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A U D I T   G U I D E

Auditing Revenue in Certain Industries

March 1, 2011

AICPA

Audit Guide: Auditing Revenue in Certain Industries   March 1, 2011

AICPA

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AUDIT GUIDE

Auditing Revenue in Certain Industries

With conforming changes as of
March 1, 2011

This edition of the AICPA Audit Guide *Auditing Revenue in Certain Industries*, which was originally issued in 2001, has been modified by the AICPA staff to include certain changes necessary because of the issuance of authoritative guidance 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 were 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 Auditing Revenue Steering Task Force to assist auditors in auditing assertions about revenue. This guide is intended to be helpful in pointing to accounting principles generally accepted in the United States of America (U.S. GAAP) related to revenue recognition; however, it does not have the authority of the original accounting guidance. Therefore, readers should not use this guide as their source of accounting guidance for revenue recognition but should instead rely on the referred authoritative guidance in its entirety.

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.

Purpose and Applicability

Revenue recognition continues to pose significant audit risk to auditors and has contributed to perceived erosion in the integrity of the financial reporting process. In recent years, several high-profile incidents of improper revenue recognition attracted the attention of the business media and led to unflattering coverage. A substantial portion of recent litigation against accounting firms reported to the AICPA Securities and Exchange Commission Practice Section (SECPS) Quality Control Inquiry Committee cite revenue recognition issues. In March 1999, the Committee of Sponsoring Organizations of the Treadway Commission released *Fraudulent Financial Reporting: 1987–1997, An Analysis of U.S. Public Companies*. The report examines incidents of fraudulent financial reporting alleged by the Securities and Exchange Commission (SEC) in accounting and auditing enforcement releases issued between January 1987 and December 1997. More than half of the frauds involved overstating revenues by recording them either fictitiously or prematurely. In August 2000, the Public Oversight Board's Panel on Audit Effectiveness, established in October 1998 in response to a request by the SEC, published its final report. The report included recommendations that the Financial Accounting Standards Board (FASB) and the AICPA's ASB provide additional guidance on revenue. On May 1, 2002, the Public Oversight Board terminated its operations and the SECPS of the AICPA ceased existence on December 31, 2003, transferring is operations and oversight responsibility to The Center for Public Company Audit Firms, which

commenced operations on January 1, 2004. Its membership is voluntary. On January 30, 2007, the center changed its name to The Center for Audit Quality. More information can be found at www.thecaq.org.

The implications are wide reaching. Investor confidence has driven the unparalleled success of the U.S. capital markets, and a key component in creating that confidence is the confirming role of audited financial statements. In this guide, the AICPA's intent is to help auditors fulfill their professional responsibilities with regard to auditing assertions about revenue. This guide

- discusses the responsibilities of management, boards of directors, and audit committees for reliable financial reporting.
- summarizes key accounting guidance regarding whether and when revenue should be recognized in accordance with U.S. GAAP.
- identifies circumstances and transactions that may signal improper revenue recognition.
- summarizes key aspects of the auditor's responsibility to plan and perform an audit under U.S. generally accepted auditing standards (GAAS).
- describes procedures that the auditor may find effective in limiting audit risk arising from improper revenue recognition.
- provides guidance on auditing revenue transactions in selected industries not covered by existing AICPA Audit and Accounting Guides.

The primary focus of this publication is revenue recognition for sales of goods and services (other than lending activities) by for-profit entities in the ordinary course of business. Revenue recognition for governmental and not-for-profit entities is beyond the scope of this publication.

Recognition

Darrel R. Schubert
Chair, Auditing Standards Board

The AICPA gratefully acknowledges those who have reviewed and otherwise contributed to the development of this guide: Thomas A. Ratcliffe, Ryan R. Smith, and Daniel Zwarn.

AICPA Staff

Dennis W. Ridge, Jr.
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 March 1, 2011, has been considered in the development of this edition of the guide. This includes relevant guidance issued up to and including the following:

- FASB Accounting Standards Update (ASU) No. 2011-01, *Receivables (Topic 310): Deferral of the Effective Date of Disclosures about Troubled Debt Restructurings in Update No. 2010-20*
- SAS No. 121, *Revised Applicability of Statement on Auditing Standards No. 100*, Interim Financial Reporting (AICPA, *Professional Standards*, AU sec. 722)
- 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 March 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)
- Public Company Accounting Oversight Board (PCAOB) Auditing Standard No. 15, *Audit Evidence* (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 recently issued guidance, its effective date should also be considered.

The changes made to this edition of the guide are identified in the schedule of changes in appendix B. 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. GAAS 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 SEC—that is, private entities, generally speaking) are conducted in accordance with 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), of the AICPA's Code of Professional Conduct.

Audits of the financial statements of *issuers*, as defined by the SEC (those entities subject to the Sarbanes-Oxley Act of 2002 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 of 2002 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, *Reports on Audited Financial Statements* (AICPA, *Professional Standards*, AU sec. 9508 par. .89–.92), provides reporting guidance applicable to such engagements.

References to Professional Standards

In citing GAAS and its related interpretations, references use section numbers within the codification of currently effective SASs, 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 guide 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, 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.

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 issued 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 FASB ASC and an appendix of FASB ASC update instructions. ASUs also provide background information about the amendments and explain the basis for the 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 the 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 becomes fully effective, 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. Instead, all entities must review the transition guidance to determine if and when the pending content is applicable to them. This audit guide identifies pending content, when 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 March 1, 2011. Pending content discussed only in temporary footnotes is not yet effective as of March 1, 2011, for entities with fiscal years ending after that same date.

New AICPA.org Website

The AICPA encourages you to visit its 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 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, are as follows:

1. Auditing Standard No. 8, *Audit Risk* (AICPA, *PCAOB Standards and Related Rules*, Auditing Standards)
2. Auditing Standard No. 9, *Audit Planning* (AICPA, *PCAOB Standards and Related Rules*, Auditing Standards)
3. Auditing Standard No. 10, *Supervision of the Audit Engagement* (AICPA, *PCAOB Standards and Related Rules*, Auditing Standards)
4. Auditing Standard No. 11, *Consideration of Materiality in Planning and Performing an Audit* (AICPA, *PCAOB Standards and Related Rules*, Auditing Standards)
5. Auditing Standard No. 12, *Identifying and Assessing Risks of Material Misstatement* (AICPA, *PCAOB Standards and Related Rules*, Auditing Standards)
6. Auditing Standard No. 13, *The Auditor's Responses to the Risks of Material Misstatement* (AICPA, *PCAOB Standards and Related Rules*, Auditing Standards)
7. Auditing Standard No. 14, *Evaluating Audit Results* (AICPA, *PCAOB Standards and Related Rules*, Auditing Standards)
8. Auditing Standard No. 15

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.

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 Auditing Standards Board 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.

FASB and International Accounting Standards Board Revenue Recognition Project

In May 2002, after considering 32 comment letters on the revenue recognition project proposal, FASB added to its technical agenda a project to develop a comprehensive revenue recognition standard and to amend the related guidance on revenues and liabilities in some FASB concepts statements. In October 2004, FASB and the International Accounting Standards Board (IASB) (collectively, the boards) added to their agenda a joint project to develop and improve common conceptual framework. The project is intended to improve financial reporting by (*a*) converging U.S. and international revenue recognition standards, (*b*) eliminating inconsistencies in existing revenue recognition standards and practices, (*c*) providing clearer principles for addressing future revenue recognition issues, and (*d*) filling voids in existing revenue recognition guidance.

Prior to May 2005, the boards were developing a revenue recognition model that would measure assets and liabilities at fair value (the *fair value* or *measurement* model). In that approach, the boards tentatively agreed that performance obligations should be measured at fair value—that is, the price that the reporting entity would have to pay an unrelated party to assume legal responsibility for performing all of its remaining obligations. However, some board members had concerns about reasonably estimating those prices when they are not observable (which they often would not be). Other board members had concerns about the pattern of revenue recognition when applying that model. As a result, the boards agreed to develop an alternative model—the customer consideration model. In that model, performance obligations would be measured at an allocated customer consideration (that is, transaction price) amount.

In October 2006, the boards decided to further develop both the fair value model and the customer consideration model. That initiative was undertaken by the staff using two small groups of board advisors drawn from both boards and was completed in July 2007. The boards discussed the two models from October 2007 to May 2008. As a result of those discussions, the boards coalesced around a single contract-based revenue recognition model. In May 2008, the boards reached a preliminary view in favor of the allocated customer consideration approach of measuring performance obligations.

In December 2008, the boards published, for public comment, a discussion paper, *Preliminary Views on Revenue Recognition in Contracts with Customers*.

The FASB discussion paper and the IASB discussion paper are the same except for minor differences in spelling, style, and format. The comment period ended on June 19, 2009. In July 2009, the boards considered a summary of comment letters received. In their February 2010 meeting, the boards tentatively decided that the proposed standard would apply to an entity's contracts with customers, except for

- lease contracts within the scope of International Accounting Standards (IAS) 17, *Leases*, or FASB ASC 840, *Leases*.
- insurance contracts within the scope of International Financial Reporting Standard (IFRS) 4, *Insurance Contracts*, or FASB ASC 944, *Financial Services—Insurance*.
- contracts within the scope of IFRS 9, *Financial Instruments*; IAS 39, *Financial Instruments: Recognition and Measurement*; or FASB ASC 825, *Financial Instruments*.
- guarantees (other than product warranties) within the scope of IFRS 4, IAS 39, or FASB ASC 460, *Guarantees*.

In June 2010, FASB and the IASB published a joint exposure draft, *Revenue Recognition (Topic 605): Revenue from Contracts with Customers*. The boards are deliberating comments on the exposure draft that were received during the comment period and anticipate issuing a final converged standard during 2011. Issues raised by respondents include uncertain consideration, allocation of the transaction price, costs, licenses and rights to use, disclosures, and scope of the proposed guidance. More information, including the most current status of the project, can be found on the FASB website at www.fasb.org/project/revenue_recognition.shtml.

The AICPA has also developed resources specific to this project, including a white paper, a Power Point presentation, and a list of frequently asked questions and answers. These resources can be found on the AICPA website at www.aicpa.org/InterestAreas/AccountingAndAuditing/Resources/AcctgFinRptg/Pages/MoUJointProject-Revenue_Recognition.aspx.

Readers may also refer to the article "Big Changes Proposed for Revenue Recognition" on the *Journal of Accountancy* website at www.journalofaccountancy.com/Web/20103049.htm.

ASB's Clarity Project

In an effort to make U.S. GAAS easier to read, understand, and apply, the ASB launched the Clarity Project. The majority of the clarified auditing standards will be issued as one SAS. Once finalized, the new clarity standards will supersede all prior SASs. The new clarity auditing standards are expected to be effective for audits of financial statements for periods ending on or after December 15, 2012, unless otherwise established.

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, the requirements U.S. GAAS will be converged with those of the International Auditing and Assurance Board. 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.

IFRSs

IFRSs consist of accounting standards and interpretations developed and issued by the 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 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 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 IFRS 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 current interpretive body of the IASC Foundation) or the Standing Interpretations Committee, the predecessor to IFRIC and former interpretive body of the IASC
- IFRS framework

The preface to the *IFRS 2009* 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 of Rule 202 and Rule 203, *Accounting Principles* (AICPA, *Professional Standards*, ET sec. 203 par. .01), of the AICPA's Code of Professional Conduct 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-IFRS home-country GAAP reconciled to U.S. GAAP as permitted by Form 20-F.

The growing acceptance of 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 IFRS in the United States and the important issues that accounting professionals need to consider now.

Private Company Financial Reporting Blue Ribbon Panel

The Blue Ribbon Panel on Private Company Financial Reporting was established in December 2009 and was sponsored by the AICPA, the Financial Accounting Foundation (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 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 FAF. The Blue Ribbon Panel concluded its work upon the issuance of its report to FAF.

In March 2011, the board of trustees of 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 nonprofit entities and private companies in its consideration of this issue. For more information visit www.accountingfoundation.org/home.

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Chapter 1

Overview: Audit Issues in Revenue Recognition

Responsibility for Reliable Reporting

1.01 This chapter discusses the responsibilities of management and those charged with governance[1] for reliable financial reporting. It also provides an overview of the key accounting guidance relevant to revenue recognition for sales of goods and services, identifies circumstances and transactions that may signal improper revenue recognition, and summarizes key aspects of the auditor's responsibility to plan and perform an audit under U.S. generally accepted auditing standards (GAAS) and auditing standards established by the Public Company Accounting Oversight Board (PCAOB).

1.02 Management is responsible for the preparation and fair presentation of financial statements, including reported revenues. Among the financial reporting objectives relevant to assertions about revenue are the following:

- Recorded sales during the accounting period represent actual shipments of goods (or delivery, depending upon whether the arrangement is free on board [FOB] destination or shipping point) or rendering of services to customers who have made firm, enforceable commitments to purchase such goods or services
- Deferred revenues are recognized in the appropriate period when shipments are made (or delivery occurs, depending on the arrangement as noted in the preceding bullet point), services are rendered, or other conditions requiring deferral are no longer present
- Estimated amounts of reserves for sales returns, provision for customer rebates and dealer or customer discounts, and allowances for uncollectible receivables are reasonable
- Policies for revenue recognition are adequately disclosed[2]

1.03 Misstatements in reported revenue may result from error or from faulty judgment in the application of accounting principles. Revenue recognition principles sometimes are difficult to apply, especially in complex or unusual transactions, and often vary by industry. Misstatements in revenue also may arise when entity personnel at various levels participate in schemes, frequently with the collusion of others within the entity or with customers or suppliers, to overstate revenues intentionally. Intentional misstatement of the financial statements is fraudulent financial reporting.

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[1] AU section 380, *The Auditor's Communication With Those Charged With Governance* (AICPA, *Professional Standards*), uses the term *those charged with governance* to refer to those with responsibility for overseeing the strategic direction of the entity and obligations related to the accountability of the entity, including overseeing the financial reporting process.

[2] Revenue recognition in this guide is understood to be in accordance with U.S. generally accepted accounting principles.

1.04 This section discusses the factors and conditions within an entity that may mitigate the risk that improper revenue recognition will occur, whether it is caused by error or fraud.

Deterrents to Improper Revenue Recognition

1.05 The National Commission on Fraudulent Financial Reporting, called the Treadway Commission (the commission) after its Chairman, James C. Treadway, Jr., undertook a study from 1985 to 1987 to identify causal factors that can lead to fraudulent financial reporting and to develop recommendations to reduce its incidence. The commission's recommendations also are relevant for reducing the incidence of misstatements in financial reporting that result from errors, including the unintentional misapplication of accounting principles. Some of the commission's recommendations for public companies, including recommendations that address the tone set by top management, the audit committee, the internal audit function, and internal control, are discussed in the following paragraphs.

Tone at the Top

1.06 The commission stated the following:

> The tone set by top management—the corporate environment or culture within which financial reporting occurs—is the most important factor contributing to the integrity of the financial reporting process. Notwithstanding an impressive set of written rules and procedures, if the tone set by management is lax, fraudulent financial reporting is more likely to occur.[3]

1.07 The commission recommended that top management and the board of directors develop, communicate, and enforce a code of corporate conduct to foster a strong ethical climate within the entity.

1.08 On July 30, 2002, legislation to address shortcomings in financial reporting for publicly held companies and issuers was signed into law, and the Sarbanes-Oxley Act of 2002 (SOX) became the most significant legislation affecting the accounting profession since 1933. SOX, which applies in general to issuers and their audit firms, dramatically affected the accounting profession. SOX caused the formation of the PCAOB, which is overseen by the Securities and Exchange Commission (SEC). To increase the tone set by top management, SOX requires additional responsibilities of chief executive officers and chief financial officers, of issuers, who are now required to certify the issuer's financial statements. They also have a greater duty to communicate and coordinate with their audit committees who are now responsible for hiring, compensating, and overseeing the independent auditors. There are additional requirements regarding enhanced financial disclosures as well. Readers may obtain additional information by directly accessing the SEC and PCAOB websites at www.sec.gov and www.pcaob.org.

Audit Committee of the Board of Directors

1.09 The commission recommended that the audit committee of the board of directors be composed of independent (outside) directors. It also recommended that a written charter set forth their duties and responsibilities, and

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[3] See *Report of the National Commission on Fraudulent Financial Reporting*, October 1987, p. 32.

that they be given adequate resources and authority to fulfill their role of informed, vigilant, and effective overseers of the financial reporting process and the entity's internal controls. An effective audit committee can help deter improper conduct by management. The important role of the audit committee in corporate governance also has been discussed in reports by the Public Oversight Board of the Securities and Exchange Commission Practice Section of the AICPA.[4] In 1998, Arthur Levitt, chairman of the SEC, and Lynn Turner, its chief accountant, reiterated the call for the empowerment of audit committees that function as qualified, independent, committed, and tough-minded guardians of investor interests and corporate accountability. In response, the New York Stock Exchange (NYSE) and the National Association of Securities Dealers (NASD) sponsored a Blue Ribbon Committee drawn from the various constituencies of the financial community to study the effectiveness of audit committees and to make concrete recommendations for improving audit committee oversight of the financial reporting process. The *Report and Recommendations of the Blue Ribbon Committee on Improving the Effectiveness of Corporate Audit Committees* was issued in February 1999. It included recommendations that the NYSE, the NASD, the SEC, and the Auditing Standards Board (ASB) take various actions to strengthen the independence of the audit committee and make it more effective and to address mechanisms for accountability among the audit committee, the outside auditors, and management.[5]

Internal Audit Function

1.10 The commission recommended that entities maintain an effective internal audit function that is adequately staffed with qualified personnel appropriate to the size and nature of the entity. To enhance the objectivity of the internal audit function, the chief internal auditor should have direct access and report regularly to the entity's chief executive officer and to the audit committee. An important responsibility of the internal audit function is to monitor the performance of an entity's controls.

Internal Control

1.11 The commission also recommended that a framework of internal control be developed to enable management to identify and assess the risks of fraudulent financial reporting and to design and implement internal controls that will provide reasonable assurance that fraudulent financial reporting will be prevented or subject to early detection. The outcome of this recommendation is *Internal Control—Integrated Framework*, a report published in 1992 by the

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[4] These reports are *In the Public Interest: Issues Confronting the Accounting Profession*, published in March 1993, and *Strengthening the Professionalism of the Independent Auditor—Report to the Public Oversight Board of the SEC Practice Section, AICPA—from the Advisory Panel on Auditor Independence*, published in September 1994. The Public Oversight Board terminated on May 1, 2002. The Securities and Exchange Commission Practice Section of the AICPA ceased existence on December 31, 2003, transferring its operations and oversights to the Center for Public Company Audit Firms, which commenced operations on January 1, 2004. The Center for Audit Quality (CAQ) then restructured and expanded the AICPA's Center for Public Company Audit Firms. The CAQ, which began operating in January 2007, is an autonomous body affiliated with the AICPA. Its membership is voluntary.

[5] In December 1999, the Auditing Standards Board issued Statement on Auditing Standards (SAS) No. 90, *Audit Committee Communications*, in response to recommendations of the Blue Ribbon Committee. SAS No. 90 amended SAS No. 61, *Communication With Audit Committees*, and in December 2006, SAS No. 61 was superseded by AU section 380. Among other things, AU section 380 states 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.

Committee of Sponsoring Organizations of the Treadway Commission (COSO). The COSO report describes internal control as a process consisting of 5 interrelated components that are necessary for entity objectives, including reliable financial reporting, to be achieved. The 5 components of internal control are the control environment, risk assessment, control activities, information and communication, and monitoring. Echoing the commission's conclusion, the COSO report states that the control environment sets the tone of an organization, influencing the control consciousness of its people, and is the foundation for all other components of internal control. In 2006, COSO issued new guidance, titled *Internal Control over Financial Reporting—Guidance for Small Public Companies*. This guidance takes the concepts of the 1992 framework and demonstrates their applicability for achieving financial reporting objectives of smaller publicly traded companies.

1.12 In addition, the Foreign Corrupt Practices Act of 1977 establishes a legal requirement that every SEC registrant devise and maintain a system of internal accounting controls sufficient to provide reasonable assurance that certain objectives are met, including that transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles (GAAP). Some companies document the policies that management has established to comply with requirements of the Foreign Corrupt Practices Act of 1977 and also require their employees, including the sales and marketing organizations, to certify that they have read and complied with the entity's policies.

1.13 In its Final Rule Release No. 33-8238, *Management's Report on Internal Control Over Financial Reporting and Certification of Disclosure in Exchange Act Periodic Reports*, the SEC directs companies subject to the reporting requirements of the Securities Exchange Act of 1934, other than registered investment companies, to include in their annual reports a report of management on the company's internal control over financial reporting. Issued for the purpose of implementing Section 404 of SOX, this rule requires registrants to (*a*) take responsibility for establishing and maintaining adequate internal control structure and procedures for financial reporting and (*b*) assess their effectiveness at the end of each fiscal year. Moreover, the final rule requires a company's annual report to include an internal control report of management that contains

- a statement of management's responsibility for establishing and maintaining adequate internal control over financial reporting for the company.
- a statement identifying the framework used by management to evaluate the effectiveness of the company's internal control over financial reporting.
- management's assessment of the effectiveness of the company's internal control over financial reporting as of the end of the company's most recent fiscal year, including a statement as to whether or not internal control over financial reporting is effective.
- disclosure of any material weaknesses in internal control over financial reporting. Management is not permitted to conclude that the company's internal control over financial reporting is effective if there are one or more material weaknesses.

- a statement that its auditor has issued an attestation report on management's assessment of the company's internal control over financial reporting. The auditor's attestation report must be included in the company's annual report.[6]

With respect to the application of this rule to quarterly reporting required under the Securities Exchange Act of 1934, management's responsibilities are less extensive than those required for annual reporting.

Quarterly Reporting Requirements

The SEC rules also require management to evaluate any change in the entity's internal control that occurred during a fiscal quarter and that has materially affected, or is reasonably likely to materially affect, the entity's internal control over financial reporting.

Additionally, management is required to evaluate the effectiveness of the entity's disclosure controls and procedures and issue a report as to their effectiveness on a quarterly basis. With these rules, the SEC introduced a new term, *disclosure controls and procedures*, which is different from *internal control over financial reporting* and much broader.

As defined, *disclosure controls and procedures* encompass the controls over all material financial and nonfinancial information in Securities Exchange Act of 1934 reports. Information that would fall under this definition that would *not* be part of an entity's internal control over financial reporting might include the signing of a significant contract, changes in a strategic relationship, management compensation, or legal proceedings.

Internal Control[7] and Assertions About Revenue

1.14 The significant financial statement accounts relating to management's assertions about revenue include sales, sales returns and allowances, service revenue, accounts receivable and related allowance accounts, deferred revenues, and cash. Management is responsible for the design, implementation, and effective operation of internal control over transactions in these accounts, including the development of significant accounting estimates and disclosures,

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[6] Securities and Exchange Commission (SEC) Final Rule Release No. 33-8238, *Management's Report on Internal Control Over Financial Reporting and Certification of Disclosure in Exchange Act Periodic Reports*, has been amended multiple times by subsequent final rules, primarily for purposes of extending the compliance dates and providing transition guidance for newly public companies.

In SEC Final Rule Release No. 33-9142, *Internal Control Over Financial Reporting in Exchange Act Periodic Reports of Non-Accelerated Filers*, the SEC adopted amendments to its rules and forms, effective September 21, 2010, to conform to new Section 404(c) of the Sarbanes-Oxley Act of 2002 (SOX), as added by Section 989G, *Exemption for Non-Accelerated Filers*, of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the Dodd-Frank Act). Section 404(c) now provides that Section 404(b) of SOX shall not apply with respect to any audit report prepared for an issuer that is neither an accelerated filer nor a large accelerated filer as defined in Rule 12b-2 under the Securities Exchange Act of 1934. The Dodd-Frank Act was signed into law by the president on July 21, 2010.

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), clarifies that the auditor's report must include the auditor's opinion on whether the company maintained effective internal control over financial reporting. The standard eliminates the requirement that the auditor also include an opinion on whether management's assessment of the effectiveness of the company's internal control over financial reporting is fairly stated.

[7] For additional nonauthoritative guidance pertaining to internal control and the risk assessment standards (SAS Nos. 104–111), refer to Technical Questions and Answers (TIS) section 8200.05, "Testing the Operating Effectiveness of Internal Control," through TIS section 8200.16, "Examining Journal Entries" (AICPA, *Technical Practice Aids*).

in order to achieve the financial reporting objectives that were discussed in paragraph 1.02. Internal control with respect to assertions about revenue is a process that involves management's

- identification, analysis, and management of risks that may cause misstatements of accounts involving relevant assertions about revenue, including a consideration of how significant estimates are developed, the possibility that unauthorized transactions may be recorded, and the possibility that authorized transactions may be recorded erroneously or omitted.
- design and implementation of an information system, which includes the accounting system, and consists of the procedures, whether IT or manual, and records established to initiate, authorize, record, process, and report transactions, as well as the processes used to prepare significant accounting estimates and disclosures, regarding relevant assertions about revenue.
- design and implementation of control activities, including documented policies and procedures applied in the processing of transactions that flow through the accounting system in order to prevent, or promptly detect, misstatements in revenue.
- monitoring of the design and operating effectiveness of internal controls over relevant assertions about revenue to determine if they are operating as intended, and if not, to take corrective action.

1.15 Underlying the preceding points, the control environment is the most significant factor influencing the integrity of reported revenue. The control environment includes such factors as integrity and ethical values, management's philosophy and operating style, board of directors or audit committee participation, commitment to competence, organizational structure, assignment of authority and responsibility, and human resource policies and practices.

1.16 The COSO report notes that internal control has inherent limitations. The benefits of controls must be considered relative to costs due to resource constraints. Another limiting factor is faulty human judgment in decision making, or mistakes in application, on the part of a person responsible for establishing or performing a control. Furthermore, controls can be circumvented by the collusion of two or more people and by management override.

1.17 The Treadway Commission, the COSO report, and SOX stress the importance of management establishing and maintaining an appropriate tone at the top. An effective control environment fosters and in turn is reinforced by an effective audit committee, internal audit function, and internal control process. Collectively, these functions support management in achieving its objective of fair presentation of financial information.

Summary of Selected Accounting Literature on Revenue Recognition*

1.18 As noted previously, *revenue recognition* for purposes of this guide is understood to mean in accordance with U.S. GAAP. This section summarizes

* In April 2010, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2010-17, *Revenue Recognition—Milestone Method (Topic 605): Milestone Method* *(continued)*

some of the key authoritative accounting literature relevant to revenue recognition for sales of goods and services, including the conceptual basis for revenue recognition and also specific revenue recognition guidance for right of return, bill and hold, contract accounting, sales of software, and multiple-element arrangements, among others.

Conceptual Basis for Revenue Recognition

1.19 The conceptual basis for revenue recognition is contained in Financial Accounting Standards Board (FASB) Concept No. 5, *Recognition and Measurement in Financial Statements of Business Enterprises*. Paragraph 83 states that recognition of revenue involves consideration of 2 factors: (*a*) being realized or realizable and (*b*) being earned. Paragraph 83*b* states

> Revenues are not recognized until earned. An entity's revenue-earning activities involve delivering or producing goods, rendering services, or other activities that constitute its ongoing major or central operations, and revenues are considered to have been earned when the entity has substantially accomplished what it must do to be entitled to the benefits represented by the revenues. [Footnote omitted.]

Paragraph 84*a* states that revenues from manufacturing and selling activities are commonly recognized at time of sale, usually meaning delivery.

Revenue Recognition When Right of Return Exists

1.20 FASB *Accounting Standards Codification* (ASC) 605, *Revenue Recognition*, explains the accounting and reporting for sales of a product when the buyer has the right to return the product. FASB ASC 605-15-25-1 provides that, in such circumstances, revenue from the sales transaction should be recognized at time of sale only if *all* of the following conditions are met:

(footnote continued)

of Revenue Recognition—a consensus of the FASB Emerging Issues Task Force, to provide guidance on defining a milestone and determining when it may be appropriate to apply the milestone method of revenue recognition for research or development transactions, including what criteria should be met for determining whether the milestone method of revenue recognition is appropriate. Additional disclosures are also required by entities that are affected by the amendments in ASU No. 2010-17. The amendments in ASU No. 2010-17 improve financial reporting by providing a consistent framework for applying the milestone method, thus eliminating diversity in practice on the application of the milestone method of revenue recognition.

ASU No. 2010-17 should be applied on a prospective basis for milestones achieved in fiscal years, and interim periods within those years, beginning on or after June 15, 2010. Early application is permitted. If a vendor elects early adoption and the period of adoption is not the beginning of the entity's fiscal year, the entity should apply the amendments retrospectively from the beginning of the year of adoption. Additionally, a vendor electing early adoption should disclose the following information at a minimum for all previously reported interim periods in the fiscal year of adoption:

a. Revenue

b. Income before income taxes

c. Net income

d. Earnings per share

e. The effect of the change for the captions presented

A vendor may elect, but is not required, to adopt the amendments in ASU No. 2010-17 retrospectively for all prior periods.

The guidance is located in subtopics 10, 25, and 28 of FASB *Accounting Standards Codification* (ASC) 605, *Revenue Recognition*, and is labeled as "Pending Content" due to the transition and open effective date information discussed in FASB ASC 605-28-65-1. For more information on the FASB ASC see the preface of this guide.

a. The seller's price to the buyer is substantially fixed or determinable at the date of sale.

b. The buyer has paid the seller, or the buyer is obligated to pay the seller and the obligation is not contingent on resale of the product. If the buyer does not pay at time of sale and the buyer's obligation to pay is contractually or implicitly excused until the buyer resells the product, then this condition is not met.

c. The buyer's obligation to the seller would not be changed in the event of theft or physical destruction or damage of the product.

d. The buyer acquiring the product for resale has economic substance apart from that provided by the seller. This condition relates primarily to buyers that exist on paper, that is, buyers that have little or no physical facilities or employees. It prevents entities from recognizing sales revenue on transactions with parties that the sellers have established primarily for the purpose of recognizing such sales revenue.

e. The seller does not have significant obligations for future performance to directly bring about resale of the product by the buyer.

f. The amount of future returns can be reasonably estimated (see paragraphs 3–4 of FASB ASC 605-15-25). Exchanges by ultimate customers of one item for another of the same kind, quality, and price (for example, one color or size for another) are not considered returns for purposes of FASB ASC 605-15.

1.21 Per FASB ASC 605-15-25-1, if the conditions in the preceding list are not met, sales recognition should be postponed until the right of return substantially expires or until such time that the conditions are met, whichever occurs first.

1.22 If revenue is recognized at time of sale because the conditions in the preceding list are met, FASB ASC 605 requires that costs or losses that may be expected in connection with returns must be accrued in accordance with FASB ASC 450-20. Per FASB ASC 605-15-45-1, sales revenue and cost of sales reported in the income statement should be reduced to reflect estimated returns.

1.23 FASB ASC 605-15-25-3 describes a number of factors that may impair (but not necessarily preclude) the ability to make a reasonable estimate of the amount of future returns. Among those factors are the susceptibility of the product to significant external factors (for example, obsolescence or changes in demand); the absence of or lack of relevance of historical experience to the circumstances (for example, if a product, market, or customer is new); the length of the return period; and the absence of a large volume of relatively homogeneous transactions.

