Topics," paragraph B4 of Public Company Accounting Oversight Board Auditing Standard No. 5, *An Audit of Internal Control Over Financial Reporting That Is Integrated with An Audit of Financial Statements* (AICPA, *PCAOB Standards and Related Rules*, Auditing Standards), states that to assess control risk for specific financial statement assertions at less than maximum, the auditor is required to obtain evidence that the relevant controls operated effectively during the entire period upon which the auditor plans to place reliance on these controls. However, the auditor is not required to assess control risk at less than maximum for all relevant assertions and, for a variety of reasons, the auditor may choose not to do so.

10.15 However, if the number of transactions increases in future years, the auditor will reconsider that conclusion. For example, the auditor may be able to reduce the number of trades tested by gathering audit evidence about the operating effectiveness of Lane's controls of comparing the information in the trade confirmation with its record of the trade that it directed the broker-dealer to execute and investigating significant differences. Audit evidence might be gathered by inspecting the documentation of the comparisons for trades, noting the timeliness of the comparison, and inspecting the documentation of the analysis of results and investigation of significant differences.

The Auditor's Design of Procedures

10.16 The auditor identifies the objectives for the audit of assertions about securities and securities transactions and designs related procedures.

Audit Objective	*Procedure*
The recorded securities exist and Lane has the rights and obligations associated with ownership of the recorded securities.	• Confirm with the broker-dealer the name of the investee, the number of shares, whether the shares are pledged, and that Lane is the owner.
The recorded securities transactions occurred.	• Inspect supporting documentation, such as trade confirmations or entries in the broker-dealer's monthly statements.
All of the securities that Lane owns and all of its securities transactions have been recorded.	• Reconcile the fair value of the securities at the beginning and end of the year using information provided by the broker-dealer. • Perform analytical procedures on dividends and realized and unrealized gains and losses.

(continued)

Audit Objective	*Procedure*
The securities are recorded at their fair value determined following the requirements of Financial Accounting Standards Board (FASB) *Accounting Standards Codification* (ASC) 320, *Investments—Debt and Equity Securities*.	• Obtain the per-share price quoted by the exchange at the balance sheet date and compare the quoted price with the price Lane used. • Test the extension of the number of shares at the quoted price.
Realized and unrealized holding gains and losses are properly reported as earnings or other comprehensive income.	• Evaluate management's considerations in ensuring that the requirements of FASB ASC 320 were satisfied. • Review journal entries for propriety.
The securities are properly classified.	• Gather audit evidence about the classification of the securities as available-for-sale.
Disclosures about securities and securities transactions are adequate.	• Read the financial statements and compare the disclosures about securities and securities transactions with the requirements of FASB ASC 320-10-50.

Scenario B—Discretionary Investing Arrangement With Two Service Organizations, an Investment Adviser and a Broker-Dealer

10.17 In this scenario, the investment adviser initiates trades under a discretionary arrangement with Lane, and the broker-dealer executes the trades and holds and services securities purchased.

The Understanding of Controls the Auditor Needs to Assess the Risk of Material Misstatement

10.18 In order to assess the risks of material misstatements, the auditor would obtain the following understanding of controls:

- The investment adviser initiates trades within parameters set by Lane and directs the broker-dealer to execute them.
- The broker-dealer sends a confirmation of each trade to the investment adviser and to Lane, which Lane usually receives within three business days.
- Lane records the trade in general ledger accounts when it receives the trade confirmation.[4]

[4] In this scenario, recording trades when Lane receives the broker-dealer's monthly statements may also be an effective control for Lane.

- At the end of the year, Lane adjusts the general ledger accounts for trades that the investment adviser has initiated but for which confirmations have not been received. Information for that adjustment is obtained from Lane's reconciliation of the investment adviser's information with the broker-dealer's information (discussed in the following text) and from the confirmations of those trades that Lane received subsequent to year end.
- Monthly, the broker-dealer sends the investment adviser and Lane a statement that shows trades, servicing transactions, a description of the securities held, and the fair value of each of those securities.
- Monthly, Lane compares the information about trades and the components of its securities portfolio that is shown in its accounting records with the broker-dealer's monthly statement and investigates significant differences.
- Monthly, Lane records servicing transactions and changes in unrealized holding gains and losses based on information in the broker-dealer's monthly statement. Lane compares the broker-dealer information with its expectations based on published information and investigates significant differences.
- Quarterly, the investment adviser gives Lane a summary of trades and the performance of the securities portfolio. Lane reconciles the information provided by the investment adviser with the broker-dealer's information and investigates significant differences.

10.19 Following the guidance in paragraphs .12–.13 of AU section 332, the auditor concludes all of the following:

- The investment adviser's initiation of trades is part of Lane's information system.
- Servicing securities and providing fair value information are broker-dealer services that are part of Lane's information system.
- The broker-dealer's execution of trades and holding of securities are not part of Lane's information system.

10.20 With respect to whether obtaining an understanding of the controls of the investment adviser and broker-dealer is necessary to plan the audit, the auditor concludes one of the following:

- The investment adviser's controls over initiation of trades and the broker-dealer's controls over servicing securities and providing fair value information are not significant to Lane's controls because Lane does all of the following:
  - — Reconciles the investment adviser's information with the broker-dealer's information
  - — Compares broker-dealer information about servicing and fair values with its expectations based on published information
  - — For each, investigates significant differences

  Accordingly, obtaining an understanding of the investment adviser's and broker-dealer's controls over those services is not necessary.

- Because the broker-dealer's execution of trades and holding of securities are not part of Lane's information system, obtaining an understanding of the broker-dealer's controls over those services is not necessary.

The Auditor's Assessment of Control Risk

10.21 The auditor concludes that audit risk can be reduced to an acceptable level without test of internal controls. In addition, the auditor concludes that the number of securities and securities transactions is small enough that gathering audit evidence about the operating effectiveness of Lane's controls sufficient to support an assessment of control risk as low or moderate is not likely to significantly improve audit efficiency.

10.22 However, if the number of transactions increases in future years, the auditor will reconsider that conclusion. For example, the auditor may be able to reduce the number of trades tested by gathering audit evidence about the operating effectiveness of Lane's controls of reconciling the investment adviser's information with the broker-dealer's information and investigating significant differences. Such audit evidence might be gathered by inspecting the documentation of some of the reconciliations, noting their timeliness, and inspecting the documentation of the analysis of results and investigation of significant differences.

The Auditor's Design of Procedures

10.23 The auditor identifies the objectives for the audit of assertions about securities and securities transactions and designs related procedures.

Audit Objective	*Procedure*
The recorded securities exist and Lane has the rights and obligations associated with ownership of the recorded securities.	• Confirm with the broker-dealer the name of the investee, the number of shares, whether the shares are pledged, and that Lane is the owner.
The recorded securities transactions occurred.	• Inspect supporting documentation such as trade confirmations or entries in the broker-dealer's monthly statements.
All of the securities that Lane owns and all of its securities transactions have been recorded.	• Test the reconciliation of the investment adviser's information with the broker-dealer's information. • Perform analytical procedures on dividends and realized and unrealized gains and losses.
The securities are recorded at their fair value determined following the requirements of FASB ASC 320.	• Obtain the per-share price quoted by the exchange at the balance sheet date and compare the quoted price with the price Lane used. • Test the extension of the number of shares at the quoted price.

Audit Objective	*Procedure*
Realized and unrealized holding gains and losses are properly reported as earnings or other comprehensive income.	• Evaluate management's considerations in ensuring that the requirements of FASB ASC 320 were satisfied. • Review journal entries for propriety.
The securities are properly classified.	• Gather audit evidence about the classification of the securities as available-for-sale.
Disclosures about securities and securities transactions are adequate.	• Read the financial statements and compare the disclosures about securities and securities transactions with the requirements of FASB ASC 320-10-50.

Scenario C—Discretionary Investing Arrangement With One Service Organization, a Broker-Dealer

10.24 In this scenario, the broker-dealer initiates trades under a discretionary arrangement with Lane and also executes the trades and holds and services securities purchased.

The Understanding of Controls the Auditor Needs to Assess the Risks of Material Misstatements

10.25 In order to plan the audit, the auditor obtains the following understanding of controls:

- The broker-dealer initiates trades within parameters set by Lane and also executes the trades.
- The broker-dealer sends a confirmation of each trade to Lane, which Lane usually receives within three business days.
- Lane records the trade in general ledger accounts when it receives the trade confirmation.[5]
- Monthly, the broker-dealer sends Lane a statement that shows trades, servicing transactions, a description of the securities held, and the fair value of each of those securities.
- Monthly, Lane compares the information about trades and the components of its securities portfolio that is shown in its accounting records with the broker-dealer's monthly statement and investigates significant differences.
- Monthly, Lane records servicing transactions and changes in unrealized holding gains and losses based on information in the broker-dealer's monthly statement. Lane compares the broker-dealer information with its expectations based on published information and investigates significant differences.

[5] In this scenario, recording trades when Lane receives the broker-dealer's monthly statements may also be an effective control for Lane. In addition, because the broker-dealer initiates and executes trades, no adjustment is necessary for trades that have been initiated but not executed.

10.26 Following the guidance in paragraphs .12–.13 of AU section 332, the auditor concludes both of the following:

- Initiating trades, servicing securities, and providing fair value information are broker-dealer services that are part of Lane's information system.
- The broker-dealer's execution of trades and holding of securities are not part of Lane's information system.

10.27 With respect to whether obtaining an understanding of the broker-dealer's controls is necessary to plan the audit, the auditor concludes one of the following:

- Because the broker-dealer initiates and executes trades, all of the information about trades that is available to Lane comes from the broker-dealer. Accordingly, the broker-dealer's controls over initiation of trades are significant to Lane's controls, and information about the manner in which trades are initiated is needed to plan the audit. The auditor decides that an effective broker-dealer control over initiation of trades would be both of the following:
  - — Establishing independent departments that provide the investment advisory services and the holding and servicing of securities
  - — Reconciling the information about the securities that is provided by each department

  Based on available information, the auditor believes the broker-dealer has such controls.[6]
- The broker-dealer's controls over servicing securities and providing fair value information are not significant to Lane's controls because Lane does both of the following:
  - — Compares broker-dealer information about servicing and fair values with its expectations based on published information
  - — Investigates significant differences

  Accordingly, obtaining an understanding of the broker-dealer's controls over those services is not necessary to plan the audit.
- Because the broker-dealer's execution of trades and holding of securities are not part of Lane's information system, obtaining an understanding of the broker-dealer's controls over those securities is not necessary.

The Auditor's Assessment of Control Risk

10.28 As discussed in paragraph .20 of AU section 332, in this arrangement, where the broker-dealer both initiates and executes trades, the broker-dealer provides all of the information about trades that is available

[6] To help plan the audit, the auditor may gather information about broker-dealer controls over existence and completeness assertions from a variety of sources. Examples are a SAS No. 70 report, manuals provided by the broker-dealer, and inquiries of broker-dealer personnel. See footnote ‡.

to the auditor. In addition, the broker-dealer's initiation and execution services are largely provided electronically. Accordingly, the auditor concludes that audit risk cannot be limited sufficiently without obtaining both of the following audit evidence about the operating effectiveness of the broker-dealer's controls:[7]

- Establishing independent departments that provide the investment advisory services and the holding and servicing of securities
- Reconciling the information about the securities that is provided by each department

10.29 If the audit evidence about the operating effectiveness of these controls supports an assessment of control risk as low or moderate, the auditor may also be able to reduce the number of trades tested. The resulting audit efficiencies will become more noticeable as the number of trades increases.

The Auditor's Design of Procedures

10.30 The auditor gathers audit evidence that the broker-dealer has implemented the controls described in paragraph 10.27 and that those controls are operating effectively.[8] The auditor then identifies the objectives for the audit of assertions about securities and securities transactions and designs related procedures.[9]

Audit Objective	*Procedure*
The recorded securities exist and Lane has the rights and obligations associated with ownership of the recorded securities.	• Confirm with the broker-dealer the name of the investee, the number of shares, whether the shares are pledged, and that Lane is the owner.
The recorded securities transactions occurred.	• Inspect supporting documentation such as trade confirmations or entries in the broker-dealer's monthly statements.
All of the securities that Lane owns and all of its securities transactions have been recorded.	• Perform analytical procedures on dividends and realized and unrealized gains and losses.

(continued)

[7] As a practical matter, Lane's management should view information about the operating effectiveness of the broker-dealer's controls as an important part of its risk management considerations.

[8] The evidential matter can be obtained a variety of ways, such as a type 2 SAS No. 70 report or special procedures performed by the broker-dealer's internal or external auditors. See footnote ‡.

[9] In scenarios A–B, the auditor concludes that audit risk can be reduced to an acceptable level without identifying controls placed in operation and gathering evidential matter about their operating effectiveness. In this scenario, however, the auditor concludes that identifying broker-dealer controls over the existence and completeness assertions and gathering evidential matter about their operating effectiveness is necessary to reduce audit risk to an acceptable level. The only difference in the nature of substantive procedures is that in this scenario, analytical procedures are the only procedures performed to determine whether all of the securities Lane owns and all of its securities transactions have been recorded. However, in scenarios A–B, reconciliation procedures are also performed.

Audit Objective	*Procedure*
The securities are recorded at their fair value determined following the requirements of FASB ASC 320.	• Obtain the per-share price quoted by the exchange at the balance sheet date and compare the quoted price with the price Lane used. • Test the extension of the number of shares at the quoted price.
Realized and unrealized holding gains and losses are properly reported as earnings or other comprehensive income.	• Evaluate management's considerations in ensuring that the requirements of FASB ASC 320 were satisfied. • Review journal entries for propriety.
The securities are properly classified.	• Gather audit evidence about the classification of the securities as available-for-sale.
Disclosures about securities and securities transactions are adequate.	• Read the financial statements and compare the disclosures about securities and securities transactions with the requirements of FASB ASC 320-10-50.
The audit team should discuss the susceptibility of the entity's financial statements to material misstatement.	• Previous standards did not require a "brainstorming" session to discuss the risks of material misstatements. Paragraph .14 of AU section 314, *Understanding the Entity and Its Environment and Assessing the Risks of Material Misstatement* (AICPA, *Professional Standards*), requires such a brainstorming session, which is similar to (and may be performed together with) the brainstorming session to discuss fraud required by AU section 316, *Consideration of Fraud in a Financial Statement Audit* (AICPA, *Professional Standards*).
The purpose of obtaining an understanding of the entity and its environment, including its internal control, is to identify and assess "the risks of material misstatement" and design and perform further audit procedures responsive to the assessed risks.	• AU section 314 directly links the understanding of the entity and its internal control with the assessment of risk and design of further audit procedures. Thus, the understanding of the entity and its environment, including its internal control, provides the audit evidence necessary to support the auditor's assessment of risk.

Chapter 11

Case Study of the Use of a Put Option to Hedge an Available-for-Sale Security

11.01 In this case study, the entity owns 1,000,000 shares of the stock of a publicly traded company. The entity has a significant unrealized gain related to this investment and therefore is exposed to a decline in fair value of the shares. In order to hedge this exposure, the entity enters into a fair value hedge, using a put option as the hedging instrument.

11.02 By purchasing the put option, the entity has the right to sell its shares to the writer at the strike price, which in this case study is the current trading price of $50 per share. To obtain this right, the entity pays the writer a premium.