1.24 FASB ASC 605-15-15-3 notes that the guidance in FASB ASC 605-15 does not apply to (*a*) accounting for revenue in service industries if part or all of the service revenue may be returned under cancellation privileges granted to the buyer, (*b*) transactions involving real estate or leases, or (*c*) sales transactions in which a customer may return defective goods, such as under warranty provisions.

Contract Accounting

Construction-Type and Production-Type Contracts

1.25 FASB ASC 605-35 describes the advantages and disadvantages of the percentage-of-completion and completed-contract methods of accounting for long-term construction-type contracts. FASB ASC 605-35-25-57 indicates that the percentage-of-completion method is preferable when estimates of costs to complete and all of the following conditions exist:

- Contracts executed by the parties normally include provisions that clearly specify the enforceable rights regarding goods or services to be provided and received by the parties, the consideration to be exchanged, and the manner and terms of settlement.
- The buyer can be expected to satisfy all obligations under the contract.
- The contractor can be expected to perform all contractual obligations.

1.26 According to FASB ASC 605-35-05-7, the principal advantages of percentage-of-completion are the periodic recognition of income currently rather than irregularly as contracts are completed, and the reflection of the status of uncompleted contracts that is provided through the current estimates of costs to complete or of progress toward completion. The principal disadvantage is that it is necessarily dependent upon estimates of ultimate costs and consequently of currently accruing income and, therefore, subject to uncertainty.

1.27 In the absence of reasonably dependable estimates, or if inherent hazards cause forecasts to be doubtful, the completed-contract method is required. The completed contract method does not permit the recording of income before completion, or substantial completion, of the contract. Therefore, the recording of income is not subject to the uncertainties of estimates, but the principal disadvantage is that the completed-contract method does not reflect current performance when the contract extends into more than one accounting period. FASB ASC 605-35-50 requires disclosure of the method followed.

1.28 FASB ASC 605-35 includes accounting for the performance of contracts for which specifications are provided by the customer for the construction of facilities or the production of goods or for the provision of related services. FASB ASC 605-35-05-5 states that use of the percentage-of-completion or the completed-contract method of accounting should not be acceptable alternatives for the same circumstances. Determination of which of the two methods is preferable should be based on a careful evaluation of the circumstances. FASB ASC 605-35-05 identifies the circumstances appropriate to each of the methods, the bases of applying the methods, and the reasons for the recommendations.

1.29 *Percentage-of-completion method.* According to paragraphs 56–57 of FASB ASC 605-35-25, the percentage-of-completion method is the preferable accounting policy when reasonably dependable estimates of the extent of progress toward completion, contract revenues, and contract costs can be made.

1.30 According to FASB ASC 605-35-25-58, the ability to produce reasonably dependable estimates is an essential element of the contracting business and persuasive evidence to the contrary is necessary to overcome that

presumption. According to FASB ASC 605-35-25-64, a contractor's estimates of total contract revenue and total contract costs should be regarded as reasonably dependable if the minimum total revenue and the maximum total cost can be estimated with a sufficient degree of confidence to justify the contractor's bid on contracts.

1.31 *Completed-contract method.* According to FASB ASC 605-35-25-92, the completed contract method may be used as an entity's basic accounting policy in circumstances in which financial position and results of operations would not vary materially from those resulting from the use of the percentage-of-completion method, for example, when an entity has primarily short-term contracts. According to FASB ASC 605-35-25-61, an entity using the percentage-of-completion method as its basic accounting policy should use the completed-contract method for a single contract or a group of contracts for which reasonably dependable estimates cannot be made or for which inherent hazards make estimates doubtful. According to FASB ASC 605-35-25-65, examples of inherent hazards are contracts whose validity is seriously in question (that is, which are less than fully enforceable), contracts whose completion may be subject to the outcome of pending legislation or pending litigation, or contracts exposed to the possibility of the condemnation or expropriation of the resulting properties.

1.32 *Determining the profit center.* The basic presumption is that each contract is the profit center for revenue recognition, cost accumulation, and income measurement. That presumption may be overcome only if a contract or a series of contracts meets the conditions described for combining or segmenting contracts. Combining contracts for profit recognition purposes may occur when a group of contracts is so closely related that the contracts are, in effect, parts of a single project with an overall profit margin, such as when a group of contracts has been negotiated as a package with the objective of achieving an overall profit. Paragraphs 8–9 of FASB ASC 605-35-25 detail specific criteria that should be met for contracts to be combined for accounting purposes.

1.33 According to paragraphs 10–11 of FASB ASC 605-35-25, a single contract or a group of contracts that otherwise meet the criteria for combining may include several elements or phases, each of which the contractor negotiated separately with the same customer and agreed to perform without regard to the performance of the others. A project consisting of a single contract or a group of contracts with segments that have different rates of profitability may be segmented if it meets specific criteria described in paragraphs 12–14 of FASB ASC 605-35-25. The criteria for segmenting should be applied consistently to contracts with similar characteristics and in similar circumstances.

1.34 *Measuring progress on contracts.* Per FASB ASC 605-35-25, the meaningful measurement of the extent of progress toward completion is essential because this factor is used in determining the amounts of estimated contract revenue and the estimated gross profit that will be recognized in any given period. A number of acceptable methods are used, including cost-to-cost, efforts-expended, units-of-delivery, and units-of-work-performed. Use of any given method depends on whether input measures (terms of efforts devoted to a contract) or output measures (terms of results achieved) are used. Output measures are generally the best method of progress toward completion, but often they cannot be established and input measures must be used. The methods selected should be applied consistently to all contracts having similar characteristics. The acceptability of the results of input or output measures should

be periodically reviewed and confirmed by alternative measures that involve observation and inspection, perhaps by comparison to results of calculations based on physical observations by engineers, architects, or similarly qualified personnel.

1.35 *Computation of income earned under the percentage-of-completion method.* Per FASB ASC 605-35-25-82, total estimated gross profit on a contract, the difference between total estimated contract revenue and total estimated contract cost, must be determined before the amount earned on the contract for a period can be determined. The portion of total revenue earned or the total amount of gross profit earned to date is determined by the measurement of the extent of progress toward completion using one of the methods discussed in paragraphs 70–81 of FASB ASC 605-35-25. The computation of income earned for a period involves a determination of the portion of total estimated contract revenue that has been earned to date (earned revenue) and the portion of total estimated contract cost related to that revenue (cost of earned revenue). Paragraphs 83–84 of FASB ASC 605-35-25 discuss two acceptable alternative approaches to determining earned revenue and cost of earned revenue. Either of the alternative approaches may be used on a consistent basis.

1.36 *Revised estimates.* Per FASB ASC 605-35-25-85, estimates of total contract revenue, total costs to complete, and the extent of progress toward completion must be continually reevaluated throughout the life of a contract. Additional information that enhances and refines the estimating process for changing conditions and new developments is often obtained after the balance sheet date but before the financial statements are issued or are available to be issued. Unless the event is outside the normal exposure and risk aspects of the contract as indicated in FASB ASC 605-35-50-10, such information should result in an adjustment of the unissued financial statements. Per FASB ASC 605-35-50-10, events occurring after the date of the financial statements that are outside the normal exposure and risk aspects of the contract should not be considered refinements of the estimating process of the prior year, but should be disclosed as subsequent events in accordance with FASB ASC 855, *Subsequent Events*. As indicated in FASB ASC 605-35-25-86, revisions in revenue, cost, and profit estimates or in measurements of the extent of progress toward completion are changes in accounting estimates, and, accordingly, such revisions should be accounted for in accordance with FASB ASC 250, *Accounting Changes and Error Corrections*. Per FASB ASC 250-10-45-17, a change in accounting estimate should be accounted for in (*a*) the period of change if the change affects that period only or (*b*) the period of change and future periods if the change affects both. A change in accounting estimate should not be accounted for by restating or retrospectively adjusting amounts reported in financial statements of prior periods or by reporting pro forma amounts for prior periods. FASB ASC 250 explains two alternative methods of accounting for changes in accounting estimates. Although estimating is a continuous and normal process for contractors, FASB ASC 250-10-50-4 requires disclosure of the effect of significant revisions if the effect is material.

1.37 *Provisions for anticipated losses on contracts.* FASB ASC 605-35-25-46 states that provisions for losses should be made in the period in which they become evident under either the percentage-of-completion method or the completed-contract method.

1.38 *Disclosures.* FASB ASC 605-35-50 requires disclosure of the basic method of accounting used for contracts, departures from the basic accounting

policy, methods of measuring extent of progress toward completion for contracts accounted for using the percentage-of-completion method, and specific criteria used to determine when a contract is substantially completed for contracts accounted for using the completed-contract method. For significant revisions of estimates refer to FASB ASC 250 for disclosure guidance.

Software Revenue Recognition[8]

1.39 FASB ASC 985-605 provides guidance on applying U.S. GAAP in recognizing revenue on software transactions. Key provisions are discussed in the following paragraphs.

1.40 According to FASB ASC 985-605-25-3, if an arrangement (such as an arrangement to deliver software or a software system) does not require significant production, modification, or customization of software, revenue should be recognized when all of the following criteria are met:

- Persuasive evidence of an arrangement exists.
- Delivery has occurred.
- The software vendor's fee is fixed or determinable.
- Collectibility is probable.

Persuasive Evidence of an Arrangement Exists

1.41 According to paragraphs 16–17 of FASB ASC 985-605-25, if the vendor has a customary business practice of using written contracts, evidence of the arrangement is provided only by a contract signed by both parties. Vendors that do not rely on signed contracts should have other forms of evidence to document the transaction, such as a purchase order from a third party or online authorization. Even if all other requirements in FASB ASC 985-605 for recognition of revenue are met (including delivery), revenue should not be recognized on any element of the arrangement unless persuasive evidence of an arrangement exists.

Delivery Has Occurred

1.42 Per FASB ASC 985-605-25-18, the principle of not recognizing revenue before delivery applies whether the customer is a user or a reseller. For software that is delivered electronically, delivery has been met when the customer takes possession of the software via a download (that is, when the customer takes possession of the electronic data on its hardware) or has been provided with access codes that allow the customer to take immediate possession of the software on its hardware pursuant to an agreement or purchase order for the software.

1.43 According to FASB ASC 985-605-25, if uncertainty exists about customer acceptance after delivery, license revenue should not be recognized until acceptance occurs. Delivery should not be considered complete unless the destination to which the software is shipped is the customer's place of business or another site specified by the customer. If the customer specifies an intermediate site, but a substantial portion of the fee is not payable until the delivery by the vendor to another site specified by the customer, revenue should not be

[8] Also see chapter 2, "Auditing Revenue Transactions in the Computer Software Industry," of this guide.

recognized until delivery is made to that other site. Revenue from transactions involving delivery agents of the vendor should be recognized when the software is delivered to the customer, not to the delivery agent.

The Vendor's Fee Is Fixed or Determinable and Collectibility Is Probable

1.44 A software licensing fee is not fixed or determinable if it is based on the number of units distributed or copied, or on the expected number of users of the product, until the quantity of items is known. If an arrangement includes rights of return or rights to refunds without return, conditions that must be met for the vendor to recognize revenue include that the amount of future returns or refunds can be reasonably estimated in accordance with FASB ASC 605-15. Per FASB ASC 985-605-25, *any* extended payment terms may indicate that the fee is not fixed or determinable. If payment of a significant portion of the fee is not due until after expiration of the license or more than twelve months after delivery, the licensing fee should be *presumed* not to be fixed or determinable unless the vendor can demonstrate a standard business practice of using long-term or installment contracts and a history of successfully collecting under the original payment terms without making concessions. If it cannot be concluded that a fee is fixed or determinable at the outset of an arrangement, revenue should be recognized as payments become due.

1.45 For reseller arrangements, such factors as the following may indicate that the fixed or determinable fees and collectibility criteria have not been met:

- Payment is substantially contingent on the reseller's success in distributing the product.
- Resellers may not be able to honor a commitment to make fixed or determinable payments until they collect cash from their customers.
- Uncertainties indicate the amount of future returns cannot be reasonably estimated.
- Distribution arrangements with resellers require the vendor to rebate or credit a portion of the original fee if the vendor subsequently reduces its price for a product and the reseller still has rights with respect to that product (price protection).

1.46 Per FASB ASC 985-605-25-37, fees from licenses cancelable by the customer are neither fixed nor determinable until the cancellation privileges lapse. Fees from licenses with cancellation privileges that expire ratably over the license period are considered to become determinable ratably as the cancellation privileges lapse.

Contract Accounting

1.47 According to FASB ASC 985-605-25-2, if an arrangement to deliver software or a software system, either alone or together with other products or services, requires significant production, modification, or customization of software, the entire arrangement should be accounted for in conformity with FASB ASC 605-35. Paragraphs 88–107 of FASB ASC 985-605-25 also provide guidance on the application of contract accounting in arrangements involving software.

Tangible Products Delivered With Software Components and Nonsoftware Components

1.48 "Pending Content" in FASB ASC 985-605-15-4 indicates that guidance in FASB ASC 985-605 does not apply to the following transactions and activities:

a. Arrangements for products or services containing software that is incidental to the products or services as a whole

b. Leases of software that include a tangible product (such as property, plant, or equipment), if the software is incidental to the tangible product as a whole or the software and nonsoftware components of the tangible product function together to deliver the tangible product's essential functionality

c. Marketing and promotional activities not unique to software transactions, such as the following:

   i. Insignificant discounts on future purchases that are offered by a vendor in a software arrangement. For example, a vendor may offer a small discount (a coupon or other form or offer for five percent off) on additional licenses of the licensed product or other products that exist at the time of the offer but are not part of the arrangement.

   ii. Discounts that are not incremental to discounts typically given in comparable transactions (for example, volume purchase discounts comparable to those generally provided in comparable transactions)

d. Nonsoftware components of tangible products

e. Software components of tangible products that are sold, licensed, or leased with tangible products when the software components and nonsoftware components of the tangible product function together to deliver the tangible product's essential functionality

f. Undelivered elements that relate to software that is essential to the tangible product's functionality in preceding item (e)

1.49 According to "Pending Content" in FASB ASC 958-605-15-4A, in determining whether a tangible product is delivered with software components and nonsoftware components that function together to deliver the tangible product's essential functionality, a vendor should consider all of the following:

a. If sales of the tangible product without the software elements are infrequent, a rebuttable presumption exists that software elements are essential to the functionality of the tangible product.

b. A vendor may sell products that provide similar functionality, such as different models of similar products. If the only significant difference between similar products is that one product includes software that the other product does not, the products shall be considered the same product for the purpose of evaluating (a).

c. A vendor may sell software on a standalone basis. The vendor may also sell a tangible product containing that same software. The separate sale of the software shall not cause a presumption that the software is not essential to the functionality of the tangible product.

d. Software elements do not need to be embedded within the tangible product to be considered essential to the tangible product's functionality.

e. The nonsoftware elements of the tangible product must substantively contribute to the tangible product's essential functionality. For example, the tangible product should not simply provide a mechanism to deliver the software to the customer.

1.50 FASB ASC 985-605-50-1 provides that for multiple-element arrangements that include deliverables within the scope of FASB ASC 985-605 and deliverables that are not within the scope of FASB ASC 985-605, a vendor should provide the disclosures included in the "Pending Content" in paragraphs 1–2 of FASB ASC 605-25-50.

1.51 As explained in "Pending Content" in FASB ASC 985-605-55-211, cases have been provided that contain guidance on allocating arrangement consideration in a multiple-element revenue arrangement that includes a tangible product and software. The cases illustrate whether a product contains software elements and nonsoftware elements that function together to deliver the tangible product's essential functionality as discussed in FASB ASC 958-605-15-4 and can be found in "Pending Content" in paragraphs 212–236 of FASB ASC 985-605-55.

1.52 FASB ASC 605-25 establishes the accounting and reporting guidance for transactions and activities that do not fall under the scope of FASB ASC 985-605 and under which the vendor will perform multiple revenue-generating activities. This accounting and reporting guidance is discussed subsequently in paragraphs 1.60–.71.

Multiple-Element Arrangements[9]

1.53 Software arrangements may consist of multiple elements, that is, additional software products, upgrades and enhancements, postcontract customer support (PCS), or services, including elements deliverable only on a when-and-if-available basis. If contract accounting does not apply, the vendor's fee must be allocated to the various elements based on vendor-specific objective evidence (VSOE) of fair values,[10] regardless of any separate prices stated within the contract for each element.

1.54 Per FASB ASC 985-605-25-6, VSOE of fair value is limited to the following:

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[9] The SEC Codification of Staff Accounting Bulletins (SABs) Topic 13, *Revenue Recognition*, directly refers to the use of this FASB guidance when a multiple element arrangement exists:

- Revenue arrangements with multiple deliverables should be divided into separate units of accounting if the deliverables in the arrangement meet the criteria in FASB ASC 605-25-25-5.
- Arrangement consideration should be allocated among the separate units of accounting based on their relative fair values (or as otherwise provided in paragraphs 2–3 of FASB ASC 605-25-30). The amount allocated to the delivered item(s) is limited as discussed in FASB ASC 605-25-30-5.
- Applicable revenue recognition criteria should be considered separately for separate units of accounting.

[10] FASB ASC 820, *Fair Value Measurements and Disclosures*, does not apply to accounting guidance that permits measurements that are based on, or otherwise use, vendor-specific objective evidence (VSOE) of fair value. Throughout this guide, reference is made to VSOE of fair value. Readers should refer to the applicable guidance to determine whether FASB ASC 820 should be applied to a specific measurement.

- The price charged when the same element is sold separately.
- For an element not yet being sold separately, the price established by management having the relevant authority; it must be probable that the price, once established, will not change before the separate introduction of the element into the marketplace.

1.55 According to FASB ASC 985-605-25-9, if sufficient VSOE of fair values does not exist for the allocation of revenue to the various elements of an arrangement, all revenue from the arrangement should be deferred until such sufficient evidence exists, or until all elements have been delivered, whichever occurs earlier. According to "Pending Content" in FASB ASC 985-605-25-10, exceptions to this guidance are provided for PCS, services that do not involve significant production, modification, or customization of software, subscriptions, and arrangements in which the fee is based on the number of copies. Instances may exist in which VSOE of the fair values of *all* undelivered elements in an arrangement exists, but VSOE of fair value does not exist for one or more of the delivered elements in the arrangement. In such circumstances, it requires recognition of revenue in accordance with the *residual method* provided that under the residual method, the total fair value of the undelivered elements, as indicated by VSOE, is deferred, and the difference between the total arrangement fee and the amount deferred for the undelivered elements is recognized as revenue related to the delivered elements.

1.56 According to "Pending Content" in item (f) of FASB ASC 985-605-25-10, if an arrangement includes both deliverables that are within (software deliverables) and not within (nonsoftware deliverables) the scope of FASB ASC 985-605, a vendor should allocate arrangement consideration to the nonsoftware deliverables, and to the software deliverables as a group, in accordance with "Pending Content" in FASB ASC 605-25-15-3A. The nonsoftware deliverables may include software deliverables that are considered essential to the functionality of a tangible product. If the arrangement includes more than one software deliverable, the portion of the arrangement consideration allocated to the software deliverables as a group in accordance with the "Pending Content" in FASB ASC 605-25-15-3A would be further subject to the separation and allocation guidance of FASB ASC 985-605. If a tangible product contains software that is not essential to the product's functionality, that nonessential software and any other deliverables within the arrangement (other than the nonsoftware components of the tangible product) that relate to that nonessential software are within the scope of FASB ASC 985-605. If an undelivered element relates to a deliverable within the scope of FASB ASC 985-605 and a deliverable excluded from the scope of FASB ASC 985-605, the undelivered element should be bifurcated into a software deliverable and a nonsoftware deliverable. The software deliverable is within the scope of FASB ASC 985-605 and the nonsoftware deliverable is not within the scope of FASB ASC 985-605.

1.57 According to paragraphs 12–14 of FASB ASC 985-605-25, the portion of the fee allocated to an element should be recognized as revenue when all of the revenue recognition criteria in FASB ASC 985-605-25-3 have been met for that element. In applying those criteria, the delivery of an element is considered not to have occurred if there are undelivered elements that are essential to the functionality of any delivered elements, because the customer would not have the full use of the delivered element. In addition, no portion of the fee (including amounts otherwise allocated to delivered elements) meets the criterion of collectibility if the portion of the fee allocable to delivered elements is subject

to forfeiture, refund, or other concession if any of the undelivered elements are not delivered. In order for the revenue related to an arrangement to be considered not subject to forfeiture, refund, or other concession, management must intend not to provide refunds or concessions that are not required under the provisions of the arrangement. All available evidence should be considered to determine whether the evidence persuasively indicates that the revenue is not subject to forfeiture, refund, or other concession, including all of the following:

a. Acknowledgement in the arrangement of products not currently available or not to be delivered currently

b. Separate prices stipulated in the arrangement for each deliverable element

c. Default damage provisions as defined in the arrangement

d. Enforceable payment obligations and due dates for the delivered elements that are not dependent on the delivery of the future deliverable elements, coupled with the intent of the vendor to enforce rights of payment

e. Installation and use of the delivered software

f. Support services, such as telephone support, related to the delivered software being provided currently by the vendor

Regardless of previous items (*a*)–(*e*), the vendor's historical pattern of making refunds or other concessions that were not required under the original provisions (contractual or other) of other arrangements should be considered more persuasive than terms included in the arrangement that indicate that no concessions are required.

Service Elements

1.58 According to FASB ASC 985-605-25-78, separate accounting for a service element of an arrangement is required if VSOE exists to permit allocation of the revenue to the various elements of the arrangement and both of the following criteria are met:

- The services are not essential to the functionality of any other element of the transaction.
- The services are described in the contract such that the total price of the arrangement would be expected to vary as the result of the inclusion or exclusion of the services.

1.59 FASB ASC 985-605-55 provides comprehensive guidance on different kinds of multiple-element arrangements, PCS, services, and contract accounting. In addition, it includes implementation guidance and illustrations of the application of certain provisions of FASB ASC 985-605 and a flowchart illustrating a decision process for recognizing revenue on software arrangements.

Software and Nonsoftware Components of Tangible Products Scoped Out of FASB ASC 985-605

Units of Accounting

1.60 FASB ASC 605-25 provides accounting and reporting guidance for transactions and activities that do not fall under the scope of FASB ASC 985-605 and under which the vendor will perform multiple revenue-generating activities. According to "Pending Content" in paragraphs 1–2 of FASB ASC

605-25-25, revenue arrangements with multiple deliverables should be divided into separate units of accounting if the deliverables in the arrangement meet the criteria in FASB ASC 605-25-25-5 (discussed subsequently in paragraph 1.62), arrangement consideration should be allocated among the separate units of accounting based on their relative selling prices (or as otherwise provided in FASB ASC 605-25-30-4), and applicable revenue recognition criteria should be considered separately for separate units of accounting. The amount allocated to the delivered unit of accounting is limited pursuant to FASB ASC 605-25-30-5.

1.61 According to paragraphs 3–4 of FASB ASC 605-25-25, separate contracts with the same entity or related parties that are entered into at or near the same time are presumed to have been negotiated as a package and should be evaluated as a single arrangement in considering whether there is one or more units of accounting. The presumption can be overcome if there is sufficient evidence to the contrary. At the inception of an arrangement and as each item in an arrangement is delivered, the vendor should evaluate all deliverables in the arrangement to determine whether they represent separate units of accounting.

1.62 Pursuant to "Pending Content" in FASB ASC 605-25-25-5, in an arrangement with multiple deliverables, the delivered item or items should be considered a separate unit of accounting if both of the following criteria are met:

- *a.* The delivered item or items have value to the customer on a standalone basis.
- *b.* If the arrangement includes a general right of return relative to the delivered item, delivery or performance of the undelivered item or items is considered probable and substantially in the control of the vendor.

Criteria for dividing an arrangement into separate units of accounting should be applied consistently. Furthermore, an item or items have value on a standalone basis if they are sold separately by any vendor or the customer could resell the delivered item or items on a standalone basis. Regarding the customer's ability to resell the delivered item or item, this criterion does not require the existence of an observable market for the deliverable(s).

1.63 According to "Pending Content" in FASB ASC 605-25-25-6, a delivered item or items that do not qualify as a separate unit of accounting within the arrangement should be combined with the other applicable undelivered item or items with the arrangement. The allocation of arrangement consideration and the recognition of revenue then should be determined for those combined deliverables as a single unit of accounting.

Allocation of Arrangement Consideration

1.64 According to "Pending Content" in paragraphs 1–2 of FASB ASC 605-25-30, the amount of total arrangement consideration must be fixed or determinable other than with respect to the impact of either of the following:

- *a.* Any refund rights or other concessions (collectively referred to as refund rights) to which the customer may be entitled
- *b.* Performance bonuses to which the vendor may be entitled

Arrangement consideration should be allocated at the inception of the arrangement to all deliverables on the basis of their relative selling price (the relative

selling price method), except as specified in paragraphs 4–5 of FASB ASC 605-25-30. When applying the relative selling price method, the selling price for each deliverable should be determined using VSOE of selling price, if it exists; otherwise, of selling price (as discussed in FASB ASC 605-25-30-6B) should be used. If neither VSOE nor TPE of selling price exists for a deliverable, the vendor should use its best estimate of the selling price (BESP) for that deliverable (as discussed in FASB ASC 605-25-30-6C) when applying the relative selling price method. In deciding whether the vendor can determine VSOE or TPE of selling price, the vendor should not ignore information that is reasonably available without undue cost and effort.

1.65 "Pending Content" in FASB ASC 605-25-30-4 indicates that to the extent that any separate unit of accounting in the arrangement is required by guidance included in another topic within FASB ASC to be recorded at fair value (and marked to market each reporting period thereafter), the amount allocated to that unit of accounting should be its fair value. Under those circumstances, the remainder of arrangement consideration should be allocated to the other units of accounting in accordance with the requirements in FASB ASC 605-25-30-2 (discussed previously in paragraph 1.64.)

1.66 "Pending Content" in FASB ASC 605-25-30-5 indicates that the amount allocable to the delivered unit or units of accounting is limited to the amount that is not contingent upon the delivery of additional items or meeting other specified performance conditions (the noncontingent amount.) That is, the amount allocable to the delivered unit or units of accounting is the lesser of the amount otherwise allocable in accordance with paragraphs 2–4 of FASB ASC 605-25-30 (discussed previously in paragraphs 1.64–.65), or the noncontingent amount. Additionally, although FASB ASC 605-15 may affect the amount of revenue recognized, the allocated amount is not adjusted for the impact of a general right of return pursuant to FASB ASC 605-15.

1.67 In accordance with FASB ASC 605-25-30-6, the measurement of revenue per period should be limited to the measurement that results from assuming that cancellation of the arrangement will not occur. The amount recorded as an asset for the excess of revenue recognized under the arrangement over the amount of cash or other consideration received from the customer since the inception of the arrangement should not exceed all amounts to which the vendor is legally entitled, including cancellation fees (in the event of customer cancellation). However, whether a vendor intends to enforce its contractual rights in the event of customer cancellation should be considered in determining the extent to which an asset should be recorded.

VSOE, TPE, and BESP

1.68 According to "Pending Content" in paragraphs 6A–6C of FASB ASC 605-25-30, VSOE of selling price is limited to either of the following:

a. The price charged for a deliverable when it is sold separately

b. For a deliverable not yet being sold separately, the price established by management having the relevant authority (that is, it must be probable that the price, once established, will not change before the separate introduction of the deliverable into the marketplace.)

TPE of selling price is the price of the vendor's or any competitor's largely interchangeable products or services in standalone sales to similarly situated customers. The vendor's BESP should be consistent with the objective of

determining VSOE of selling price for the deliverable (that is, the price at which the vendor would transact if the deliverable were sold by the vendor regularly on a standalone basis.) The vendor should consider market conditions as well as entity-specific factors when estimating the selling price.

1.69 According to "Pending Content" in FASB ASC 605-25-30-7, contractually stated prices for individual products or services in an arrangement with multiple deliverables should not be presumed to be representative of VSOE, TPE, or a vendor's BESP.

Disclosure Requirements and Implementation Guidance

1.70 According to "Pending Content" in FASB ASC 605-25-50-2, a vendor should disclose all of the following information by similar type of arrangement:

a. The nature of its multiple-deliverable arrangements

b. The significant deliverables within the arrangements

c. The general timing of delivery or performance of service for the deliverables within the arrangements

d. Performance-, cancellation-, termination-, and refund-type provisions

e. A discussion of the significant factors, inputs, assumptions, and methods used to determine selling price (whether VSOE, TPE, or estimated selling price) for the significant deliverables

f. Whether the significant deliverables in the arrangements qualify as separate units of accounting, and the reasons that they do not qualify as separate units of accounting, if applicable

g. The general timing of revenue recognition for significant units of accounting

h. Separately, the effect of changes in either the selling price or the method or assumptions used to determine selling price for a specific unit of accounting if either one of those changes has a significant effect on the allocation of arrangement consideration

1.71 Implementation guidance and illustrations related to revenue recognition for multiple-element arrangements, including an overview diagram with respect to determining the separate units of accounting in an arrangement, is provided in FASB ASC 605-25-55.

SEC Codification of Staff Accounting Bulletins, Topic 13, *Revenue Recognition*[11]

1.72 The SEC Codification of Staff Accounting Bulletins (SABs) Topic 13, *Revenue Recognition*, summarizes the staff's views in applying U.S. GAAP to selected revenue recognition issues. SABs are not rules or interpretations of the SEC but, rather, represent the interpretations and practices followed by the SEC in administering the disclosure requirements of the federal securities laws.

1.73 Topic 13 presents various fact patterns, questions, and interpretive responses concerning whether the following criteria of revenue recognition are met:

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[11] For additional information on the SEC's Codification of SABs, visit www.sec.gov.

- Persuasive evidence of an arrangement exists.
- Delivery has occurred or services have been rendered.
- The seller's price to the buyer is fixed or determinable.
- Collectibility is reasonably assured.

1.74 Topic 13 addresses recurring questions from preparers, auditors, and analysts about how the guidance should be applied to particular transactions.

1.75 Topic 13 reflects the basic principles of revenue recognition in U.S. GAAP and does not supersede any existing authoritative literature. Accordingly, although it is directed specifically to transactions of public companies, management and auditors of nonpublic companies may find the guidance therein helpful in analyzing revenue recognition matters.

Bill and Hold Sales

1.76 In a bill and hold transaction, a customer agrees to purchase the goods but the seller retains physical possession until the customer requests shipment to designated locations. Normally, such an arrangement does not qualify as a sale because delivery has not occurred. Under certain conditions, however, when a buyer has made an absolute purchase commitment and has assumed the risks and rewards of the purchased product but is unable to accept delivery because of a compelling business reason, bill and hold sales may qualify for revenue recognition.

1.77 The SEC's SAB No. 104 (Topic 13.A, *Selected Revenue Recognition Issues*) specifies certain conditions or criteria that a bill and hold transaction of a public entity should meet in order to qualify for revenue recognition. In addition, it specifies certain factors that should be considered in evaluating whether a bill and hold transaction meets the requirements for revenue recognition. SAB No. 104 sets forth criteria to be met in order to recognize revenue when delivery has not occurred. These include the following:

a. The risks of ownership must have passed to the buyer.

b. The customer must have made a fixed commitment to purchase the goods, preferably reflected in written documentation.

c. The buyer, not the seller, must request that the transaction be on a bill and hold basis. The buyer must have a substantial business purpose for ordering the goods on a bill and hold basis.

d. There must be a fixed schedule for delivery of the goods. The date for delivery must be reasonable and must be consistent with the buyer's business purpose (for example, storage periods are customary in the industry).

e. The seller must not have retained any specific performance obligations such that the earning process is not complete.

f. The ordered goods must have been segregated from the seller's inventory and not be subject to being used to fill other orders.

g. The equipment must be complete and ready for shipment.

The listed conditions are the important conceptual criteria that should be used in evaluating any purported bill and hold sale. This listing is not intended as a check list. In some circumstances, a transaction may meet all the factors listed but not meet the requirements for revenue recognition.

1.78 In applying the criteria in the preceding paragraph to a purported bill and hold sale, the individuals responsible for preparation and filing of the financial statements should also consider the following factors:

a. The date by which the seller expects payment, and whether it has modified its normal billing and credit terms for this buyer.[12]

b. The seller's past experiences with and pattern of bill and hold transactions.

c. Whether the buyer has the expected risk of loss in the event of a decline in the market value of the goods.

d. Whether the seller's custodial risks are insurable and insured.

e. Whether extended procedures are necessary in order to assure that there are no exceptions to the buyer's commitment to accept and pay for the goods sold, that is, that the business reasons for the bill and hold have not introduced a contingency to the buyer's commitment.

1.79 Although SAB No. 104 is directed specifically to transactions of public companies, management and auditors of nonpublic companies may find the guidance therein helpful in analyzing bill and hold transactions.

Sales of Real Estate

1.80 FASB ASC 360-20 includes guidance for recognition of profit on all real estate transactions without regard to the nature of the seller's business.[13] It includes extensive guidance for the recognition of profit both for retail land sales and for real estate transactions that are not retail land sales. The general requirements for recognition of all the profit at the date of sale on real estate sales other than retail land sales are set forth in paragraphs 3–5 of FASB ASC 360-20-40 and are summarized in the following paragraphs. Similar to FASB ASC 985-605, the guidance in FASB ASC 360-20 demonstrates the application of the concept of recognizing revenue when *earned* and when *realized* or *realizable* to a specific subject matter.

1.81 Per FASB ASC 360-20-40-3, for sales of real estate other than retail land sales, use of the *full accrual method*, that is, recognition of all of the profit at the date of sale, depends on the existence of the following two conditions: (*a*) the profit is determinable, that is, the collectibility of the sales price is reasonably assured or an uncollectible amount can be estimated and (*b*) the earnings process is virtually complete, that is, the seller is not obligated to perform significant tasks after the sale to earn the profit. Part or all of the profit should be deferred until both conditions exist.

1.82 Per FASB ASC 360-20-40-4, collectibility is demonstrated by the buyer's commitment to pay as supported by substantial initial and continuing investments in the property such that the buyer's risk of loss through default motivates the buyer to honor the obligation to the seller. Collectibility should

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[12] Such individuals should consider whether FASB ASC 835-30, pertaining to the need for discounting the related receivable, is applicable. FASB ASC 835-30-15-3(a) indicates that the requirements to record receivables at a discounted value are not intended to apply to "receivables and payables arising from transactions with customers or suppliers in the normal course of business which are due in customary trade terms not exceeding approximately one year."

[13] For additional guidance on the accounting for real estate time-sharing transactions, refer to FASB ASC 978, *Real Estate—Time-Sharing Activities*. For real estate transactions that include a buy-sell clause, see FASB ASC 360-20-55-21A.

also be assessed by considering factors such as the credit standing of the buyer, age and location of the property, and adequacy of cash flow from the property.

1.83 According to FASB ASC 360-20-40-5, profit on real estate transactions should not be recognized by the full accrual method unless all of the following criteria are met:

- A sale is consummated, meaning that the parties are bound by the terms of a contract, all consideration has been exchanged, any permanent financing for which the seller is responsible has been arranged, and all conditions precedent to closing have been performed.[14] These four conditions usually are met at the time of closing, not when an agreement to sell has been signed or at a preclosing.
- The buyer's initial and continuing investments are adequate to demonstrate a commitment to pay for the property.
- The seller's receivable is not subject to future subordination.
- The seller has transferred to the buyer the usual risks and rewards of ownership in a transaction that is in substance a sale and does not have a substantial continuing involvement with the property.

Profit on a sale of a partial interest in real estate shall be subject to the same criteria for profit recognition as a sale of a whole interest.

1.84 Paragraphs 28–64 of FASB ASC 360-20-40 also provide guidance on accounting for sales of real estate in circumstances in which criteria for the full accrual method are not met and partial recognition of profit may be appropriate.

Financial Statement Disclosures

Related Party Disclosures

1.85 FASB ASC 850, *Related Party Disclosures*, requires disclosures of material related-party transactions other than compensation arrangements, expense allowances, and other similar items in the ordinary course of business, unless the transactions are eliminated in the preparation of consolidated or combined financial statements. Transactions between related parties are considered to be related-party transactions even though they may not be given accounting recognition. FASB ASC 850-10-50-1 states that the disclosures should include the following:

a. The nature of the relationship(s) involved

b. A description of the transactions, including transactions to which no amounts or nominal amounts were ascribed, for each of the periods for which income statements are presented, and such other information deemed necessary to an understanding of the effects of the transactions on the financial statements

c. The dollar amounts of transactions for each of the periods for which income statements are presented and the effects of any change in

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[14] FASB ASC 360-20-40-28 provides an exception to the preceding requirements if the seller is constructing office buildings, condominiums, shopping centers, or similar structures.

the method of establishing the terms from that used in the preceding period

d. Amounts due from or to related parties as of the date of each balance sheet presented and, if not otherwise apparent, the terms and manner of settlement

e. The information required by FASB ASC 740-10-50-17

1.86 Per FASB ASC 850-10-50-3, in some cases, aggregation of similar transactions by type of related party may be appropriate. Sometimes, the effect of the relationship between the parties may be so pervasive that disclosure of the relationship alone will be sufficient. If necessary to the understanding of the relationship, the name of the related party should be disclosed.

1.87 FASB ASC 850-10-50-5 states that transactions involving related parties cannot be presumed to be carried out on an arm's-length basis, and representations about related-party transactions should not imply that they were consummated on terms equivalent to arm's-length transactions unless such representations can be substantiated.

1.88 FASB ASC 850-10-50-6 states that when a reporting enterprise is under common ownership or management control with one or more other enterprises, the nature of that control relationship should be disclosed, even though there are no transactions between the enterprises, if the existence of that control could result in operating results or financial position of the reporting enterprise that differ significantly from those that would have been obtained if the enterprises were autonomous.

Disclosure of Accounting Policies

1.89 FASB ASC 235, *Notes to Financial Statements*, requires that a description of all significant accounting policies of the reporting entity should be included as an integral part of the financial statements. Disclosure of accounting policies should identify and describe the accounting principles followed by the reporting entity and the methods of applying those principles that materially affect the financial statements. According to FASB ASC 235-10-50-3, in general, the disclosure should encompass important judgments as to appropriateness of principles relating to recognition of revenue and allocation of asset costs to current and future periods; in particular, it should encompass those accounting principles and methods that involve any of the following:

a. A selection from existing acceptable alternatives

b. Principles and methods peculiar to the industry in which the reporting entity operates, even if such principles and methods are predominantly followed in that industry

c. Unusual or innovative applications of U.S. GAAP

Disclosure of Certain Significant Risks and Uncertainties

1.90 FASB ASC 275-10-50-1 requires entities to include in their financial statements disclosures about the nature of their operations and about the use of estimates in the preparation of financial statements. It also requires disclosures about certain significant estimates and the current vulnerability due to certain concentrations, for example, concentrations in the volume of business transacted with a particular customer or concentrations in revenue from particular products or services.

Other Sources of Revenue Recognition Guidance

1.91 In circumstances in which there is no specifically relevant authoritative accounting guidance and application by analogy does not seem appropriate, preparers and auditors may refer to nonauthoritative sources, such as the AICPA Industry Audit and Accounting Guides, certain AICPA *Technical Practice Aids*, AICPA Audit Risk Alerts, and articles in the *Journal of Accountancy* or other professional publications. The inside back cover of this guide lists AICPA Industry Audit and Accounting Guides that provide auditing as well as accounting guidance and addresses industry-specific issues.

Indicators of Improper Revenue Recognition

1.92 Management engages the independent auditor to express an opinion on the financial statements that management prepares in accordance with U.S. GAAP. Auditors should consider indicators of improper revenue recognition that may indicate special attention in performing the audit. This section discusses risk indicators that may signal improper revenue recognition, including risk factors that relate to misstatements arising from fraudulent financial reporting, other issues that may warrant special consideration, and examples of specific transactions or events that may indicate improper accounting for revenue.

Risk Factors Relating to Misstatements Arising From Fraudulent Financial Reporting[15]

1.93 AU section 316, *Consideration of Fraud in a Financial Statement Audit* (AICPA, *Professional Standards*), is the primary source of authoritative requirements and guidance about an auditor's responsibilities concerning the consideration of fraud in a financial statement audit. AU section 316 (AICPA, *Professional Standards*) establishes requirements 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*
>
> Paragraph .01 of AU section 316, *Consideration of Fraud in a Financial Statement Audit* (AICPA, *PCAOB Standards and Related Rules*, Interim Standards), states when performing an integrated audit of financial statements and internal control over financial reporting (subsequently referred to as *integrated audit*), refer to paragraphs 14–15 of 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 fraud considerations in addition to the fraud considerations

[15] PCAOB Release No. 2007-001, *Observations on Auditors' Implementation of PCAOB Standards Relating to Auditors' Responsibilities With Respect to Fraud* (AICPA, *PCAOB Standards and Related Rules*, Select PCAOB Releases), discusses auditors' implementation of PCAOB interim standards regarding the auditor's responsibility with respect to fraud.

set forth in AU section 316 (AICPA, *PCAOB Standards and Related Rules*, Interim Standards).

1.94 Two types of misstatements are relevant to the auditor's consideration of fraud in a financial statement audit:

- Misstatements arising from fraudulent financial reporting
- Misstatements arising from misappropriation of assets

1.95 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.

1.96 There is a presumption that improper revenue recognition exists as a fraud risk factor. Material misstatements due to fraudulent financial reporting often result from an overstatement of revenues (for example, through premature revenue recognition or recording fictitious revenues) or an understatement of revenues (for example, through improperly shifting revenues to a later period). Therefore, the auditor should ordinarily presume that there is a risk of material misstatement due to fraud relating to revenue. (See paragraphs .41 and .54 of AU section 316 (AICPA, *Professional Standards*) for examples arising from fraudulent financial reporting.)

1.97 The appendix of AU section 316 (AICPA, *Professional Standards*) located in paragraph .85, contains examples of fraud risk factors relating to misstatements arising from fraudulent financial reporting that are discussed as follows:

Incentives/Pressures

a. Financial stability or profitability is threatened by economic, industry, or entity operating conditions, such as (or as indicated by):

- High degree of competition or market saturation, accompanied by declining margins
- High vulnerability to rapid changes, such as changes in technology, product obsolescence, or interest rates
- Significant declines in customer demand and increasing business failures in either the industry or overall economy
- Operating losses making the threat of bankruptcy, foreclosure, or hostile takeover imminent
- Recurring negative cash flows from operations or an inability to generate cash flows from operations while reporting earnings and earnings growth
- Rapid growth or unusual profitability, especially compared to that of other companies in the same industry
- New accounting, statutory, or regulatory requirements

b. Excessive pressure exists for management to meet the requirements or expectations of third parties due to the following:

- Profitability or trend level expectations of investment analysts, institutional investors, significant creditors, or

other external parties (particularly expectations that are unduly aggressive or unrealistic), including expectations created by management in, for example, overly optimistic press releases or annual report messages

- Need to obtain additional debt or equity financing to stay competitive—including financing of major research and development[16] or capital expenditures
- Marginal ability to meet exchange listing requirements or debt repayment or other debt covenant requirements
- Perceived or real adverse effects of reporting poor financial results on significant pending transactions, such as business combinations or contract awards

c. Information available indicates that management or the board of directors' personal financial situation is threatened by the entity's financial performance arising from the following:

- Significant financial interests in the entity
- Significant portions of their compensation (for example, bonuses, stock options, and earn-out arrangements) being contingent upon achieving aggressive targets for stock price, operating results, financial position, or cash flow [Footnote omitted.]
- Personal guarantees of debts of the entity

d. There is excessive pressure on management or operating personnel to meet financial targets set up by the board of directors or management, including sales or profitability incentive goals.

Opportunities

a. The nature of the industry or the entity's operations provides opportunities to engage in fraudulent financial reporting that can arise from the following:

- Significant related-party transactions not in the ordinary course of business or with related entities not audited or audited by another firm
- A strong financial presence or ability to dominate a certain industry sector that allows the entity to dictate terms or conditions to suppliers or customers that may result in inappropriate or non-arm's-length transactions
- Assets, liabilities, revenues, or expenses based on significant estimates that involve subjective judgments or uncertainties that are difficult to corroborate
- Significant, unusual, or highly complex transactions, especially those close to period end that pose difficult "substance over form" questions

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[16] For information regarding the accounting for certain advance payments made for research and development costs, the reader may refer to paragraphs 13–14 of FASB ASC 730-20-25. FASB ASC 730-20-25 provides further guidance regarding treatment of advance payments that will be used in future research and development activities. According to "Pending Content" in FASB ASC 605-28-05-1, FASB ASC 605-28 provides revenue accounting guidance for research or development deliverables or units of accounting that include milestones that are accounted for under the milestone method of revenue recognition.

- Significant operations located or conducted across international borders in jurisdictions where differing business environments and cultures exist
- Significant bank accounts or subsidiary or branch operations in tax-haven jurisdictions for which there appears to be no clear business justification

b. There is ineffective monitoring of management as a result of the following:

- Domination of management by a single person or small group (in a nonowner-managed business) without compensating controls
- Ineffective board of directors or audit committee oversight over the financial reporting process and internal control

c. There is a complex or unstable organizational structure, as evidenced by the following:

- Difficulty in determining the organization or individuals that have controlling interest in the entity
- Overly complex organizational structure involving unusual legal entities or managerial lines of authority
- High turnover of senior management, counsel, or board members

d. Internal control components are deficient as a result of the following:

- Inadequate monitoring of controls, including automated controls and controls over interim financial reporting (where external reporting is required)
- High turnover rates or employment of ineffective accounting, internal audit, or information technology staff
- Ineffective accounting and information systems, including situations involving significant deficiencies or material weaknesses in internal control

Attitudes/Rationalizations

Risk factors reflective of attitudes/rationalizations by board members, management, or employees, that allow them to engage in or justify fraudulent financial reporting, may not be susceptible to observation by the auditor. Nevertheless, the auditor who becomes aware of the existence of such information should consider it in identifying the risks of material misstatement arising from fraudulent financial reporting. For example, auditors may become aware of the following information that may indicate a risk factor:

- Ineffective communication, implementation, support, or enforcement of the entity's values or ethical standards by management or the communication of inappropriate values or ethical standards

- Nonfinancial management's excessive participation in or preoccupation with the selection of accounting principles or the determination of significant estimates
- Known history of violations of securities laws or other laws and regulations, or claims against the entity, its senior management, or board members alleging fraud or violations of laws and regulations
- Excessive interest by management in maintaining or increasing the entity's stock price or earnings trend
- A practice by management of committing to analysts, creditors, and other third parties to achieve aggressive or unrealistic forecasts
- Management failing to correct known significant deficiencies or material weaknesses in internal control on a timely basis
- An interest by management in employing inappropriate means to minimize reported earnings for tax-motivated reasons
- Recurring attempts by management to justify marginal or inappropriate accounting on the basis of materiality
- The relationship between management and the current or predecessor auditor is strained, as exhibited by the following:
    - — Frequent disputes with the current or predecessor auditor on accounting, auditing, or reporting matters
    - — Unreasonable demands on the auditor, such as unreasonable time constraints regarding the completion of the audit or the issuance of the auditor's report
    - — Formal or informal restrictions on the auditor that inappropriately limit access to people or information or the ability to communicate effectively with those charged with governance
    - — Domineering management behavior in dealing with the auditor, especially involving attempts to influence the scope of the auditor's work or the selection or continuance of personnel assigned to or consulted on the audit engagement

Other Issues to Consider

Side Agreements

1.98 Side agreements are used to alter the terms and conditions of recorded sales transactions to entice customers to accept the delivery of goods and services. They may create obligations or contingencies relating to financing arrangements or to product installation or customization that may relieve the customer of some of the risks and rewards of ownership. Frequently, side agreements are hidden from the entity's board of directors and outside auditors, and only a very few individuals within an entity are aware that they exist.

1.99 Side agreements appear to be prevalent in high-technology industries, particularly the computer hardware and software segments. The terms they provide may preclude revenue recognition.

Channel Stuffing

1.100 Distributors and resellers sometimes delay placing orders until the end of a quarter in an effort to negotiate a better price on purchases from suppliers that they know want to report good sales performance. This practice may result in a normal pattern of increased sales volume at the end of a reporting period. An unusual volume of sales to distributors or resellers, particularly at or near the end of the reporting period, may indicate channel stuffing. Channel stuffing (also known as *trade loading*) is a marketing practice that suppliers sometimes use to boost sales by inducing distributors to buy substantially more inventory than they can promptly resell. Inducements to overbuy may range from deep discounts on the inventory to threats of losing the distributorship if the inventory is not purchased. Channel stuffing without appropriate provision for sales returns is an example of booking tomorrow's revenue today in order to window-dress financial statements. Channel stuffing also may be accompanied by side agreements with distributors that essentially negate some of the sales by providing for the return of unsold merchandise beyond the normal sales return privileges. Even when there is no evidence of side agreements, channel stuffing may indicate the need to increase the level of anticipated sales returns above historical experience. In some cases, channel stuffing may even preclude the ability to make reasonable and reliable estimates of product returns.[17]

Related-Party Transactions and Significant Unusual Transactions

1.101 Related-party transactions require special consideration because related parties may be difficult to identify, and related-party transactions may pose significant "substance over form" issues. Undisclosed related-party transactions may be used to fraudulently inflate earnings. Examples include the recording of sales of the same inventory back and forth among affiliated entities that exchange checks periodically to "freshen" the receivables, and sales with commitments to repurchase that, if known, would preclude recognition of revenue. Although unusual material transactions, particularly close to year end, may be an indicator of related-party transactions, a series of sales may be executed with an undisclosed related party that individually are insignificant but in total are material.

1.102 Significant, unusual, or highly complex transactions resulting in revenue recognition that are executed with customers who are not related parties similarly may be given special consideration because they also may pose "substance over form" questions and may involve the collusion of the entity and the customer in a fraudulent revenue recognition scheme.

Nature of Business and Accounting for Revenue

1.103 Improper revenue recognition is not confined to any single industry. Risk factors also differ depending on the nature of the product or service and its distribution. Products that are sold to distributors for resale pose different risks than products or services that are sold to end users. Sales in high-technology

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[17] Refer to SEC SAB No. 104 Topic 13 for further information on channel stuffing. Although SEC SABs are directed specifically to transactions of public companies, management and auditors of nonpublic companies may find this guidance helpful in analyzing revenue recognition matters.

industries where rapid product obsolescence is a significant issue pose different risks than sales of inventory with a longer life, such as farm or construction equipment, automobiles, trucks, and appliances. Although U.S. GAAP broadly governs revenue recognition, how those principles are applied in specific circumstances varies from industry to industry.

1.104 In gaining an understanding of the nature of the entity's business, the auditor may consider factors that are relevant to the entity's revenue recognition, such as the following:

- The appropriateness of an entity's application of accounting principles in the context of the industry in which it operates
- Whether there has been a change in the entity's revenue recognition policy and, if so, why
- The entity's practice with regard to sales and payment terms, and whether there are deviations from industry norms or from the entity's own practices, such as the following:
  - — Sales terms that do not comply with the entity's normal policies
  - — The existence of longer than expected payment terms or installment receivables
  - — The use of nonstandard contracts or contract clauses with regard to sales
- Practices with regard to the shipment of inventory that could indicate the potential for misstatements of revenue or that could have other implications for the audit, such as the following:
  - — The entity's shipping policy is inconsistent with previous years. For example, if an entity ships unusually large quantities of product at the end of an accounting period, it may indicate an inappropriate cutoff of sales. Alternatively, if an entity that normally ships around-the-clock has stopped shipments one or two days before the end of the current accounting period, it may indicate that management is abandoning its normal operating policies in an effort to manage earnings, which may have broader implications for the audit.
  - — Shipments recorded as revenue are sent to third-party warehouses rather than to customers.
  - — Shipments recorded as revenue result from billing for demonstration products that already are in the field.

Integrity of Evidence

1.105 Another issue requiring special consideration is the sufficiency and appropriateness of audit evidence supporting revenue recognition. Indicators that revenue may have been improperly recorded include

- responses from management or employees to inquiries about sales transactions or about the basis for estimating sales returns that are inconsistent, vague, or implausible.
- documents to support sales transactions are missing.

- bills of lading have been signed by entity personnel rather than a common carrier.
- documents such as shipping logs or purchase orders have been altered.

1.106 AU section 316 (AICPA, *Professional Standards*), which is discussed in the section of this chapter titled "Auditing Revenue Assertions," provides guidance on how the auditor's judgment about the risk of material misstatement due to fraud may affect the conduct of the audit.

Potential Accounting Misstatements

1.107 The following paragraphs discuss specific indicators relating to sales transactions that may evidence improper revenue recognition. A number of these examples represents obvious misstatements (and fraud as well). Others are transactions that merit further investigation to determine whether revenue has been improperly recorded. The indicators are categorized into sales that may fail as a result of the absence of an agreement, lack of delivery, or an incomplete earnings process (discussed in paragraph 1.110).

Absence of an Agreement

1.108 A sale has not taken place if there is no actual, firm agreement between seller and buyer. Examples of obvious bogus sales are sales to nonexistent customers, sales to existing customers in which terms such as quantities or prices have been altered, and shipments on canceled or duplicate orders. Indicators of sales that may be improperly recorded because of lack of agreement between buyer and seller include the following:

- The use of letters of intent in lieu of signed contracts or agreements
- Sales of merchandise that are shipped in advance of the scheduled shipment date without evidence of the customer's agreement or consent or documented request for such shipment
- Sales recorded upon shipment of a product to customers who have been given a free tryout period after which the customer can return the product with no obligation
- Recognition of sales when customers have unilateral cancellation or termination provisions
- Sales in which evidence indicates the customer's obligation to pay for the product is contingent on the following:
  - — Resale to another (third) party (for example, sale to distributor or consignment sale)
  - — Receipt of financing from another (third) party

Lack of Delivery

1.109 FASB Concept No. 5 states that revenues from manufacturing and selling activities are commonly recognized at the time of sale, usually meaning delivery. Indicators that delivery may not have occurred include the following:

- Sales are billed to customers before the delivery of goods and held by the seller (*bill and hold* or *ship in place* sales).

- Shipments are made after the end of the period (books kept open to record revenue for products shipped after the end of the period do not satisfy the delivery criterion for the current period).
- Shipments are made to a warehouse or other intermediary location without the instruction of the customer.
- Goods are preinvoiced before or in the absence of actual shipment.
- Partial shipments are made in which the portion not shipped is a critical component of the product.
- Purchase orders are recorded as completed sales.

Incomplete Earnings Process

1.110 FASB Concept No. 5 states that revenues are not recognized until earned. Indicators that sales have been recorded before the revenue has been earned include the following:

- There are sales in which evidence indicates the customer's obligation to pay for the merchandise depends on fulfillment by the seller of material unsatisfied conditions.
- Goods are preinvoiced while still in the process of being assembled.
- Shipments are sent to and held by freight forwarders pending return to the entity for required customer modifications.
- There are sales that require substantial continuing vendor involvement after delivery of merchandise (for example, software sales requiring installation, debugging, extensive modifications, and other significant support commitments).

Auditing Revenue Assertions

1.111 The objective of an audit of financial statements conducted in accordance with GAAS or PCAOB standards is to express an opinion on the financial statements. The auditor has a 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.

1.112 No audit can be designed to provide absolute assurance that all revenue recorded by the entity is appropriate or that fraudulent financial reporting is discovered. Nevertheless, an awareness of the conditions that increase audit risk, along with an appropriately skeptical response to issues identified throughout the audit process, can help auditors increase the likelihood that either inadvertent or intentional material misstatements of revenue will be detected.

1.113 Revenue recognition issues continue to pose significant audit risk to auditors. The auditor's understanding of the entity's business—how it earns revenue, who is involved in the revenue process, how its controls over revenue transactions may be overridden, and what its motivation to misstate revenue may be—is important in helping the auditor reduce that risk. Auditors need to pay particular attention to warning signals, such as those discussed in the previous section titled "Indicators of Improper Revenue Recognition," that can be indicative of improper revenue recognition practices. The auditor should plan

and perform the audit with an attitude of professional skepticism.[18] Additional audit procedures directed to the audit of revenues may be needed to reduce the risk of failing to detect material misstatement of the financial statements to an acceptably low level. This section of the chapter on "Auditing Revenue Assertions" summarizes both authoritative and nonauthoritative guidance to help auditors achieve that objective.

Audit Planning

1.114 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; establishing an understanding with the client; preliminary engagement activities; establishing the overall audit strategy; developing the audit plan; determining the extent of involvement of professionals with specialized skills; and communicating with those charged with governance. 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.

1.115 Paragraph .03 of AU section 311 (AICPA, *Professional Standards*) 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*
>
> Paragraph .01 of AU section 311, *Planning and Supervision* (AICPA, *PCAOB Standards and Related Rules*, Interim Standards), states that when performing an integrated audit of financial statements and internal control over financial reporting, refer to paragraph 9 of Auditing Standard No. 5 regarding planning considerations in addition to the planning considerations set forth in AU section 311 (AICPA, *PCAOB Standards and Related Rules*, Interim Standards).

Assignment of Personnel and Supervision

1.116 AU section 311 (AICPA, *Professional Standards*) also discusses the supervision of personnel who are involved in the audit. The extent of supervision appropriate in a given instance depends on many factors, including the complexity of the subject matter and the qualifications of persons performing the work, including knowledge of the entity's business and industry. An understanding of an entity's business, its accounting policies and procedures, and the

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[18] Professional skepticism is characterized as "an attitude that includes a questioning mind and a critical assessment of audit evidence. The auditor uses the knowledge, skill, and ability called for by the profession of public accounting to diligently perform, in good faith and with integrity, the gathering and objective evaluation of evidence." See paragraph .07 of AU section 230, *Due Professional Care in the Performance of Work* (AICPA, *Professional Standards*).

nature of its transactions with customers is useful in assessing the extent of experience or the level of supervision appropriate to audit revenue transactions.

1.117 Unusual or complex transactions, related-party transactions, and sales transactions based on contracts with complex terms may signal the need for more experienced personnel assigned to those segments of the engagement, more extensive supervision, or the use of industry or other specialists. If specialized skills are needed, the auditor should seek the assistance of a professional possessing such skills who may be either on the auditor's staff or an outside professional. AU section 336, *Using the Work of a Specialist* (AICPA, *Professional Standards*), establishes requirements and provides guidance to the auditor who uses the work of a specialist in performing an audit in accordance with GAAS.

Audit Risk

1.118 AU section 312, *Audit Risk and Materiality in Conducting an Audit* (AICPA, *Professional Standards*), states that audit risk is the risk that the auditor may unknowingly fail to appropriately modify his or her opinion on financial statements that are materially misstated. 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.

1.119 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*) the detection risk. Paragraph .23 of AU section 312 (AICPA, *Professional Standards*) states that auditors should assess the risk of material misstatement at the relevant assertion level as a basis for 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.

1.120 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 that 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

1.121 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 necessarily involve both quantitative and qualitative considerations.

1.122 In accordance with paragraph .27 of AU section 312 (AICPA, *Professional Standards*), 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

In accordance with PCAOB standards, paragraph .03 of AU section 312, *Audit Risk and Materiality in Conducting an Audit* (AICPA, *PCAOB Standards and Related Rules*, Interim Standards), states that when performing an integrated audit, refer to paragraph 20 of Auditing Standard No. 5 regarding additional materiality considerations.

Tolerable Misstatement[19]

1.123 The initial determination of materiality is made for the financial statement taken as a whole. However, the auditor should allow for the possibility that some misstatements of lesser amounts than the materiality levels 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 (AICPA, *Professional Standards*) 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 for the financial statements taken as a whole.

Qualitative Aspects of Materiality

1.124 As indicated previously, judgments about materiality include both quantitative and qualitative information. 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. For example, an illegal payment of an otherwise immaterial amount could be material if there is a reasonable possibility that it could lead to a material contingent liability or a material loss of revenue.

1.125 Qualitative considerations also influence the auditor in reaching a conclusion about whether misstatements are material. Paragraph .60 of AU section 312 (AICPA, *Professional Standards*) provides qualitative factors that the auditor may consider relevant in determining whether misstatements are material.

Use of Assertions in Obtaining Audit Evidence

1.126 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

[19] SEC SAB No. 108 Topic 1.N, *Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements*, provides interpretive guidance on how the effects of the carryover or reversal of prior year misstatements should be considered in quantifying a current year misstatement. For additional information, see the issuance at www.sec.gov/interps/account/sab108.pdf.

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 entity.	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.

1.127 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.

Understanding the Entity, Its Environment, and Its Internal Control[†]

1.128 AU section 314, *Understanding the Entity and Its Environment and Assessing the Risks of Material Misstatement* (AICPA, *Professional Standards*), establishes requirements and provides guidance about implementing the second standard of field work 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.

1.129 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, the auditor should also follow the guidance in AU section 316 (AICPA, *Professional Standards*). See paragraphs 1.185–.187 for additional guidance pertaining to AU section 316 (AICPA, *Professional Standards*).

Risk Assessment Procedures

1.130 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 procedures.

1.131 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:

[†] In August 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). With this release, the PCAOB adopted eight auditing standards related to the auditor's assessment of and response to risk that will supersede six of the board's interim auditing standards and related amendments to PCAOB standards. These standards are effective for audit engagements conducted pursuant to the standards of the PCAOB for fiscal years beginning on or after December 15, 2010. Refer to the preface of this guide for important information about the release and applicability of these standards. Readers can download the entire release, which includes full text of the standards, at http://pcaobus.org/.

- 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

1.132 In obtaining an understanding of the entity and its environment, including its internal control, AU section 314 states that there should be discussion among the audit team. In accordance with paragraph .14 of AU section 314, 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 (AICPA, *Professional Standards*) to discuss the susceptibility of the entity's financial statements to fraud.

Understanding of the Entity and Its Environment

1.133 As discussed previously, AU section 314 states that the auditor must 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 the understanding required 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 to assess risks of material misstatement of the financial statements and to design and perform further audit procedures (tests of controls and substantive tests).

1.134 The auditor's understanding of the entity and its environment consists of an understanding of the following aspects:

a. Industry, regulatory, and other external factors

b. Nature of the entity

c. Objectives and strategies and the related business risks that may result in a material misstatement of the financial statements

d. Measurement and review of the entity's financial performance

e. Internal control, which includes the selection and application of accounting policies (see the following section for further discussion)

Refer to appendixes A–B of AU section 314 for examples of matters that the auditor may consider when obtaining an understanding of the entity and its environment relating to categories (*a*)–(*e*) in the preceding list.