11.03 The most fundamental characteristic of every option is the uneven allocation of risk and reward. The holder of the option (the entity in this case study) receives a larger potential gain than it does risk of loss. In this case study, the entity's profits on the option increase dollar for dollar as the value of the underlying stock falls below the strike price. However, if the price of the underlying stock rises above the strike price, the entity simply will not exercise its option and can lose no more than the option premium it paid the writer.

11.04 The value of an option during its life has two components: the intrinsic value and the time value. The *intrinsic value* is defined by the Financial Accounting Standards Board (FASB) *Accounting Standards Codification* (ASC) glossary as the amount by which fair value of the underlying stock exceeds the exercise price of an option. Intrinsic value is the net amount that would be realized upon immediate exercise of the option and sale of the underlying instrument. The intrinsic value can never be negative for the option holder.

11.05 The time value is the excess of the total fair value of the option over its intrinsic value. Time value can never be negative for the holder and only decreases to zero when the option reaches its expiration date.

11.06 The accounting considerations portion of this case study illustrates the accounting for a fair value hedge, including the documentation normally required at the inception of the hedge and the assessment of hedge effectiveness. The auditing considerations section demonstrates the application of the guidance contained in AU section 332, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* (AICPA, *Professional Standards*), to a fair value hedge, using a primarily substantive approach.

Accounting Considerations [1]

Description of the Transaction

11.07 Sternwood owns 1,000,000 shares of JKM, Inc.'s publicly traded stock. Sternwood classifies these shares as available-for-sale and accounts for them in accordance with FASB ASC 320, *Investments—Debt and Equity Securities*. The shares were acquired for $48,000,000. As of January 1, 20X1,

[1] For simplicity, this case study ignores income tax consequences.

these shares are trading at $50 per share, and Sternwood has an unrealized gain on the investment of $2,000,000 ($50,000,000 fair value at the $50 per share fair value—$48,000,000 cost), which is reported in accumulated other comprehensive income.

11.08 Sternwood wants to lock in its unrealized gain. To accomplish this, it purchases a put option on the shares from First Bank for $200,000. This option allows Sternwood to sell (or put) its 1,000,000 shares of JKM stock to First Bank at $50 per share at December 31, 20X1.

11.09 Sternwood designates the option as a hedge of the exposure to a decline in the fair value of its investment in JKM. All criteria for hedge accounting have been met, and the entity has documented the hedge using the following memo.

Exhibit 11-1

Sternwood Considerations in Designating the Put Option as a Hedge of the Fair Value of an Available-for-Sale Security

Risk management objective and nature of risk being hedged	The objective of the hedge is to lock in the unrealized gain on the investment in JKM stock classified as available-for-sale. Changes in the intrinsic value of the put option are expected to be completely effective in offsetting the declines in the investment's fair value below $50 per share.
Date of designation	January 1, 20X1.
Hedging instrument	Put option on 1,000,000 JKM shares. The option allows Sternwood to sell its shares to First Bank on December 31, 20X1, at $50 per share.
Hedged item	Investment in 1,000,000 shares of JKM stock.
How hedge effectiveness will be assessed	Sternwood will assess the effectiveness of the hedge by comparing changes in the intrinsic value of the put option with changes in the fair value of the investment in JKM shares. Because the option provides only one-sided protection, effectiveness is required to be assessed only during those periods the put option has an intrinsic value. Because the critical terms of the hedging instrument match the hedged transaction, Sternwood concluded that the changes in the intrinsic value of the option will be completely effective at offsetting the changes in the fair value of its investment in the 1,000,000 shares of JKM. Because changes in the time value of the option have been excluded from the assessment of the hedge's effectiveness, changes in these amounts will be included in earnings during the periods they occur.

Exhibit 11-1—continued

Sternwood Considerations in Designating the Put Option as a Hedge of the Fair Value of an Available-for-Sale Security

How hedge ineffectiveness will be measured *	On a quarterly basis, hedge ineffectiveness will be measured by comparing the changes in the option's intrinsic value with the changes in fair value of the investment in JKM shares below $50 per share. Changes in the option's time value will be excluded from the measurement of ineffectiveness and will be recognized directly in earnings each period.

* Financial Accounting Standards Board (FASB) *Accounting Standards Codification* (ASC) 815-20-25-3(b)(2) requires formal documentation, at the inception of the hedge, of the hedging relationship and the entity's risk management objective and strategy for undertaking the hedge including identification of

- the hedging instrument.
- the hedged item or transaction.
- the nature of the risk being hedged.
- the method that will be used to retrospectively and prospectively assess the hedging instrument's effectiveness. There should be a reasonable basis for how the entity plans to assess the hedging instrument's effectiveness.
- the method that will be used to measure hedge ineffectiveness (including those situations in which the change in fair value method as described in paragraphs 31–32 of FASB ASC 815-30-35 will be used).

11.10 The share price and fair value of Sternwood's investment in JKM stock are as follows:

	Share Price	*Fair Value*
January 1, 20X1	$50	$50,000,000
March 31, 20X1	60	60,000,000
June 30, 20X1	45	45,000,000
September 30, 20X1	40	40,000,000
December 31, 20X1	30	30,000,000

11.11 The fair value, intrinsic value, and time value of the put option are as follows:

	(A) Fair Value	*(B) Intrinsic Value*	*(A) – (B) Time Value*
January 1, 20X1	$200,000		$200,000
March 31, 20X1	180,000		180,000
June 30, 20X1	5,150,000	$ 5,000,000	150,000
September 30, 20X1	10,050,000	10,000,000	50,000
December 31, 20X1	20,000,000	20,000,000	

Journal Entries

11.12 The following journal entries would be made by Sternwood at January 1, March 31, June 30, September 30, and December 31, 20X1, when the shares are sold. (For simplicity, this case study ignores the impact of commissions and other transaction costs and initial margin.)

January 1, 20X1

Put option	$200,000	
Cash		$200,000

To record the purchase of the put option through a charge to an asset.

March 31, 20X1

Unrealized gain or loss on put option	$20,000	
Put option		$20,000

To charge earnings for the reduction in the option's fair value caused by the reduction in its time value.

Investment in JKM stock	$10,000,000	
Other comprehensive income		$10,000,000

To credit other comprehensive income for the increase in the fair value of the investment in JKM stock. (Note that there was no change in the intrinsic value of the put option.)

June 30, 20X1

Unrealized gain or loss on put option	$30,000	
Put option		$30,000

To charge earnings for the reduction in the option's fair value caused by the reduction in its time value.

Put option	$5,000,000	
Unrealized gain or loss on put option		$5,000,000

To credit earnings for the increase in the put option's fair value caused by the increase in its intrinsic value.

Other comprehensive income	$10,000,000	
Unrealized loss on the investment in JKM stock	5,000,000	
Investment in JKM stock		$15,000,000

To record the reduction in the fair value of the investment in JKM stock. (Note that the loss charged to earnings equals the $5,000,000 increase in the option's intrinsic value. The remainder of the loss is charged to other comprehensive income.)

September 30, 20X1

Unrealized gain or loss on put option	$100,000	
Put option		$100,000

To charge earnings for the reduction in the fair value of the put option caused by the reduction in its time value.

Put option	$5,000,000	
Unrealized gain or loss on put option		$5,000,000

To credit earnings for the increase in the put option's fair value caused by the increase in its intrinsic value.

Unrealized loss on the investment in JKM stock	$5,000,000	
Investment in JKM stock		$5,000,000

To charge earnings for the reduction in the fair value of the investment in JKM stock. (Note that the entire loss is recognized in earnings because the loss is equal to the increase in the put option's intrinsic value.)

December 31, 20X1

Unrealized gain or loss on put option	$50,000	
Put option		$50,000

To charge earnings for the reduction in the fair value of the put option caused by the reduction in its time value.

Put option	$10,000,000	
Unrealized gain or loss on put option		$10,000,000

To credit earnings for the increase in the fair value of the put option caused by the increase in its intrinsic value. (This entry would be made prior to the settlement of the put option.)

Unrealized loss on investment in JKM stock	$10,000,000	
Investment in JKM stock		$10,000,000

To charge earnings for the reduction in the fair value of the investment in JKM stock. (Note that the entire reduction in fair value is charged to earnings because it is equal to the increase in the put option's intrinsic value.)

(continued)

Cash	$50,000,000	
Investment in JKM stock		$30,000,000
Put option		20,000,000

To record the receipt of $50,000,000 cash for settlement of the put option through delivery of the JKM stock at a price of $50 per share to First Bank.

Accumulated other comprehensive income	$2,000,000	
Realized gain on investment in JKM stock		$2,000,000

To reclassify unrealized gain on the JKM stock from accumulated other comprehensive income to earnings because the gain was realized through the sale of the shares to First Bank.

Analysis

11.13 Even though the fair value of the investment in JKM stock fell to $30 per share, Sternwood was able to lock in a $50 share price as a result of entering into the put option. Thus, it was able to realize the gain of $2,000,000 (less the $200,000 premium paid for the option).

11.14 Changes in the intrinsic value of the put option were highly effective at offsetting changes in the fair value of Sternwood's investment in JKM stock. Thus, each change in the intrinsic value of the put option recognized in earnings was offset by an equal amount of change in the fair value of the investment in JKM stock. Accordingly, there is no ineffectiveness. In addition, the premium paid for the put option was charged to earnings as the time value portion of the put option changed.

Auditing Considerations

Description of the Entity

11.15 Sternwood owns 1,000,000 shares of JKM stock and reports its investment in the stock at its $50,000,000 fair value, which includes $2,000,000 of unrealized gain. To lock in this gain, Sternwood purchases a put option that gives Sternwood the option of selling its 1,000,000 JKM shares at the existing market price of $50 per share.

11.16 Overall, Sternwood's control environment is considered to be good. However, the entity is not experienced in derivatives strategies; in fact, this particular transaction is its first derivatives or hedging transaction. Although investing in derivatives and developing hedging strategies is new for Sternwood, it has formalized a risk management policy developed by its investment committee and approved by the board of directors. That policy includes a description of allowable products and the approvals required for their usage.

11.17 The investment committee authorized the purchase of the put option. It formally designated the put option as a hedge of the exposure to a decline in the fair value of Sternwood's investment in JKM stock. All criteria for hedge accounting have been met, and Sternwood has properly documented the hedge in accordance with FASB ASC 815-20-25-3.

Summary of Accounting

11.18 The put option will be reported at its fair value. Changes in the intrinsic value of the put option will be recorded in earnings and will be offset by changes in the fair value of the investment in JKM stock. Because changes in the time value of the put option have been excluded from the assessment of hedge effectiveness, they will be included in earnings in the reporting period in which they occur. When management sells the JKM stock, the amounts included in accumulated other comprehensive income pertaining to the $2,000,000 unrealized gain on the stock will be recognized immediately in earnings.

Types of Potential Misstatements

11.19 *Improper use of hedge accounting under FASB ASC 815,* Derivatives and Hedging. For example, management may apply hedge accounting even though the hedged exposure does not qualify for hedge accounting or the entity lacks the appropriate documentation. Additionally, management may incorrectly assess hedge effectiveness, resulting in the application of hedge accounting when it should not be applied. (Note that the opposite risk, that is, the risk of not applying hedge accounting when it should be applied, is not considered a misstatement risk because the use of hedge accounting is discretionary.) Or, gains and losses on the put option and the investment may not have been properly recorded (for example, they may have been recorded in an improper amount or the wrong accounting period).

11.20 *Unreasonable fair value estimates.* The fair value of the put option, the hedged item, or both may be improperly determined or recorded.

11.21 *Completeness.* All gains and losses may not have been recorded.

11.22 *Presentation.* Presentation and disclosure may be inadequate.

Inherent Risk Factors to Consider for This Transaction in Assessing the Risks of Material Misstatement

11.23 The following inherent risk factors have been identified:

- Accounting for the use of the put option as a fair value hedge of an available-for-sale security requires consideration of complex accounting principles with which the entity may not be familiar because this is its first derivatives transaction. This increases the inherent risk for all assertions about it
- The put option is not exchange-traded, which increases the inherent risk for valuation assertions

Control Risk

11.24 The put option is Sternwood's first derivative, and its use is Sternwood's first hedging activity. Accordingly, the auditor assessed control risk for the financial statement assertions relevant to the put option as high. That assessment was based on the auditor's conclusion that it would be more effective and efficient to take a primarily substantive approach to the audit rather than to perform the procedures needed to support an assessment of control risk as low or moderate.

Considerations for Audits Performed in Accordance With PCAOB Standards

When performing an integrated audit of financial statements and internal control over financial reporting, appendix B, "Special Topics," paragraph B4 of Public Company Accounting Oversight Board Auditing Standard No. 5, *An Audit of Internal Control Over Financial Reporting That Is Integrated with An Audit of Financial Statements* (AICPA, *PCAOB Standards and Related Rules*, Auditing Standards), states that to assess control risk for specific financial statement assertions at less than maximum, the auditor is required to obtain evidence that the relevant controls operated effectively during the entire period upon which the auditor plans to place reliance on these controls. However, the auditor is not required to assess control risk at less than maximum for all relevant assertions and, for a variety of reasons, the auditor may choose not to do so.

Timing of Procedures

11.25 The relevant assertions associated with this transaction will be substantively tested at year end. This decision is influenced by the assessment of control risk as high, the fact that this is an isolated transaction, and the design of the substantive procedures as discussed subsequently.

Materiality

11.26 The transaction is considered material.

Design of Procedures

11.27 The auditor defined the following objectives and related procedures for the audit of assertions about the put option and the investment in JKM stock.

Audit Objective	*Procedure*
The put option exists and meets the definition of a derivative.	• Confirm the terms of the put option with the counterparty. • Determine whether the put option has the characteristics required by Financial Accounting Standards Board (FASB) *Accounting Standards Codification* (ASC) 815-10-05 for a derivative.
The transaction qualifies for hedge accounting.	• Determine whether the documentation of the hedge is sufficient to meet the requirements of FASB ASC 815-20-25 for hedge accounting. • Determine whether the put option is eligible for hedge accounting. • Determine whether the entity is evaluating hedge effectiveness in accordance with its policy and test the assumptions used in calculating effectiveness.

Audit Objective	*Procedure*
	• Reevaluate whether the hedge has been effective and will continue to be effective on an ongoing basis. • Determine whether the put option has been adjusted for gains and losses and that such gains and losses have been recorded in earnings. • Determine whether Sternwood has properly discontinued hedge accounting if — any of the qualifying criteria of FASB ASC 815-20-25 are no longer met; — the put option expired or is sold, terminated, or exercised; and — the entity removed the designation of the fair value hedge.
The valuation of the put option is reasonable (alternative A).	• Confirm the fair value of the put option as of the balance sheet date with the counterparty. In confirming the fair value, consider the guidance in AU section 336, *Using the Work of a Specialist* (AICPA, *Professional Standards*), and paragraphs .38–.39 of AU section 332, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* (AICPA, *Professional Standards*).
The valuation of the put option is reasonable (alternative B, if alternative A is not effective).	• Test the entity's assumptions in determining fair value. *a.* Agree the strike price to appropriate supporting documentation, such as the broker's advice. *b.* Evaluate the reasonableness of Sternwood's estimate of the volatility of JKM's stock price. Sternwood's estimate of the volatility should be comparable to the historical volatility of the securities over the most recent period that is commensurate with the term of the option. *c.* Agree the current price of JKM shares that is used by Sternwood to calculate the fair value of the put option to appropriate supporting documentation (for example, agree to closing stock price as published in *The Wall Street Journal*).