1.135 With regard to assertions about revenue, the auditor may consider obtaining information relating to the following matters:

- The kinds of products and services sold
- Whether seasonal or cyclical variations in revenue may be expected
- The marketing and sales policies customary for the entity and the industry

- Policies regarding pricing, sales returns, discounts, extension of credit, and normal delivery and payment terms
- Who, particularly in the marketing and sales functions, is involved with processes affecting revenues including order entry, extension of credit, and shipping
- Whether there are compensation arrangements that depend on the entity's recording of revenue, for example, whether the sales force is paid commissions based on sales invoiced or sales collected, and the frequency with which sales commissions are paid, might have an effect on the recording of sales at the end of a period

1.136 An understanding of the classes and categories of the entity's customers—whether there are sales to distributors or value-added resellers or to related parties—is important. For example, if sales to distributors are material, it is important to understand whether concessions have been made in the form of return product rights or other arrangements in the distribution agreements the entity has entered into. For example, distribution agreements in the high-technology industry might include such terms as price protection, rights of return for specified periods, rights of return for obsolete product, and cancellation clauses, such that the real substance of the agreement is that it results in consignment inventory.

1.137 Other factors that may be relevant to the auditor's understanding include whether the entity assists distributors in placing product with end users, and how the entity manages, tracks, and controls its inventory that is held by distributors. For example, the entity may take physical inventories of product held by distributors or receive periodic inventory reports from distributors that are reconciled to the entity's records.

1.138 The auditor may consider the accounting principles that are appropriate for the entity's sales transactions, including special industry practices. In considering the appropriateness of recognizing revenue on sales to distributors, for example, the auditor may consider that a sale is not final until the customer accepts the product and the risks and rewards of ownership have been transferred to the buyer.

1.139 Auditors may find procedures such as those subsequently described to be useful in obtaining knowledge about an entity's sales transactions.

Inquiry

1.140 Inquiry of management is an effective auditing procedure in obtaining knowledge of the entity and its internal controls. In situations involving unusual or complex revenue transactions, the auditor may consider making inquiries of representatives of the entity's sales, marketing, customer service and returns departments, and other entity personnel familiar with the transactions to gain an understanding of the nature of the transactions and any special terms that may be associated with them. Inquiries of legal staff also may be appropriate when sales contracts have nonstandard, unusual, or complex terms. Inquiry alone is not a sufficient auditing procedure, but information obtained from discussions with management and entity personnel may help the auditor identify matters that need to be corroborated with evidence obtained from other procedures, including confirmation from independent sources outside the entity.

Reading and Understanding Contracts

1.141 Reading and understanding the terms of sales contracts will help the auditor obtain an understanding of what the customer expects and what the entity is committed to provide. In addition, reading the contents of the entity's sales contract (and sales correspondence) files may provide evidence of side agreements.

Understanding of Internal Control Over Revenue Recognition

1.142 The COSO report broadly defines *internal control* as a process, affected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives including reliable financial reporting. (See the section titled "Responsibility for Reliable Reporting.")

1.143 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

a. evaluate the design of controls relevant to an audit of financial statements.

b. determine whether they have been implemented.

1.144 The auditor should use such knowledge to

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

1.145 Obtaining an understanding of controls should be distinguished from testing the operating effectiveness of controls. 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.

1.146 Internal control consists of five interrelated components:

a. The 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.

1.147 The auditor should obtain an understanding of internal control over revenue transactions, which may include the entity's policies and procedures for receiving and accepting orders, extending credit, shipping goods, relieving inventory, billing and recording sales transactions, receiving and recording

sales returns, and authorizing and issuing credit memos. The understanding would include whether the entity has procedures for determining the proper cutoff of sales at the end of the accounting period. It also is important for the auditor to have an understanding of the computer applications and key documents (for example, purchase orders, shipping reports, bills of lading, invoices, credit memos) used during the processing of revenue transactions.

1.148 Paragraph .55 of AU section 314 states that the auditor should perform risk assessment procedures to obtain an understanding of internal control. Procedures to obtain audit evidence about the design and implementation of relevant controls may include inquiring of entity personnel, observing the application of specific controls, inspecting documents and reports, and tracing transactions through the information system relevant to financial reporting. Inquiry alone is not sufficient to evaluate the design of a control relevant to an audit and to determine whether it has been implemented. For example, the auditor might obtain knowledge of the design and operation of internal controls over the extension of credit to customers by performing procedures such as the following:

- Inquire of the credit manager and other credit department personnel about the entity's documented policies for approving sales orders before a shipping or production order is generated, including how
    - — new customers' creditworthiness is determined.
    - — standing customers' credit limits are established and reviewed.
    - — exceptions are handled if orders outside predetermined limits are received.
    - — management monitors the functioning of controls over the extension of credit.
- Inspect the documents that are used in various steps of the credit authorization process.
- Observe how the authorization of orders is executed by credit department personnel.

1.149 The auditor's understanding of internal control may include such information as how the entity monitors its sales contracts. Relevant aspects of this include the entity's policy about management or other personnel who are authorized to approve nonstandard contract clauses; whether those personnel understand the accounting implications of changes to contractual clauses; and whether the entity enforces its policies regarding negotiation and approval of sales contracts and investigates exceptions. A lack of documented policies may give rise to a lack of compliance or inconsistent compliance with stated policies.

1.150 A sufficient understanding of the entity's application of accounting principles, given the nature of its sales transactions, is important. The auditor should obtain an understanding of the entity's financial reporting process to prepare the financial statements, including disclosures. This understanding ordinarily will include how the entity develops significant estimates, such as reserves for sales returns and allowances for doubtful accounts. It also ordinarily will include considering the entity's procedures for accounting for and

disclosing related-party transactions. (See the discussion about related parties in the section "Transactions With Related Parties," which follows.)

Assessing the Risks of Material Misstatement

1.151 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

a. 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.

b. relate the identified risks to what can go wrong at the relevant assertion level.

c. consider whether the risks are of a magnitude that could result in a material misstatement of the financial statements.

d. consider the likelihood that the risks could result in a material misstatement of the financial statements.

1.152 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.

Identification of Significant Risks

1.153 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. Refer to paragraphs .45 and .53 of AU section 318, *Performing Audit Procedures in Response to Assessed Risks and Evaluating the Audit Evidence Obtained* (AICPA, *Professional Standards*), for requirements and guidance regarding further audit procedures pertaining to significant risks.

Designing and Performing Further Audit Procedures

1.154 AU section 318 establishes requirements and provides guidance about implementing the third standard of field work, 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.

1.155 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.

Overall Responses

1.156 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

1.157 Further audit procedures provide important audit evidence to support an audit opinion. These procedures consist of tests of controls and substantive tests. The nature, timing, and extent of the further audit procedures to be performed by the auditor should be based on the auditor's assessment of risks of material misstatement at the relevant assertion level. In some cases, an auditor may 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. 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.

1.158 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.

> *Considerations for Audits Performed in Accordance with PCAOB Standards*
>
> Paragraph .97 of AU section 319, *Consideration of Internal Control in a Financial Statement Audit* (AICPA, *PCAOB Standards and Related Rules*, Interim Standards), states that when performing an integrated audit of financial statements and internal control over financial reporting, refer to paragraph 54 of PCAOB Auditing Standard No. 5 for discussion on the extent of tests of controls.
>
> Also, refer to paragraphs B10.–B16. of appendix B, "Special Topics," in Auditing Standard No. 5 for guidance about tests to be performed when an entity has multiple locations or business units, the use of service organizations, and benchmarking of automated controls.

1.159 The greater the risk of material misstatement, the less detection risk that can be accepted and, consequently, the greater the extent of

substantive procedures. For example, if the auditor discovers that the entity's approval process for nonstandard sales contracts is ineffective, he or she may decide to confirm contract terms with major customers. If the auditor determines that a control has been intentionally overridden, AU section 316 (AICPA, *Professional Standards*), discussed in the following paragraphs, provides guidance on how the audit may be affected.

1.160 The auditor's substantive procedures should include the following audit procedures related to the financial statement reporting process to address the risk of management override of controls:

- Examining journal entries and other adjustments for evidence of possible material misstatement due to fraud
- Reviewing accounting estimates for biases that could result in material misstatement due to fraud
- Evaluating the business rationale for significant unusual transactions

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.

Cutoff Tests, Vouching, and Other Substantive Tests of Details

1.161 Substantive procedures include tests of details and substantive analytical procedures. The auditor may determine that tests of details or substantive analytical procedures alone may be sufficient to reduce the planned level of detection risk to an acceptably low level, or that a combination of both is more responsive to the assessed risk. The auditor may perform tests of details of transactions to determine whether transactions have been properly recorded in accordance with the entity's stated accounting policies. Such tests may include cutoff tests and vouching.

Revenue Cutoff Tests

1.162 If sales transactions involve the shipment of a product, revenue cutoff tests are used to test the revenue recognition process by determining whether goods have been shipped (assuming terms are FOB shipping point) to the customer and whether the related revenues have been recorded in the same accounting period as shipment occurred. Revenue cutoff tests often are performed in connection with inventory cutoff tests. The scope of cutoff tests may be influenced by the following:

- Large quantities of merchandise awaiting shipment being noted during the year-end inventory observation
- Significant in-transit inventory at year end, significant change from the prior year, or both
- An unusual increase in sales in the last few days of the audit period followed by an unusual decrease in the first few days after the audit period
- Numerous shipping locations
- Products with a relatively large per unit value
- Situations in which revenue is recognized before shipment or passage of title

1.163 An example of a cutoff test is to examine invoices and shipping documents for several days before and after the end of the accounting period and to trace such documents to the receivables and revenue records for the appropriate period. Compare the date of the invoices to the date of the related shipping documents. The date of billing is not necessarily the time when the revenue should be recognized—it is merely an indication of when the goods were billed. Compare quantities invoiced to quantities shipped and verify that shipment was made to the customer's site. To review the records properly, use the entity's mechanism for establishing control over the recording of shipments and billing of goods, for example, prenumbered shipping reports and prenumbered invoices, for each shipping point. In addition, refer to paragraph 1.182 for additional testing considerations as they relate to inventory cutoff.

Vouching

1.164 Vouching transactions is an effective and efficient procedure relating to *occurrence* or *accuracy* and *completeness* assertions when controls are weak. The objective is to determine whether recorded transactions actually occurred (are supported by valid source documents or records) and were accurately recorded. An example of vouching transactions is to select a sample of sales invoices from the revenue journal for a period before and a period after the balance sheet date and test for the propriety of revenue recognition with reference to the contractual terms with the customer and relevant legal and accounting regulations. Trace all information (for example, customer's name, product description, quantities, prices, terms, and shipping date) to shipping documents and approved sales order or other customer authorization. Trace prices charged to price lists or job quotations. Check extensions and foot invoices or billings for clerical accuracy. Trace invoiced amounts to the subsidiary accounts receivable ledger.

Other Substantive Tests of Details

1.165 Other tests of details might include, depending on the assessment of the risks of material misstatements, the following:

- Examine inventory reports or other correspondence from distributors and reconcile this information with the entity's records
- Vouch all large or unusual sales made at quarter end and year end to original source documents
- Perform a detailed review of the entity's quarter-end or year-end adjusting entries and investigate any that appear unusual as to nature or amount
- Scan the general ledger, accounts receivable subledger, and sales journal for unusual activity
- Check the clerical accuracy of the revenue journal or similar record and trace the postings of the totals to the appropriate account in the general ledger
- Check the reconciliation of revenue journals during the audit period to the general ledger control account or check the postings to the general ledger control account from sources other than the revenue journal for unusual or unexpected activity
- Analyze and review deferred revenue accounts at end of the period for propriety of deferral

- Analyze and review credit memos and other accounts receivable adjustments for the period subsequent to the balance sheet date
- Scan the general ledger or subsidiary ledgers, as appropriate, for a period subsequent to year end for reversals of sales or large sales returns
- Review significant year-end contracts for unusual pricing, billing, delivery, return, exchange, or acceptance clauses. Perform post year-end specific review for contract revisions or cancellations and for refunds or credits issued

Confirmations

1.166 AU section 330, *The Confirmation Process* (AICPA, *Professional Standards*), establishes requirements and provides guidance to auditors about obtaining evidence from third parties about financial statement assertions made by management. AU section 326 states that in general, it is presumed that "audit evidence is more reliable when it is obtained from knowledgeable independent sources outside the entity."

1.167 Paragraph .35 of AU section 330 states that an auditor who has not requested confirmations in the examination of accounts receivable should document how he or she overcame this presumption.

1.168 Interpretation No. 1, "Use of Electronic Confirmations," of AU section 330 (AICPA, *Professional Standards*, AU sec. 9330 par. .01–.08) 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 alteration, including the risk that the confirmation respondent will not be the intended respondent, paragraph .05 of Interpretation No. 1 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.

1.169 Paragraph .25 of AU section 330 also states the following:

> The auditor's understanding of the entity's arrangements and transactions with third parties is key to determining the information to be confirmed. The auditor should obtain an understanding of the substance of such arrangements and transactions to determine the appropriate information to include on the confirmation request. The auditor should consider requesting confirmation of the terms of unusual agreements or transactions, such as bill and hold sales, in addition to the amounts. The auditor also should consider whether there may be oral modifications to agreements, such as unusual payment terms or liberal rights of return. When the auditor believes there is a moderate or high degree of risk that there may be significant oral modifications, he or she should inquire about the existence and details of any such modifications to written agreements. One method of doing so is to confirm both the terms of the agreements and whether any oral modifications exist.

1.170 As previously discussed, the confirmation of contract terms is suggested in AU section 316 (AICPA, *Professional Standards*) in response to the auditor's assessment of the risks of material misstatements arising from fraudulent financial reporting and in AU section 334, *Related Parties* (AICPA, *Professional Standards*), to determine the purpose, nature, and extent of transactions with related parties and their effect on the financial statements.

1.171 In addition, in some entities, the nature of the business is such that the majority of revenues are made up of complex transactions evidenced by individual contracts. Entities in which the majority of sales are made pursuant to standard terms also may enter into such contracts for amounts that may be material to recorded revenue. Auditors may consider reading the terms of contracts because they may significantly affect the accounting treatment for the transaction. In situations in which the auditor requests confirmation of contract terms, he or she may consider confirming with the customer *all* the significant contract terms, including information about payment terms, right-of-return privileges, acceptance criteria, termination arrangements, or bill and hold transactions. The auditor may consider the need to confirm with the customer whether there are significant unfulfilled vendor obligations or the existence of any oral or written agreements, particularly with regard to return or termination arrangements, that may alter the terms of the contract. In some circumstances, auditors might also consider contacting major customers orally in addition to written confirmations to determine whether the responses to confirmation requests received appropriate attention from personnel who are knowledgeable about the contract.

Evaluating Accounting Estimates Relevant to Revenue Recognition

1.172 The auditor is responsible for evaluating the reasonableness of accounting estimates made by management in the context of the financial statements taken as a whole. Evaluation of estimates is always an area of auditing concern because the measurement of estimates is inherently uncertain and depends on the outcome of future events. Paragraph .10 of AU section 342, *Auditing Accounting Estimates* (AICPA, *Professional Standards*), states the following:

> In evaluating reasonableness, the auditor should obtain an understanding of how management developed the estimate. Based on that understanding, the auditor should use one or a combination of the following approaches:
>
> *a.* Review and test the process used by management to develop the estimate.
>
> *b.* Develop an independent expectation of the estimate to corroborate the reasonableness of management's estimate.
>
> *c.* Review subsequent events or transactions occurring prior to the date of the auditor's report.
>
> *Considerations for Audits Performed in Accordance with PCAOB Standards*
>
> Paragraph .10 of AU section 342, *Auditing Accounting Estimates* (AICPA, *PCAOB Standards and Related Rules*, Interim Standards), states that when performing an integrated audit of financial statements and internal control over financial reporting, the auditor may use any of the three approaches in the preceding list. However, the

work that the auditor performs as part of the audit of internal control over financial reporting should necessarily inform the auditor's decisions about the approach he or she takes to auditing an estimate because, as part of the audit of internal control over financial reporting, the auditor would be required to obtain an understanding of the process management used to develop the estimate and to test controls over all relevant assertions related to the estimate.

1.173 Some estimates that are significant to management's assertions about revenue include sales returns, the allowance for doubtful accounts, rebates and incentive programs, and revenues from contracts accounted for by the percentage-of-completion method of accounting.

1.174 Auditors often use historical data to evaluate the reasonableness of such estimates as reserves for sales returns. Historical data may indicate entity practices to take back inventory even when no contractual right of return exists. Analysis of the aging of accounts receivables that reflects a "building up" of receivables may indicate contingent sales or concessions to customers regarding the return of goods. Auditors also might consider reviewing sales to major customers, particularly to distributors, to detect excess purchases (channel stuffing) that may be at greater risk of return in the subsequent period. An entity's ability to make reasonable estimates of sales returns may be impaired if the entity does not have sufficient visibility into what is going on in the sales channel. Reliance on solely historical averages may be insufficient, especially if the environment is somewhat volatile.

1.175 Estimating reserves for sales returns is particularly difficult when a new product has been introduced for which there are no historical data. Procedures that the auditor may consider include the following:

- Read trade magazines and analysts' reports to gain an understanding of the acceptance of the product in the marketplace
- Analyze activity subsequent to year end when actual product returns may have occurred
- Consider the susceptibility of the product to technological change and how thoroughly tested it was prior to release
- Analyze historical returns for similar product lines

1.176 The ability to make reasonable estimates of future returns is one of the conditions that must be met for recognition of revenue at the time of sale in accordance with FASB ASC 605-15. (See the section of this chapter titled "Summary of Selected Accounting Literature on Revenue Recognition.") If reasonable estimates cannot be made, revenue recognition should be deferred.

1.177 In addition to analyzing historical data and the accounts receivable aging reports, auditors may consider testing the entity's estimate of the collectibility of receivables by procedures such as the following:

- Obtain publicly available information on major customers to determine their ability to honor outstanding obligations to the entity
- Investigate unusual credit limits or nonstandard payment terms granted to customers
- Test subsequent collections of receivables

1.178 Revenue recognition for contracts accounted for by the percentage-of-completion method is dependent on estimates of contract revenues, contract

costs, and the extent of progress toward completion. Meaningful measurement of the extent of progress toward completion is essential because this factor is used in determining the amounts of estimated contract revenue and estimated gross profit that will be recognized as earned in any given period. All of the factors that affect total estimated revenue, including the basic contract price, contract options, change orders, claims, and contract provisions for penalties and incentive payments, ordinarily should be reevaluated throughout the life of a contract. Although costs incurred to date may be verifiable, estimated costs to complete also are subject to continual refinement as work progresses. Auditors should obtain a sufficient understanding of the contract to evaluate the reasonableness of management's assumptions regarding the estimates. Management also may rely on engineers or architects to make significant estimates. In that case, AU section 336 provides requirements and guidance to an auditor who uses the work of a specialist. The auditor should evaluate the relationship of the specialist to the entity, including circumstances that might impair the specialist's objectivity. If the auditor believes the specialist's objectivity might be impaired, the auditor should perform additional procedures with respect to some or all of the specialist's findings to determine that the findings are not unreasonable or should engage another specialist for that purpose.

Gather Evidence to Support VSOE, TPE, or BESP

1.179 As described in "Pending Content" in FASB ASC 605-25-30-2, when applying the relative selling price method, the selling price for each deliverable should be determined using VSOE of selling price, if it exists; otherwise, TPE of selling price. If neither VSOE nor TPE of selling price exists for a deliverable, the vendor should use its BESP for that deliverable applying the relative selling price method.

1.180 Auditors should gather audit evidence to support VSOE, TPE, or BESP (whichever is applicable) for each element in a multiple-element arrangement. This audit evidence should be consistent with the definitions of *VSOE*, *TPE*, and *BESP,* specified in "Pending Content" in paragraphs 6A–6C of FASB ASC 605-25-30. In obtaining VSOE, TPE, or BESP for each element, auditors may

- examine documentation to support the price charged for the element when it is sold separately.
- review the entity's procedures to establish pricing policies.

1.181 In many instances, audit evidence to support VSOE, TPE, or BESP for each element in a multiple-element arrangement may be obtained from an evaluation of a vendor's historical sales of products and services. FASB ASC 985-605-55-25[20] provides the following examples of factors that may be useful in evaluating a vendor's product and service pricing history:

- Similarity of customers
  - — Type or class of customer
- Similarity of products included

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[20] This information comes from TIS section 5100.57, "Overcoming Presumption of Concessions in Extended Payment Term Arrangements and Software Revenue Recognition" (AICPA, *Technical Practice Aids*). TIS section 5100 was the only TIS section that FASB codified and therefore made authoritative.

- Types of products
- Stage of product life cycle
- Elements included in the arrangement

- Similarity of license economics
  - Length of payment terms
  - Economics of license arrangement

Observation of Inventory

1.182 In cases in which inventory is observed at the end of a reporting period, auditors frequently obtain information pertaining to the final shipments of goods made during the period. This information later is compared to the entity's sales records to determine whether a proper cutoff of sales occurred. Additional procedures include inspecting the shipping areas at the observation site and making inquiries about whether goods in the shipping area will be included in inventory. If they are not to be included in inventory, the auditor may need to obtain information about the nature of the goods and the quantities and make additional inquiries of management. Auditors also might inspect the site to determine whether any other inventory has been segregated and inquire of management whether the entity's shipping policy is consistent with prior periods and, if not, why.

1.183 If entities have numerous shipping locations, auditors may consider observing inventory counts at all locations on the same day. Alternatively, auditors may consider observing inventory counts at certain locations on an unannounced basis to detect whether inventories are being shipped from one entity location to another and recorded as sales.

1.184 In situations in which potential obsolescence or technology issues may pose special problems, the auditor may consider whether the staff who have been assigned to observe the inventory have the appropriate experience and training and whether the extent of supervision is appropriate for the assessed level of risk.

Evaluating Misstatements

1.185 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 (AICPA, *Professional Standards*) 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. AU section 312 (AICPA, *Professional Standards*) 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.

> *Considerations for Audits Performed in Accordance with PCAOB Standards*
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> Paragraph .12 of AU section 312 (AICPA, *PCAOB Standards and Related Rules*, Interim Standards) states that when performing an integrated audit of financial statements and internal control over financial reporting, refer to paragraphs 9 and 20 of PCAOB Auditing

Standard No. 5 regarding planning considerations and materiality, respectively.

1.186 For detailed guidance on evaluating audit findings and audit evidence, refer to AU section 312 (AICPA, *Professional Standards*) and AU section 326, respectively. In addition, see footnote 19 to the "Tolerable Misstatement" heading in this chapter for further information on SAB No. 108, Topic 1.N, *Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements*.

Consideration of Fraud in a Financial Statement Audit

1.187 As stated in the section titled "Risk Factors Relating to Misstatements Arising from Fraudulent Financial Reporting," AU section 316 (AICPA, *Professional Standards*) is the primary source of authoritative requirements and guidance about an auditor's responsibilities concerning the consideration of fraud in a financial statement audit. AU section 316 (AICPA, *Professional Standards*) establishes requirements 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.

> *Considerations for Audits Performed in Accordance with PCAOB Standards*
>
> Paragraph .01 of AU section 316 (AICPA, *PCAOB Standards and Related Rules*, Interim Standards) states that 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, in addition to the fraud considerations set forth in AU section 316 (AICPA, *PCAOB Standards and Related Rules*, Interim Standards).

The Importance of Exercising Professional Skepticism

1.188 Because of the characteristics of fraud, the auditor's exercise of professional skepticism is important when considering the risks of material misstatement due to fraud. Professional skepticism is an attitude that includes a questioning mind and a critical assessment of audit evidence. The auditor should conduct the engagement with 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[21]

1.189 Members of the audit team should discuss the potential for material misstatement due to fraud in accordance with the requirements of paragraphs

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[21] 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 risks of material misstatement.

.14–.18 of AU section 316 (AICPA, *Professional Standards*). 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, or both, 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.

Accounting Principles and Policies

1.190 The auditor may decide to further consider management's selection and application of significant accounting policies, particularly those related to revenue recognition. The auditor may have a greater concern about whether the accounting principles selected and policies adopted are being applied in an inappropriate manner to create a material misstatement of the financial statements.

Controls

1.191 Even if specific risks of material misstatement due to fraud are not identified by the auditor, there is a possibility that management override of controls could occur, and accordingly, the auditor should address that risk (see paragraph .57 of AU section 316 [AICPA, *Professional Standards*]) apart from any conclusions regarding the existence of more specifically identifiable risks. Specifically, the procedures described in paragraphs .58–.67 of AU section 316 (AICPA, *Professional Standards*) should be performed to further address the risk of management override of controls. These procedures include (*a*) examining journal entries and other adjustments (especially contract cost accounting adjustments) for evidence of possible material misstatement due to fraud, (*b*) reviewing accounting estimates for biases that could result in material misstatement due to fraud, and (*c*) evaluating the business rationale for and contract allowability of significant unusual transactions.

1.192 Paragraph .54 of AU section 316 (AICPA, *Professional Standards*) gives the following example of a specific response to the auditor's assessment of the risk of material misstatement arising from fraudulent financial reporting of revenue:

> If there is a risk of material misstatement due to fraud that may involve or result in improper revenue recognition, it may be appropriate to confirm with customers certain relevant contract terms and the absence of side agreements—inasmuch as the appropriate accounting is often influenced by such terms or agreements. For example, acceptance criteria, delivery and payment terms and the absence of future or continuing vendor obligations, the right to return the product, guaranteed resale amounts, and cancellation or refund provisions often are relevant in such circumstances. [Footnote omitted.]

1.193 Paragraphs .51–.53 of AU section 316 (AICPA, *Professional Standards*) note that the nature, timing, and extent of audit procedures may need to be modified in response to the auditor's assessment of the risk of material misstatement due to fraud. It includes specific examples of responses that

are included in the discussion of various auditing procedures throughout this section.

Transactions With Related Parties

1.194 AU section 334 establishes requirements and provides guidance on procedures to obtain audit evidence on related-party relationships and transactions that must be disclosed in accordance with FASB ASC 850-10. (See the section of this chapter titled "Summary of Selected Accounting Literature on Revenue Recognition.") Paragraph .02 of AU section 334 states that "the auditor should be aware that the substance of a particular transaction could be significantly different from its form and that financial statements should recognize the substance of particular transactions rather than merely their legal form."[22] In the absence of evidence to the contrary, transactions with related parties should not be assumed to be outside the ordinary course of business. The auditor should, however, be aware of the possibility that transactions with related parties may have been motivated by conditions such as the following:

- Lack of sufficient working capital or credit to continue the business
- An urgent desire for a continued favorable earnings record in the hope of supporting the price of the entity's stock
- An overly optimistic earnings forecast
- Dependence on a single or relatively few products, customers, or transactions for the continuing success of the venture
- A declining industry characterized by a large number of business failures
- Excess capacity
- Significant litigation, especially litigation between stockholders and management
- Significant obsolescence dangers because the entity is in a high-technology industry

1.195 Paragraph .08 of AU section 334 describes examples of procedures for identifying material transactions with parties known to be related and for identifying material transactions that may indicate the existence of previously undetermined relationships. The procedures include the following:

- Provide audit personnel performing segments of the audit or auditing and reporting separately on the accounts of related components of the reporting entity with the names of known related parties so that they may become aware of transactions with such parties during their audits.
- Review the minutes of meetings of the board of directors and executive or operating committees for information about material transactions authorized or discussed at their meetings.

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[22] Some FASB guidance specifies criteria for determining, presenting, and accounting for the substance of certain transactions and events. Examples include (*a*) presenting consolidated financial statements instead of separate statements of the component legal entities (FASB ASC 810, *Consolidation*); (*b*) capitalizing leases (FASB ASC 840, *Leases*); and (*c*) imputing an appropriate interest rate when the face amount of a note does not reasonably represent the present value of the consideration given or received in exchange for it (FASB ASC 835, *Interest*).

- Review proxy and other material filed with the SEC and comparable data filed with other regulatory agencies for information about material transactions with related parties.
- Review conflict-of-interests statements obtained by the entity from its management.
- Review the extent and nature of business transacted with major customers, suppliers, borrowers, and lenders for indications of previously undisclosed relationships.
- Review accounting records for large, unusual, or nonrecurring transactions or balances, paying particular attention to transactions recognized at or near the end of the reporting period.
- Review confirmations of compensating balance arrangements for indications that balances are or were maintained for or by related parties.
- Review invoices from law firms that have performed regular or special services for the company for indications of the existence of related parties or related party transactions.
- Review confirmations of loans receivable and payable for indications of guarantees. When guarantees are indicated, determine their nature and the relationships, if any, of the guarantors to the reporting entity.

1.196 AU section 334 states that the auditor should place emphasis on testing material transactions with parties he or she knows are related to the reporting entity. It states that procedures should be directed toward obtaining and evaluating sufficient appropriate audit evidence and should extend beyond inquiry of management. The following are among the procedures that should be considered to obtain satisfaction concerning the purpose, nature, and extent of related-party transactions and their possible effect on revenue recognition:

- Obtain an understanding of the business purpose of the transaction.
- Examine invoices, executed copies of agreements, contracts, and other pertinent documents, such as receiving reports and shipping documents.
- Determine whether the transaction has been approved by the board of directors or other appropriate officials.
- Confirm the transaction amount and terms, including guarantees and other significant data, with the other party or parties to the transaction.
- Refer to financial publications, trade journals, credit agencies, and other information sources when there is reason to believe that unfamiliar customers, suppliers, or other business entities with which material amounts of business have been transacted may lack substance.
- With respect to material uncollected balances, guarantees, and other obligations, obtain information about the financial capability of the other party or parties to the transaction. Such information may be obtained from audited or unaudited financial statements, tax returns, reports issued by regulatory agencies or taxing authorities, financial publications, or credit agencies.

1.197 The auditor should consider whether he or she has obtained sufficient appropriate audit evidence to understand the relationship of the parties and the effects of related-party transactions on the financial statements.

Analytical Procedures

1.198 AU section 329, *Analytical Procedures* (AICPA, *Professional Standards*), states that the use of analytical procedures in the planning and review phases of the audit is required. Analytical procedures also may be used as substantive tests, although AU section 329 notes that they may not be as effective or efficient as tests of details in providing the desired level of assurance for some assertions. In accordance with paragraph .06 of AU section 314, analytical procedures are also performed as risk assessment procedures to obtain an understanding of the entity and its environment, including its internal control. AU section 339, *Audit Documentation* (AICPA, *Professional Standards*), establishes standards, provides guidance on audit documentation, and provides further guidance in this area, including, among other things, the documentation requirement regarding substantive analytical procedures.

> *Considerations for Audits Performed in Accordance with PCAOB Standards*
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> PCAOB Auditing Standard No. 3, *Audit Documentation* (AICPA, *PCAOB Standards and Related Rules*, Auditing Standards), established general requirements for documentation the auditor should prepare and retain in connection with engagements conducted pursuant to PCAOB standards.

1.199 Analytical procedures involve the comparisons of recorded amounts, or ratios developed from the recorded amounts, to expectations developed by the auditor. The auditor's expectations may be developed from a variety of sources including the financial information for comparable prior periods, anticipated (budgetary) results, and information regarding the industry in which the entity operates and its normal business practices with regard to sales and distribution. For analytical procedures to be effective, the expectation should be precise enough to provide the desired level of assurance that differences that may be potential material misstatements, individually or when aggregated with other misstatements, would be identified for the auditor to investigate.