(continued)

Audit Objective	*Procedure*
	d. Evaluate the reasonableness of Sternwood's estimate of the risk-free interest rate for the expected term of the option by agreeing the interest rate to the rate currently available on zero-coupon U.S. government issues with a remaining term equal to the term of the option. *e.* Using the assumptions tested in steps (*a–d*), test the fair value of the option by performing step (i) or (ii): i. If the results of the model used by management appear to comply with the requirements of FASB ASC 815, *Derivatives and Hedging*, test the reliability of the model and determine whether Sternwood's calculation of fair value appears reasonable. ii. Recompute Sternwood's estimate of the option's fair value through the use of Bloomberg calculators or other valuation software.
The valuation of the investment in JKM stock is reasonable.	• Agree the fair value of the JKM securities to independent sources.[2]
Presentation is appropriate and disclosure adequate.	• Read the financial statements and compare the presentation and disclosure with the requirements of FASB ASC 815 and FASB ASC 320, *Investments—Debt and Equity Securities*.

[2] If quoted market prices were not available, the auditor could recompute the fair value based on established valuation techniques, such as present value analysis and pricing models. The auditor could also determine whether the assumptions used in computing fair value represent the appropriate assumptions as of the reporting date. See Interpretation No. 1, "Auditing Investments in Securities Where a Readily Determinable Fair Value Does Not Exist," of AU section 332, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* (AICPA, *Professional Standards*, AU sec. 9332 par. 01–.04), for further information on auditing investments in securities where a readily determinable fair value does not exist.

Chapter 12

Case Study of Separately Accounting for a Derivative Embedded in a Bond

12.01 In this case study, the entity purchases convertible bonds. The terms of the conversion feature allow the holder of the bonds the option of requiring the bond issuer to settle the bonds by converting each bond to a specified number of the issuer's shares. These convertible bonds are a combination of an interest-bearing bond and a conversion option.

12.02 Under Financial Accounting Standards Board (FASB) *Accounting Standards Codification* (ASC) 815-15-25, an embedded derivative, such as a conversion option, must be separated from its host contract (in this case the bonds) and accounted for separately if certain criteria are met. This case study illustrates how to apply the guidance on accounting for embedded derivatives contained in FASB ASC 815, *Derivatives and Hedging*, including determining the fair value of the embedded derivative and the host contract. The case study also provides an example of how to apply the guidance contained in AU section 332, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* (AICPA, *Professional Standards*), to an embedded derivative.

Accounting Considerations [1]

Description of the Transaction

12.03 On September 24, 20X1, Martin, Inc. purchased, as an investment, 100 of the $1,000, 5 percent convertible bonds issued by Larson Enterprises. The bonds have a conversion option under which Martin can require Larson to settle the bonds at any time prior to their maturity by converting each bond into 26.185 shares of Larson's publicly traded equity securities. For each bond, Martin paid $1,242.50 plus accrued interest of $19.98, for a total price per bond of $1,262.48. Therefore, Martin paid $126,248 for the 100 bonds, consisting of $124,250 for the convertible bonds and $1,998 for accrued interest. Martin classifies the bonds as available-for-sale.[2]

12.04 The convertible bonds are hybrid financial instruments that are a combination of straight, interest-bearing bonds and a conversion option. Because the option affects the value of the bonds in a manner similar to a derivative, Martin must analyze the hybrid instrument against the three criteria set out in FASB ASC 815-15-25-1.[3] If the bond meets all of the criteria, the option is

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[1] For simplicity, this case study ignores income tax consequences.

[2] As noted in Financial Accounting Standards Board (FASB) *Accounting Standards Board* (ASC) 320-10-25-5, the existence of the conversion option on Larson's stock would generally preclude Martin from classifying the bonds as held-to-maturity. A conversion option feature on a held-to-maturity security will call into question an investor's stated intent to hold other debt securities to maturity in the future.

[3] Because Larson's equity securities are publicly traded, the option, which requires physical delivery of those shares, would be considered net settleable because the shares are readily convertible into cash. As discussed in FASB ASC 815-10-15-18, if the shares were not readily convertible into cash, for example because they are privately held, the option would not be considered net settleable and therefore would not be a derivative instrument subject to the requirements of FASB ASC 815, *Derivatives and Hedging*, if freestanding.

an embedded derivative that must be accounted for separately from the straight bonds. The straight bonds are considered to be the host contracts for the embedded derivative. Exhibit 12-1, "Comparison of the Conversion Option in the Larson Bonds With the FASB ASC 815-15-25-1 Criteria for Separately Accounting for an Embedded Derivative," compares the option contained in the Larson convertible bonds with the three criteria.

12.05 Paragraphs 4–5 of FASB ASC 815-15-25 permit fair value remeasurement of any hybrid financial instrument that contains an embedded derivative that otherwise would require bifurcation. An entity that initially recognizes a hybrid financial instrument that under FASB 815-15-25-1 would be required to be separated into a host contract and a derivative instrument may irrevocably elect to initially and subsequently measure that hybrid financial instrument in its entirety at fair value (with changes in fair value recognized in earnings). A financial instrument should be evaluated to determine that it has an embedded derivative requiring bifurcation before the instrument can become a candidate for the fair value election. The fair value election shall be supported by concurrent documentation or a preexisting documented policy for automatic election. That recognized hybrid financial instrument could be an asset or a liability and it could be acquired or issued by the entity. That election is also available when a previously recognized financial instrument is subject to a remeasurement (new basis) event and the separate recognition of an embedded derivative. For purposes of FASB ASC 815-15-25-5, a remeasurement (new basis) event is an event identified in generally accepted accounting principles, other than the recognition of an other-than-temporary impairment, that requires a financial instrument to be remeasured to its fair value at the time of the event but does not require that instrument to be reported at fair value on a continuous basis with the change in fair value recognized in earnings. Examples of remeasurement events are business combinations and significant modifications of debt as defined in FASB ASC 470-50. Per FASB ASC 815-15-25-6, the fair value election should not be applied to any hybrid instruments listed in FASB ASC 825-10-50-8.

12.06 According to FASB ASC 815-15-25-5, the fair value election for hybrid financial instruments in paragraphs 4–5 of FASB ASC 815-15-25 may be made on an instrument-by-instrument basis.

Exhibit 12-1

Martin, Inc.

Comparison of the Conversion Option in the Larson Bonds With the FASB ASC 815-15-25-1 Criteria for Separately Accounting for an Embedded Derivative

Criterion	*Analysis*
Not clearly and closely related. The economic characteristics and risks of the embedded derivative instrument are not clearly and closely related to the economic characteristics and risks of the host contract.	Following the guidance in paragraphs 30–34 of Financial Accounting Standards Board (FASB) *Accounting Standards Codification* (ASC) 815-10-15, because the option is based on stock prices, it is not clearly and closely related to the straight bond. *Criteria are met.*
Accounting for the hybrid instrument. The hybrid instrument that embodies both the embedded derivative instrument and the host contract is not remeasured at fair value under otherwise applicable generally accepted accounting principles with changes in fair value reported in earnings as they occur.	Martin classifies the bonds as available-for-sale under FASB ASC 320-10-25-1. Accordingly, although the bonds will be remeasured at fair value, the changes in their fair value will be reported in other comprehensive income rather than in earnings. * *Criteria are met.*
The embedded instrument is a derivative. A separate instrument with the same terms as the embedded instrument meets the definition of a derivative subject to the requirements of FASB ASC 815-10-15.	A conversion option would be a derivative subject to the requirements of FASB ASC 815, *Derivatives and Hedging*. *Criteria are met.*

* If Martin instead classified the bonds as trading under FASB ASC 320, *Investments—Debt and Equity Securities*, the bonds would be remeasured at fair value with changes in fair value reported in earnings as they occur. Accordingly, this criterion would not be met, and FASB ASC 815 would prohibit accounting for the option separately from the bond.

Because all three criteria are met, Martin should account for the option (that is, embedded derivative) separately from the straight bond (that is, host contract).

Accounting for the Initial Purchase

12.07 Following is a summary of Martin's allocation of the price of the convertible bonds between the option and the straight bonds at the purchase date.

		Price per Bond	*× 100 bonds*	*Total*
	Purchase of the hybrid instrument	$1,242.50	× 100	$124,250
Minus	Fair value of the option			
	A specialist engaged by Martin estimated the fair value of the option at $22.3505 per share using a binomial option-pricing model.[4] Each bond is convertible into 26.185 shares of Larson's common stock, so the total fair value of the embedded derivative is $585.25 per bond ($22.3505 per share multiplied by 26.185 shares per bond).	$585.25	× 100	$58,525
Equals	Fair value of the straight bond[5]	$657.25	× 100	$65,725

12.08 To check the reasonableness of its estimate of the option's fair value, Martin imputed the yield to maturity (YTM) on the straight bonds. Assuming that the bonds have 8 years and 2 months to maturity, the imputed YTM on them is 12.54 percent. If Larson had straight bonds outstanding, Martin could compare the imputed YTM with the YTM of those bonds. However, Larson has no straight bonds outstanding, so Martin compared the imputed YTM to the YTM on straight bonds of similar credit quality (that is, B-rated), which is approximately 12.5 percent to 13 percent. Therefore, Martin concluded that the allocation of the purchase price between the option and the straight bonds is reasonable.

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[4] In this case study, all the information necessary to measure the option is readily available from published sources. If Martin could not reliably measure the embedded derivative, the entire hybrid instrument would have to be measured at fair value with gain or loss recognized in earnings. In addition, FASB ASC 815 would prohibit Martin from designating the instrument as a hedging instrument.

[5] This with-and-without method for estimating the fair value of the straight bonds involves subtracting the fair value of the option from the fair value of the hybrid instrument. Consistent with FASB ASC 815-15-30-2, the with-and-without method is the appropriate method for separating hybrid instruments into their components. Refer to FASB ASC 815-15-30-6 for guidance on the bifurcation of embedded options based on contractual terms.

12.09 The entry Martin used to record the purchase of the bonds on September 24, 20X1, is as follows:

Investment in conversion option on Larson stock	$58,525	
Investment in Larson bonds	65,725[6]	
Accrued interest receivable	1,998	
Cash		$126,248

Subsequent Accounting

12.10 Martin will accrete the basis of the bonds to $100,000 by their maturity date through credits to interest income. Unrealized appreciation in the bonds is the difference between their fair value and the bonds' principal less unamortized discount. Whenever it issues financial statements, Martin will estimate the fair values of the hybrid instrument and the option, subtract the two to determine the estimated fair value of the straight bonds, and recognize changes in the unrealized appreciation of the

- option in earnings (assuming it is not designated in a qualifying hedging relationship); and
- straight bonds in other comprehensive income.

12.11 For example, assume that at the first measurement date after Martin purchased the bonds, using the with-and-without method used at the purchase date, Martin estimated the fair value of the straight bonds as follows:

- Based on quotes from dealers, the fair value of the hybrid instrument has increased by $15,750, from $124,250 to $140,000.
- A specialist engaged by Martin estimated that the fair value of the option has increased by $6,475, from $58,525 to $65,000.
- The fair value of the straight bonds therefore increased by $9,275, from $65,725 to $75,000.

In addition, as of the first measurement date

- the discount on the bonds has decreased by $3,500, from $34,275 to $30,775.
- interest of $4,998 was received, of which $1,998 was for the accrual at the date the bonds were purchased. The remaining $3,000 receipt relates to the current period.
- of the $9,275 total increase in the fair value of the straight bonds, $3,500 is recorded as discount amortization, with the remaining $5,775 recorded as other comprehensive income. Total interest income recognized is $6,500, consisting of the $3,000 realized and the $3,500 discount amortization. Based on annualized calculations, Martin concluded that the implicit yield is consistent with its initial YTM calculations.

[6] Recording the investment in the bonds at their fair value of $65,725 creates a $34,275 discount from the $100,000 principal that should be amortized to interest income over the life of the bonds using the interest method.

12.12 Martin would make the following entry.

Cash	$4,998	
Investment in conversion option on Larson stock	6,475	
Investment in Larson bonds	9,275	
Accrued interest receivable		$1,998
Interest income		6,500
Earnings from unrealized appreciation		6,475
Other comprehensive income from unrealized appreciation		5,775

Auditing Considerations

Description of the Entity

12.13 Although Martin has invested in securities in the past, it has not invested in a security with a feature that constitutes an embedded derivative. However, Martin's board of directors exercises proper oversight and authorization of all investing activities. In regards to the convertible bond investment, the board took an active role in understanding the risks of the investment, how it was priced, and ultimately, approving the transaction.

12.14 Martin also has other characteristics of a strong control environment.

- Management has high integrity and ethical values.
- Management philosophy and operating style are commensurate with the demands and needs of a well-regarded business organization.
- Management carefully assigns authority and responsibility to appropriate personnel.
- Human resources policies and procedures are designed in a way that the most qualified individuals are attracted to the organization, hired, trained, rewarded, and retained.

The bonds are held and serviced by a well-known bank with an investment department that is widely respected.

Summary of Accounting

12.15 Under FASB ASC 815, the convertible bonds are hybrid instruments that should be separated into two components—straight, interest-bearing bonds and a conversion option. Each component should be accounted for separately, with the bonds (the host contract) accounted for as available-for-sale securities under FASB ASC 320, *Investments—Debt and Equity Securities*, and the option accounted for as an embedded derivative under FASB ASC 815. Martin estimates the fair value of the straight bonds by subtracting the fair value of the embedded option from the fair value of the hybrid instrument.

Types of Potential Misstatements

12.16 There could be departures from the recognition measurement and disclosure requirements of FASB ASC 815 for the embedded derivative instrument, such as

- a failure to identify the option and account for it separately from the straight bond;
- errors in determining the fair values of the components when allocating the purchase price and at subsequent measurement dates;
- errors in accounting for changes in fair value; and
- inadequate presentation and disclosure in the financial statements.

In addition, there is the risk of departures from the measurement and disclosure requirements of FASB ASC 320 for the straight bonds.

Inherent Risk Factors to Consider for This Transaction in Assessing the Risks of Material Misstatement

12.17 The risk factors the auditor considered are

- the option may not be identified because it is a feature of the convertible bonds; and
- due to the lack of experience of Martin's accounting personnel with this type of transaction, the option may not be accounted for separately from the straight bonds.

Estimating the fair value of the option requires judgment in applying an option-pricing model and determining the underlying assumptions.

Control Risk

12.18 Martin's investing department has a history of investing in debt and equity securities. Controls over the department's activities include

- segregation of duties between purchase and sale transaction authorization, bookkeeping, and custody;
- reasonably good management oversight; and
- supervisory personnel in the department review ongoing fair value calculations prepared internally and provided by third parties, mark-to-market adjustments, and related journal entries.

12.19 However, the purchase of the convertible bonds is the first transaction of this nature for Martin. Certain risks associated with accounting for this instrument (for example, the identification of and separate accounting for the embedded derivative and use of the binomial option-pricing model) are not addressed by Martin's existing controls. Although some policies have been put in place to monitor the status of the convertible bonds, the policies have not been functioning long enough to determine their effectiveness. For these reasons, control risk is assessed as high.

Considerations for Audits Performed in Accordance With PCAOB Standards

When performing an integrated audit of financial statements and internal control over financial reporting, appendix B, "Special Topics," paragraph B4 of Public Company Accounting Oversight Board Auditing Standard No. 5, *An Audit of Internal Control Over Financial Reporting That Is Integrated with An Audit of Financial Statements* (AICPA, *PCAOB Standards and Related Rules*, Auditing Standards),

states that to assess control risk for specific financial statement assertions at less than maximum, the auditor is required to obtain evidence that the relevant controls operated effectively during the entire period upon which the auditor plans to place reliance on these controls. However, the auditor is not required to assess control risk at less than maximum for all relevant assertions and, for a variety of reasons, the auditor may choose not to do so.

Timing of Procedures

12.20 The relevant assertions associated with this transaction will be substantively tested at year end. This decision is influenced by the assessment of control risk as high, the fact that this is an isolated transaction, and the design of the substantive procedures as discussed subsequently.

Materiality

12.21 The convertible bonds are considered to be material to the financial statements.

Design of Procedures

12.22 The auditor defined the following objectives and related procedures for the audit of assertions about the convertible bonds.[7]

Audit Objective	*Procedure*
The hybrid instrument was purchased during the reporting period and exists at the end of the reporting period.	• Examine the broker's advice for the purchase and Martin's canceled check or other evidence of Martin's cash disbursement. • At year end, confirm existence, rights and obligations, and the description of the convertible bonds with the custodian bank that serves as safekeeping agent.
The hybrid instrument was executed according to management's authorizations.	• Compare the terms of the convertible bonds with the investment guidelines approved by the board of directors. • Examine signed authorization by the chief financial officer.
The straight bonds and the option were properly accounted for separately.	• Read the underlying agreement and compare its provisions to the separation criteria prescribed by paragraphs 2–3 of Financial Accounting Standards Board (FASB) *Accounting Standards Codification* (ASC) 815-15-30.

[7] In this case study, the entity properly accounted for the embedded derivative. However, if the entity had not separately accounted for the embedded derivative, the auditor could have detected it by reading the agreements supporting the bonds.

Audit Objective	*Procedure*
Both the host instrument and the option are measured using appropriate fair values.	• Compare the fair values of the convertible bonds and similar straight bonds to quoted prices published in *The Wall Street Journal*. • Ensure that total fair value of the separate components does not exceed the fair value of the convertible bonds. • Test the fair value calculation of the option by one of the following: — Testing management's calculation and underlying assumptions — Reperforming the calculation — Engaging a specialist to recompute the value, in accordance with the guidance provided in AU section 336, *Using the Work of a Specialist* (AICPA, *Professional Standards*) • Ensure that the changes in fair value of the host contract and embedded derivative are properly recorded in comprehensive income and income.
Interest income has been properly recorded.	• Perform analytical procedures to test the reasonableness of interest income, including amortization of the original discount.
Presentation is appropriate and disclosure adequate.	• Compare the presentation and disclosure with the requirements of FASB ASC 320, *Investments—Debt and Equity Securities*, and 815, *Derivatives and Hedging*.

Chapter 13

Case Study of the Use of an Interest Rate Swap to Hedge Existing Debt

13.01 In this case study, the entity has issued a fixed-rate bond and is exposed to the risk that changes in the benchmark interest rate will change the bond's fair value. In order to mitigate this risk, the entity enters into an interest rate swap, which effectively converts the fixed-rate liability into a variable-rate liability.

13.02 Under Financial Accounting Standards Board (FASB) *Accounting Standards Codification* (ASC) 815, *Derivatives and Hedging*, the change in the fair value of a derivative designated as a fair value hedge is recognized in earnings together with the change in the fair value of the hedged item that is attributable to the risk being hedged. In this case study, the change in the fair value of the interest rate swap will be offset by the change in the fair value of the obligation under the bond that is attributable to changes in the benchmark interest rate. The changes have opposite effects on earnings. For example, if the change in the fair value of the obligation under the bond from a change in the benchmark interest rate creates a gain, the change in the fair value of the swap will create a loss.

13.03 The hedging instrument in this case study is an interest rate swap. Swaps are contracts to exchange, for a period of time, the investment performance of one underlying instrument for the investment performance of another instrument without exchanging the instruments themselves. The interest rate swap used in this case study involves the swap of interest at a variable rate based on a designated benchmark interest rate (in this case study 90-day London Interbank Offered Rate [LIBOR]) times a notional principal amount for interest at a fixed rate times that same notional principal amount.

13.04 Under the agreement in this case study, the entity effectively pays interest under the swap at a variable rate and receives interest under the swap at a fixed rate (although the entity actually pays or receives only the net amount under the swap). The notional amount of the swap is the same as the principal outstanding under the entity's bond, and the fixed rate received under the swap is the same as the bond's rate. Accordingly, if the hedge works perfectly, the amount of fixed-rate interest received under the swap equals the amount of interest paid on the bond, and the net amount of interest paid equals the interest paid under the swap at the variable rate. The swap therefore enables the entity to pay a variable rate of interest on the amount of principal outstanding under the bond, thus effectively converting the bond from a fixed-rate to a variable-rate instrument.

13.05 The accounting considerations section of this case study illustrates accounting for a fair value hedge when the hedging instrument is an interest rate swap. As described in chapter 3, "General Accounting Considerations for Derivatives and Securities," when certain conditions are met, the entity may assume that an interest rate swap will be perfectly effective in hedging interest rate risk and may use the shortcut method to account for the hedging activity. In this case study, those conditions are not met, so the example demonstrates the accounting entries that should be made when the shortcut method is not available. The auditing considerations portion of the case study illustrates the

application of the guidance contained in AU section 332, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* (AICPA, *Professional Standards*).

Accounting Considerations [1]

Description of the Transaction

13.06 JLM manufactures windows and doors for residential sale and is a Securities Exchange Commission registrant that operates under a fiscal year end of December 31. JLM has experienced a tremendous growth rate during the past 2 years. As a result, it has entered into an expansion and equipment upgrade project at its plant. In order to keep up with demands, JLM has increased its workforce by 25 percent.

13.07 On January 1, 20X1, JLM issued a 5-year, $1,000,000 BB-rated bond obligation. The interest rate on the bond obligation was fixed at 8 percent, payable on a quarterly basis. On February 1, 20X1, to hedge its exposure to changes in LIBOR (that is, the designated benchmark interest rate risk being hedged), JLM entered into a 5-year interest rate swap with a notional amount of $1,000,000 to receive a fixed rate of 8 percent and pay a variable rate equal to 90-day LIBOR (at the end of each quarter) plus 2 percent, payable on a quarterly basis with the first payment due March 31, 20X1.

Accounting for the Transaction

13.08 In order to meet the criteria for hedge accounting, the hedge must be highly effective. As discussed in chapter 3, when certain conditions are met, the entity may assume that an interest rate swap will be completely effective in hedging benchmark interest rate risk. In that situation, the entity may elect to use the shortcut method discussed in paragraphs 102–117 of FASB ASC 815-20-25, thereby avoiding the need to formally assess hedging effectiveness at inception and on a continuing basis. Exhibit 3-5, "Summary of the Conditions That Must Be Met for Use of the Shortcut Method," summarizes the conditions that must be met in order to qualify to use the shortcut method. In this case study, one of those conditions is not met because the interest rate swap matures one month later than the bond obligation.

13.09 Because the expiration date of the interest rate swap is different than the maturity date of the debt obligation, fluctuations in the benchmark interest rate may have varying effects on the fair values of the bond obligation and interest rate swap. Accordingly, JLM may not assume the changes in fair value of the interest rate swap are, and will continue to be, completely effective at offsetting the changes in fair value of the bond obligation attributable to changes in the benchmark interest rate.

13.10 JLM assessed hedge effectiveness[2] by comparing the change in the fair value of the interest rate swap to the portion of the change in the fair value of the bond obligation attributable to changes in the benchmark interest rate. The change in the bond obligation's fair value attributable to changes in the benchmark interest rate for a specific period is determined as the difference

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[1] For simplicity, this case study ignores income tax consequences.

[2] Chapter 3, "General Accounting Considerations for Derivatives and Securities," discusses various methods that may be used to assess hedge effectiveness.

between two present value calculations as of the end of the period that exclude or include, respectively, the effect of the changes in the benchmark interest rate during the period. The discount rates used for those present value calculations would be, respectively

a. the discount rate equal to the coupon rate for the bond obligation (assuming no changes in JLM's creditworthiness) at the inception of the hedge adjusted (up or down) for changes in the benchmark rate (designated as the interest rate risk being hedged) from the inception of the hedge to the beginning date of the period for which the change in fair value is being calculated and

b. the discount rate equal to the coupon rate for the bond obligation (assuming no changes in JLM's creditworthiness) at the inception of the hedge adjusted (up or down) for changes in the designated benchmark rate from the inception of the hedge to the ending date of the period for which the change in fair value is being calculated.

Both present value calculations are computed using the estimated future cash flows for the hedged item (which typically would be its remaining contractual cash flows). Hedge ineffectiveness will occur if changes in the fair value of the obligation under the bond attributable to changes in the benchmark interest rate do not equal changes in the fair value of the swap. Additional facts that impact the accounting for this transaction include the following:

- The basis adjustments recognized in earnings related to the bond obligation should be equal to the changes in the fair value of the bond obligation attributable to changes in the benchmark interest rate.[3]
- The interest rate swap was issued at the market rate on February 1, 20X1; therefore, no cash was exchanged at inception of the contract, and no entries related to the time value of money were required.
- All of the hedge accounting criteria contained in FASB ASC 815-20-25 were met. Hedge effectiveness was achieved at the inception of the contract.
- The bond's 8 percent stated interest rate is the market rate on January 1, 20X1, when the bond was issued. The benchmark interest rate on February 1, 20X1 was 5 percent.
- During 20X1, the fair values of the interest rate swap and JLM's bond obligation (after cash settlements) excluding current period swap accruals and interest accruals were

	February 1	*March 31*	*June 30*
Interest rate swap	$ —	$(20,000)	$(35,000)
JLM bond obligation	1,005,000	980,000	965,000
Change in fair value of interest rate swap	—	(20,000)	(15,000)
Change in fair value of JLM bond obligation	—	25,000	15,000

[3] In calculating the change in the hedged item's fair value attributable to changes in the benchmark interest rate, Financial Accounting Standards Board *Accounting Standards Codification* 815-25-35-13 requires that the estimated cash flows used in calculating fair value be based on all of the contractual cash flows of the entire hedged item.

- LIBOR plus 2 percent equaled 8.25 percent and 8.50 percent at March 31 and June 30, 20X1, respectively.

Journal Entries

13.11 The journal entries JLM made are as follows:

February 1, 20X1

JLM made a memorandum entry documenting the existence of the hedging relationship. The financial records of JLM were not otherwise impacted as of this date because the interest rate swap was issued at the market rate, and therefore, no cash changed hands.

March 31, 20X1

Interest expense	$20,000	
Cash		$20,000

To record interest expense on the bond obligation—($1,000,000 × 8.00%) × 3/12 = $20,000.

Interest expense	$417	
Cash		$417

To record the net cash payment on the interest rate swap as an increase in interest expense—[($1,000,000 × 8%) × 2/12 = $13,333 received] less [($1,000,000 × 8.25%) × 2/12 = $13,750 paid].

Unrealized loss on interest rate swap	$20,000	
Obligation under interest rate swap		$20,000

To record the reduction in the fair value of the interest rate swap as a liability, with an offsetting charge to earnings.

Bond obligation	$25,000	
Unrealized gain on bond obligation		$25,000

To record the reduction in the fair value of the bond obligation due to change in the benchmark interest rate, with an offsetting credit to earnings.

June 30, 20X1

Interest expense	$20,000	
Cash		$20,000

To record interest expense on the bond obligation—($1,000,000 × 8.00%) × 3/12 = $20,000.

Interest expense	$1,250	
Cash		$1,250

To record the net cash payment on the interest rate swap as an increase in interest expense—[($1,000,000 × 8%) × 3/12 = $20,000 received] less [($1,000,000 × 8.5%) × 3/12 = $21,250 paid).

Unrealized loss on interest rate swap	$15,000	
Obligation under interest rate swap		$15,000

To record the increase in the fair value of the liability under the swap agreement, with an offsetting charge to earnings.		
Bond obligation	$15,000	
Unrealized gain on bond obligation		$15,000
To record the reduction in the fair value of the bond obligation due to change in the benchmark interest rate, with an offsetting credit to earnings.		

Observations

13.12 JLM converted its $1,000,000 bond obligation from a fixed-rate to a variable-rate obligation as a result of entering into the interest rate swap. For example, interest expense for the quarter ended June 30, 20X1, was $21,250, consisting of $20,000 paid under the bond plus $1,250 paid under the swap. This equals interest on the bond at the variable rate of 8.5 percent ($1,000,000 × 8.5 percent × 3/12 = $21,250). Due to the fact that the benchmark interest rate increased during the first five months of the hedging relationship, the fair value of the interest rate swap decreased, resulting in JLM making net interest cash payments on the settlement dates.

13.13 The fair value of the bond obligation decreased as a result of the increase in the benchmark interest rate. The decrease in the fair value of the bond created unrealized gain that was partially offset by the unrealized loss from the decrease in the fair value of the swap (which resulted in recognizing a liability). The fair value change in the bond obligation was compared with the change in the fair value of the interest rate swap to determine hedge effectiveness (that is, within 80 percent to 125 percent of each other, as described in chapter 3 for the dollar-offset method). Once determined, the change in the fair value of the bond obligation attributable to changes in the benchmark interest rate was recognized in earnings as an offset to the change in fair value of the interest rate swap.

13.14 The results were that, at March 31 and June 30, the changes in fair value of the interest rate swap were highly effective in offsetting the changes in fair value of the bond obligation attributable to changes in the benchmark interest rate. Furthermore, the hedge ineffectiveness (that is, $5,000 at March 31) was recognized currently in earnings.

Auditing Considerations

Description of the Entity

13.15 Key factors in assessing JLM's control environment are the following:

- JLM's management and board of directors instill high integrity and ethical values throughout all aspects of the entity.
- JLM has in place a corporate compliance program specifically prohibiting fraud against the entity, which states the penalties for fraud and requires employees to report fraud. In addition, a process exists to identify high-risk areas of potential fraud exposure for the entity.

- JLM has in place a quality information system, which provides system-generated information that gives management the ability to make appropriate decisions in managing and controlling the entity's activities and to prepare reliable financial reports.
- The board of directors is independent from management and holds frequent, timely meetings with chief financial and accounting officers, internal auditors and external auditors.
- Management provides sufficient, timely information to allow monitoring of management's financing objectives and strategies and JLM's financial position and operating results.
- Management consults with the board of directors on all business risks. Such business risks are accepted only after the board of director's study and approval. The board of directors approves all transactions that involve derivatives.
- JLM's organizational structure is appropriate to the entity's size and activities and has the ability to provide information appropriate to manage the entity's activities. The knowledge and experience of key managers are appropriate to their responsibilities.
- Assignment of responsibility and delegation of authority are appropriate for the entity, given its size and the nature and complexity of activities. Authority has been delegated to deal with organizational goals and objectives, operating functions, and regulatory requirements, including responsibility for information systems and authorization for changes.
- JLM's investing and financing activities are monitored closely by the board of directors.
- Management and the board of directors have a high commitment to competence when hiring employees. The investing and financing function is staffed with individuals who are knowledgeable about accounting for derivatives.

13.16 Although the volume of derivatives transactions is low, the entity has established controls over them. Some of JLM's key controls include the following:

- Overall, controls over financial reporting of derivatives transactions adequately provide segregation of duties and management oversight.
- JLM has in place written polices regarding derivatives transactions, which were approved by the board of directors.
- The board of directors approves all derivatives transactions.
- Controls are in place to ensure that derivatives designated as hedges meet the criteria for hedge accounting, both at inception and on an ongoing basis.
- JLM's chief financial officer prepares an analysis for review by the board of directors that identifies
  - — the objective of the hedge and the strategy for accomplishing the objective.
  - — the nature of the risk being hedged.
  - — the derivative hedging instrument.