1.200 An objective of applying analytical procedures in the planning phase of the audit is to identify areas that may represent specific risks relevant to the audit, such as the existence of unusual transactions and events, and amounts, ratios, and trends that might indicate matters that have financial statement and audit planning ramifications. The following analytical procedures are particularly useful in identifying unusual fluctuations in the revenue cycle that warrant additional consideration. Depending on the presence of risk factors and other judgments made during audit planning, the auditor may wish to perform one or more of the following procedures:

- Compare monthly and quarterly sales by location and by product line with sales of the preceding comparable periods and for comparable periods in prior years. Consider whether the results are consistent with other known information, such as expanding or declining markets, changes in sales price mix, and new or discontinued product lines. Comparison of weekly and daily sales may

be appropriate for certain periods such as the last month or week of the year.

- Analyze the ratio of sales in the last month or week to total sales for the quarter or year.
- Compare revenues recorded daily for periods shortly before and after the end of the audit period for unusual fluctuations such as an increase just before and a decrease just after the end of the period.
- Compare gross profit ratio, overall and by product line, to previous years and to budget and consider in the context of industry trends.
- Compare details of units shipped with revenues and production records and consider whether revenues are reasonable compared to levels of production and average sales price.
- Compare the number of weeks of inventory in distribution channels with prior periods for unusual increases that may indicate channel stuffing.
- Compare percentages and trends of sales into the distributor channel with industry and competitors' sales trends, if known.
- Compare revenue deductions, such as discounts and returns and allowances, as a percentage of revenues with budgeted and prior period percentages for reasonableness in light of other revenue information and trends in the business and industry.
- Compare sales credits for returns subsequent to year end with monthly sales credits during the period under audit to determine whether there are unusual increases that may indicate contingent sales or special concessions to customers.
- Analyze the ratio of returns and allowances to sales.
- Compare the aging of accounts receivable in the current and prior periods for buildup of accounts receivable.
- Compare monthly cash receipts for the period under audit to cash receipts subsequent to year end to determine whether receipts subsequent to year end are unusually low compared to the collection history during the months under audit.

1.201 AU section 329 states that the auditor should evaluate significant unexpected differences that are identified by analytical procedures. Management responses ordinarily should be corroborated with other audit evidence. In situations in which an explanation for the difference cannot be obtained, the auditor should obtain sufficient evidence about the assertion by performing other audit procedures to determine whether the difference is a likely misstatement. This may be particularly appropriate in investigating individually significant revenue transactions.

1.202 When designing substantive analytical procedures, the auditor also might evaluate the risk of management override of controls. As part of this process, the auditor may evaluate whether such an override might have allowed adjustments outside of the normal period-end financial reporting process to have been made to the financial statements. Such adjustments might have resulted in artificial changes to the financial statement relationships being analyzed, causing the auditor to draw erroneous conclusions. For this reason,

substantive analytical procedures alone are not well suited to detecting fraud. In addition, before using results obtained from substantive analytical procedures, the auditor should either test the design and operating effectiveness of controls over financial information used in the substantive analytical procedures or perform other procedures to support the completeness and accuracy of the underlying information.

1.203 For significant risks of material misstatement, it is unlikely that audit evidence obtained from substantive analytical procedures alone will be sufficient.

Management Representations

1.204 AU section 333, *Management Representations* (AICPA, *Professional Standards*), states that the auditor should obtain written representations from management as a part of an audit of financial statements performed in accordance with GAAS or PCAOB standards. Paragraph .09 of AU section 333 (AICPA, *Professional Standards*) states that the representations should be made as of the date of the auditors report. Such representations are part of the audit evidence the independent auditor obtains, but they are not a substitute for the application of those auditing procedures necessary to afford a reasonable basis for an opinion. Written representations from management complement other auditing procedures.

> *Considerations for Audits Performed in Accordance with PCAOB Standards*
>
> Paragraph .05 of AU section 333, *Management Representations* (AICPA, *PCAOB Standards and Related Rules*, Interim Standards), states that 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.

1.205 AU section 333 (AICPA, *Professional Standards*) establishes requirements and provides guidance on the matters to which specific representations should relate, including the financial statements; completeness of information; recognition, measurement and disclosure; subsequent events; and audit adjustments. Examples of such representations that are relevant to revenue recognition include representations that

- there has been no fraud that could have a material effect on the financial statements.
- related-party transactions, including sales and amounts receivable from related parties, have been properly recorded and disclosed.
- all financial records and related data have been made available.
- significant estimates and material concentrations that are required to be disclosed in accordance with FASB ASC 275-10 have been disclosed.
- the effects of any uncorrected financial statement misstatements aggregated by the auditor during the current engagement and pertaining to the latest period presented are immaterial, both individually and in the aggregate, to the financial statements taken

as a whole. (A summary of such items would ordinarily be included in or attached to the letter.)

1.206 The representation letter ordinarily should be tailored to include additional appropriate representations from management relating to matters specific to the entity's business or industry. The auditor may consider it useful to obtain written representations concerning specific revenue recognition issues, such as the terms and conditions of unusual or complex sales agreements. Such representations may include confirmation that there are no contingencies that affect the obligation of customers to pay for merchandise purchased and may also include confirmation regarding the existence of side agreements.

1.207 Auditors may consider whether there is a need to obtain written representations from individuals below the executive level, such as sales personnel.

Adequacy of Disclosure

1.208 AU section 431, *Adequacy of Disclosure in Financial Statements* (AICPA, *Professional Standards*), states that the auditor should express a qualified or an adverse opinion if management omits from the financial statements, including the accompanying notes, information that is required by GAAP. The auditor should also provide the information in his or her report, if practicable, unless its omission from the auditor's report is recognized as appropriate by a specific Statement on Auditing Standards.

1.209 The auditor should review the financial statements to determine whether disclosures are adequate with regard to revenue recognition policies, information about major customers or significant concentrations of credit risk, related-party transactions, and the effect of significant revisions to estimates in percentage-of-completion contracts.

Evaluation of Audit Evidence

1.210 In accordance with paragraph .74 of AU section 318, the auditor should conclude whether sufficient appropriate audit evidence has been obtained to reduce to an appropriately low level the risk of material misstatement in the financial statements. In developing an opinion, the auditor should consider all relevant audit evidence, regardless of whether it appears to corroborate or to contradict the relevant assertions in the financial statements.

1.211 The sufficiency and appropriateness of audit evidence to support the auditor's conclusions throughout the audit are a matter of professional judgment. Refer to paragraph .75 of AU section 318 for a list of factors that may influence the auditor's judgment as to what constitutes sufficient appropriate audit evidence.

1.212 If the auditor has not obtained sufficient appropriate audit evidence as to a material financial statement assertion, the auditor should attempt to obtain further audit evidence. If the auditor is unable to obtain sufficient appropriate audit evidence, the auditor should express a qualified opinion or a disclaimer of opinion.

1.213 Paragraphs .68–.78 of AU section 316 (AICPA, *Professional Standards*) provide requirements and guidance for evaluating audit evidence. The auditor should evaluate whether analytical procedures that were performed as substantive tests or in the overall review stage of the audit indicate a

previously unrecognized risk of material misstatement due to fraud. The auditor also should consider whether responses to inquiries throughout the audit about analytical relationships have been vague or implausible, or have produced evidence that is inconsistent with other audit evidence accumulated during the audit.

Chapter 2

Auditing Revenue Transactions in the Computer Software Industry[1]

Overview of the Computer Software Industry

2.01 Entities that participate in the computer software industry typically are engaged in various aspects of the design, development, customization, distribution, licensing, implementation, and support of computer software products. As discussed in more detail in this chapter, the industry is characterized by intense competition among industry players and rapid technological innovation.

2.02 Auditors of computer software vendors may consider obtaining an understanding of the entity's software products, services, and distribution processes, as well as the terms and conditions of sales arrangements. Such an understanding will enhance the auditor's ability to plan and perform auditing procedures for software revenue transactions. In addition, the auditor should be knowledgeable of generally accepted accounting principles (GAAP) applicable to software revenue recognition.

2.03 This chapter provides guidance on auditing software revenue transactions that fall within the scope of Financial Accounting Standards Board (FASB) *Accounting Standards Codification* (ASC) 985, *Software*. It applies to all entities that earn such revenue, whether or not the entities regard themselves as software vendors.

Types of Revenue Transactions

2.04 Software vendors generally do not sell or transfer title of their products to their customers; rather, they earn revenues from licensing fees. Fees can relate to products or, as is frequently the case, the licensing of products together with related services, as discussed in the following paragraphs:

- *Products.* Some software vendors are involved in the retail licensing of "shrink-wrapped" software products to end users. Those users typically receive no maintenance or other services with the exception of telephone or Internet support, sometimes for a limited period of time. Shrink-wrapped software products frequently are marketed through distribution channels, such as distributors and resellers. Software also may be delivered electronically, with the customer taking possession of the product via download or by receiving access codes that allow immediate possession of the software on the customer's hardware.
- *Products and services.* Many software vendors are engaged in providing more comprehensive software "solutions" to their customers. In that capacity, software vendors license their software

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[1] See chapter 1, "Overview: Audit Issues in Revenue Recognition," of this guide for a related discussion of the matters presented in this chapter.

products together with postcontract customer support (PCS); upgrades or enhancements;[2] or such services as installation, training, or consultation. Revenue transactions that involve both products and services typically are evidenced by a license agreement that describes the terms and conditions of the arrangement.

2.05 The complexity of certain software products has led software customers to demand more services from software vendors, including, for example, consulting, systems integration, and ongoing support. Accordingly, as software vendors meet these customer needs, their revenue mix will shift toward an increased percentage of service revenues. As described in paragraphs 2.17–.29, the bundling of software products with additional software products, upgrades or enhancements, PCS, or other services in an arrangement with a customer creates what is referred to as a *multiple-element arrangement*, which can significantly complicate the revenue recognition process.

2.06 Barter[3] and other nonmonetary exchanges also may occur in the industry. For example, a software vendor may accept shares of its customer's stock as payment for its products, services, or both. Also, a software vendor may accept a customer's products, services, or both, in exchange for its own. Therefore, careful evaluation is important when transactions involve consideration other than cash or there is a back-to-back transaction. The presence of bartering and other nonmonetary exchanges may not be readily apparent if checks are being exchanged between a vendor and its customers.

Competitive Environment

2.07 The software industry is intensely competitive, and industry participants use a variety of pricing mechanisms and other product offerings to gain market share and increase their installed customer base. Techniques used to generate revenues may include the following:

- The licensing of "suites" of interrelated products
- Upgrades or enhancements
- Free installation, maintenance, or both
- Fees based on the number of units distributed or the expected number of users
- Site licensing arrangements
- Time-based licenses
- Software hosting arrangements

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[2] The terms *upgrades* and *enhancements* are used interchangeably to describe improvements to software products that are intended to extend the life or improve significantly the marketability of the original product. As described in paragraphs 2.20 and 2.24, upgrades or enhancements are accounted for differently depending on whether they are deemed to be *unspecified* or *specified*.

[3] For additional guidance on exchange transactions, refer to Financial Accounting Standards Board (FASB) *Accounting Standards Codification* (ASC) 605-20 as well as FASB ASC 985-845-25. FASB ASC 985-845-25 includes information from the *Technical Practice Aids* Technical Questions and Answers (TIS) section 5100.46, "Nonmonetary Exchanges of Software (Part I)," and TIS section 5100.47, "Nonmonetary Exchanges of Software (Part II)" (AICPA, *Technical Practice Aids*). TIS section 5100, *Revenue Recognition* (AICPA, *Technical Practice Aids*), was the only TIS section that FASB codified and therefore made authoritative. FASB issued transition provisions for the software revenue recognition TISs that moved to authoritative literature with the issuance of FASB ASC. Nonissuers are required (issuers should have already been applying the TISs) to apply prospectively for new transactions for fiscal years beginning on or after December 15, 2009, and interim periods within those years. See FASB ASC 105-10-65-1 for further information.

2.08 The competition for market share among software vendors gives customers significant leverage and buying power. This buying power, together with no cost or low cost of reproducing the software, creates an incentive for software vendors to cut prices, provide liberal sales terms, or grant concessions (changes to the original terms of the arrangement), to maintain an existing or obtain a new customer relationship. Common sales terms or concessions that may affect revenue recognition in the software industry include the following:

- Extended payment terms
- Rights to receive future products or services free or at a substantial discount
- Extension of the contractual license term
- Cancellation privileges
- Rights of return, or rights to refunds without return of the software
- Acceptance clauses
- Rebates
- Issuance of equity or other equity instruments to customers
- Accommodations to resellers and distributors, such as
  - — price protection agreements[4]
  - — guaranteed margin agreements
  - — reseller stock balancing arrangements
  - — consignment sales
- Participation in financing arrangements for its customers

2.09 In addition to competing for customers, software vendors also compete for technically skilled employees. Computer software is a knowledge-based product, and companies need to attract and retain highly skilled personnel to remain competitive. In many geographic areas, the demand for qualified managerial, research and development, technical, and marketing personnel exceeds availability. As a result, software vendors have been, and likely will continue to be, required to increase compensation and incentives to continue to recruit and retain the required personnel. Frequently, compensation is linked either directly or indirectly (for example, in the form of entity stock or stock options) to revenue growth.

2.10 Rapid innovation and substantial technological change also characterize the industry. New industry players and products continually emerge, and software vendors are under constant pressure to enhance the capabilities and quality of their products and services. Vendors whose products become technologically inferior become vulnerable to customer demands for price or other concessions.

2.11 A software vendor's customers frequently look at their purchase of the vendor's product as part of a longer-term relationship. This is particularly true when the software provides a complex, enterprise-wide type of solution versus a shrink-wrap solution that runs on a personal computer. With the

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[4] A price-protection agreement clause requires the software vendor to rebate or credit a portion of the original fee if the vendor subsequently reduces its price for a product and the reseller still has rights with respect to that product.

enterprise-wide solution, the customer may look to the vendor to keep its software current, for example, to operate on new platforms, or may count on the vendor to continuously add more features and functionality to the purchased software. In these situations, the customer may place significant value on the vendor's ongoing maintenance program, which could be a significant factor in the customer's decision to purchase the vendor's software instead of that of a competitor. As a result, customers that purchase enterprise-wide applications are interested in information about the features and functionality of a software vendor's next release. Depending on whether and how this information is communicated, there may be a question about whether the customer is entitled to a specified upgrade right.

2.12 For publicly traded software vendors, the market price of the entity's stock has important strategic implications. As previously described, software vendors frequently use entity stock and stock options to compensate employees. The more valued the stock and options, the easier it will be for the entity to recruit and retain needed employees. Additionally, software vendors may acquire other entities as a means to capture market share or to expand the depth and breadth of products and services. The entity's common stock frequently is used to make acquisitions, so an increasing stock price will greatly enhance an entity's ability to pursue these growth strategies.

2.13 Auditors may consider that stock market valuations for software vendors are subject to significant volatility and are dependent on growth in revenues and earnings. Accordingly, the ability to record revenue in a particular reporting period can have a significant effect on an entity's stock price. As described in paragraph 2.46, a motivation to achieve unduly aggressive or clearly unrealistic targets for revenue growth creates a risk factor relating to misstatements arising from fraudulent financial reporting.

2.14 The pressure to meet quarterly or annual earnings expectations creates a strong incentive for entities to complete transactions by the end of the reporting period. Even entities that are not yet public but are positioning themselves for a public offering may have an incentive to demonstrate a history of recent revenue growth. Customers can take advantage of this desire to meet revenue expectations by forcing software vendors to lower prices or provide more liberal sales terms in contracts negotiated near the end of a reporting period. For these reasons, it is common for software vendors to have a significant number of sales near the end of a reporting period. As described in paragraph 2.41, significant transactions near the end of a reporting period generally lead to increased risks of material misstatement.

Summary of Significant Accounting Guidance Relevant to Software Revenue Recognition[5]

Software Revenue Recognition

2.15 FASB ASC 985-605 provides the primary guidance on accounting for software revenue recognition. Consistent with the guidance in FASB ASC

[5] This discussion provides an overview of the significant accounting guidance relevant to software revenue recognition and is intended merely to provide background information for the auditing guidance that follows. Readers who implement accounting standards related to software revenue recognition should refer to FASB ASC 985-605 as appropriate.

985-605-25-3, revenue should be recognized when all of the following criteria are met:

- *Persuasive evidence of an arrangement exists.* With the exception of the packaged software sector of the industry, most software vendors rely on written contracts to document the arrangement with their customers. The contract should be fully executed by both parties. Vendors that normally do not rely on contracts should have other evidence, for example, purchase orders or online authorizations, to document transactions.
- *Delivery has occurred.* With certain exceptions,[6] delivery is considered to have occurred upon the transfer of the product master or the first copy, as applicable (with the ability to retrieve an electronic download, fewer vendors are physically shipping disks). The delivery of an element is considered not to have occurred if there are undelivered elements that are essential to the functionality of the delivered element, because the customer would not have the full use of the delivered element. After delivery, if uncertainty exists about customer acceptance of the software, license revenue should not be recognized until acceptance occurs. It is not uncommon for software vendors to include acceptance clauses in their arrangements with their customers.

  Additionally, the Securities and Exchange Commission (SEC) Codification of Staff Accounting Bulletins Topic 13, *Revenue Recognition*, provides guidance on revenue recognition that applies to the financial statements of SEC registrants. As noted in Topic 13, with respect to tangible products, title transfer should occur to satisfy the delivery criterion. Because title to products does not transfer before delivery to the customer in a free on board destination shipment, revenue should not be recognized until delivery to the designated location has occurred. Unless otherwise provided by authoritative literature, the SEC staff applies this same analysis to intellectual property physically delivered on a tangible medium, such as a compact disc, as it does to the delivery of tangible property.

  Also, Topic 13 A.3(d) states that "if a licensed product or technology is physically delivered to the customer, but the license term has not yet begun, revenue should not be recognized prior to inception of the license term."[7]
- *The software vendor's fee is fixed or determinable*. Paragraphs 30–40 of FASB ASC 985-605-25 provide detailed guidance on determining whether a software vendor's fee is fixed or determinable. Sales terms that may indicate the vendor's fee is *not* fixed or determinable include

  — *extended payment terms.* Any extended payment terms in a software licensing arrangement may indicate that the fee is not fixed or determinable. Moreover, if a substantial portion of the fee is not due within one year

[6] See FASB ASC 985-605-25-18 for exceptions.

[7] See paragraphs 101–104 of FASB ASC 985-605-55 for additional information on the effect of commencement of an initial license term.

of delivery or expiration of the license term, it is *presumed* that the vendor's fee is not fixed or determinable. However, this presumption may be overcome by evidence that the vendor has a standard business practice of using long-term or installment contracts and a history of successfully collecting under the original payment terms without making concessions. In such a situation, a vendor shall consider such fees fixed or determinable and shall recognize revenue upon delivery of the software, provided all other conditions for revenue recognition in this subtopic have been satisfied.

— *cancellation privileges.* Fees from licenses that are cancelable by customers are neither fixed nor determinable until the cancellation privileges lapse.

- *Collectibility is probable.* The term *probable* means that collection of the fee is likely to occur.[8] No portion of the fee meets the criterion of collectibility if the portion of the fee allocable to delivered elements is subject to forfeiture, refund, or other concessions if any of the undelivered elements are not delivered. To meet this requirement, management must intend not to provide refunds or concessions that are not required under the provisions of the arrangement.

2.16 Software developers, including providers of shrink-wrapped software, often distribute their products through resellers. FASB ASC 985-605-25-36 provides a list of factors to consider in evaluating whether the fixed or determinable fee and collectibility criteria for revenue recognition are met. In general, these factors include

- indications that payment from the reseller is substantially contingent on the reseller's success in distributing individual units of the product.
- financial conditions that indicate the reseller is unable to make fixed or determinable payments until it collects cash from its customers.
- inability to reasonably estimate future returns (discussed subsequently in paragraphs 2.35–.38).
- price protection agreements in which the vendor is unable to reasonably estimate future price changes or if significant uncertainties exist about the vendor's ability to maintain its price.

2.17 As described in paragraph 2.05, it is becoming increasingly common for software vendors to bundle their products with additional software products, upgrades or enhancements, PCS, or other services. FASB ASC 985-605-25 refers to these arrangements as *multiple-element arrangements* and includes guidance on how to allocate fees to each element of the arrangement. The portion of the fee allocated to an element should be recognized as revenue when all the revenue recognition criteria specified in FASB ASC 985-605-25 have been met related to that element.

[8] FASB ASC 985-605 uses the term *probable* as that term is defined in FASB ASC 450, *Contingencies*.

2.18 FASB ASC 985-605-25 requires the use of vendor-specific objective evidence (VSOE) of fair value[9] when allocating the fee to various elements in a multiple-element arrangement. FASB ASC 985-605-25-6 limits VSOE of fair value to

- the price charged when the same element is sold separately.
- if the element is not yet being sold separately, the price for each element established by management having the relevant authority; it must be probable that the price, once established, will not change before the separate introduction of the element into the marketplace.

When sufficient VSOE does not exist, all revenue from the arrangement should be deferred until the earlier of the point at which (*a*) such VSOE does exist,[10] or (*b*) all elements of the arrangement have been delivered. Certain exceptions to this rule are discussed in FASB ASC 985-605-25-10. In addition, "Pending Content" in FASB ASC 985-605-25-10 requires the use of the residual method in situations where VSOE exists for *all* undelivered elements but does not exist for one or more of the delivered elements. Under the residual method, the VSOE of fair value of the undelivered elements is deferred, and the difference (residual) between the total fee and the amount deferred for the undelivered elements is recognized as revenue related to the delivered elements.

2.19 As noted in paragraph 2.05, many software vendors derive an increasing percentage of their revenues from providing services. FASB ASC 985 provides separate accounting guidance for PCS services and services other than PCS-related services.

2.20 PCS includes those activities undertaken after the product has been released to correct errors[11] or keep the product updated with current information. Typical PCS arrangements include telephone support and unspecified product upgrades or enhancements developed by the vendor during the period in which the PCS is provided. In some instances, a software vendor may have an implied PCS arrangement with its customers, even in the absence of a written contract acknowledging the PCS arrangement. For example, an implied PCS arrangement may occur when the vendor has a historical pattern of regularly providing all customers or certain kinds of customers with the services or unspecified product upgrades or enhancements normally associated with PCS, or if the vendor provides free upgrades or enhancements through a website.

2.21 Per FASB ASC 985-605-25-67, the fair value of PCS in a multiple-element arrangement should be determined by reference to the price the customer would pay for PCS when it is sold separately, that is, the renewal rate.[12] Because PCS services are presumed to be provided ratably, the portion of the

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[9] FASB ASC 820, *Fair Value Measurements and Disclosures*, does not apply to accounting guidance that permits measurements that are based on, or otherwise use, vendor-specific evidence of fair value. Throughout this guide, reference is made to vendor specific evidence of fair value. Readers should refer to the applicable guidance to determine whether FASB ASC 820 should be applied to a specific measurement.

[10] See paragraphs 93–95 of FASB ASC 985-605-55 for further information on subsequent events related to vendor-specific objective evidence.

[11] See paragraphs 76–78 of FASB ASC 985-605-55 for information on bug fixes provided to customers that choose not to obtain postcontract customer support.

[12] See paragraphs 53–55 of FASB ASC 985-605-55 for further information regarding postcontract customer support during the deployment phase.

fee allocated to PCS generally should be recognized ratably over the contractual or expected period of service.

2.22 Per FASB ASC 985-605-25-76, service elements other than PCS-related services include training, installation, or consulting. Consulting services often include implementation support, software design or development, or the customization or modification of the licensed software. FASB ASC 985-605-25-78 states that separate accounting for a service element of an arrangement to deliver software and services applies only if sufficient VSOE exists to permit allocation of the revenue to the various elements of the arrangement, and both of the following criteria are met:

- The services are not essential to the functionality of any other element of the transaction.
- The services are described in the contract such that the total price of the arrangement would be expected to vary as the result of inclusion or exclusion of the services.

2.23 If the service elements other than PCS-related services meet the criteria for separate accounting, revenue allocated to the service elements should be recognized as the services are performed. If the nature of the services is such that the service elements other than PCS-related services do *not* qualify for separate accounting as a service, the software vendor would be required to account for both the software and service elements of the arrangement using long-term contract accounting as described in FASB ASC 605, *Revenue Recognition*. Contract accounting also is required whenever an arrangement between a software vendor and its customer requires significant production, modification, or customization of software.

2.24 As noted in paragraph 2.20, the PCS element of an arrangement may include the right to receive *unspecified* upgrades or enhancements on a when-and-if-available basis. A multiple-element arrangement also may include a contractual or implied upgrade right for a *specified* upgrade or enhancement. Once an upgrade right is specified, it must be treated as a separate element even if the customer is entitled to receive it under PCS. Because the software vendor may not sell the upgrade separately, the vendor may not have VSOE of fair value for the upgrade. Thus, the entire sale might be deferred until the upgrade is delivered. This is very typical when a software entity announces a product release before a period end but the software is not generally available until after the reporting period.

Tangible Products Delivered With Software Components and Nonsoftware Components

2.25 "Pending Content" in FASB ASC 985-605-15-4 indicates that guidance in FASB ASC 985-605 does not apply to the following transactions and activities:

a. Arrangements for products or services containing software that is incidental to the products or services as a whole

b. Leases of software that include a tangible product (such as property, plant, or equipment), if the software is incidental to the tangible product as a whole or the software and nonsoftware components of the tangible product function together to deliver the tangible product's essential functionality

c. Marketing and promotional activities not unique to software transactions, such as the following:

   i. Insignificant discounts on future purchases that are offered by a vendor in a software arrangement. For example, a vendor may offer a small discount (a coupon or other form or offer for five percent off) on additional licenses of the licensed product or other products that exist at the time of the offer but are not part of the arrangement.

   ii. Discounts that are not incremental to discounts typically given in comparable transactions (for example, volume purchase discounts comparable to those generally provided in comparable transactions.)

d. Nonsoftware components of tangible products

e. Software components of tangible products that are sold, licensed, or leased with tangible products when the software components and nonsoftware components of the tangible product function together to deliver the tangible product's essential functionality

f. Undelivered elements that relate to software that is essential to the tangible product's functionality in preceding item (e)

2.26 According to "Pending Content" in FASB ASC 958-605-15-4A, in determining whether a tangible product is delivered with software components and nonsoftware components that function together to deliver the tangible product's essential functionality, a vendor should consider all of the following:

a. If sales of the tangible product without the software elements are infrequent, a rebuttable presumption exists that software elements are essential to the functionality of the tangible product.

b. A vendor may sell products that provide similar functionality, such as different models of similar products. If the only significant difference between similar products is that one product includes software that the other product does not, the products shall be considered the same product for the purpose of evaluating (a).

c. A vendor may sell software on a standalone basis. The vendor may also sell a tangible product containing that same software. The separate sale of the software shall not cause a presumption that the software is not essential to the functionality of the tangible product.

d. Software elements do not need to be embedded within the tangible product to be considered essential to the tangible product's functionality.

e. The nonsoftware elements of the tangible product must substantively contribute to the tangible product's essential functionality. For example, the tangible product should not simply provide a mechanism to deliver the software to the customer.

2.27 FASB ASC 985-605-50-1 provides that for multiple-element arrangements that include deliverables within the scope of FASB ASC 985-605 and deliverables that are not within the scope of FASB ASC 985-605, a vendor should provide the disclosures included in the "Pending Content" in paragraphs 1–2 of FASB ASC 605-25-50.

2.28 As explained in "Pending Content" in FASB ASC 985-605-55-211, cases have been provided that contain guidance on allocating arrangement consideration in a multiple-element revenue arrangement that includes a tangible product and software. The cases illustrate whether a product contains software elements and nonsoftware elements that function together to deliver the tangible product's essential functionality as discussed in FASB ASC 958-605-15-4 and can be found in "Pending Content" in paragraphs 212–236 of FASB ASC 985-605-55.

2.29 FASB ASC 605-25 establishes the accounting and reporting guidance for transactions and activities that do not fall under the scope of FASB ASC 985-605 and under which the vendor will perform multiple revenue-generating activities. This accounting and reporting guidance is discussed in more detail in paragraphs 1.60–.71 of this guide.

Barter and Other Nonmonetary Transactions

2.30 As noted in paragraph 2.06, software vendors sometimes enter into barter transactions or nonmonetary exchanges.[13] FASB ASC 845, *Nonmonetary Transactions*, provides guidance on the accounting for nonmonetary exchanges. Generally, a nonmonetary transaction that has commercial substance results in the recognition of gain or loss, measured based on the fair value of the assets surrendered to the extent that the fair value can be reasonably determined. If the fair value of the assets surrendered is not clearly evident, then the fair value of the asset received should be used to measure the gain or loss. A transaction that does not have commercial substance is based on the recorded amount of the asset relinquished. FASB ASC 985-845 also provides more specific guidance on the measurement of exchanges of software technology or products.

Accounting for Price Protection Agreements

2.31 A price protection clause requires the software manufacturer to rebate or credit a portion of the sales price if the manufacturer subsequently reduces its price for a product and the distributors and resellers are entitled to the benefits of the price concession for past sales or for software in inventory. A software vendor ordinarily should provide appropriate allowances at the date of revenue recognition for price concessions; however, revenue should not be recognized until reasonable and reliable estimates of the effects of price concessions can be made.

Accounting for Collaborative Arrangements

2.32 Software vendors sometimes enter into arrangements with other entities to jointly research and develop intellectual property or products. Often, the arrangement will call for the sponsoring software vendor to provide expertise, administration, manufacturing or other services and no separate legal entity is created for the joint operating activity. When two or more sponsors of the joint operating activity are active participants in the activity and are exposed to significant risks and rewards that depend on the commercial success of the activity, it is called a collaborative arrangement.

2.33 FASB ASC 808-10-45-1 states that it is not appropriate for an entity to apply the equity method of accounting to a collaborative arrangement.

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[13] See FASB ASC 985-845-25.

Rather, the sponsor should report the costs incurred and revenues generated from the collaborative arrangement's transactions with third parties (that is, parties that do not participate in the arrangement) based on whether the sponsor's role in the transaction is that of a principal (gross basis) or an agent (net basis).[14]

2.34 To account for payments between the collaborative arrangement's sponsors, the sponsor should look first to any specific accounting literature that addresses the payments' income statement classification. Otherwise, such payments should be accounted for using an analogy to authoritative accounting literature or using an accounting policy that is reasonable, rational and consistently applied.

Sales Returns

2.35 It is common for software vendors to provide their customers with rights of return. FASB ASC 605-15-25 specifies how an entity should account for sales of its products in which the buyer has a right to return the product. FASB ASC 605-15-25-1 provides a list of conditions, all of which must be met to recognize revenue from the transaction at the time of sale. One of these conditions is that the amount of future returns can be reasonably estimated.

2.36 FASB 605-15-25-3 lists factors that may impair the ability to make a reasonable estimate of product returns and concludes by stating that "other factors may preclude a reasonable estimate" of product returns. In Topic 13 A.4(b) SEC staff list the following factors that may preclude an SEC registrant from making reasonable and reliable estimates of product returns:

- Significant increases in or excess levels of inventory in a distribution channel (sometimes referred to as *channel stuffing*)
- Lack of visibility into or the inability to determine or observe the levels of inventory in a distribution channel and the current level of sales to end users
- Expected introductions of new products that may result in the technological obsolescence of and larger than expected returns of current products
- The significance of a particular distributor to the registrant's (or a reporting segment's) business, sales, and marketing
- The newness of a product
- The introduction of competitors' products with superior technology or greater expected market acceptance, and other factors that affect market demand and changing trends in that demand for the registrant's products

2.37 In considering the application of FASB ASC 605-15 to a new entity or an entity entering a new line of business, the SEC staff believes the focus should be on the substantive factors that may affect the registrant's ability to make reasonable estimates of product returns. For example, entities may adopt new business models that involve significant changes to the way similar products have traditionally been supplied, such as the use of new distribution channels, the elimination of distributors or resellers, or the supply of a broader

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[14] See FASB ASC 605-45 for additional guidance regarding reporting revenue gross as a principal versus net as an agent.

selection of products. Such factors may impair an entity's ability to make a reasonable estimate of returns.

2.38 In circumstances where a registrant concludes that it cannot reasonably estimate the actual return rate due to a product's limited history, the SEC staff also believes that deferring revenue based on an estimate of the maximum possible returns, and recognizing revenue for the portion of the sales that exceeds the maximum estimated return rate, is inconsistent with FASB ASC 605-15.[15]

Obtaining an Understanding of Software Revenue Transactions

2.39 As discussed in more detail in chapter 1, "Overview: Audit Issues in Revenue Recognition," AU section 314, *Understanding the Entity and Its Environment and Assessing the Risks of Material Misstatement* (AICPA, *Professional Standards*), states that the auditor must obtain a sufficient 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 the understanding required 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 controls and substantive tests). For software revenue transactions, the auditor may consider obtaining information relating to the following:

- The type of software being developed and marketed
- The software vendor's development schedule, which includes details of features and functionality and estimated release dates
- The vendor's marketing strategy for its products
- The nature of the customer base, for example, whether it includes resellers, end users, or both
- The types of arrangements the entity typically enters into with its customers
- The nature and extent of any services provided in arrangements and the related effect on the recognition of revenue including, for example, whether contract accounting should be used
- The competitive environment
- How the software vendor's customer uses the software
- The nature of services provided and their impact on the recognition of the software license revenue

2.40 Software sales transactions may involve complex revenue recognition issues and may require the assignment of more experienced auditors to perform the substantive audit procedures applied to revenue recognition and more extensive supervision. Paragraph .06 of AU section 230, *Due Professional Care in the Performance of Work* (AICPA, *Professional Standards*), states that auditors should be assigned to tasks and supervised commensurate with their

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[15] See the Securities and Exchange Commission (SEC) Codification of Staff Accounting Bulletins (SABs) Topic 13: *Revenue Recognition*, question A.4(b).

level of knowledge, skill, and ability so that they can evaluate the audit evidence they are examining.

Inherent Risk Considerations

2.41 The following inherent risk factors are those that might lead the auditor to assess the risks of misstatement as high for assertions about computer software revenue recognition:

- *Multiple-element arrangements*.[16] As described in paragraphs 2.17–.18, when a software vendor bundles a software product with services, additional software products, upgrades or enhancements, or PCS, the fee from the arrangement should be allocated to the individual elements. In addition, the accounting for multiple-element arrangements may involve significant subjective estimates or other complexities, including
  - — determining whether product and service, or contract, accounting applies.
  - — determining whether the undelivered elements are essential to the functionality of any of the delivered elements.[17]
- *The potential for side agreements.* The vendor and its customers may enter into side arrangements that are either undocumented or documented in agreements separate from the main contract. The potential for side agreements is greater for complex or material transactions or when complex relationships exist between the vendor and its customers. When side agreements exist, there is a greater risk that accounting personnel will be unaware of such agreements or will fail to understand all of the terms of the transaction, which may result in improper revenue recognition. Moreover, executing the side agreement after period end may indicate that evidence of the arrangement was not finalized and, thus, did not exist at the balance sheet date.
- *Transactions with significant price or other incentives, or concessions.* As described in paragraph 2.08, price and other incentives, or concessions, may affect revenue recognition. When incentives or concessions exist, there is a risk that accounting personnel will

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[16] SEC SAB Topic 13 directly refers to the use of the following FASB guidance when a multiple element arrangement exists:

- Revenue arrangements with multiple deliverables should be divided into separate units of accounting if the deliverables in the arrangement meet the criteria in FASB ASC 605-25-25-5.
- Arrangement consideration should be allocated among the separate units of accounting based on their relative fair values (or as otherwise provided in paragraphs 2–3 of FASB ASC 605-25-30). The amount allocated to the delivered item(s) is limited as discussed in FASB ASC 605-25-30-5.
- Applicable revenue recognition criteria should be considered separately for separate units of accounting.

[17] The auditor should consider whether specialized skills are needed in performing the audit. In some circumstances, the auditor may decide that such matters require special skill or knowledge. AU section 311, *Planning and Supervision*, and AU section 336, *Using the Work of a Specialist* (AICPA, *Professional Standards*), establish requirements and provide guidance to the auditor who uses the work of a specialist.

fail to properly recognize the effect they have on revenue recognition.

- *Transactions near the end of the reporting period.* As described in paragraph 2.14, it is common for software vendors to have significant amounts of transactions near the end of the reporting period. These transactions may be characterized by significant sales incentives and other conditions that affect revenue recognition. There also is an increased risk that all documents necessary to document evidence of an arrangement between the parties have not been executed fully or that they may be subsequently amended.
- *Transactions related to new or evolving technologies.* Customers that license software products related to new or evolving technologies may demand more liberalized rights to return the product, extended periods to accept the product, or other terms. These terms, whether stated or implied, may affect revenue recognition.
- *International transactions with customers in higher risk economies.* Transactions with customers in high-risk economies have an increased risk that the fee may not be collectible. Probable collection is one of the criteria for revenue recognition. In assessing the relative risk of the economies in which the software vendor's customers operate, auditors may consider several conditions, including
  - — the health of the economy.
  - — the political stability of the country.
  - — the strength of the country's currency.
- *Barter transactions and other nonmonetary exchanges.* Transactions that do not involve an exchange of monetary consideration have an increased risk of not being captured by the accounting system or of not being accounted for in conformity with GAAP.
- *Back-to-back transactions.* Arrangements that are entered into within a short time frame of one another may be part of a single negotiated arrangement that should be accounted for as such.

Consideration of Fraud[18]

Fraud Risk Factors

2.42 AU section 316, *Consideration of Fraud in a Financial Statement Audit* (AICPA, *Professional Standards*), is the primary source of authoritative requirements and guidance about an auditor's responsibilities concerning the consideration of fraud in a financial statement audit. AU section 316 (AICPA, *Professional Standards*) establishes requirements and provides guidance to auditors in fulfilling their responsibility to plan and perform the audit to obtain

[18] Public Company Accounting Oversight Board (PCAOB) Release No. 2007-001, *Observations on Auditors' Implementation of PCAOB Standards Relating to Auditors' Responsibilities With Respect to Fraud* (AICPA, *PCAOB Standards and Related Rules*, Select PCAOB Releases), discusses auditors' implementation of PCAOB interim standards regarding the auditor's responsibility with respect to fraud.

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*
>
> Paragraph .01 of AU section 316, *Consideration of Fraud in a Financial Statement Audit* (AICPA, *PCAOB Standards and Related Rules*, Interim Standards) states that when performing an integrated audit of financial statements and internal control over financial reporting, refer to paragraphs 14–15 of 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 fraud considerations, in addition to the fraud considerations set forth in AU section 316 (AICPA, *PCAOB Standards and Related Rules*, Interim Standards).

2.43 As discussed in chapter 1 of this guide, there are two types of misstatements relevant to the auditor's consideration of fraud in a financial statement audit:

- Misstatements arising from fraudulent financial reporting
- Misstatements arising from misappropriation of assets

2.44 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.

2.45 There is a presumption that improper revenue recognition exists as a fraud risk factor. Material misstatements due to fraudulent financial reporting often result from an overstatement of revenues (for example, through premature revenue recognition or recording fictitious revenues) or an understatement of revenues (for example, through improperly shifting revenues to a later period). Therefore, the auditor should ordinarily presume that there is a risk of material misstatement due to fraud relating to revenue recognition. (See paragraphs .41 and .54 of AU section 316 [AICPA, *Professional Standards*] for examples arising from fraudulent financial reporting.)

2.46 Risk factors that may indicate material misstatement of revenue arising from fraudulent financial reporting in a software vendor may be as follows:

- Motivations for management to engage in fraudulent financial reporting. Specific indicators might include
  - management's excessive interest in maintaining sales or earnings without regard to proper accounting or to the entity's established revenue recognition policies.
  - significant amounts of executive compensation tied to stock performance.

- the use of unusually aggressive accounting practices to maintain or increase stock price or earnings.
- committing to unduly aggressive or unrealistic forecasts to analysts, creditors, and other third parties.

- A failure by management to display and communicate an appropriate attitude regarding internal control and financial reporting. Specific indicators might include
  - lack of control over contract documentation and insufficient review and understanding of the sales agreements by finance personnel.
  - the existence of side agreements.
  - lack of communication throughout the organization regarding acceptable revenue recognition practices.
  - poor or no coordination between sales, accounting, and legal personnel regarding the terms of license agreements that affect revenue recognition.
  - management or other individuals responsible for revenue recognition lack sufficient accounting expertise.
- Excessive involvement of nonfinancial management, such as sales personnel in financial reporting.
- Strained relations between management and the current or predecessor auditor. Specific indicators might include
  - unreasonable pressure on the independent auditors for a quick sign-off on the audit.
  - resistance on the part of management to allow open communication of the auditor with the software vendor's personnel outside of the accounting function.
  - frequent disagreements with the current or predecessor auditor on accounting, auditing, or reporting matters.
- A highly competitive environment accompanied by declining margins.
- High vulnerability to technological changes and product obsolescence.
- Significant, unusual, or highly complex transactions, especially near the end of the reporting period, including
  - unusual transactions or volume of transactions with key resellers.
  - a significant number or value of contracts with unusual terms, for example, extended warranties, discounts, future discounts, rebates, return rights, or extended payment terms.
  - the existence of an unusual number of contract amendments, late changes, or both.
  - material or unusual barter transactions.

  - back-to-back or round-trip relationships, with or without cash exchanged.
  - transactions in which the entity commits to buy material amounts of products or services from a customer with similar payment and contract terms.
  - contracts entered into with the same customer within a relatively short period of time of the original contract signing.
- Significant contracts with related parties.
- Significant volumes of product sold into a distribution channel without a corresponding increase in end-user demand.
- Continuing sales or provision of services to customers coupled with a lack of enforcement of payment terms on previously outstanding balances.
- Late payments or a lack of payment on contracts that include undelivered elements.
- Frequent changes in marketing or distribution methods and strategies.

Responses to the Presence of Fraud Risk Factors

2.47 AU section 316 (AICPA, *Professional Standards*) establishes requirements and provides guidance on an auditor's consideration of and response to the presence of fraud risk factors. If there is a risk of material misstatement due to fraud that may result from improper revenue recognition, the auditor should consider audit procedures addressing revenue recognition that will limit audit risk to an appropriate level in light of the risk factors present. For example, the auditor may decide to alter the nature, timing, or extent of substantive procedures. Examples of specific responses might be to perform substantive analytical procedures at a detailed level by comparing sales by product or service to auditor-developed expectations. The auditor also might conduct interviews of personnel about the risks of material misstatement of revenue due to fraud to obtain their insights about the risk and whether or how controls address the risk. Paragraph .54 of AU section 316 (AICPA, *Professional Standards*) states that it may be appropriate to confirm with customers certain relevant contract terms, including acceptance criteria, delivery and payment terms, the absence of future or continuing vendor obligations, the right to return the product, guaranteed resale amounts, cancellation or refund provisions, and the absence of side agreements. Guidance on the use of confirmations to gather audit evidence about revenue recognition is contained in paragraphs 2.80–.83 of this chapter.

Obtaining an Understanding of Internal Control*

2.48 Paragraph .40 of AU section 314 states that the auditor should obtain an understanding of the five components of internal control sufficient to assess

* In August 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). With this release, the PCAOB adopted eight auditing standards related to the auditor's assessment of and response to risk that will supersede six of the board's interim auditing standards and related amendments to PCAOB

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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

a. evaluate the design of controls relevant to an audit of financial statements.

b. determine whether they have been implemented.

2.49 The auditor should use such knowledge to

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

2.50 Obtaining an understanding of the entity and its environment, including internal control, is a continuous, dynamic process of gathering, updating, and analyzing information throughout the audit. 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.

2.51 Many revenue transactions in the software industry are characterized by unique, negotiated arrangements between the software vendor and its customers that culminate in the delivery of products and services. In obtaining an understanding of internal control over these transactions, the auditor would consider controls at each stage in this process, which generally consist of the following:

- *Deal negotiation.* Sales personnel negotiate the terms of the arrangement with the customer. Among other items, these terms specify the nature of the products and services that will be provided by the vendor, the price, and the customer's payment requirements, acceptance terms, and rights of return.
- *Contract development.* The negotiated arrangement is documented in a contract between the software vendor and its customer.
- *Credit evaluation.* The software vendor evaluates the payment terms of the arrangement and the customer's creditworthiness.
- *Deal approval.* The software vendor and its customer review the contract and all other pertinent documentation and approve the arrangement by executing the contract. The contract ordinarily should be approved by the vendor's accounting and legal departments in addition to sales personnel.
- *Delivery of products and services.* The vendor delivers the products and services stipulated in the contract.

(footnote continued)

standards. These standards are effective for audit engagements conducted pursuant to the standards of the PCAOB for fiscal years beginning on or after December 15, 2010. Refer to the preface of this guide for important information about the release and applicability of these standards. Readers can download the entire release, which includes full text of the standards, at http://pcaobus.org/.

2.52 At each step in the process, controls may be designed according to objectives based on the five components of internal control described in AU section 314. The components of internal control are the control environment, risk assessment, control activities, information and communication systems, and monitoring. The auditor should assess control risk for the relevant assertions embodied in the account balances, transaction class, and disclosure components of the financial statements. Paragraphs 2.53–.57 of this chapter describe examples of controls over revenue recognition that may be in place in each of these components.

Control Environment

2.53 The control environment sets the tone of an organization, influencing the control consciousness of its people. It is the foundation for all other components of internal control, providing discipline and structure. Characteristics of a software vendor's control environment that may improve the effectiveness of controls and decrease control risk may include

- the adherence to a written code of conduct that expressly prohibits the departure from stated policies affecting revenue recognition. For example, the code of conduct ordinarily should prohibit salespeople from making undocumented side agreements with customers or otherwise modifying standard contracts without proper approval.
- an audit committee that is knowledgeable about revenue recognition accounting matters and related controls and that can effectively carry out its responsibilities.
- the extent to which the vendor's accounting personnel or internal auditors communicate directly with the vendor's customers.

Risk Assessment

2.54 An entity's risk assessment for financial reporting purposes is its identification, analysis, and management of risks relevant to the preparation of the financial statements. Characteristics of a software vendor's risk assessment process that may improve the effectiveness of controls and decrease control risk include managing risks associated with the improper application of GAAP related to software revenue recognition. For example, the entity should take steps to train accounting personnel properly in the application of FASB ASC 985-605 relating to software revenue recognition. Furthermore, the entity should also consider adopting standard contract terms and provisions and take steps to ensure that all additions or modifications to those terms and conditions are reviewed and evaluated by accounting personnel for the effect of the additions or modifications on revenue recognition under FASB ASC 985-605.

Control Activities

2.55 Control activities are the policies and procedures that help ensure that management directives are carried out. Control activities that may improve the effectiveness of internal control and decrease control risk include the following:

- Written standard prices and terms, along with guidelines for allowable discounts, payment terms, and other terms

- Written policies requiring appropriate management and legal approval of nonstandard terms in the arrangement relating to fees, unique provisions or concessions, and unusual discounts or rebates
- The early and continued involvement of accounting personnel or others with a detailed understanding of GAAP for software revenue recognition[19] in the deal negotiation stage
- Written policies that prohibit unauthorized side agreements between the sales people (or other entity employees) and the customer
- A written policy requiring a contract signed by both parties to document the terms of the arrangement
- Standardized licensing contracts
- Proper physical control of all contracts, including any amendments
- Procedures, whether manual or automated, to monitor the agreement to and compliance with terms of contracts
- Written policies describing the customer credit approval process and the periodic evaluation of existing customers' credit and payment history
- Separation of sales and credit functions
- Timely approval of customer creditworthiness
- Management review and approval of revenue recognition, including the allocation of the fee to individual elements in a multiple-element arrangement
- Timely review of contracts and all related transaction documentation by accounting personnel
- Written policies that describe shipping guidelines and, if applicable, the electronic transfer of software products
- Comparison of shipping or other delivery documentation to the contract
- Verification of timely and complete delivery in proper accounting period before revenue recognition
- A written policy requiring a signed service contract before revenue recognition for services
- Prompt management action concerning noncompliance with entity policies with regard to contract approval and revenue recognition

Information and Communication

2.56 The information system relevant to the financial reporting objectives of revenue recognition includes the accounting system and consists of the procedures, whether automated or manual, and records established to initiate,

[19] Some software vendors with complex licensing arrangements have created a revenue recognition committee to provide feedback to sales people during the contract negotiations and to review the resulting contracts thoroughly to ascertain that the contract is accounted for properly. The revenue recognition committee includes the participation of the principal financial officer, principal accounting officer, and the revenue recognition manager.

authorize, record, process, and report revenue transactions (as well as events and conditions) and to maintain accountability for the related assets, liabilities, and equity. Communication involves providing an understanding of individual roles and responsibilities pertaining to internal control over revenue recognition. Characteristics of a software vendor's information and communication systems that may improve the effectiveness of controls and decrease control risk include the following:

- Accounting systems that maintain a history of pricing terms, refunds, and collection history
- Accounting systems that quantify the value of concessions whether they relate to refunds, free services, or additional products, for example
- Accounting and operating systems that will help develop pricing policies and track price trends
- Accounting systems that properly evaluate and maintain the initial deferral and subsequent recognition of revenue
- Accounting systems that track and maintain historical data on input measures, such as labor hours for measuring progress to completion under the percentage-of-completion method of contract accounting
- Adequate coordination and communication between sales, legal, and accounting functions regarding the terms of the arrangement between the entity and its customer, especially those terms that affect revenue recognition

Monitoring

2.57 Management monitors controls to consider whether they are operating as intended and that they are modified as appropriate for changes in conditions. Characteristics of a software vendor's monitoring process that may improve the effectiveness of internal control and decrease control risk include the following:

- A robust management reporting process that allows management to take timely action on sales and revenue recognition related matters, including
  - — the identification of new or unusual transactions.
  - — the introduction of new product offerings.
  - — changes to existing marketing programs or the introduction of new ones.
  - — the implications of customer acceptance provisions.
- Management oversight of customer credit and payment issues
- Monitoring of compliance with written policies regarding contract documentation
- Monitoring days' sales outstanding (DSO) and other internal metrics
- Monitoring progress to completion

Assessing Control Risk

2.58 The auditor's assessment of control risks and determination of whether to obtain audit evidence about the operating effectiveness of controls for assertions related to software revenue recognition often is influenced by

- *the entity's use of IT*. In entities where a significant amount of information is initiated, authorized, recorded, processed, or reported electronically, the auditor may determine that it is not practical or possible to restrict detection risk to an acceptable level by performing only substantive tests for one or more financial statement assertions. In such circumstances, the auditor should perform tests of controls to gather audit evidence that the controls operate effectively.
- *nonroutine or complex transactions*. Software revenue arrangements are negotiated between the vendor and the customer, and this negotiation process may result in unique, nonroutine transactions. For revenue recognition related to nonroutine transactions or complex applications of GAAP, control risk may be greater.
- *unsophisticated internal controls*. Smaller computer software vendors may be characterized by unsophisticated organizational structures that lack certain pervasive controls, for example, segregation of duties. A lack of controls over revenue transactions may cause the auditor to assess control risk as high and perform substantive audit procedures;[20] however, the auditor needs to be satisfied that performing only substantive procedures for the relevant assertions related to revenue would be effective in reducing detection risk to an acceptably low level.

Assessing the Risks of Material Misstatement[21]

2.59 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

a. 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.

b. relate the identified risks to what can go wrong at the relevant assertion level.

c. consider whether the risks are of a magnitude that could result in a material misstatement of the financial statements.

d. consider the likelihood that the risks could result in a material misstatement of the financial statements.

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[20] See TIS section 8200.10, "Defaulting to Maximum Control Risk" (AICPA, *Technical Practice Aids*), for further guidance.

[21] SEC SAB No. 108 Topic 1N, *Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements*, provides interpretive guidance on how the effects of the carryover or reversal of prior year misstatements should have been considered in quantifying a current year misstatement. For additional information, see the issuance at http://sec.gov/interps/account/sab108.pdf.

2.60 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.

Identification of Significant Risks

2.61 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. Refer to paragraphs .45 and .53 of AU section 318, *Performing Audit Procedures in Response to Assessed Risks and Evaluating the Audit Evidence Obtained* (AICPA, *Professional Standards*), for requirements and guidance regarding further audit procedures pertaining to significant risks.

Designing and Performing Further Audit Procedures

2.62 AU section 318 establishes requirements and provides guidance about implementing the third standard of field work, 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.

2.63 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.

Overall Responses

2.64 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

2.65 Further audit procedures provide important audit evidence to support an audit opinion. These procedures consist of tests of controls and substantive tests. The nature, timing, and extent of the further audit procedures to be performed by the auditor should be based on the auditor's assessment of risks of material misstatement at the relevant assertion level. In some cases, an auditor may 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. 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. Refer to the sections in this chapter titled "Tests of Controls" and "Substantive Procedures" in addition to AU section 318 for additional guidance on further audit procedures.

> *Considerations for Audits Performed in Accordance with PCAOB Standards*
>
> Paragraph .97 of AU section 319, *Consideration of Internal Control in a Financial Statement Audit* (AICPA, *PCAOB Standards and Related Rules*, Interim Standards), states that when performing an integrated audit of financial statements and internal control over financial reporting, refer to paragraph 54 of PCAOB Auditing Standard No. 5 for discussion on the extent of tests of controls.
>
> Also, refer to paragraphs B10.–B16. of appendix B, "Special Topics," in Auditing Standard No. 5 for guidance about tests to be performed when an entity has multiple locations or business units, the use of service organizations, and benchmarking of automated controls.

Test of Controls

2.66 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.

2.67 In circumstances where a software vendor sells primarily shrink-wrapped software under standard license terms with no installation or services, the auditor may decide to perform tests of controls over revenue recognition to obtain audit evidence to support the assessed risk of material misstatement. Examples of tests of controls that an auditor might consider are

- determining that established policies for revenue recognition are in accordance with GAAP and are communicated and understood throughout the entity.
- testing whether the vendor complied with policies and procedures for recognizing revenue. For example, the auditor might test to determine that
  - — orders were not entered without a purchase order or online authorization.
  - — credit was extended in accordance with the vendor's predetermined limits.

  - sales were not recorded until shipment occurred.
  - revenue was not recognized before commencement of the license term.
  - payment was enforced in accordance with the vendor's standard terms.
- test controls over accumulating information necessary for financial statement preparation, including the vendor's development of estimated sales returns.

Substantive Procedures

2.68 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[22]

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.

2.69 Auditors should design substantive procedures that are responsive to the assessed risks of material misstatement for the relevant assertions about software revenue recognition—existence or occurrence, completeness, rights and obligations, valuation and allocation, cutoff, classification, and presentation and disclosure—and the risks of misstatement that are specific to software revenue recognition.

2.70 The risks of misstatement unique to software revenue recognition primarily relate to the improper application of the accounting guidance contained in FASB ASC 985-605, and intentional misstatements of earnings. Therefore, auditors who perform substantive procedures related to software revenue recognition should be knowledgeable in the application of FASB ASC 985-605 and all related guidance.

Types of Potential Misstatement

2.71 The types of potential misstatements related to software revenue recognition and the improper application of FASB ASC 985-605 include the following.

Potential Misstatement	***Example***
a. Arrangement does not exist.	• Both parties did not execute a final contract during the reporting period. • There is no purchase order or online authorization.

(continued)

[22] See TIS section 8200.16, "Examining Journal Entries" (AICPA, *Technical Practice Aids*), for further information regarding the types of journal entries to be examined.

Potential Misstatement	*Example*
b. Software was not delivered during the reporting period.	• Uncertainty exists about customer acceptance. • Product master has not been transferred to the customer. • Undelivered elements are essential to the functionality of the delivered elements. • Shipping documents indicate software was not delivered during the reporting period. • Vendor has delivered software but has also agreed to deliver *unspecified* additional software products in the future such that the arrangement is in substance a subscription. • License term has not yet begun. (Topic 13)[23]
c. Fee is not fixed or determinable.	• Arrangement allows for extended payment terms. • Fee is based on number of units distributed or copied or expected number of users of the product. • Vendor has participated in financing arrangements for the customer. • Reseller issues. • Vendor has granted concessions in the past.
d. Collectibility is not probable.	• Customer's lack of creditworthiness calls into question its ability to make contractual payments. • Fee is subject to forfeiture, refund, or other concession if any undelivered elements are not delivered.
e. Fee is not properly allocated to individual elements.	• Software vendor fails to identify all the elements in a multiple-element arrangement. • Vendor-specific objective evidence of fair value[24] is not properly determined or is not available for all undelivered elements. • Elements are essential to each other's functionality.

[23] See paragraphs 101–104 of FASB ASC 985-605-55 for the effect of commencement of initial lease term.

[24] FASB ASC 820 does not apply to accounting pronouncements that permit measurements that are based on, or otherwise use, vendor-specific evidence of fair value. Throughout this guide, reference is made to vendor specific evidence of fair value. Readers should refer to the applicable standard to determine whether the guidance of FASB ASC 820 should be applied to a specific measurement.

Potential Misstatement	*Example*
	• The contract requires significant modification or customization, making contract accounting applicable.
f. Discounts and rights of return or refund have not been accounted for properly.	• Discounts are improperly allocated to individual elements in a multiple-element arrangement. • Improper application of FASB ASC 605-15 has been made regarding sales returns and refunds. • FASB ASC 985-605-15-13(d) lists factors in determining whether discounts are significant or incremental. • Accounting for discounts is not in accordance with paragraphs 82–85 of FASB ASC 985-605-55.
g. Fees relating to PCS services are recognized improperly.	• Software vendor fails to allocate a portion of the fee to implied PCS arrangements. • Revenue from PCS arrangements is incorrectly recognized on delivery of software when specified criteria have not been met. • Fee accounted for as PCS includes a specified upgrade.
h. Fees relating to arrangements that include services other than PCS-related services are recognized improperly.	• Fees relating to a product in an arrangement including services other than PCS-related services are improperly recognized upon delivery of product when services do not meet the criteria for separate accounting or when contract accounting is required. • Functionality depends on undelivered elements.
i. Deferred revenue is improperly stated.	• Revenue deferred due to a lack of VSOE is not recognized when VSOE exists or all the elements in the arrangement have been delivered. • Software vendor lacks evidence to support the performance of services.

2.72 There is not necessarily a one-to-one correspondence between substantive procedures and audit objectives—some procedures accomplish more than one objective and address several potential risks of misstatement. To reduce the risks of material misstatement of revenue from software transactions, auditors might consider the substantive procedures described in paragraphs 2.68–.94.

Read and Analyze Contracts

2.73 Typically, software vendors document the terms of their arrangements with their customers in a licensing agreement or other legal contract. Reading and analyzing the terms of these contracts will allow auditors to determine whether the fees associated with the transaction were recognized in accordance with GAAP.

2.74 In determining which contracts to read and analyze, the auditor should select a sufficient number and type of contracts to reduce audit risk to an acceptable level. In determining which contracts to select for analysis, the auditor might consider the following.

a. *The materiality of the transaction.* An auditor may be able to reduce audit risk to an acceptable level by analyzing all material contracts entered into during the audit period together with a selection of other contracts that, individually, were not considered material.

b. *The date the contract was entered into.* It is common for software vendors to enter into licensing arrangements with their customers close to the end of the reporting period. To reduce the risk of revenues being recorded in the wrong period, auditors might consider focusing audit attention on transactions near the end of the reporting period. Also, contracts signed in close proximity with the same customer may be part of a single arrangement.

c. *Contracts relating to transactions with a high inherent risk*. Paragraph 2.39 describes revenue transactions that typically have a higher inherent risk of material misstatement. When selecting contracts for detailed analysis, auditors might consider focusing audit attention on such transactions. For example, a careful review of the contract can help the auditor develop an understanding of the scope and nature of services to be performed. Indications of the importance of the services to the overall arrangement often can be viewed through the conditions of acceptance and payment terms. If there are acceptance tests and milestone payments, there is a higher likelihood that the services are essential to the functionality of the software.

2.75 Some software vendors use standardized agreements for all revenue transactions or for certain specified transactions. When the software vendor uses standardized agreements, audit procedures may be limited to

- evaluating the standardized contract for terms that may affect revenue recognition.
- reviewing a sample of contracts for compliance with the standardized agreement and appropriate allocation of the fee to individual elements in a multiple-element arrangement.

2.76 As described in paragraph 2.15 of this chapter, FASB ASC 985-605 requires persuasive evidence of an arrangement between the software vendor and its customer before revenue is permitted to be recognized. When the software vendor uses written contracts to document its arrangements with its customers, the contract must be fully executed by both parties before revenue on the contract may be recognized. Vendors that normally do not rely on contracts should have other evidence, for example, purchase orders or online

authorizations, to document transactions. Oral agreement to the terms of the contract does not constitute full execution.

2.77 When the auditor concludes there is significant risk that revenue may be recorded before the existence of an agreement, he or she might consider reviewing or obtaining copies of contracts or other evidence of arrangements executed near the end of the audit period.

2.78 When analyzing a contract, the auditor might consider

- whether the contract was fully executed by both parties during the audit period.
- whether the client has identified all the products and services (the elements) in a multiple-element arrangement. To identify and understand all the elements of a contract, the auditor may need to use the work of a specialist. AU section 336, *Using the Work of a Specialist* (AICPA, *Professional Standards*), establishes requirements and provides guidance to the auditor who uses the work of a specialist in performing an audit in accordance with generally accepted auditing standards.
- whether products and services or contract accounting is appropriate, if a multiple-element arrangement includes services.
- the fees provided for under the contract and payment provisions.
- the existence of provisions that affect whether the fee is fixed or determinable, such as price protection, returns, and cancellations.
- the obligations of both parties under the contract.
- the specified delivery dates and methods.
- whether the contract is part of another arrangement.
- all other provisions that could affect revenue recognition.

2.79 Software vendors may enter into oral or written "side agreements" to contracts that effectively modify those contracts. Auditors may make inquiries of those familiar with the terms of the arrangement (for example, sales personnel) to determine whether side agreements exist and to ensure that all terms of the agreement between the software vendor and its customer have been considered when determining revenue recognition.

Confirm Terms of the Arrangement

2.80 AU section 330, *The Confirmation Process* (AICPA, *Professional Standards*), establishes requirements and provides guidance on the use of confirmations to gather audit evidence. When the combined level of inherent risk and control risk is high, AU section 330 states that the auditor should consider confirming the terms of complex transactions with other parties in addition to examining documentation held by the entity. Complexity combined with high levels of inherent and control risk frequently characterize software revenue transactions.