- the hedged item.
- how the entity will assess hedge effectiveness.

- JLM's investing and financing function maintains proper segregation of duties between dealing (committing JLM to the transaction), settlement (initiating cash payments and accepting cash receipts), and accounting (recording of all transactions and the valuation of the derivative).
- The board has approved a list of top-tier investment brokers that management may utilize for investment services.
- JLM has put in place controls and procedures for the prevention or detection of errors, including the following:
  - Accounting entries for derivatives transactions are reviewed by senior management of the investing and financing function and subject to periodic review by the chief financial officer.
  - Fair values are obtained from a broker-dealer and reviewed on a monthly basis.
  - Adjustments to securities general ledger accounts are reviewed and approved by the controller.

Summary of Accounting

13.17 Because no cash is required to enter into the interest rate swap, no entry is required at its inception. The swap should subsequently be adjusted to its fair value. Because the swap is designated as a fair value hedge, changes in its fair value should be recognized in earnings. In addition, changes in the fair value of the bond obligation due to changes in the benchmark interest rate should be recognized in earnings. The basis of the bond obligation should be adjusted accordingly.

Types of Potential Misstatements

13.18 The types of potential misstatements are

- failure to identify the swap.
- failure to properly document the hedge and the expectation of hedge effectiveness.
- the hedge does not remain highly effective on an ongoing basis, so that hedge accounting does not continue to be appropriate.
- the assessment of hedge effectiveness is not consistent with the risk management strategy documented for the particular hedging relationship.
- JLM does not assess hedge effectiveness for similar hedging strategies in a similar manner, and such differences are not documented.
- incorrect determination of the fair value of the swap and the bonds.
- incorrect computation and recording of interest and accrued interest on the bonds.
- inadequate financial statement presentation and disclosure.

Inherent Risk Factors to Consider for This Transaction in Assessing the Risks of Material Misstatement

13.19 The inherent risk factors are

- this transaction requires no initial cash outlay, and therefore detection of the derivative may be difficult (although it is unlikely that management would attempt to conceal the transaction).
- management does not have a valuation model capable of valuing the interest rate swap and relies on the broker-dealer who arranged the transaction for the valuation of the swap.
- credit risk related to the swap is moderate and is primarily related to the risk of nonperformance by the counterparty.

Control Risk

13.20 Control risk has been assessed as high, and accordingly a substantive approach will be taken when auditing JLM's derivatives transactions. Although JLM has put in place adequate controls over its derivatives, due to the limited number of derivatives transactions it has entered into, the auditor deems a substantive approach more efficient and effective.

Considerations for Audits Performed in Accordance With PCAOB Standards

When performing an integrated audit of financial statements and internal control over financial reporting, appendix B, "Special Topics," paragraph B4 of Public Company Accounting Oversight Board Auditing Standard No. 5, *An Audit of Internal Control Over Financial Reporting That Is Integrated with An Audit of Financial Statements* (AICPA, *PCAOB Standards and Related Rules*, Auditing Standards), states that the auditor may assess control risk for specific financial statement assertions at less than maximum, but the auditor is required to obtain evidence that the relevant controls operated effectively during the entire period upon which the auditor plans to place reliance on these controls. However, the auditor is not required to assess control risk at less than maximum for all relevant assertions and, for a variety of reasons, the auditor may choose not to do so.

Timing of Procedures

13.21 Based on the assessment of control risk as high and JLM's inexperience in applying FASB ASC 815, the relevant assertions associated with this transaction will be substantively tested at year end.

Materiality

13.22 The transaction is considered material.

Design of the Procedures

13.23 The auditor defined the following objectives and related procedures for the audit of assertions about the interest rate swap.

Audit Objective	*Procedure*
All derivatives JLM has entered into are reported in its statement of financial position.	• Read minutes of the board of directors for approval of derivatives transactions. • Confirm at year end the existence, rights and obligations, and description of the swap with the broker-dealer. • Examine broker-dealer advices evidencing purchase or issuance in JLM's name.
Derivatives transactions are approved in accordance with JLM's investment policy.	• Read JLM's investment policy and compare the interest rate swap to the policy to determine if the swap's terms are within the policy's guidelines. • Read minutes of the board of directors to determine if approval to enter into the swap was obtained.
The fair values of the swap and the bond are reasonable.	• Obtain an understanding and evaluate the relationship between the broker-dealer and JLM. • Obtain an understanding of the methodology behind the broker-dealer's valuation. Alternatively, use a valuation consultant to assist in evaluating the reasonableness of the estimate of fair value, taking into consideration the requirements of AU section 336, *Using the Work of a Specialist* (AICPA, *Professional Standards*).
The designation of the interest rate swap as a hedge meets the applicable criteria for hedge accounting at inception and ongoing, including the documentation requirement.	• Read the Board of Directors minutes that document the formal designation of the swap as a hedge of the fair value of the bond obligation. • Confirm (in the management representation letter) the designation of the swap as a hedge at the date of inception and each subsequent measurement date. • Examine documentation that supports the designation, documentation, and risk management requirements of FASB ASC 815, *Derivatives and Hedging*. • Recompute JLM's calculation of hedge effectiveness using the methodology prescribed by management, noting whether the hedge effectiveness is assessed in a similar manner to other hedging strategies of JLM.

(continued)

Audit Objective	*Procedure*
	• Read board of directors minutes for documentation of the board's periodic review of hedging effectiveness.
The journal entries required to record the effect of the interest rate swap are appropriate.	• Review journal entries in relation to supporting documentation, including broker-dealer advices and cancelled checks for interest payments made on the bond obligation and interest rate swap.
Presentation is appropriate and disclosure adequate.	• Read the financial statements and compare the presentation and disclosure with the requirements of FASB ASC 815.

Chapter 14

Case Study of the Use of a Foreign-Currency Put Option to Hedge a Forecasted Sale Denominated in a Foreign Currency

14.01 In this case study, the entity has forecasted a foreign-currency-denominated sale during the upcoming period and is exposed to the risk that the foreign currency exchange rate will change by the time the sale occurs. To manage this risk, the entity enters into a foreign currency cash flow hedge using a foreign-currency put option.

14.02 By purchasing the put option, the entity has the right to sell foreign currency to the writer at the spot price, which in this case study is the current exchange rate. To obtain this right, the entity pays the writer a premium.

14.03 The most fundamental characteristic of every option is the uneven allocation of risk and reward. The holder of the option (the entity in this case study) receives a larger potential gain than it does risk of loss. In this case study, the entity's profits on the option increase as the value of the foreign currency falls relative to the functional currency (U.S. dollars). However, if the value of the foreign currency rises relative to the functional currency, the entity simply will not exercise its option and can lose no more than the option premium it paid the writer.

14.04 The value of an option during its life has two components: the intrinsic value and the time value. The term *intrinsic value* is defined in the Financial Accounting Standards Board (FASB) *Accounting Standards Codification* (ASC) glossary as the amount by which fair value of the underlying stock exceeds the exercise price of an option (or the difference between the underlying spot price and the option exercise price, which would be the strike rate in this case study), if that difference is positive for the option holder. Intrinsic value is the net amount that would be realized upon immediate exercise of the option and sale of the underlying instrument (foreign currency in this case study). The intrinsic value can never be negative for the option holder.

14.05 The *time value* is the excess of the total fair value of the option over its intrinsic value. Time value can never be negative for the holder and only decreases to zero when the option reaches its expiration date.

14.06 The accounting considerations section of this case study illustrates the accounting for the cash flow hedge of a forecasted foreign-currency-denominated transaction, including the requirement that the forecasted transaction be probable. The auditing considerations section illustrates an audit approach where control risk is assessed as low or moderate for certain assertions.

Accounting Considerations [1]

Description of the Transaction

14.07 Austin-Jhanes is a U.S. manufacturing (and reporting) entity with sales to foreign purchasers. Its forecasted sales are denominated in foreign

[1] For simplicity, this case study ignores income tax consequences.

currency but do not represent firm commitments. As of September 30, 20X1, Austin-Jhanes forecasts that a specific foreign-currency sale of FC 10,000,000 will occur on March 31, 20X2. At the current spot rate of 2 FC/1 U.S.$, this expected sale equals $5,000,000. Austin-Jhanes' historical experience with the foreign customer for the forecasted sale indicates that the sale is probable. Management is concerned that between September 30, 20X1, and March 31, 20X2, the foreign currency will weaken relative to the dollar.

14.08 Pursuant to its foreign-exchange risk-management policy, Austin-Jhanes manages its currency risk by purchasing a foreign-currency put option. It considers this transaction to be a cash flow hedge of a foreign-currency-denominated transaction that is in accordance with FASB ASC 815-30. The terms of the purchased option are as follows:

Contract amount	FC 10,000,000
Expiration date	March 31, 20X2
Strike exchange rate (that is, the contract rate)	2 FC / 1 U.S.$
Spot exchange rate	2 FC / 1 U.S.$
Premium	$20,000

14.09 The option is purchased at the money (that is, at the spot rate). Therefore, the premium on September 30, 20X1, reflects the option's time value only. The option is designated as a hedge of the forecasted sale, and management expects that, at the hedge's inception and through the period until the forecasted sale, the hedge will be highly effective. Accordingly, management expects that cash flows received on the exercised option will offset foreign-exchange losses on the cash sale, thereby assuring net U.S. dollar receipts of $5,000,000 (excluding the put option premium) on March 31, 20X2.

14.10 Austin-Jhanes decides to assess effectiveness on the basis of the option's intrinsic value, which it defines as the value of the option that reflects the positive difference between the spot exchange rate and the strike exchange rate. Because changes in the time value of the option have been excluded from the assessment of the hedge's effectiveness, changes in these amounts will be included in earnings during the periods they occur.

14.11 During the period, the foreign currency weakened relative to the dollar. The spot rates for calculating the fair value of the option are as follows:

	Contract Rate	*Spot Rate*
September 30, 20X1	2.00	2.00
December 31, 20X1	2.00	2.10
March 31, 20X2	2.00	2.30

14.12 The fair value, intrinsic value, and time value of the put option are as follows:

	(A)[2] *Fair Value*	*(B)*[3] *Intrinsic Value*	*(A) – (B) Time Value*
September 30, 20X1	$20,000	$—	$20,000
December 31, 20X1	$248,095	$238,095[4]	$10,000
March 31, 20X2	$652,174	$652,174[5]	$—

14.13 Management used that information to prepare a hedge-effective analysis as follows:

Date	*Cumulative Change in the Option's Intrinsic Value*	*Cumulative Change in Expected Cash Flows Based on Changes in the FC Spot Rate*	*Effectiveness Ratio*	
			For the Period	*Cumulative*
12/31/X1	$238,095	$(238,095)	1.00	1.00
3/31/X2	$652,174	$(652,174)	1.00	1.00

Austin-Jhanes has determined that the hedging relationship between the option contract and the forecasted sales proceeds is highly effective in achieving the offset in changes of cash flows due to changes in foreign currency exchange rates. Management has formally documented the hedging relationship as well as its objectives for entering into the hedge.

Analysis

14.14 Austin-Jhanes' forecasted sale on March 31, 20X2, is considered to be a forecasted transaction. A derivative that hedges the foreign-currency exposure to the variability of cash flows associated with a forecasted transaction is a foreign-currency cash flow hedge, provided that it meets the eligibility requirements of FASB ASC 815-30. The use of an option contract to offset a loss qualifies for cash flow hedge accounting, provided that it is highly effective (as described in FASB ASC 815-20-25-40).

14.15 Among other criteria, FASB ASC 815-20-25-15(b) requires that the forecasted transaction (in this case, the foreign-currency-denominated sale) be *probable*, as the term is used in FASB ASC 450, *Contingencies*. The mere intent of management is not sufficient support for the conclusion that the forecasted transaction is probable. Rather, the transaction's probability should be supported by observable facts and the attendant circumstances, such as the following:

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[2] The fair value is based on dealer quotes, sometimes using the average of quotes obtained from two or more dealers.

[3] Intrinsic value is computed based on the changes in spot rates as compared to the strike rate.

[4] (Foreign currency [FC] 10,000,000 ÷ 2.00 = $5,000,000) less (FC 10,000,000 ÷ 2.10 = $4,761,905) = $238,095.

[5] (FC 10,000,000 ÷ 2.00 = $5,000,000) less (FC 10,000,000 ÷ 2.30 = $4,347,826) = $652,174. The increase in intrinsic value is $414,079 ($652,174 less $238,095).

- The frequency of similar past transactions
- The financial and operational ability of the entity to carry out the transaction
- The extent of loss that could result if the transaction does not occur
- The likelihood that transactions with substantially different characteristics might be used to achieve the same business purposes

Additionally, the length of time until a forecasted transaction is expected to occur and the quantity of the forecasted transaction that is expected to occur are considerations in determining probability. Austin-Jhanes has a history of foreign sales that are similar to the one it is hedging. The forecasted sale is imminent and expected to take place in six months, on March 31, 20X2. The management of Austin-Jhanes believes their assessment of probability is supportable.

14.16 Further, the forecasted transaction must continue to be probable throughout the period covered by the hedge. FASB ASC 815-30-40-1(a) states that the entity is required to discontinue prospectively hedge accounting if the transaction fails to meet any of the hedge accounting criteria stated in FASB ASC 815-30-25, including the requirement that the forecasted transaction be probable.

14.17 Management has elected to measure effectiveness based on changes in the intrinsic value of the option contract, as permitted by FASB ASC 815-20-25-82.

14.18 Austin-Jhanes should report the fair value of the option in its statement of financial position. Changes in the time value of the option should be recorded currently in earnings. Time value is considered to be the excess of the fair value of the option over its intrinsic value. Changes in the option's intrinsic value, to the extent that it is effective as a hedge, should be recorded in other comprehensive income. That is, the amount in other comprehensive income should be brought to a balance equal to the lesser of

- the cumulative increase in the intrinsic value of the option (less any gains and losses on the option that were previously reclassified from accumulated other comprehensive income to earnings); and
- the cumulative decrease in the expected proceeds of the sale, measured at the current spot rate, less any gains and losses on the option that were previously reclassified from accumulated other comprehensive income into earnings.

Any additional change in the intrinsic value of the option should be recorded in earnings. The balance in accumulated other comprehensive income should be reclassified to earnings at March 31, 20X2, the date of the sale.

14.19 By entering into the option contract, Austin-Jhanes is assured of receiving at least $5,000,000 from its FC 10,000,000 sale, excluding the cost of the option contract. (As shown in the journal entries that follow, the entity received $5,000,000, consisting of $4,347,826 from the sale at the spot rate plus $652,174 from the gain on the option contract.)

Journal Entries

14.20 The journal entries Austin-Jhanes made are as follows.

September 30, 20X1	
Foreign currency option	$20,000
Cash	$20,000
To record the purchased option as an asset.	
December 31, 20X1	
Loss on hedging activity	$10,000
Foreign currency option	$10,000
To record the reduction in the time value of the option through a charge to earnings.	
Foreign currency option	$238,095
Other comprehensive income	$238,095
To record the increase in the option's intrinsic value through a credit to other comprehensive income.	
March 31, 20X2	
Loss on hedging activity	$10,000
Foreign currency option	$10,000
To record the reduction in the time value of the option through a charge to earnings.	
Foreign currency option	$414,079
Other comprehensive income	$414,079
To record the increase in the intrinsic value of the option through a credit to other comprehensive income.	
Cash	$4,347,826
Sales	$4,347,826
To record the FC 10,000,000 sale at a spot rate of 2.30 FC/1 U.S.$.	
Cash	$652,174
Foreign currency option	$652,174
To record the net cash settlement of the option at its maturity.	
Other comprehensive income	$652,174
Sales	$652,174
To transfer the gain on the hedging activity to earnings when the forecasted transaction affects earnings.	