2.81 Interpretation No. 1, "Use of Electronic Confirmations," of AU section 330 (AICPA, *Professional Standards*, AU sec. 9330 par. .01–.08), 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 alteration, including the risk that the confirmation respondent will not be the intended respondent, paragraph

.05 of Interpretation No. 1 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.

2.82 The auditor's understanding of the client's arrangements and transactions with its customers is the key to determining the information to be confirmed. By reading the contract and understanding the terms of the arrangements, the auditor should determine the appropriate information to include on the confirmation request. When confirmations are used to gather audit evidence relating to software revenue recognition, the auditor might consider confirming the following terms:

- Date(s) of delivery
- Date of customer acceptance
- Date of installation
- The date of the contract that is the subject of the confirmation request and the existence of any side agreements or modifications to the contract
- Pricing details
- Delivery of all elements in accordance with the contract
- Any undelivered elements' effect on the functionality of delivered elements
- Right of return, cancellation privileges, or warranty provisions
- Stage of completion, if applicable
- Other pertinent contract provisions
- Amount due to software vendor and payment terms
- Any additional provisions not described in the contract

2.83 Software vendors may enter into oral or written "side agreements" to contracts that effectively modify those contracts. Some side agreements may contain terms prohibiting the customer from disclosing the existence of the side agreement to third parties. Auditors might make inquiries of those familiar with the terms of the sale (for example, sales personnel) to determine whether side agreements exist and to ensure that all terms of the agreement between the entity and its customer have been considered when determining revenue recognition. To detect the existence of undisclosed side agreements, the auditor might consider the need to perform substantive procedures, such as reviewing credit memos, sales concessions, or similar marketing allowances granted in subsequent periods for adjustment or reversal of revenues previously recorded.

Test for Delivery

2.84 As described in paragraph 2.15, revenue from software transactions cannot be recognized until the product is delivered. Therefore, auditors should obtain audit evidence to corroborate the delivery of the product. In addition to confirming the delivery with the customer, the auditor might consider the following:

- Reviewing shipping documents and packing slips to ensure all elements were delivered before the end of the reporting period, especially for sales of shrink-wrapped software
- For software delivered electronically, reviewing documents from the customer confirming the product was received
- Determining that the product ordered was available and delivered (for example, customers ordered version 5.0, but it was not available, so version 4.5 was shipped)
- Whether there are undelivered elements that are essential to the functionality of the delivered element

Test for Collectibility

2.85 As described in paragraph 2.15, the collectibility of the fee must be probable to recognize revenue from software transactions. For material transactions, the auditor may obtain audit evidence to support creditworthiness of the customer and the related collectibility of the receivable. For example, the auditor might consider performing a detailed specific accounts receivable balance review to understand why customers are not paying in accordance with terms. Factors to consider include creditworthiness, technical product problems, delays in product release, and entity failure to enforce payment terms. Such a review might help the auditor evaluate whether problems with collectibility affect current revenue recognition or whether the original treatment was appropriate. Also, subsequent cash receipts can provide audit evidence to support the collectibility of the fee.

Test for Contingencies

2.86 In order to address the completeness assertion, the auditor also should determine whether the fee allocated to delivered elements is subject to forfeiture, refund, or other concessions if any of the undelivered elements are not delivered. To make this determination the auditor may consider such factors as

- the terms of the arrangement specified in the contract.
- management's intent to provide refunds or other concessions that are not required under the provisions of the arrangement.
- the entity's historical pattern of making refunds or other concessions that were not required under the provisions of the arrangement.

Gather Audit Evidence to Support VSOE or Residual Value

2.87 As described in paragraph 2.18, FASB ASC 985-605-25-6 requires that allocation of the fee to various software or software-related elements in a multiple-element arrangement should be based on VSOE of fair value. FASB ASC 985-605-25 provides guidance on how to allocate the fee (and discount, if any) among the individual elements of multiple-element arrangements that include upgrade rights, additional software products, PCS, or service elements (other than PCS-related services) that meet the criteria for separate accounting.

2.88 Auditors should gather audit evidence to support VSOE for each element in a multiple-element arrangement. This audit evidence should be

consistent with the definition of *VSOE* specified in the FASB ASC glossary. In obtaining VSOE for each element, auditors may

- examine documentation to support the price charged for the element when it is sold separately.
- review the entity's procedures to establish pricing policies for elements that have not yet been sold separately, and determine that management does not change prices once established.

2.89 In most instances, audit evidence to support VSOE for each element in a multiple-element arrangement may be obtained from an evaluation of a vendor's historical sales of products and services. FASB ASC 985-605-55-25[25] provides the following examples of factors that may be useful in evaluating a vendor's product and service pricing history:

- Similarity of customers
  - — Type or class of customer
- Similarity of products included
  - — Types of products
  - — Stage of product life cycle
  - — Elements included in the arrangement
- Similarity of license economics
  - — Length of payment terms
  - — Economics of license arrangement

Test Recognition of Deferred Revenue

2.90 Deferred revenue from software revenue transactions may result from the following circumstances:

a. The terms of the arrangement do not meet the criteria for revenue recognition as described in FASB ASC 985-605.

b. As described in paragraph 2.18, sufficient VSOE does not exist to allocate the fee to various elements in a multiple-element arrangement.

c. As described in paragraphs 2.21 and 2.23, fees for PCS services and services other than PCS-related services generally should be deferred and recognized ratably and as the service is performed, respectively.

2.91 For deferred revenue relating to the items described in paragraph 2.90(a)–(b), the auditor should obtain audit evidence to support management's assertion that all deferred revenue has been recognized when the criteria for revenue recognition have been met.

2.92 The recognition of revenue related to service elements depends on when the service is performed. Similarly, when product revenue is deferred

[25] This information comes from TIS section 5100.57, "Overcoming Presumption of Concessions in Extended Payment Term Arrangements and Software Revenue Recognition" (AICPA, *Technical Practice Aids*). TIS section 5100 was the only TIS section that FASB codified and therefore made authoritative.

because VSOE does not exist, or an undelivered service is essential to the product's functionality, the recognition of that deferred revenue depends on when the service is performed. When the services are performed over several accounting periods, management may be required to estimate the percentage of the service that has been performed to date. AU section 342, *Auditing Accounting Estimates* (AICPA, *Professional Standards*), establishes requirements and provides guidance on evaluating the reasonableness of accounting estimates made by management. The auditor should evaluate the reasonableness of accounting estimates made by management. In doing so, the auditor may consider focusing on key factors and assumptions underlying the estimate. For estimates relating to the performance of software-related services, the auditor may consider factors and such assumptions as

- the technical complexity of the project. The more complex a project, the more difficult it may be to estimate the percentage of the work that has been performed.
- whether an appropriate measure of progress has been selected. For example, output measures may provide a better estimate of progress than costs incurred.[26]
- the project maturity. The closer the service project is to completion, the more reliable the estimate of the percentage of the work performed to date.
- the project duration and size.
- the vendor's controls over cost accumulation.
- for cost-based estimates, whether the appropriate pool of costs has been included in the calculation.
- the vendor's history of completing similar projects.
- the susceptibility of the project design to change.
- the entity's history of revisions of estimates.
- the vendor's history of budgeting services (for example, if the ability to estimate expenses historically has been off by 10 percent, adjust up-front, accordingly).
- whether there are nonchargeable fees incurred on projects.
- the adequacy of the entity's records on performance of services.

2.93 To evaluate the reasonableness of estimates relating to the performance of services, the auditor may consider such procedures as the following:

- Making inquiries of management, both financial and operational
- Reviewing data, such as time cards, to support the estimate of services performed
- Review management's current estimate to complete the project
- Confirming the stage of completion with the customer

[26] Paragraphs 93–96 of FASB ASC 985-605-25 include detailed guidance on measuring progress to completion.

Analyze Allowance for Sales Returns

2.94 As described in paragraph 2.35, management is required to estimate sales returns at the time the sale of the product is made. Auditors might perform the following procedures as a means to obtain audit evidence to evaluate the reasonableness of management's estimate:

- Review credit memos and accounts receivable, revenue, and marketing and promotion expense adjustments made after the end of the reporting period.
- Analyze the entity's historical experience with sales returns of similar products.
- Make inquiries regarding the presence of the factors listed in FASB ASC 605-15-25-3 and, if applicable, the additional factors listed in paragraph 2.36 of this chapter, to determine whether the amount of returns can be reasonably estimated.

Designing Analytical Procedures

2.95 AU section 329, *Analytical Procedures* (AICPA, *Professional Standards*), establishes requirements and provides guidance on the use of analytical procedures and the use of analytical procedures in the planning and overall review stages of all audits. In addition, it states that in some cases, analytical procedures may be more effective or efficient than tests of details to achieve particular substantive testing objectives. In accordance with paragraph .06 of AU section 314, analytical procedures are also performed as risk assessment procedures to obtain an understanding of the entity and its environment, including its internal control. AU section 339, *Audit Documentation* (AICPA, *Professional Standards*), establishes standards on audit documentation and provides further guidance in this area, including, among other things, the documentation of substantive analytical procedures. The purpose of analytical procedures in the planning stage of the audit of a software vendor is to assist the auditor in planning the nature, timing, and extent of the auditing procedures that will be used to obtain evidence to support software revenue recognized during the period.

> *Considerations for Audits Performed in Accordance with PCAOB Standards*
>
> PCAOB Auditing Standard No. 3, *Audit Documentation* (AICPA, *PCAOB Standards and Related Rules*, Auditing Standards), established general requirements for documentation the auditor should prepare and retain in connection with engagements conducted pursuant to PCAOB standards.

The following analytical procedures may be used for planning purposes and also, in some circumstances, as substantive tests:

- Review DSO, and trend of DSO, over the last several quarters for both software and services, as applicable.
- Segregate and analyze DSO by geography, industry, and salesperson, as appropriate, based on identified or perceived risk (for example, economic conditions in certain countries or industries, and key salespeople identified as being aggressive).

- Compare the number of weeks of inventory in distribution channels with prior periods for unusual increases that may indicate channel stuffing.[27]
- Compare aging of accounts receivable in the current and prior periods.
- Perform a historical comparison of the revenue attributable to each of the various services as a percentage of the whole.
- Compare current and historic sales (in dollars and in units) to identify unusual trends.
- Consider fluctuations (or the absence of fluctuations) in recorded revenues in light of industry conditions, product life cycles, new product introductions, and competitive conditions.
- Review internally used metrics or nonfinancial indicators of sales activity.
- Review margins on services other than PCS-related services to evaluate whether the delivered software requires substantial services once delivered.

2.96 According to AU section 318, when designing substantive analytical procedures, the auditor also should evaluate the risk of management override of controls. As part of this process, the auditor should evaluate whether such an override might have allowed adjustments outside of the normal period-end financial reporting process to have been made to the financial statements. Such adjustments might have resulted in artificial changes to the financial statement relationships being analyzed, causing the auditor to draw erroneous conclusions. For this reason, substantive analytical procedures alone are not well suited to detecting fraud. In addition, before using results obtained from substantive analytical procedures, the auditor may either test the design and operating effectiveness of controls over financial information used in the substantive analytical procedures or perform other procedures to support the completeness and accuracy of the underlying information.

2.97 For significant risks of material misstatement, it is unlikely that audit evidence obtained from substantive analytical procedures alone will be sufficient.

Presentation and Disclosure

2.98 According to paragraph .15 of AU section 326, *Audit Evidence* (AICPA, *Professional Standards*), assertions used by the auditor fall into the following categories:

- Assertions about classes of transactions and events for the period under audit:
  - *Occurrence.* Transactions and events that have been recorded have occurred and pertain to the entity.

[27] Refer to SEC SAB No. 104, *Revenue Recognition*, for further information on channel stuffing. Although SEC SABs are directed specifically to transactions of public companies, management and auditors of nonpublic companies may find this guidance helpful in analyzing revenue recognition matters.

- — *Completeness.* All transactions and events that should have been recorded have been recorded.
- — *Accuracy.* Amounts and other data relating to recorded transactions and events have been recorded appropriately.
- — *Cutoff.* Transactions and events have been recorded in the correct accounting period.
- — *Classification.* Transactions and events have been recorded in the proper accounts.

- Assertions about account balances at the period end:
  - — *Existence.* Assets, liabilities, and equity interests exist.
  - — *Rights and obligations.* The entity holds or controls the rights to assets, and liabilities are the obligations of the entity.
  - — *Completeness.* All assets, liabilities, and equity interests that should have been recorded have been recorded.
  - — *Valuation and allocation.* Assets, liabilities, and equity interests are included in the financial statements at appropriate amounts and any resulting valuation or allocation adjustments are appropriately recorded.
- Assertions about presentation and disclosure:
  - — *Occurrence and rights and obligations.* Disclosed events and transactions have occurred and pertain to the entity.
  - — *Completeness.* All disclosures that should have been included in the financial statements have been included.
  - — *Classification and understandability.* Financial information is appropriately presented and described and disclosures are clearly expressed.
  - — *Accuracy and valuation.* Financial and other information are disclosed fairly and at appropriate amounts.

2.99 The auditor should evaluate whether the presentation and disclosure of software revenue are in conformity with GAAP.

2.100 Marketing arrangements may vary among software distributors and resellers. For example, some distributors may not take title to the software sold to the customer and have no risk of loss or other responsibility for the product. In those situations a question may arise concerning whether revenue from the sale of the software should be reported gross with a separate display of cost of sales to arrive at gross profit or whether the margin on the sale should be reported net, similar to a commission.

2.101 FASB ASC 605-45-45-1 states that whether a company should recognize revenue based on (*a*) the gross amount billed to a customer because it has earned revenue from the sale of the goods or services or (*b*) the net amount retained (that is, the amount billed to the customer less the amount paid to a supplier) because it has earned a commission or fee is a matter of judgment. Paragraphs 3–18 of FASB ASC 605-45-45 set forth factors or indicators to consider in making the evaluation.

2.102 Regulation S-X requires SEC registrants to disclose separately, on the face of the income statement, revenue from the sales of products, services, and other products. In addition, Topic 13 B question 1 states that the SEC staff believes that costs related to each type of revenue similarly should be reported separately on the face of the income statement.

2.103 With respect to disclosure, according to FASB ASC 235-10-50-3:

> Disclosure of accounting policies shall identify and describe the accounting principles followed by the entity and the methods of applying those principles that materially affect the determination of financial position, cash flows, or results of operations. In general, the disclosure shall encompass important judgments as to appropriateness of principles relating to recognition of revenue and allocation of asset costs to current and future periods; in particular, it shall encompass those accounting principles and methods that involve any of the following
>
> *a.* A selection from existing acceptable alternatives
>
> *b.* Principles and methods peculiar to the industry in which the entity operates, even if such principles and methods are predominantly followed in that industry
>
> *c.* Unusual or innovative applications of GAAP

2.104 Accordingly, software vendors should consider disclosing their accounting policies concerning the following:

- Revenue recognition for each significant type of revenue (for example, product sales; maintenance and PCS; installation and other services; and barter transactions)
- Accounting for discounts, incentives and sales returns, and the methods used to develop estimates of significant sales allowances
- Amortization of deferred revenues

2.105 AU section 431, *Adequacy of Disclosure in Financial Statements* (AICPA, *Professional Standards*), states that if management omits from the financial statements, including the accompanying notes, information that is required by GAAP, the auditor should express a qualified or an adverse opinion and should provide the information in his or her report, if practicable, unless its omission from the auditor's report is recognized as appropriate by a specific Statement on Auditing Standards. The auditor should review the financial statements to determine whether disclosures are adequate with regard to such matters as software revenue recognition policies, information about major customers or significant concentrations of credit risk, related-party transactions, and the effect of significant revisions to estimates in percentage-of-completion contracts.

Written Representations From Management

2.106 AU section 333, *Management Representations* (AICPA, *Professional Standards*), establishes a requirement that the independent auditor obtain written representations from management and provides guidance concerning the representations to be obtained. Such representations are part of the audit evidence the auditor obtains but are not a substitute for the application of the substantive auditing procedures outlined in this chapter. Paragraph .07 of AU section 333 (AICPA, *Professional Standards*) states that the representation

letter ordinarily should be tailored to include appropriate representations from management relating to matters specific to the entity's business or industry. The letter should be dated as of the date of the auditor's report.

> *Considerations for Audits Performed in Accordance with PCAOB Standards*
>
> Paragraph .05 of AU section 333, *Management Representations* (AICPA, *PCAOB Standards and Related Rules*, Interim Standards), states that 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.

Representations specific to software revenue transactions may include the following:

- Management is not aware of any side agreements, either written or oral, to its software revenue arrangements.
- The entity has recognized revenue for software and software-related elements in accordance with the provisions of FASB ASC 985-605 and other authoritative literature.
- Management intends not to provide refunds or concessions that are not required under the provisions of the arrangement, and its historical performance supports such intent.
- Management does not anticipate providing PCS services that are not required under the provisions of the arrangement without appropriate additional consideration.
- If there is a situation where VSOE for an element not yet being sold was established by management having the authority to do so, such VSOE should be disclosed in a representation together with a statement that the entity will not change the prices of individual elements once established.
- Management believes that unbilled revenue is realizable in accordance with the provisions of the contract.
- Estimates used in estimating returns are reasonable, to the best of management's knowledge and ability.
- Unspecified upgrades offered during the PCS arrangement are expected to remain minimal and infrequent.

2.107 AU section 333 (AICPA, *Professional Standards*) also states that in certain circumstances, the auditor may want to obtain written representations from other individuals. The auditor should consider obtaining additional representations relating to revenue assertions, which might include obtaining representations directly from the software vendor's operating management, such as sales personnel.

Chapter 3

Auditing Revenue Transactions in the High-Technology Manufacturing Industry[1]

Overview of the High-Technology Manufacturing Industry

3.01 The term *high technology* is not defined precisely, and high-technology manufacturing includes several industries whose participants provide a broad range of products and services to numerous customers on various terms. In general, high-technology companies are involved in the practical application of physical science and the use of scientific theories and methods to develop new products that enhance the way we live.

3.02 This chapter considers the auditing and accounting for revenue recognition transactions for companies involved in the manufacture of high-technology products, such as

- computers, including personal computers (PCs), systems, and servers (ranging up to large-scale systems, such as mainframes and supercomputers) and workstations.
- computer peripheral equipment, such as storage devices, monitors, and printers.
- semiconductors, including analog and digital semiconductors, such as microprocessors, memory chips, and logic devices.
- electronic products and components, such as electron tubes, printed circuit boards, capacitors, resistors, transformers, and other items that are used in a variety of industries.
- telecommunications, data communications, networking, medical, analytical, diagnostic, and other types of equipment that are manufactured with electronic products and components.[2]

3.03 Auditors of high-technology manufacturing companies should obtain an understanding of the client's products, services, and distribution processes, and the terms and conditions of sales arrangements in meeting the requirements of paragraph .01 of AU section 314, *Understanding the Entity and Its Environment and Assessing the Risks of Material Misstatement* (AICPA, *Professional Standards*). Such an understanding will enhance the auditor's ability to plan and perform auditing procedures for revenue transactions of high-technology manufacturers. In addition, auditors should be knowledgeable of generally accepted accounting principles (GAAP) and keep apprised of new accounting guidance that could affect revenue recognition by manufacturers of high-technology products.

Competitive Environment

3.04 *Aggressive pricing and sales concessions.* The high-technology manufacturing industry is intensely competitive, and some segments of the

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[1] See chapter 1, "Overview: Audit Issues in Revenue Recognition," of this guide for a related discussion of the matters presented in this chapter.

[2] See paragraphs 3.12–.18 for guidance on sales of products that include embedded software.

industry—most notably, the PC segment—sell what is considered to be a commodity. When a product is considered a commodity, the primary means of differentiation is price, and it is not unusual for participants in the industry to engage in aggressive pricing practices or offer generous sales concessions to gain or retain market share.

3.05 *Rapid technological change.* Short product life cycles are a fundamental characteristic of the high-technology manufacturing industry. For example, the life cycle of a desktop PC is thought to be two years or less, and it is estimated that up to 50 percent of profits for PCs and related products are now generated in the first three to six months of sales. Constant technological advancement affects the industry in many ways, including the following:

- The threat of imminent product obsolescence provides an additional incentive for high-technology manufacturers to offer discounts or provide other incentives and concessions as a way to make sales and move inventory. As described in paragraph 3.08, many concessions raise questions about the propriety or timing of revenue recognition.
- Rapid technological change has resulted in the creation of ever more complex high-technology products. In some instances, it may be difficult to determine whether the product will perform as required at the time of shipment. To overcome customer resistance in these situations, manufacturers may engage in a number of practices that have revenue recognition implications. These practices include
  - delivering products to customers for demonstration purposes.
  - providing liberal evaluation, acceptance, or cancellation clauses in the sales contract.
  - offering separately priced extended warranties or maintenance agreements.
  - promising the delivery of future products. Before these products are complete, the entity will ship current products to the customer.
- The quick pace of innovation can force companies to speed new products to market. The constant introduction of new products may raise questions about an entity's ability to estimate product returns.
- The rapid pace of change results in companies constantly evaluating and modifying their business model and how their products are brought to market. For example, as products near the end of their life cycle, an entity may offer sales incentives or introduce other strategies for extending the sales life of the product.

3.06 *Pressure to meet earnings expectations.* For publicly traded manufacturers, the market price of the entity's stock has important strategic implications. High-technology companies frequently use entity stock and stock options to compensate management, and the value of that compensation allows those companies to recruit and retain top talent. Additionally, some segments of the industry may undergo consolidation as companies seek ways to maintain

growth or create marketing, production, or distribution efficiencies. An acquiring entity's common stock frequently is used to make these acquisitions, and so an increasing stock price will greatly enhance an entity's ability to pursue its business strategy.

3.07 Stock analysts commonly use revenue growth and market share to value high-technology companies. This focus creates pressure to meet quarterly or annual revenue expectations, which in turn creates an incentive for entities to complete sales by the end of the reporting period. Even entities that are not yet public but are positioning themselves for a public offering have an incentive to demonstrate a history of recent revenue growth. For this reason, it is common for high-technology companies to report a proportionately higher number of sales near the end of a reporting period. As described in paragraph 3.45, significant transactions near the end of a reporting period generally lead to greater inherent risks of material misstatement.

Characteristics of Revenue Transactions

3.08 In an industry as varied as high-technology manufacturing, invariably there will be significant differences among companies regarding the types of products they sell and how they are sold. Characteristics of high-technology revenue transactions that may affect revenue recognition include the following:

- *The move toward total-solution selling and bundled sales.* Many companies in the high-technology manufacturing sector sell standardized products. For example, manufacturers of electronic components, semiconductors, and to a large degree, computer peripherals, are engaged primarily in the design, manufacture, and sale of a product. The product is shipped to a customer, who takes immediate title and bears all the responsibility for installation.

  However, other companies (most notably computer manufacturers) are moving toward providing their customers with a total solution, in response to customer need for outsourcing IT functions and a desire to work with vendors that provide one-stop shopping. This trend leads to companies migrating from shipping hardware to the customer site and having the customer be responsible for completing the implementation, to the entity selling a "total solution," which requires installation, customization, and any other services necessary to make the product functional. The customer may not accept the solution until functionality is achieved.

  Some entities may not have the resources to provide "total solutions" but nevertheless may bundle their products together with other products or services. For example, this strategy may be undertaken as a way to increase sales or differentiate the entity from its competitors. The bundling of installation or other services with product sales (whether or not these are part of a "total solution") can complicate the revenue recognition process, as described in paragraph 3.33.

- *Indirect vs. direct selling.* Some high-technology manufacturers sell their products directly to end-users, typically with standard rights of return. Direct consumer sales (and small dollar sales to other end users) usually have relatively standard terms and conditions.

Other manufacturers use a direct sales approach combined with a network of value-added resellers (VARs) and distributors to sell their products to end users. Sales made through distributors, as well as significant single sales (in terms of size to the seller or purchaser), often can have unique, nonstandard terms. It is common for the manufacturer to provide incentives or sales concessions to their VARs and distributors that go beyond the rights of return granted to end users. Many of the incentives and concessions granted to distributors raise revenue recognition issues. The most common of sales concessions include

— price protection agreements.[3]

— guaranteed margin agreements.

— stock balancing or rotation arrangements.

— sales subject to sale to the end user.

— extended payment terms.

— issuance of equity or other equity instruments to customers.

- *Bill and hold sales.* It is not uncommon for high-technology companies to enter into bill and hold transactions. In a bill and hold transaction, a customer agrees to purchase the goods but the seller retains physical possession until the customer requests shipment to designated locations. Normally, such an arrangement does not qualify as a sale because delivery has not occurred. Under certain conditions, however, when a buyer has made an absolute purchase commitment and has assumed the risks and rewards of the purchased product but is unable to accept delivery because of a compelling business reason, bill and hold sales may qualify for revenue recognition.
- *International sales.* Technology manufacturing companies may make sales in non-U.S. legal jurisdictions. The laws in these jurisdictions relating to product sales can vary significantly from U.S. laws. For example, some countries may prohibit the billing for goods until delivery occurs or may have rules regarding transfer of title (for example, title may not transfer until delivery or receipt of payment) that may be significantly different from U.S. rules.

Summary of Significant Accounting Guidance[4]

3.09 High-technology manufacturing companies can be involved in a variety of revenue transactions. Certain of these transactions fall within the

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[3] A price protection agreement clause requires the manufacturer to rebate or credit a portion of the sales price if the manufacturer subsequently reduces its price for a product and the distributors and value-added resellers still have rights with respect to that product.

[4] This discussion provides an overview of the significant accounting guidance for revenue recognition most frequently applicable to high-technology manufacturing companies. This discussion is intended merely to provide background information for the auditing guidance that follows. Readers who wish to implement accounting guidance related to revenue recognition for high-technology companies should refer to the applicable Financial Accounting Standards Board (FASB) *Accounting Standards Codification*™ (ASC) sections.

scope of specific authoritative literature. For other transactions, only the broad revenue recognition criteria specified in the Financial Accounting Standard Board's (FASB's) conceptual framework exists.

3.10 To assess whether the client's revenue recognition policies are consistent with the applicable accounting literature, auditors should identify and understand the terms of the entity's revenue transactions and whether these terms are consistent for all customer types. To determine whether a particular transaction falls within the scope of a particular standard, the auditor should refer to the relevant FASB *Accounting Standards Codification*™ (ASC) section.

Is the Product Sold Together With Services?

3.11 As described in paragraph 3.08, some high-technology manufacturers provide computer "solutions" to their customers or otherwise bundle together their products and services. The accounting guidance applicable to these transactions is summarized in paragraph 3.33.

Applicability of FASB ASC 985, *Software*

3.12 When products are sold without services, the accounting for the sale depends on whether the product includes embedded software and, if so, whether that software is incidental to the product as a whole. When the software is *not* incidental, the software should be accounted for in accordance with the guidance contained in FASB ASC 985.

3.13 According to "Pending Content" in FASB ASC 985-605-15-3(c), indicators of whether software is more than incidental to a product as a whole include, but are not limited to

- whether the software is a significant focus of the marketing effort or is sold separately;
- whether the vendor is providing postcontract customer support; or
- whether the vendor incurs significant costs that are within the scope of FASB ASC 985-20.

Tangible Products Delivered With Software Components and Nonsoftware Components

3.14 "Pending Content" in FASB ASC 985-605-15-4 indicates that guidance in FASB ASC 985-605 does not apply to the following transactions and activities:

a. Arrangements for products or services containing software that is incidental to the products or services as a whole

b. Leases of software that include a tangible product (such as property, plant, or equipment), if the software is incidental to the tangible product as a whole or the software and nonsoftware components of the tangible product function together to deliver the tangible product's essential functionality

c. Marketing and promotional activities not unique to software transactions, such as the following:

   i. Insignificant discounts on future purchases that are offered by a vendor in a software arrangement. For example, a vendor may offer a small discount (a coupon or other

form or offer for five percent off) on additional licenses of the licensed product or other products that exist at the time of the offer but are not part of the arrangement.

ii. Discounts that are not incremental to discounts typically given in comparable transactions (for example, volume purchase discounts comparable to those generally provided in comparable transactions.)

d. Nonsoftware components of tangible products

e. Software components of tangible products that are sold, licensed, or leased with tangible products when the software components and nonsoftware components of the tangible product function together to deliver the tangible product's essential functionality

f. Undelivered elements that relate to software that is essential to the tangible product's functionality in preceding item (e)

3.15 According to "Pending Content" in FASB ASC 958-605-15-4A, in determining whether a tangible product is delivered with software components and nonsoftware components that function together to deliver the tangible product's essential functionality, a vendor should consider all of the following:

a. If sales of the tangible product without the software elements are infrequent, a rebuttable presumption exists that software elements are essential to the functionality of the tangible product.

b. A vendor may sell products that provide similar functionality, such as different models of similar products. If the only significant difference between similar products is that one product includes software that the other product does not, the products shall be considered the same product for the purpose of evaluating (a).

c. A vendor may sell software on a standalone basis. The vendor may also sell a tangible product containing that same software. The separate sale of the software shall not cause a presumption that the software is not essential to the functionality of the tangible product.

d. Software elements do not need to be embedded within the tangible product to be considered essential to the tangible product's functionality.

e. The nonsoftware elements of the tangible product must substantively contribute to the tangible product's essential functionality. For example, the tangible product should not simply provide a mechanism to deliver the software to the customer.

3.16 FASB ASC 985-605-50-1 provides that for multiple-element arrangements that include deliverables within the scope of FASB ASC 985-605 and deliverables that are not within the scope of FASB ASC 985-605, a vendor should provide the disclosures included in the "Pending Content" in paragraphs 1–2 of FASB ASC 605-25-50.

3.17 As explained in "Pending Content" in FASB ASC 985-605-55-211, cases have been provided that contain guidance on allocating arrangement consideration in a multiple-element revenue arrangement that includes a tangible product and software. The cases illustrate whether a product contains software elements and nonsoftware elements that function together to deliver

the tangible product's essential functionality as discussed in FASB ASC 958-605-15-4 and can be found in "Pending Content" in paragraphs 212–236 of FASB ASC 985-605-55.

3.18 FASB ASC 605-25 establishes the accounting and reporting guidance for transactions and activities that do not fall under the scope of FASB ASC 985-605 and under which the vendor will perform multiple revenue-generating activities. This accounting and reporting guidance is discussed in more detail in paragraphs 1.60–.71 of this guide.

Accounting for Product Sales

3.19 The conceptual basis for revenue recognition is contained in FASB Concept No. 5, *Recognition and Measurement in Financial Statements of Business Enterprises*. Paragraph 83 states that recognition of revenue involves consideration of two factors, (*a*) being realized or realizable and (*b*) being earned. Paragraph 83(b) states:

> Revenues are not recognized until earned. An entity's revenue-earning activities involve delivering or producing goods, rendering services, or other activities that constitute its ongoing major or central operations, and revenues are considered to have been earned when the entity has substantially accomplished what it must do to be entitled to the benefits represented by the revenues. [Footnote omitted.]

3.20 Paragraph 84(a) of FASB Concept No. 5 states that revenues from manufacturing and selling activities are commonly recognized at time of sale, usually meaning delivery.