14.21 The effects of the transaction on Austin-Jhanes' statement of financial position are as follows.

	DR (CR)
September 30, 20X1	
Cash	$(20,000)
Foreign currency option	20,000
December 31, 20X1	
Cash	$(20,000)
Foreign currency option	248,095
Accumulated other comprehensive income	(238,095)
Retained earnings	10,000
March 31, 20X2	
Cash	$4,980,000
Retained earnings	(4,980,000)

14.22 The effects of the transaction on Austin-Jhanes' earnings are as follows.

	DR (CR)
Period Ended December 31, 20X1	
Loss on hedging activity and amortization of the time value of the option	$10,000
Period Ended March 31, 20X2	
Sale	(5,000,000)
Loss on hedging activity and amortization of the time value of the option	10,000
	$(4,990,000)
Cumulative impact	$(4,980,000)

Auditing Considerations

Description of the Entity

14.23 Austin-Jhanes is a U.S. manufacturer that sells its products both domestically and outside the United States. Its foreign sales are denominated in foreign currencies, although its functional currency is the U.S. dollar.

14.24 The entity uses derivatives regularly to hedge forecasted foreign currency-denominated sales and purchases of raw materials. Derivatives are used to a lesser extent for management of U.S. interest rate risk, for example,

converting fixed-rate debt to floating using interest rate swaps. (For the purposes of this case study, only the accounting for the hedging of a forecasted foreign-currency-denominated sale is illustrated.) Derivatives are not used for investment purposes.

14.25 The board of directors has authorized management of Austin-Jhanes to enter into derivatives for hedging purposes, and the board receives periodic reports on the intent of usage as well as hedge effectiveness.

14.26 All derivatives transactions are executed through a centralized group of traders, which reports to the CFO. The traders and the CFO are very knowledgeable about derivatives. There is a formal risk management process for derivatives. Austin-Jhanes has systems in place to monitor the risks being hedged as well as the ongoing effectiveness of the hedges. The trading desk executes derivatives transactions only with counterparties that have been approved after careful assessment of creditworthiness. There are limits on the credit exposure to any one counterparty and on the extent to which derivatives can be used to hedge a given exposure.

14.27 *Control environment.* Because of senior management's integrity and ethical values, its commitment to competence, its active involvement with the business, its philosophy and operating style, and the operating structure it has imposed, Austin-Jhanes' overall control environment is sound.

14.28 *Risk assessment.* Austin-Jhanes' CFO conducts weekly meetings with the derivatives traders to discuss the financial markets generally and to assess the entity's position in derivatives, including ongoing hedge effectiveness. This discussion includes an assessment of the valuation of the derivatives as well as the hedged exposures, with particular emphasis on derivatives and exposures that are not exchange-traded, or traded in a broad interbank market. Sales forecasts, significant forecasted transactions, and other issues also are discussed in order to plan for required upcoming hedging activities. The use of new types of derivatives or the execution of transactions with new counterparties must be discussed with and approved by the CFO.

14.29 *Control activities.* Control activities include, among other things, the following:

- Controls have been implemented with respect to control objectives of
  - — completeness of records;
  - — validity of records; and
  - — restricted access to assets.
- Segregation of the accounting function from trade authorization and execution. The accounting department is responsible for cash and derivatives position reconciliations between the accounting and trading records and broker or counterparty statements. Quarterly, the controller reviews hedging activities for compliance with the requirements of FASB ASC 815, *Derivatives and Hedging*.
- Data files with such information as counterparty limits are maintained apart from the traders. The CFO authorizes any changes to these files.
- Austin-Jhanes' derivatives trading system has an automated interface with the general ledger and updates the general ledger

monthly. Movements of cash associated with derivatives transactions are authorized and executed by the treasurer's department, which is separate from the derivatives-trading group.

- Austin-Jhanes' derivatives trading, sales, accounting, and other transaction processing activities are highly automated. There are effective general computer controls at the data centers, which process the entity's transactions and other information.

14.30 *Information and communication.* The CFO and controller receive monthly reports summarizing derivatives transactions for the period and the positions at the end of the month. (See the discussion of monitoring controls for descriptions of this and other reports.)

14.31 The CFO advises the audit committee at its quarterly meetings on the status of the entity's derivatives positions, realized and unrealized gains, compliance with Austin-Jhanes' derivatives policy and any other information that would be useful for the audit committee in carrying out its responsibilities.

14.32 The notes to the entity's financial statements contain a description of the entity's accounting policy for derivatives and other information required by generally accepted accounting principles (GAAP) and the Securities and Exchange Commission.

14.33 *Monitoring.* The CFO and controller perform monthly reviews of Austin-Jhanes' performance in using derivatives, including their effectiveness, and in the case of hedges of forecasted transactions, whether the forecasted transaction continues to meet the requirements for hedge accounting.

14.34 The CFO and controller receive monthly reports that provide information that enables them to identify any material breakdowns in controls, problems with the underlying systems, or possible material misstatements in the information. The reports include

- realized and unrealized gain or loss on derivatives and hedged exposures, as well as a statistical measurement of correlation of changes in their values.
- transaction volumes and trends.
- derivatives positions by exchange, counterpart, or type of instrument with a comparison with established limits. The CFO receives notification as limits are approached. The system does not allow limits to be exceeded without the CFO's approval.
- information on various reconciliations, including an aging of reconciling items and resolution status.

Summary of Accounting

14.35 Transactions in derivatives are material to the entity's financial statements. Austin-Jhanes uses foreign currency options to hedge forecasted foreign sales. Under FASB ASC 815, it must record the fair value of the options in its statement of financial position. Changes in the time value of the options are recorded currently in earnings. Changes in the options' intrinsic value, to the extent that they are effective as a hedge, are recorded in other comprehensive income.

Types of Potential Misstatements

14.36 The types of potential misstatements are

- improper use of hedge accounting under FASB ASC 815, including the following:
  - — Failure to properly designate and document the hedge at its inception.
  - — Incorrect assessment of hedge effectiveness, including the improper inclusion or exclusion of the time value of the options.
  - — Improper recording of gains and losses relating to the transaction (for example, transactions recorded in the improper amount or wrong accounting period).
  - — Improper inclusion or exclusion of the time value of the options in the measure of hedge effectiveness.
- failure to record all derivatives transactions.
- inaccurate determination of fair values of derivatives.

Inherent Risk Factors to Consider for This Transaction in Assessing the Risks of Material Misstatement

14.37 The following inherent risk factors have been identified:

- Because small amounts of cash are required to enter the options, there is an increased inherent risk that the options will not be identified.
- The complexity of accounting for the put options and the hedging activities leads to an increased inherent risk that the transactions will not be accounted for in conformity with GAAP.
- The options are not exchange-traded, which increases the inherent risk that valuations will be inappropriate.

Control Risk and Timing of Procedures

14.38 Control risk has been assessed as low or moderate for certain assertions and as high for others.

- *Control risk as low or moderate.* For the assertions about existence or occurrence, completeness, and rights and obligations, control risk will be assessed as being as low or moderate. This is considered the most effective and efficient approach given the controls in place, such as the performance of reconciliations and monitoring of hedge effectiveness. Tests of details of the recording of transactions in the general ledger in accordance with FASB ASC 815 and confirmation procedures will take place prior to year end. At year end, various reconciliations, significant activity, and hedge effectiveness will be reviewed, and the continuance of controls tested will be reviewed through inquiry and observation. Paragraph .09 of AU section 318, *Performing Audit Procedures in Response to Assessed Risks and Evaluating the Audit Evidence Obtained* (AICPA, *Professional Standards*), states regardless of the audit approach

selected, the auditor should design and perform substantive procedures for all relevant assertions related to each material class of transactions, account balance, and disclosure as specified by paragraph .51 of AU section 318. Because effective internal controls generally reduce, but do not eliminate, risks of material misstatement, tests of controls reduce, but do not eliminate, the need for substantive procedures. In addition, analytical procedures alone may not be sufficient in some cases.

- *Control risk as high.* For the assertions about valuation and presentation and disclosure, control risk is assessed as high due to the efficiency with which the valuation of derivatives at year end can be tested. Also, adequacy of presentation and disclosure can only be assessed at year end.

Considerations for Audits Performed in Accordance With PCAOB Standards

When performing an integrated audit of financial statements and internal control over financial reporting, appendix B, "Special Topics," paragraph B4 of Public Company Accounting Oversight Board Auditing Standard No. 5, *An Audit of Internal Control Over Financial Reporting That Is Integrated with An Audit of Financial Statements* (AICPA, *PCAOB Standards and Related Rules*, Auditing Standards), states that to assess control risk for specific financial statement assertions at less than maximum, the auditor is required to obtain evidence that the relevant controls operated effectively during the entire period upon which the auditor plans to place reliance on these controls. However, the auditor is not required to assess control risk at less than maximum for all relevant assertions and, for a variety of reasons, the auditor may choose not to do so.

Materiality

14.39 The transaction is considered material.

Design of Procedures

14.40 The auditor defined the following objectives and related procedures for the audit of assertions about put options hedging forecasted sales.

Audit Objective	*Procedures, Including Those Designed to Gather Audit Evidence About the Operating Effectiveness of Controls*	*Timing*
The purchase of options was properly authorized.	• For a sample of transactions, review for proper authorization.	Interim date
The foreign currency options exist and the entity's rights and obligations relating to the options have been properly classified and recorded.	• Confirm details of related transactions and derivatives.	Interim date
	• For selected transactions, trace to proper recording in the trading system and general ledger, with emphasis on classification (that is, earnings or other comprehensive income).	Interim date
	• Review general ledger, trading system, and cash reconciliations.	Year end
All options transactions have been captured and recorded in the entity's information in the proper accounting period.	• Test controls on completeness, for example, independent review of deal information and reconciliations.	Interim date
	• For a sample of transactions, review for recording in the proper period.	Year end
	• Send blind confirmations to dealers and compare options in the responses to amounts recorded.	Year end
Hedge accounting has been properly applied.	• Review open options contracts and determine whether forecasted foreign currency-denominated transactions qualify for hedge accounting.	Interim and year end
	• Test process by which hedge effectiveness is determined and monitored.	Interim and year end
	• Determine that options transactions continue to qualify as foreign currency cash flow hedges.	Interim and year end

(continued)

Audit Objective	*Procedures, Including Those Designed to Gather Audit Evidence About the Operating Effectiveness of Controls*	*Timing*
	• Determine that the fair value of the options and the changes in the fair value thereof are properly reported in the financial statements.	Year end
The options and hedged transaction are measured at fair value consistent with the requirements of FASB ASC 815, *Derivatives and Hedging*.	• By reference to independent sources, verify the valuation of the options.	Year end
	• Test valuation of the hedged transactions.	Year end
Presentation and disclosure are appropriate.	• Read the financial statements and compare the presentation and disclosure with the requirements of FASB ASC 815.	Year end

Appendix A

International Financial Reporting Standards

> ***Note:*** The following content may include certain changes made since the original print version of the guide.

Introduction

The following information provides a brief overview of the ongoing globalization of accounting standards, International Financial Reporting Standards (IFRSs) as a body of accounting literature, the status of convergence with IFRSs in the United States, and the related issues that accounting professionals need to consider today.

Globalization of Accounting Standards

As the business world becomes more globally connected, regulators, investors, audit firms, and public and private companies of all sizes are expressing an increased interest in having common accounting standards among participants in capital markets and trading partners around the world. Proponents of convergence with, or adoption of, IFRSs for financial reporting in the United States believe that one set of financial reporting standards would improve the quality and comparability of investor information and promote fair, orderly, and efficient markets.

Many critics, however, believe that U.S. generally accepted accounting principles (GAAP) are the superior standards and question whether the use of IFRSs will result in more useful financial statements in the long term and whether the cost of implementing IFRSs will outweigh the benefits. Implementing IFRSs will require a staggering effort by management, auditors, and financial statement users, not to mention educators.

The increasing acceptance of IFRSs, both in the United States and around the world, means that now is the time to become knowledgeable about these changes. The discussion that follows explains the underpinnings of the international support for a common set of high quality global standards and many of the challenges and potential opportunities associated with such a fundamental shift in financial accounting and reporting.

The international standard setting process began several decades ago as an effort by industrialized nations to create standards that could be used by developing and smaller nations. However, as cross-border transactions and globalization increased, other nations began to take interest, and the global reach of IFRSs expanded. More than 100 nations and reporting jurisdictions permit or require IFRSs for domestic listed companies (and most have fully conformed to IFRSs as promulgated by the International Accounting Standards Board [IASB] and include a statement acknowledging such conformity in audit reports). Several countries are expected to transition to IFRSs by, or beginning

in, 2011, and many other countries have plans to converge (or eliminate significant differences between) their national standards and IFRSs.

For many years, the United States has been a strong leader in international efforts to develop globally accepted standards. Among other actions in support of IFRSs, the U.S. Securities and Exchange Commission (SEC) removed the requirement for foreign private issuers registered in the United States to reconcile their financial reports with U.S. GAAP if their accounts complied with IFRSs as issued by the IASB. In addition, the SEC continues to analyze and evaluate appropriate steps toward, and challenges related to, converging U.S. GAAP with IFRSs, as subsequently described.

In addition to the support received from certain U.S. based entities, financial and economic leaders from various organizations have announced their support for global accounting standards. Most notably, in 2009, the Group of Twenty Finance Ministers and Central Bank Governors (G20), a group from 20 of the world's systematically important industrialized and developing economies (with the 20th member being the European Union, collectively), called for standard setters to redouble their efforts to complete convergence in global accounting standards.

Acceptance of a single set of high quality accounting standards may present many significant opportunities, including the improvement in financial reporting to global investors, the facilitation of cross-border investments, and the integration of capital markets. Further, U.S. entities with international operations could realize significant cost savings from the use of a single set of financial reporting standards. For example, U.S. issuers raising capital outside the United States are required to comply with the domestic reporting standards of the foreign country and U.S. GAAP. As a result, additional costs arise from the duplication and translation of financial reporting information.

Many multinational companies support the use of common accounting standards to increase comparability of financial results among reporting entities from different countries. They believe common standards will help investors better understand the entities' business activities and financial position. Large public companies with subsidiaries in multiple jurisdictions would be able to use one accounting language company-wide and present their financial statements in the same language as their competitors. In addition, some believe that in a truly global economy, financial professionals, including CPAs, will be more mobile, and companies will more easily be able to respond to the human capital needs of their subsidiaries around the world.

Although certain cost reductions are expected, the initial cost of convergence with IFRSs is expected to be one of the largest obstacles for many entities, including accounting firms and educational institutions. Substantial internal costs for U.S. corporations in the areas of employee training, IT conversions, and general ledger software have been predicted. In addition, the time and effort required from various external functions, including the education of auditors, investors, lenders, and other financial statement users, will be significant factors for consideration.

Although the likelihood of acceptance of IFRSs may lack clarity for the time being, U.S. companies should consider preparing for the costly transition to new or converged standards, which likely will include higher costs in the areas of training and software compliance.

Who is the IASB?

The IASB is the independent standard setting body of the IFRS Foundation, formerly, the International Accounting Standards Committee Foundation. As a private sector organization, the IFRS Foundation has no authority to impose funding regimes on countries. However, a levy system and national contributions through regulatory and standard-setting authorities or stock exchanges have been introduced in a number of countries to fund the organization. Although the AICPA was a founding member of the International Accounting Standards Committee (IASC), the IASB's predecessor organization, it is not affiliated with the IASB.

The IASB, founded on April 1, 2001, in London, England, is responsible for developing IFRSs and promoting the use and application of these standards. In pursuit of this objective, the IASB cooperates with national accounting standard setters to achieve convergence in accounting standards around the world.

The structure includes the following primary groups: (*a*) the IFRS Foundation, an independent organization having two main bodies: the IFRS Foundation trustees and the IASB; (*b*) the IFRS Advisory Council; and (*c*) the IFRS Interpretations Committee, formerly the International Financial Reporting Interpretations Committee (IFRIC). The trustees appoint the IASB members, exercise oversight, and raise the funds needed, but the IASB itself has responsibility for establishing IFRSs.

The IASB board members are selected chiefly upon their professional competence and practical experience. The trustees are required to select members so that the IASB will comprise the best available combination of technical expertise and international business and market experience and to ensure that the IASB is not dominated by any particular geographical interest or constituency. The IASB has members from several different countries, including the United States. The members are responsible for the development and publication of IFRSs, including *International Financial Reporting Standard for Small- and Medium-sized Entities* (*IFRS for SMEs*), and for approving the interpretations of IFRSs as developed by the IFRS Interpretations Committee.

The IFRS Interpretations Committee, founded in March 2002, is the successor of the previous interpretations committee, the Standing Interpretations Committee (SIC), and is the interpretative body of the IASB. The role of the IFRS Interpretations Committee is to provide timely guidance on newly identified financial reporting issues not specifically addressed in IFRSs or issues in which interpretations are not sufficient.

IFRSs are developed through a formal system of due process and broad international consultation, similar to the development of U.S. GAAP.

Readers are encouraged to become involved in the standard-setting process by responding to open calls from the standard setting organizations.

What Are IFRSs?

The term *IFRSs* has both a narrow and broad meaning. Narrowly, IFRSs refers to the numbered series of pronouncements issued by the IASB, collectively called *standards*. More broadly, however, IFRSs refer to the entire body of authoritative IASB literature, including the following:

- Standards, whether labeled IFRSs or International Accounting Standards (IASs)[1]
- Interpretations, whether labeled IFRIC (the former name of the interpretive body) or SIC (the predecessor to IFRIC)[2]

The preface to the IFRS *2010 Bound Volume* states that IFRSs are designed to apply to the general purpose financial statements and other financial reporting of all profit-oriented entities, including commercial, industrial, and financial entities, regardless of legal form or organization. IFRSs are not designed to apply to not-for-profit entities or those in the public sector,[3] but these entities may find IFRSs appropriate in accounting for their activities.

The IASB's *Framework for the Preparation and Presentation of Financial Statements* (IASB Framework) establishes the concepts that underlie the preparation and presentation of financial statements for external users. The IFRS Foundation is guided by the IASB Framework in the development of future standards and in its review of existing standards. The IASB Framework is not an IFRS, and when there is a conflict between the IASB Framework and any IFRS, the standard will prevail. The IASB Framework is an overall statement of guidance for those interpreting financial statements, whereas IFRSs are issue and subject specific.

When an IFRS specifically applies to a transaction, other event, or condition, the accounting policy or policies applied to that item shall be determined by applying the IFRS and considering any relevant implementation guidance issued by the IASB for the IFRS.

Further, if an IFRS does not address a specific transaction, event, or condition explicitly, IAS 8, *Accounting Policies, Changes in Accounting Estimates and Errors*, states that management should use its judgment in developing and applying an accounting policy that results in information that is relevant and reliable. With respect to the reliability of financial statements, IAS 8 states that the financial statements (*a*) represent faithfully the financial position, financial performance, and cash flows of the entity; (*b*) reflect the economic substance of transactions, other events, and conditions; (*c*) are neutral; (*d*) are prudent; and (*e*) are complete in all material respects. When making this type of judgment, management should refer to, and consider the applicability of, the following in descending order:

- The requirements and guidance in IFRSs dealing with similar and related issues
- The definitions, recognition criteria, and measurement concepts for assets, liabilities, income, and expenses in the IASB Framework
- The most recent pronouncements of other standard setting bodies (for example, U.S. GAAP, other accounting literature, and accepted industry practices) to the extent that these do not conflict with IFRSs

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[1] See www.iasb.org for a current listing of International Financial Reporting Standards (IFRSs) and International Accounting Standards (IASs).

[2] See www.iasb.org for a current listing of International Financial Reporting Interpretations Committee and Standing Interpretations Committee interpretations.

[3] Generally speaking, *public* means government-owned entities, and *private* means nongovernment-owned entities.

IFRS for SMEs

IFRS for SMEs is a modification and simplification of full IFRSs aimed at meeting the needs of private company financial reporting users and easing the financial reporting burden on private companies through a cost-benefit approach. *IFRS for SMEs* is a self-contained, global accounting and financial reporting standard applicable to the general purpose financial statements of entities that, in many countries, are known as small- and medium-sized entities (SMEs). Full IFRSs and *IFRS for SMEs* are promulgated by the IASB.

SMEs are entities that publish general purpose financial statements for external users and do not have public accountability. An entity has public accountability under the IASB's definition if it files its financial statements with a securities commission or other regulatory organization or it holds assets in a fiduciary capacity (for example, banks, insurance companies, brokers and dealers in securities, pension funds, and mutual funds). It is not the IASB's intention to exclude entities that hold assets in a fiduciary capacity for reasons incidental to their primary business (for example, travel agents, schools, and utilities) from utilizing *IFRS for SMEs.*

The needs of users of SME financial statements often are different from the needs of users of public company financial statements and other entities that likely would use full IFRSs. Whereas full IFRSs were designed specifically to meet the needs of equity investors in the public capital markets, *IFRS for SMEs* was developed with the needs of a wide range of users in mind. Users of the financial statements of SMEs may be more focused on shorter-term cash flows, liquidity, balance sheet strength, interest coverage, and solvency issues. Full IFRSs may impose a burden on SME preparers in that full IFRSs contain topics and detailed implementation guidance that generally are not relevant to SMEs. This burden has been growing as IFRSs have become more detailed. As such, a significant need existed for an accounting and financial reporting standard for SMEs that would meet the needs of their financial statement users while balancing the costs and benefits from a preparer perspective.

Practically speaking, *IFRS for SMEs* is viewed as an accounting framework for entities that do not have the capacity or resources to use full IFRSs. In the United States, the term SME would encompass many private companies.

In May 2008, the AICPA Governing Council voted to recognize the IASB as an accounting body for purposes of establishing international financial accounting and reporting principles and amended appendix A, "Council Resolution Designating Bodies to Promulgate Technical Standards," of Rule 202, *Compliance With Standards* (AICPA, *Professional Standards*, ET sec. 202 par. .01), and Rule 203, *Accounting Principles* (AICPA, *Professional Standards*, ET sec. 203 par. .01). This amendment gives AICPA members the option to use IFRSs as an alternative to U.S. GAAP. Accordingly, IFRSs are not considered to be an other comprehensive basis of accounting. Rather, they are a source of GAAP.

As such, a key professional barrier to using IFRSs and, therefore, *IFRS for SMEs*, has been removed. Any remaining barriers may come in the form of unwillingness by a private company's financial statement users to accept

financial statements prepared under *IFRS for SMEs* and a private company's expenditure of money, time, and effort to convert to *IFRS for SMEs*.[4]

The AICPA has developed a resource that compares *IFRS for SMEs* with corresponding requirements of U.S. GAAP. This resource is available in a Wiki format, which allows AICPA members and others to contribute to its development. To learn more about the resource, view available sections, and contribute to its content, visit the Wiki at http://wiki.ifrs.com/.

The Financial Accounting Standards Board and IASB Convergence Efforts[5]

To address significant differences between IFRSs and U.S. GAAP, the Financial Accounting Standards Board (FASB) and the IASB agreed to a "Memorandum of Understanding" (MoU), which was originally issued in 2006 and subsequently updated. Readers are encouraged to monitor the FASB and IASB websites for additional developments regarding the convergence efforts, such as discussion papers, exposure drafts, and requests for comments.

Comparison of U.S. GAAP and IFRSs

One of the major differences between U.S. GAAP and IFRSs lies in the conceptual approach: U.S. GAAP is based on principles, with heavy use of rules to illustrate the principles; however, IFRSs are principles based, without heavy use of rules.

In general, a principles-based set of accounting standards, such as IFRSs, is broad in scope. The standards are concise, written in plain language, and provide for limited exceptions and bright lines. Principles-based standards typically require a higher level of professional judgment, which may facilitate an enhanced focus on the economic purpose of a company's transactions and how the transactions are reflected in its financial reporting.

A noticeable result of these differences is that IFRSs provide much less overall detail. In developing an IFRS, the IASB expects preparers to rely on core principles and limited application guidance with fewer prescriptive rules. In contrast, FASB often leans more toward providing extensive prescriptive guidance and detailed rules. The guidance provided in IFRSs regarding revenue recognition, for example, is significantly less extensive than U.S. GAAP. IFRSs also contain relatively little industry-specific guidance.

An inherent issue in a principles-based system is the potential for different interpretations of similar transactions across jurisdictions and entities, which may affect the relative comparability of financial reporting.

Because of long-standing convergence projects between the IASB and FASB, the extent of the specific differences between IFRSs and U.S. GAAP is decreasing. Yet, significant differences remain, which could result in significantly

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[4] CPAs are encouraged to consult their state boards of accountancy to determine the status of reporting on financial statements prepared in accordance with *International Financial Reporting Standard for Small- and Medium-sized Entities* within their individual state.

[5] Because the convergence projects discussed are active and subject to change, updates will be posted periodically to www.journalofaccountancy.com. Readers also are encouraged to monitor the progress of these projects at the respective boards' websites: www.iasb.org and www.fasb.org.

different reported results, depending on a company's industry and individual facts and circumstances. For example, some differences include the following:

- IFRSs do not permit last in, first out (LIFO) inventory accounting.
- IFRSs allow for the revaluation of assets in certain circumstances.
- IFRSs use a single-step method for impairment write-downs rather than the two-step method used in U.S. GAAP, making write-downs more likely.
- IFRSs have a different probability threshold and measurement objective for contingencies.
- IFRSs generally do not allow net presentation for derivatives.

U.S. GAAP also addresses some specific transactions not currently addressed in IFRSs, such as accounting for reorganizations, including quasi reorganizations; troubled debt restructuring; spin-offs; and reverse spin-offs. In addition, U.S. GAAP is designed to apply to all nongovernmental entities, including not-for-profit entities, and includes specific guidance for not-for-profit entities, development stage entities, limited liability entities, and personal financial statements.

The difference in the amount of industry-specific guidance also illustrates the different approaches. Currently, IFRSs include only several standards (for example, IAS 41, *Agriculture*)[6] that might be regarded as primarily industry-specific guidance. However, the scope of these standards includes all entities to which the scope of IFRSs applies. In contrast, U.S. GAAP has considerable guidance for entities within specific industries. For example, on liability recognition and measurement alone, U.S. GAAP contains specific guidance for entities in the following industries, which is not found in IFRSs:

- Health care
- Contractors and construction
- Contractors and the federal government
- Entertainment, with separate guidance for casinos, films, and music
- Financial services, with separate guidance for brokers and dealers and depository and lending, insurance, and investment companies

For nonmonetary transactions, U.S. GAAP provides specific guidance for the airline, software, and entertainment industries.

SEC Work Plan

The SEC continues to affirm its support for a single set of high-quality, globally accepted accounting standards and for the convergence of U.S. GAAP and IFRSs. In February 2010, the SEC issued Release No. 33-9109, *Commission Statement in Support of Convergence and Global Accounting Standards*. This release provides an update to Release No. 33-8982, *Roadmap for the Potential Use of Financial Statements Prepared in Accordance with International Financial Reporting Standards by U.S. Issuers*. The February 2010 release provides

[6] In addition to IAS 41, *Agriculture*, the other IFRSs that address issues specific to certain industries are IFRS 4, *Insurance Contracts*, and IFRS 6, *Exploration for and Evaluation of Mineral Resources*.

a confirmation of the SEC's continued support for convergence, highlights positive aspects of narrowing the differences between the two sets of standards, and outlines additional considerations required before adoption of a single standard is achieved.

The release also states that a more comprehensive work plan is necessary to lay out the work required to support a decision on the appropriate course to incorporate IFRSs into the U.S. financial reporting system for U.S. issuers, including the scope, timeframe, and methodology for any such transition. The SEC has indicated that it will carefully consider and deliberate whether a potential transition is in the best interest of U.S. investors and markets.

During 2011, assuming completion of the convergence projects and the SEC staff's work plan, the SEC will decide whether to incorporate IFRSs into the U.S. financial reporting system and, if so, when and how. The work plan is included as an appendix at the end of the SEC's release, which is located on the SEC's website at www.sec.gov.

AICPA

On February 24, 2010, president and CEO of the AICPA Barry Melancon issued a statement on the SEC's plan to work toward the incorporation of IFRSs in the U.S. financial reporting system. The statement noted that the AICPA supports the thoughtful and concrete steps the SEC is taking, as outlined in its plan, to prepare for the transition. The AICPA understands that it will need to fulfill a number of responsibilities to make the use of IFRSs in the United States a success. Ongoing efforts include the following:

- Continuing to educate AICPA members about IFRSs
- Working with accounting educators, textbook authors, and educational institutions to prepare future professionals to use IFRSs
- Making certain the voice of U.S. CPAs is heard internationally
- Incorporating questions about IFRSs into the Uniform CPA Exam

The AICPA believes that it is critical for the SEC to set a specific date for the use of IFRSs in the United States and encourages the SEC, as it completes this work plan in 2011, to ensure investor confidence is maintained and key milestones lead successfully to global standards in 2015. In moving forward, it is essential that all stakeholders—regulators, investors, auditors, educators, financial statement users, and preparers—have the knowledge and tools they need to successfully navigate any change in U.S. accounting rules. The AICPA is doing its part now to prepare these stakeholders for this fundamental shift in financial reporting.

Additional Resources

Website	*URL*
AICPA	www.aicpa.org
AICPA International Financial Reporting Standards Resources	www.ifrs.com
International Accounting Standards Board	www.iasb.org
Comparison Wiki of *International Financial Reporting Standard for Small- and Medium-sized Entities* and U.S. generally accepted accounting principles	http://wiki.ifrs.com
Financial Accounting Standards Board	www.fasb.org

Appendix B

Schedule of Changes Made to the Text From the Previous Edition

As of June 1, 2011

This schedule of changes identifies areas in the text and footnotes of this guide that have changed since the previous edition. Entries in the table of this appendix reflect current numbering, lettering (including that in appendix names), and character designations that resulted from the renumbering or reordering that occurred in the updating of this guide.

Reference	*Change*
Preface	Updated.
Footnote * in the heading before paragraph 1.16	Deleted.
Paragraph 1.25	Revised.
Paragraphs 1.28, 1.30, 1.32–.33, and 1.41	Updated to reflect current guidance.
Footnote * in the heading before paragraph 1.16	Deleted.
Footnote ‡ in paragraph 1.39	Deleted.
Paragraphs 2.01 and 2.04	Revised for clarification.
Footnote * in paragraph 2.17	Deleted.
Footnote * in chapter 3 title	Deleted.
Paragraphs 3.12, 3.18, 3.27–.28, 3.32, 3.39, 3.56, 3.59, and 3.66	Revised for clarification.
Paragraphs 4.19 and 4.26	Revised for clarification.
Paragraphs 5.01–.04, 5.07–.08, 5.10, and 5.12	Revised for clarification.
Footnote * in exhibit 5-1	Deleted.
Footnote * in paragraph 6.11	Added to reflect the issuance of changes to AU section 324, *Service Organizations* (AICPA, *Professional Standards*).
Footnote † in the heading before paragraph 6.14	Added to reflect the issuance of Statement on Standards for Attestation Engagements No. 16, *Reporting on Controls at a Service Organization* (AICPA, *Professional Standards*, AT sec. 801).

(continued)

Reference	*Change*
Footnotes * and † in paragraph 7.23	Added to reflect the issuance of changes to AU section 324.
Paragraphs 9.04 and 9.06	Updated to reflect current guidance.
Footnote * in chapter 10 title	Revised to reflect the issuance of changes to AU section 324.
Footnote ‡ in chapter 10 title	Added to reflect the issuance of new guidance.
Paragraphs 12.05–.06	Revised for clarification.

Glossary

The following terms can be found in the Financial Accounting Standards Board (FASB) *Accounting Standards Codification* (ASC) glossary:

active market. An active market for an asset or liability is a market in which transactions for the asset or liability occur with sufficient frequency and volume to provide pricing information on an ongoing basis.

attribute. The quantifiable characteristic of an item that is measured for accounting purposes. For example, historical cost and current cost are attributes of an asset.

benchmark interest rate. A widely recognized and quoted rate in an active financial market that is broadly indicative of the overall level of interest rates attributable to high-credit-quality obligors in that market. It is a rate that is widely used in a given financial market as an underlying basis for determining the interest rates of individual financial instruments and commonly referenced in interest-rate-related transactions.

In theory, the benchmark interest rate should be a risk-free rate (that is, has no risk of default). In some markets, government borrowing rates may serve as a benchmark. In other markets, the benchmark interest rate may be an interbank offered rate (further industry-specific information is provided in the following list of terms).

comprehensive income. The change in equity (net assets) of a business entity during a period from transactions and other events and circumstances from nonowner sources. It includes all changes in equity during a period except those resulting from investments by owners and distributions to owners.

conversion. The exchange of one currency for another.

credit risk. For purposes of a hedged item in a fair value hedge, credit risk is the risk of changes in the hedged item's fair value attributable to both of the following:

a. Changes in the obligor's creditworthiness

b. Changes in the spread over the benchmark interest rate with respect to the hedged item's credit sector at inception of the hedge

For purposes of a hedged transaction in a cash flow hedge, *credit risk* is the risk of changes in the hedged transaction's cash flows attributable to all of the following:

a. Default

b. Changes in the obligor's creditworthiness

c. Changes in the spread over the benchmark interest rate with respect to the related financial asset's or liability's credit sector at inception of the hedge

debt security. Any security representing a creditor relationship with an entity. The term *debt security* also includes all of the following:

a. Preferred stock that by its terms either must be redeemed by the issuing entity or is redeemable at the option of the investor

b. A collateralized mortgage obligation (or other instrument) that is issued in equity form but is required to be accounted for as a

nonequity instrument regardless of how that instrument is classified (that is, whether equity or debt) in the issuer's statement of financial position

c. U.S. Treasury securities

d. U.S. government agency securities

e. Municipal securities

f. Corporate bonds

g. Convertible debt

h. Commercial paper

i. All securitized debt instruments, such as collateralized mortgage obligations and real estate mortgage investment conduits

j. Interest-only and principal-only strips

The term *debt security* excludes all of the following:

a. Option contracts

b. Financial futures contracts

c. Forward contracts

e. Lease contracts

f. Receivables that do not meet the definition of security and, so, are not debt securities (unless they have been securitized, in which case they would meet the definition of a *security*), for example:

i. Trade accounts receivable arising from sales on credit by industrial or commercial entities

ii. Loans receivable arising from consumer, commercial, and real estate lending activities of financial institutions

derivative instrument. A financial instrument or other contract with all of the following characteristics:

a. Underlying, notional amount, payment provision. The contract has both of the following terms, which determine the amount of the settlement or settlements, and, in some cases, whether or not a settlement is required:

i. One or more underlyings.

ii. One or more notional amounts or payment provisions or both.

b. Initial net investment. The contract requires no initial net investment or an initial net investment that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors.

c. Net settlement. The contract can be settled net by any of the following means:

i. Its terms implicitly or explicitly require or permit net settlement.

ii. It can readily be settled net by a means outside the contract.

iii. It provides for delivery of an asset that puts the recipient in a position not substantially different from net settlement.

For purposes of FASB ASC 815, *Derivatives and Hedging*, both of the following are collectively referred to as *derivative instruments*:

a. A derivate instrument included within the scope of FASB ASC 815-10-15

b. An embedded derivative that has been separated from a host contract as required by FASB ASC 815-15-25-1

See paragraphs 85–139 of FASB ASC 815-10-15 for further information on the definition of *derivative instrument*.

Notwithstanding the preceding characteristics, loan commitments that relate to the origination of mortgage loans that will be held for sale, as discussed in FASB ASC 948-310-25-3 should be accounted for as derivative instruments by the issuer of the loan commitment (that is, the potential lender).

equity security. Any security representing an ownership interest in an entity (for example, common, preferred, or other capital stock) or the right to acquire (for example, warrants, rights, and call options) or dispose of (for example, put options) an ownership interest in an entity at fixed or determinable prices. The term *equity security* does not include any of the following:

a. Written equity options (because they represent obligations of the writer, not investments)

b. Cash-settled options on equity securities or options on equity-based indexes (because those instruments do not represent ownership interests in an entity)

c. Convertible debt or preferred stock that by its terms either must be redeemed by the issuing entity or is redeemable at the option of the investor

fair value. The price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

financial instrument. Cash, evidence of an ownership interest in an entity, or a contract that both

a. imposes on one entity a contractual obligation either

i. to deliver cash or another financial instrument to a second entity, or

ii. to exchange other financial instruments on potentially unfavorable terms with the second entity.

b. conveys to that second entity a contractual right either

i. to receive cash or another financial instrument from the first entity, or

ii. to exchange other financial instruments on potentially favorable terms with the first entity.

The use of the term *financial instrument* in this definition is recursive (because the term *financial instrument* is included in it), though it is not circular. The definition requires a chain of contractual obligations that ends with the delivery of cash or an ownership interest in an entity. Any number of obligations to deliver financial instruments can be links in a chain that qualifies a particular contract as a financial instrument.

Contractual rights and contractual obligations encompass both those that are conditioned on the occurrence of a specified event and those that are not. All contractual rights (contractual obligations) that are financial instruments meet the definition of asset (liability) set forth in FASB Concepts Statement No. 6, *Elements of Financial Statements*, although some may not be recognized as assets (liabilities) in financial statements—that is, they may be off-balance-sheet—because they fail to meet some other criterion for recognition.

For some financial instruments, the right is held by or the obligation is due from (or the obligation is owed to or by) a group of entities rather than a single entity.

firm commitment. An agreement with an unrelated party, binding on both parties and usually legally enforceable, with the following characteristics:

a. The agreement specifies all significant terms, including the quantity to be exchanged, the fixed price, and the timing of the transaction. The fixed price may be expressed as a specified amount of an entity's functional currency or of a foreign currency. It may also be expressed as a specified interest rate or specified effective yield. The binding provisions of an agreement are regarded to include those legal rights and obligations codified in the laws to which such an agreement is subject. A price that varies with the market price of the item that is the subject of the firm commitment cannot qualify as a fixed price. For example, a price that is specified in terms of ounces of gold would not be a fixed price if the market price of the item to be purchased or sold under the firm commitment varied with the price of gold.

b. The agreement includes a disincentive for nonperformance that is sufficiently large to make performance probable. In the legal jurisdiction that governs the agreement, the existence of statutory rights to pursue remedies for default equivalent to the damages suffered by the nondefaulting party, in and of itself, represents a sufficiently large disincentive for nonperformance to make performance probable for purposes of applying the definition of a firm commitment.

forecasted transaction. A transaction that is expected to occur for which there is no firm commitment. Because no transaction or event has yet occurred and the transaction or event when it occurs will be at the prevailing market price, a forecasted transaction does not give an entity any present rights to future benefits or a present obligation for future sacrifices.

foreign currency. A currency other than the functional currency of the entity being referred to (for example, the dollar could be a foreign currency for a foreign entity). Composites of currencies, such as the Special Drawing Rights, used to set prices or denominate amounts of loans, and so forth, have the characteristics of foreign currency.

foreign currency transactions. Transactions whose terms are denominated in a currency other than the entity's functional currency. Foreign currency transactions arise when a reporting entity does any of the following:

a. Buys or sells on credit goods or services whose prices are denominated in foreign currency

b. Borrows or lends funds and the amounts payable or receivable are denominated in foreign currency

c. Is a party to an unperformed forward exchange contract

d. For other reasons, acquires or disposes of assets, or incurs or settles liabilities denominated in foreign currency

foreign currency translation. The process of expressing in the reporting currency of the reporting entity those amounts that are denominated or measured in a different currency.

forward exchange contract. A forward exchange contract is an agreement between two parties to exchange different currencies at a specified exchange rate at an agreed-upon future date.

functional currency. An entity's functional currency is the currency of the primary economic environment in which the entity operates; normally, that is the currency of the environment in which an entity primarily generates and expends cash. Also refer to paragraphs 2–6 of FASB ASC 830-10-45 and paragraphs 3–7 of FASB ASC 830-10-55.

futures contract. A standard and transferable form of contract that binds the seller to deliver to the bearer a standard amount and grade of a commodity to a specific location at a specified time. It usually includes a schedule of premiums and discounts for quality variation.

holding gain or loss. The net change in fair value of a security. The holding gain or loss does not include dividend or interest income recognized but not yet received or write-downs for other-than-temporary impairment.

intrinsic value. The amount by which fair value of the underlying stock exceeds the exercise price of an option. For example, an option with an exercise price of $20 on a stock whose current market price is $25 has an intrinsic value of $5. (A nonvested share may be described as an option on that share with an exercise price of zero. Thus, the fair value of a share is the same as the intrinsic value of such an option on that share.)

London Interbank Offered Swap Rate (LIBOR swap rate). The fixed rate on a single-currency, constant-notional interest rate swap that has its variable-rate leg referenced to the LIBOR with no additional spread over LIBOR on that variable-rate leg. That fixed rate is the derived rate that would result in the swap having a zero fair value at inception because the present value of fixed cash flows, based on that rate, equate to the present value of the variable cash flows.

notional amount. A number of currency units, shares, bushels, pounds, or other units specified in a derivative instrument. Sometimes other names are used. For example, the notional amount is called a *face amount* in some contracts.

option. Unless otherwise stated, a call option that gives the holder the right to purchase shares of common stock from the reporting entity in accordance with an agreement upon payment of a specified amount. Options include, but are not limited to, options granted to employees and stock purchase agreements entered into with employees. Options are considered **securities**.

payment provision. A payment provision specifies a fixed or determinable settlement to be made if the underlying behaves in a specified manner.

principal market. The market in which the reporting entity would sell the asset or transfer the liability with the greatest volume and level of activity for the asset or liability. The principal market (and thus, market participants) should be considered from the perspective of the reporting entity, thereby allowing for differences between and among entities with different activities.

security. A share, participation, or other interest in property or in an entity of the issuer or an obligation of the issuer that has all of the following characteristics:

a. It is either represented by an instrument issued in bearer or registered form or, if not represented by an instrument, is registered in books maintained to record transfers by or on behalf of the issuer.

b. It is of a type commonly dealt in on securities exchanges or markets or, when represented by an instrument, is commonly recognized in any area in which it is issued or dealt in as a medium for investment.

c. It either is one of a class or series or by its terms is divisible into a class or series of shares, participations, interests, or obligations.

spot rate. The exchange rate for immediate delivery of currencies exchanged.

transaction gain or loss. Transaction gains or losses result from a change in exchange rates between the functional currency and the currency in which a foreign currency transaction is denominated. They represent an increase or decrease in both of the following:

a. The actual functional currency cash flows realized upon settlement of foreign currency transactions

b. The expected functional currency cash flows on unsettled foreign currency transactions

translation. See **foreign currency translation**.

translation adjustments. Translation adjustments result from the process of translating financial statements from the entity's functional currency into the reporting currency.

underlying. A specified interest rate, security price, commodity price, foreign exchange rate, index of prices or rates, or other variable (including the occurrence or nonoccurrence of a specified event such as a scheduled payment under a contract). An underlying may be a price or rate of an asset or liability but is not the asset or liability itself. An underlying is a variable that, along with either a notional amount or a payment provision, determines the settlement of a derivative instrument.

unit of account. That which is being measured by reference to the level at which an asset or liability is aggregated (or disaggregated).

unit of measure. The currency in which assets, liabilities, revenues, expenses, gains, and losses are measured.

The following are additional terms that have been used in this guide:

benchmark interest rate. In the United States, currently only the interest rates on direct Treasury obligations of the U.S. government and, for practical reasons, the LIBOR swap rate are considered to be benchmark interest rates. In each financial market, only the one or two most widely used and quoted rates that meet the preceding criteria may be considered benchmark interest rates. The Fed Funds rate, the Prime rate, the Federal National Mortgage Association (FNMA or Fannie Mae) Par Mortgage rate, and the Bond Market Association index may not be used as the benchmark interest rate in the United States. (Defined in the FASB ASC glossary, as presented in the first section of this glossary.)

current exchange rate. The rate at which one unit of a currency can be exchanged for (converted into) another currency.

initial net investment. Many derivatives do not require any initial investment, but some require an initial net investment, either as compensation for the time value of money or for terms that are more or less favorable than market conditions.

net settlement. Under a net settlement agreement, a contract fits the description in paragraph 2.08 (third bullet) of the guide if its settlement provisions meet one of the following criteria:

a. Neither party is required to deliver an asset that is associated with the underlying and that has a principal amount, stated amount, face value, number of shares, or other denomination that is equal to the notional amount. For example, most interest rate swaps do not require that either party deliver interest-bearing assets with a principal amount equal to the notional amount of the contract.

b. One of the parties is required to deliver an asset of the type described previously, but there is a market mechanism that facilitates net settlement, for example, an exchange that offers a ready opportunity to sell the contract or to enter into an offsetting contract.

c. One of the parties is required to deliver an asset of the type described in item (*a*), but that asset is readily convertible to cash or is itself a derivative instrument. An example of that type of contract is a forward contact that requires delivery of an exchange-traded equity security. Even though the number of shares to be delivered is the same as the notional amount of the contract and the price of the shares is the underlying, an exchange-traded security is readily convertible to cash. Another example is a swaption—an option to require delivery of a swap contract, which is a derivative.

swaps. Forward-based contracts in which two parties agree to swap streams of payments over a specified period of time. An example is an interest-rate swap in which one party agrees to make payments based on a fixed rate and the other party agrees to make payments based on a variable rate. Other examples are basis swaps, where both rates are variable but are tied to different index rates and fixed rate currency swaps, whereby two counterparties exchange fixed-rate interest in one currency for fixed-rate interest in another currency.

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