3.21 Revenue typically is considered to be realizable and earned when the product has been shipped and the risk of loss and title has been passed to the customer. Payment must be anticipated and deemed probable, which requires evidence that the customer desired shipment of the product. However, for high-technology companies, judgment may be required to determine when the earnings process is complete, such as in the following examples:

- In the case of custom products, when uncertainty exists about the ultimate functionality of the product, the earnings process may not be complete until the equipment is determined to be operational and the customer has accepted it.
- Distributors, whether contractually obligated to or not, may not take the risks of ownership of the inventory until the product ultimately is sold to the end user. The financial condition of the distributor may also indicate that the distributor cannot financially complete the transaction before selling the product to the end user. Under these circumstances, the earnings process may not be complete until the end user purchases the product.
- The existence of significant post sales seller obligations may indicate that the earnings process is not complete until after the obligations have been fulfilled.

3.22 The Securities and Exchange Commission (SEC) Codification of Staff Accounting Bulletins (SAB) Topic 13, *Revenue Recognition*, summarizes certain of the SEC staff's views on the application of GAAP to revenue recognition in financial statements of SEC registrants. Topic 13 states that "the staff believes

that revenue generally is realized or realizable and earned when all of the following criteria are met."

a. *Persuasive evidence of an arrangement exists*. Many high-technology manufacturers use written contracts to document the terms of an arrangement, particularly when the arrangement is complex. In other situations, the manufacturing entity may use a purchase order or online authorization from the customer to document its understanding with the customer.

Topic 13 A.2 question 2 states that the presence of one or more of the following characteristics in a transaction precludes revenue recognition, even if title to the product has passed to the buyer, because the substance of the transaction is that of a consignment or a financing. Such arrangements require a careful analysis of the facts and circumstances of the transaction, as well as an understanding of the rights and obligations of the parties, and the seller's customary business practices. The presence of one or more of the following characteristics may preclude revenue recognition:

- The buyer has the right to return the product and
  - — the buyer does not pay the seller at the time of sale, and the buyer is not obligated to pay the seller at a specified date or dates.
  - — the buyer does not pay the seller at the time of sale but rather is obligated to pay at a specified date or dates, and the buyer's obligation to pay is contractually or implicitly excused until the buyer resells the product or subsequently consumes or uses the product.
  - — the buyer's obligation to the seller would be changed (for example, the seller would forgive the obligation or grant a refund) in the event of theft or physical destruction or damage of the product.
  - — the buyer acquiring the product for resale does not have economic substance apart from that provided by the seller.
  - — the seller has significant obligations for future performance to directly bring about resale of the product by the buyer.
- The seller is required to repurchase the product (or a substantially identical product or processed goods of which the product is a component) at specified prices that are not subject to change except for fluctuations due to finance and holding costs, and the amounts to be paid by the seller will be adjusted, as necessary, to cover substantially all fluctuations in costs incurred by the buyer in purchasing and holding the product (including interest). Indicators of the latter condition include
  - — the seller provides interest-free or significantly below-market financing to the buyer beyond the

seller's customary sales terms and until the products are resold.

— the seller pays interest costs on behalf of the buyer under a third-party financing arrangement.

— the seller has a practice of refunding (or intends to refund) a portion of the original sales price representative of interest expense for the period from when the buyer paid the seller until the buyer resells the product.

- The transaction possesses the characteristics set forth in FASB ASC 840-10-55 and does not qualify for sales-type lease accounting.
- The product is delivered for demonstration purposes.

b. *Delivery has occurred or services have been rendered.* The SEC staff believes that delivery has not occurred unless the buyer has taken title to the product and has assumed the risks and rewards of ownership, and the seller has not retained any specific performance obligations indicating the earnings process is not complete. Typically, this occurs when the product is delivered to the buyer's delivery site (if the terms are "free on board [FOB] destination") or when the product is turned over to a carrier for shipment to the customer (if the terms are "FOB shipping point").[5]

After delivery, if uncertainty exists about customer acceptance, revenue should not be recognized until acceptance occurs. As noted in paragraph 3.05, it is not uncommon for high-technology manufacturers to include acceptance clauses in their arrangements with their customers. Customer acceptance provisions may be included in a contract, among other reasons, to enforce a customer's rights to

- test the delivered product.
- require the seller to perform additional services subsequent to delivery of an initial product or performance of an initial service (for example, a seller is required to install or activate delivered equipment).
- identify other work necessary to be done before accepting the product.

When contractual acceptance provisions exist, Topic 13 states "the staff generally believes that the seller should not recognize revenue until customer acceptance occurs or the acceptance provisions lapse." In Topic 13 A.3(b) the staff notes that "formal customer sign-off is not always necessary to recognize revenue provided that the seller objectively demonstrates that the criteria specified in the acceptance provisions are satisfied." The staff observes that customer acceptance provisions generally take one of four general forms that

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[5] See Topic 13: *Revenue Recognition*, A.2 concerning the consideration of transfer of title in non-U.S. jurisdictions.

are described in Topic 13 question 1, as well as the staff's assessment of whether the customer acceptance provisions should result in revenue deferral.

Topic 13 A.3(a) also sets forth the criteria that must be met in order to recognize revenue when delivery has not occurred, such as in bill and hold transactions. See paragraph 3.39 of this chapter.

c. *The seller's price to the buyer is fixed or determinable.* If the customer has the right to cancel or terminate the agreement, the sales price is neither fixed nor determinable, and therefore revenue recognition should be deferred until the cancellation privilege lapses. Topic 13 A.4(a) states:

> An entity's contracts may include customer cancellation or termination clauses. Cancellation or termination provisions may be indicative of a demonstration period or an otherwise incomplete transaction. Examples of transactions that financial management and auditors should be aware of and where such provisions may exist include "side" agreements and significant transactions with unusual terms and conditions. These contractual provisions raise questions concerning whether the sales price is fixed or determinable. The sales price in arrangements that are cancelable by the customer is neither fixed nor determinable until the cancellation privileges lapse. If the cancellation privileges expire ratably over a stated contractual term, the sales price is considered to become determinable ratably over the stated term. Short-term rights of return, such as thirty-day money-back guarantees, and other customary rights to return products are not considered to be cancellation privileges, but should be accounted for in accordance with FASB ASC 605-15 [Footnotes omitted.]

d. *Collectibility is probable.* The term *probable* means that collection of the fee is likely to occur.[6] No portion of the fee meets the criterion of collectibility if the portion of the fee allocable to delivered elements is subject to forfeiture, refund, or other concessions if any of the undelivered elements are not delivered. To meet this requirement, management must intend not to provide refunds or concessions that are not required under the provisions of the arrangement.

3.23 *Rights of return.* It is common for high-technology manufacturers to provide their customers with rights of return. FASB ASC 605-15-25 specifies how an entity should account for sales of its products in which the buyer has a right to return the product. FASB ASC 605-15-25-1 provides a list of conditions, all of which must be met to recognize revenue from the transaction at the time of sale. One of these conditions is that the amount of future returns can be reasonably estimated.

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[6] According to FASB ASC 985-605-25-4, FASB ASC 985-605 uses the term *probable* as that term is defined in FASB ASC 450, *Contingencies*. Accordingly, when assessing the collectibility criteria for revenue recognition, the threshold of *probable* is used for transactions that are within the scope of the software accounting guidance (FASB ASC 985-605). For transactions involving nonsoftware products and services that are not within the scope of FASB ASC 985-605, the applicable threshold for assessing the collectibility criteria for revenue recognition is *reasonably assured*.

3.24 FASB ASC 605-15-25-3 describes a number of factors that may impair (but not necessarily preclude) the ability to make a reasonable estimate of the amount of future returns. Among the factors that are most prevalent in the high-technology industry are the following:

- The product is subject to significant obsolescence or changes in demand.
- There is an absence of or lack of relevance of historical experience to the circumstances because the product, market, or customer is new.

3.25 Entities that make sales through distribution channels may be unable to reasonably estimate the amount of future returns. For example, this may occur when the entity does not receive accurate reporting from its distributors regarding inventory levels in the distribution channels and the current level of sales to end users.

3.26 When an entity is unable to reasonably estimate the amount of future returns, revenue recognition should be postponed until the right of return substantially expires or until such time as the returns can be reasonably estimated and the other conditions listed in FASB ASC 605 have been met.

3.27 Auditors of SEC registrants might consider reviewing the interpretive response in Topic 13 A.4(b). In that response, the SEC staff lists the following factors, in addition to those provided in FASB ASC 605-15-25, that may affect or preclude the ability to make reasonable and reliable estimates of product returns:

- Significant increases in or excess levels of inventory in a distribution channel (sometimes referred to as *channel stuffing*).
- Lack of visibility into or the inability to determine or observe the levels of inventory in a distribution channel and the current level of sales to end users.
- Expected introductions of new products that may result in the technological obsolescence of and larger-than-expected returns of current products. As described in paragraph 3.05, the continuous introduction of new products is one of the fundamental characteristics of the high-technology industry.
- The significance of a particular distributor to the registrant's (or reporting segment's) business, sales, and marketing.
- The newness of a product.
- The introduction of competitors' products with superior technology or greater expected market acceptance, and other factors that affect market demand and changing trends in that demand for the registrant's products.

3.28 In considering the application of FASB ASC 605 to a new entity or an entity entering a new line of business, the SEC staff believes the focus should be on the substantive factors that may affect the registrant's ability to make reasonable estimates of product returns. For example, companies may adopt new business models that involve significant changes to the way similar products have traditionally been supplied, such as the use of new distribution channels, the elimination of distributors or resellers, or the supply of a broader

selection of products. Such factors may impair an entity's ability to make a reasonable estimate of returns.

3.29 In circumstances where a registrant concludes that it cannot reasonably estimate the actual return rate due to a product's limited history, the SEC staff also believes that deferring revenue based on an estimate of the maximum possible returns, and recognizing revenue for the portion of the sales that exceeds the maximum estimated return rate, is inconsistent with FASB ASC 605.[7]

3.30 In some sales of high-technology equipment, the seller must install the equipment at the customer's site. The arrangement may include a retainage that the customer is not obligated to pay until installation is complete. If, before completing the installation, the customer has a right to return the equipment, FASB ASC 605-15-25-1 may preclude revenue recognition to the extent of the retainage.

Accounting for Transactions That Involve Both Products and Services

3.31 FASB ASC 605-25 includes accounting guidance applicable to multiple-element arrangements involving services, products, or both, that are not performed or delivered to the customer at the same time.[8] Topic 13 A.3 has been modified to incorporate the guidance on separate elements of an arrangement from the Emerging Issues Task Force. Topic 13 A.1 states that

> some revenue arrangements contain multiple revenue-generating activities. The staff believes that the determination of the units of accounting within an arrangement should be made prior to the application of the guidance in this SAB topic by reference to the applicable accounting literature.

3.32 According to FASB ASC 605-25, an entity with multiple element arrangements should determine whether the arrangement contains more than one unit of accounting and, if so, measure and allocate arrangement consideration to the separate units of accounting. Paragraphs 1.60–.71 in this guide provide a more in depth discussion of the accounting and reporting guidance contained in FASB ASC 605-25.

Accounting for Services

3.33 As described in paragraph 3.08, some manufacturers have begun to provide services in addition to selling products. When an entity provides installation, customization, and other services necessary to make the product

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[7] See Topic 13 A.4(b).

[8] Topic 13 directly refers to the use of the following FASB guidance when a multiple-element arrangement exists:

- Revenue arrangements with multiple deliverables should be divided into separate units of accounting if the deliverables in the arrangement meet the criteria in FASB ASC 605-25-25-5.
- Arrangement consideration should be allocated among the separate units of accounting based on their relative fair values (or as otherwise provided in paragraphs 2–3 of FASB ASC 605-25-30). The amount allocated to the delivered item(s) is limited as discussed in FASB ASC 605-25-30-5.
- Applicable revenue recognition criteria should be considered separately for separate units of accounting.

functional, management ordinarily should consider whether to apply contract accounting.

3.34 *Contract accounting.* Contracts to design, develop, manufacture, or modify complex high-technology equipment to a buyer's specification may be subject to the requirements of FASB ASC 605-35. For example, as described in paragraph 3.08, some high-technology manufacturers are involved in selling complete hardware, software, and service "solutions" to their customers. When solution selling involves significant customization of the computer system to the customer's specifications, contract accounting may be appropriate.

3.35 For services that do not qualify for contract accounting, revenue generally is recognized ratably over the contractual period or as the services are performed.

Accounting for Maintenance Agreements and Extended Warranties

3.36 Some manufacturers sell their products with maintenance agreements or extended warranties. FASB ASC 605-20-25 provides accounting guidance for these types of agreements. FASB ASC 605-20-25-3 requires that revenue from these transactions be deferred and recognized in income on a straight-line basis over the contract period, except in those circumstances in which sufficient historical evidence indicates that the costs of performing services under the contract are incurred on other than a straight-line basis. In those circumstances, revenue should be recognized over the contract period in proportion to the costs expected to be incurred in performing services under the contract.

3.37 In some circumstances, warranty and product maintenance agreements are developed, marketed, and administered by an administrator whose business focuses on these activities. The administrator may enter into an arrangement with a manufacturer that provides for the manufacturer to offer the warranty to customers who purchase applicable products. For each warranty sold, the manufacturer pays a specified fee to the administrator who has responsibility for servicing the contracts. The administrator generally uses a portion of its fee to purchase insurance from an insurer that agrees to accept the risk of loss under the contracts. Although the insurance entity assumes the risk of loss, it does not legally become the obligor under the contracts. Depending on applicable state law, either the manufacturer or the administrator that purchased the insurance is the legal obligor.

3.38 In such circumstances, SEC staff has noted that a registrant who is the obligor under the warranty contracts should recognize revenue over the life of the underlying contracts as specified in Technical Bulletin 90-1 even if the risk of loss has been passed to another party. The staff also concluded that Technical Bulletin 90-1 does not apply when the registrant is not the named obligor. When the manufacturer is the obligor, the administrator is acting as an agent with regard to the insurance contract between the manufacturer and the insurance entity. When the administrator is the obligor, the manufacturer is acting only as an agent with regard to the warranty contract between the administrator and the consumer. In either case, the nonobligor registrant should present only its net commission as revenue as it performs under the contracts.

Accounting for Bill and Hold Sales

3.39 SAB No. 104 (Topic 13 A.3[a]) specifies certain conditions and criteria, all of which must be met, in order for a bill and hold transaction of a public entity to qualify for revenue recognition. In addition, it specifies certain factors that should be considered in evaluating whether a bill and hold transaction meets the requirements for revenue recognition. Although SAB No. 104 is directed specifically to transactions of public companies, management and auditors of nonpublic companies may find it useful in analyzing bill and hold transactions. See chapter 1 of this guide for a discussion of SAB No. 104 on bill and hold sales.

Accounting for Price Protection Agreements

3.40 A price protection clause requires the manufacturer to rebate or credit a portion of the sales price if the manufacturer subsequently reduces its price for a product and the distributors and VARs still have rights with respect to that product. A manufacturer ordinarily should provide appropriate allowances at the date of revenue recognition for price concessions; however, revenue should not be recognized until reasonable and reliable estimates of the effects of price concessions can be made.

Accounting for Sales With a Guaranteed Minimum Resale Value

3.41 FASC ASC 840 provides guidance when a manufacturer sells equipment to a purchaser and guarantees that the purchaser will receive a minimum resale amount at the time the equipment is disposed of. According to FASB ASC 840-10-55-13, the seller may agree to (*a*) reacquire the equipment at a guaranteed price at specified time periods as a means to facilitate its resale or (*b*) pay the purchaser for the deficiency, if any, between the sales proceeds received for the equipment and the guaranteed minimum resale value. According to FASB ASC 840-10-55-14, the manufacturer is precluded from recognizing a sale of equipment if the manufacturer guarantees the resale value of the equipment to the purchaser. Rather, the manufacturer should account for the transaction as a lease, using the principles of lease accounting described in FASB ASC 840-10.

Obtaining an Understanding of Revenue Transactions in the High-Technology Manufacturing Industry

3.42 As discussed in more detail in chapter 1 of this guide, AU section 314 states that the auditor must 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 the understanding required 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 controls and substantive tests). For audits of high-technology companies, the auditor may consider obtaining information relating to

- the types of products (or combined products and services) being developed and marketed as well as their corresponding life cycles.

- whether those products are relatively standard or require significant customization.
- whether the entity has a practice of allowing customers to return products for new or upgraded models.
- whether the entity sells standalone products or a bundle of products and services to its customers that includes hardware, software, peripherals, and installation and other services (that is, multiple-element arrangements).
- the entity's current marketing programs, for example, pricing incentives and the nature of any incentives that may affect the timing of revenue recognition.
- whether the entity uses a standard form of sales agreement; if standard sales agreements are not used, the processes by which sales agreements are evaluated for propriety of revenue recognition.
- compensation plans for management and sales personnel that may provide an incentive to misstate revenues.
- factors used by stock analysts to value the entity.
- the general terms of the entity's arrangements with distributors and VARs, if the entity uses them. Paragraph 3.08 describes some of the terms an entity may have with its distributors that may increase the risks of material misstatement.
- the types of arrangements and warranty provisions the entity typically enters into with its end-user customers.
- if sales are made internationally, the laws in the local jurisdiction relating to billing, transfer of title, or other items that may affect revenue recognition.
- the competitive environment.

3.43 After gaining an understanding of the revenue transactions entered into by the entity, the auditor should assess adequacy of the entity's accounting policies for revenue recognition for each type of transaction and class of customer. The auditor should determine whether those policies are in accordance with U.S. GAAP.

3.44 The auditor must obtain an understanding of the nature of the entity, which includes gaining an understanding of the products (or products and services) being sold by the entity to determine whether certain characteristics of the product itself pose revenue recognition issues. For example, the auditor may consider whether

- the product contains embedded software that is not incidental and that would require the transaction to be accounted for under FASB ASC 985-605 (as described in paragraphs 3.12–.18).
- the complexity of the product creates uncertainty about the ultimate functionality of the product, which would require a deferral of revenue (as described in paragraph 3.21).
- the product is new or subject to significant obsolescence (that is, it is nearing the end of its life cycle), which would preclude management from reasonably estimating product returns (as described in paragraph 3.24).

- the entity enters into price protection or similar agreements with customers and has the ability to make reasonable and reliable estimates of the price concessions granted.
- the product is sold as part of a bundle that may include hardware, software, design, implementation or other services, which may require separate revenue recognition policies for each element (as described in paragraph 3.33), or which may require contract or another type of accounting if the elements cannot be separated.[9]
- the postsale obligations of the seller are significant (as described in paragraph 3.21). In assessing significance, the auditor might consider the estimated cost of the obligation, whether the obligation is routine, and the significance of the obligation to the customer (that is, were these separately negotiated terms).

The following are examples of circumstances any one of which would likely lead to the conclusion that the remaining performance obligations are significant:

— The performance period is lengthy. The term *performance period* could relate either to the time needed to complete the remaining activity (for example, installation requires two weeks) or the time between the delivery of the initial elements and the delivery of the later element (for example, two weeks elapse between the date the equipment is delivered and the date it is installed). There is no "bright line" for determining whether the period is lengthy.

— The cost of performing the remaining activity is other than insignificant. Again, there is no "bright line" for determining whether the cost is other than insignificant. Additionally, note that the converse of this circumstance (that is, the cost of the remaining activity is insignificant) is not itself sufficient when evaluating whether a continuing obligation should affect revenue recognition.

— The skills required to complete the remaining activity are specialized, that is, they are not widely available. For example, the equipment has been delivered but has not yet been calibrated and the seller's technicians are the only ones who can properly calibrate the equipment.

— The due date of a meaningful portion of the sales price is subsequent to the performance of the remaining activity. For example, the payment terms stipulate that 20 percent of the purchase price is due subsequent to installation.

— A meaningful portion of the payments already made by the customer would be refundable if the remaining activity is not completed successfully. The terms of the sales contract as well as past practice may be considered when evaluating whether a portion of the purchase price would be refundable.

[9] Paragraphs 3–6 of FASB ASC 605-35-15 provide specific criteria for the application of contract accounting.

These circumstances are not all-inclusive. As discussed previously, the customer's perspective and the functionality of the delivered elements are important in assessing whether the remaining activities are inconsequential or perfunctory.

Inherent Risk Considerations

3.45 The inherent risk for an assertion about revenue recognition in the high-technology manufacturing industry is its susceptibility to a material misstatement, assuming there are no related controls. As part of obtaining an understanding of revenue transactions in the high-technology manufacturing industry to assess the risks of material misstatement, the auditor may also consider the following inherent risk factors that might lead the auditor to assess the risks of material misstatement as high for relevant assertions about revenue recognition of high-technology companies:

- *Transactions with distributors and VARs.* Transactions with distributors and VARs affect revenue recognition in a number of ways, including the following.
  - As described in paragraph 3.08, companies typically offer distributors and VARs price protection and other types of incentives that may affect the timing and amount of revenue recognition.
  - As described in paragraph 3.22, certain arrangements with distributors and VARs, whether contractual or implied, may require revenue to be deferred until the products are sold by the distributor to the end user.
  - As described in paragraph 3.25, the availability of reliable information about inventory and sales levels provided by the distributor and VARs to the seller may preclude the seller from developing a reasonable estimate of sales returns.
- "*Solution selling*" *and bundled sales.* As described in paragraph 3.08, companies in some industry sectors are migrating toward providing total, customized solutions and other bundled sales to their customers. These bundled sale arrangements include the sale of hardware and some or all of the following: software, peripherals, installation, customization, and other services. When transactions contain multiple elements, it may be difficult to determine the amount and timing of the related revenue recognition.
- *The potential for side agreements.* The entity and its customers may enter into side arrangements that remain either undocumented or documented in agreements separate from the main contract. The potential for side agreements is greater for complex or material transactions. When side agreements exist, there is a greater risk that accounting personnel will not be aware of all of the terms of the transaction, which may result in improper revenue recognition.
- *Transactions near the end of the period.* As described in paragraph 3.07, it is common for high-technology companies to have a proportionately higher number of transactions near the end of the period. These transactions may be characterized by significant

sales incentives and other conditions that affect revenue recognition. There also is an increased risk that all documents necessary to provide evidence of an arrangement between the parties have not been executed fully.

- *Transactions that indicate the earnings process is not complete.* As described in paragraph 3.19, revenue should be recognized only when (*a*) it has been realized or is realizable and (*b*) it has been earned. Transactions common to the high-technology industry that may indicate the revenue recognition criteria have not been met include
  - — bill and hold sales.
  - — unfinished products shipped to customers.
  - — unauthorized products shipped to customers.
  - — sales or shipments to entities other than the customer.

Consideration of Fraud[10]

Fraud Risk Factors

3.46 AU section 316, *Consideration of Fraud in a Financial Statement Audit* (AICPA, *Professional Standards*), is the primary source of authoritative requirements and guidance about an auditor's responsibilities concerning the consideration of fraud in a financial statement audit. AU section 316 establishes requirements 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*
>
> Paragraph .01 of AU section 316, *Consideration of Fraud in a Financial Statement Audit* (AICPA, *PCAOB Standards and Related Rules*, Interim Standards), states that when performing an integrated audit of financial statements and internal control over financial reporting, refer to paragraphs 14–15 of 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 fraud considerations, in addition to the fraud considerations set forth in AU section 316 (AICPA, *PCAOB Standards and Related Rules*, Interim Standards).

3.47 There are two types of misstatements relevant to the auditor's consideration of fraud in a financial statement audit:

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[10] Public Company Accounting Oversight Board (PCAOB) Release No. 2007-001, *Observations on Auditors' Implementation of PCAOB Standards Relating to Auditors' Responsibilities With Respect to Fraud* (AICPA, *PCAOB Standards and Related Rules*, Select PCAOB Releases), discusses auditors' implementation of PCAOB interim standards regarding the auditor's responsibility with respect to fraud.

- Misstatements arising from fraudulent financial reporting
- Misstatements arising from misappropriation of assets

3.48 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.

3.49 There is a presumption that improper revenue recognition exists as a fraud risk factor. Material misstatements due to fraudulent financial reporting often result from an overstatement of revenues (for example, through premature revenue recognition or recording fictitious revenues) or an understatement of revenues (for example, through improperly shifting revenues to a later period). Therefore, the auditor should ordinarily presume that there is a risk of material misstatement due to fraud relating to revenue recognition. See paragraph .54 of AU section 316 (AICPA, *Professional Standards*) for examples arising from fraudulent financial reporting.

3.50 Risk factors that may indicate material misstatement of revenue arising from fraudulent financial reporting in a high-technology entity may be as follows:

- Motivations for management to engage in fraudulent financial reporting. Specific indicators might include
  - — management's excessive interest in maintaining sales or earnings without regard to proper accounting or to the entity's established revenue recognition policies.
  - — significant amounts of executive compensation tied to stock performance.
- Excessive involvement of nonfinancial management, such as sales personnel in financial reporting.
- A failure by management to display and communicate an appropriate attitude regarding internal control and financial reporting. Specific indicators might include
  - — poor or no coordination between sales, accounting, and legal personnel regarding the terms of sales agreements that affect revenue recognition.
  - — lack of control over contract documentation, and insufficient review and understanding of the sales agreements by finance personnel.
  - — lack of communication throughout the organization regarding acceptable revenue recognition practices.
  - — the existence of side agreements.
- A highly competitive environment.
- High vulnerability to technological changes and product obsolescence.
- Significant volumes of product sold into a distribution channel without a corresponding increase in end-user demand.

- Continuing sales to resellers coupled with a lack of enforcement of payment terms on previously outstanding balances.
- Frequent changes in marketing or distribution methods or strategies.
- Existence of an unusual number of contract amendments, late changes, or both.
- Existence of nonmonetary transactions.

Responses to the Presence of Fraud Risk Factors

3.51 AU section 316 (AICPA, *Professional Standards*) provides guidance on an auditor's consideration of and response to the presence of fraud risk factors. If there is a risk of material misstatement due to fraud that may involve or result in improper revenue recognition, the auditor should consider audit procedures addressing revenue recognition that will limit audit risk to an appropriate level in light of the risk factors present. For example, the auditor may decide to alter the nature, timing, or extent of substantive procedures. Examples of specific responses might be to perform substantive analytical procedures at a detailed level by comparing sales by product or service to auditor-developed expectations. The auditor also might conduct interviews of personnel about the risk of material misstatement of revenue due to fraud to obtain staff's insights about the risk and whether or how controls address the risk. Paragraph .54 of AU section 316 states that it may be appropriate to confirm with customers certain relevant contract terms, including acceptance criteria, delivery, and payment terms and the absence of future or continuing vendor obligations, the right to return the product, guaranteed resale amounts, cancellation or refund provisions, and the absence of side agreements. Guidance on the use of confirmations to gather audit evidence about revenue recognition is contained in paragraphs 3.82–.86 of this chapter.

Obtaining an Understanding of Internal Control

3.52 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

a. evaluate the design of controls relevant to an audit of financial statements.

b. determine whether they have been implemented.

3.53 The auditor should use such knowledge to

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

3.54 Obtaining an understanding of the entity and its environment, including internal control is a continuous, dynamic process of gathering, updating, and analyzing information throughout the audit. 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.

3.55 The auditor's understanding of internal control over revenue transactions may include the client's policies and procedures for receiving and accepting orders, extending credit, shipping goods, relieving inventory, billing and recording sales transactions, receiving and recording sales returns, and authorizing and issuing credit memos. The understanding ordinarily will include whether the entity has procedures for determining the proper cutoff of sales at the end of the accounting period. It also is important for the auditor to have an understanding of the computer applications and key documents (for example, purchase orders, shipping reports, bills of lading, invoices, credit memos) used during the processing of revenue transactions.

3.56 The significant financial statement accounts relating to management's assertions about revenue include sales, sales returns and allowances, service revenue, accounts receivable and related allowance accounts, deferred revenues, and cash. Controls may be designed according to objectives based on the five components of internal control described in AU section 314. The components of internal control are the control environment, risk assessment, control activities, information and communication systems, and monitoring. The auditor should assess control risk for the relevant assertions embodied in the account balances, transaction class, and disclosure components of the financial statements. Paragraphs 3.57–.62 of this chapter describe examples of controls over revenue recognition that may be in place in each of these components.

Control Environment

3.57 Underlying the internal control components described in paragraph 3.52, the control environment is the most significant factor influencing the integrity of reported revenue. The control environment includes such factors as integrity and ethical values, management's philosophy and operating style, participation of those charged with governance, commitment to competence, organization structure, assignment of authority and responsibility, and human resource policies and practices. Characteristics of a high-technology entity's control environment that may improve the effectiveness of controls and decrease control risk include the following.

- Written policies defining the entity's revenue recognition practices should be developed and communicated to all relevant parties (that is, accounting, sales, marketing, legal, and senior management). Such policies ordinarily should include
  - a statement of when revenue is recorded and when it is not.
  - a definition of the documentation required by the entity and from customers to ship products and record revenue.
  - policies that describe how timely the documentation should be.
  - policies for identifying and approving nonstandard transactions.

  - policies regarding the approval of any deviations from the documented practices or any changes to the documented practices.

- A written code of conduct generally should be adhered to that expressly prohibits the departure from stated policies affecting revenue recognition. For example, the code of conduct ordinarily should prohibit salespeople from making undocumented side agreements with customers or otherwise modifying standard contracts without proper approval.
- The board of directors and senior management ordinarily should take responsible actions when intentional unauthorized departures to the policies are identified.
- The audit committee generally should be knowledgeable about revenue recognition accounting matters and related controls, and be composed of independent members so that it can effectively carry out its responsibilities.

Risk Assessment

3.58 An entity's risk assessment for financial reporting purposes is its identification, analysis, and management of risks that may cause misstatements of accounts involving relevant assertions about revenue, including a consideration of how significant estimates are developed, the possibility that unauthorized transactions may be recorded, and the possibility that authorized transactions may be recorded erroneously or omitted. Characteristics of a high-technology entity's risk assessment process that may improve the effectiveness of controls and decrease control risk include

- managing risks associated with the improper application of U.S. GAAP related to revenue recognition. For example, the entity ordinarily should take steps to properly train accounting, sales, and legal personnel in the entity's revenue recognition policies.
- controls over approval of nonstandard agreements or significant modifications to agreements.
- a process to identify revenue recognition issues when the entity is about to ship products for the first time, to ship newly designed products, or enter a new line of business.

Control Activities

3.59 Control activities are the policies and procedures that help ensure that management directives are carried out. Control activities that may improve the effectiveness of internal control and decrease control risk include the following:

- Standardized sales contracts for standard, recurring transactions
- For nonstandard, negotiated transactions, the early and continued involvement of accounting personnel or others with a detailed understanding of U.S. GAAP for revenue recognition
- Written policies that prohibit unauthorized side agreements between the salespeople (or other entity employees) and the customer

- Proper physical control of all contracts, including any amendments, in a single customer file
- Written policies that describe how to assess when customer acceptance provisions have been satisfied
- Written policies that describe how to monitor the performance of postdelivery obligations, such as installation and training
- Written policies describing the customer credit approval process and the periodic evaluation of existing customers' credit and payment history
- Separation of sales and credit functions
- Accounting personnel timely receiving and reviewing all sales transaction documents, including the sales contract and all related transaction documentation for nonstandard transactions
- Written policies that describe shipping guidelines
- Comparing shipping or other delivery documentation to the contract
- Prompt management action concerning noncompliance with entity policies with regard to contract approval and revenue recognition

Information and Communication

3.60 The information system relevant to the financial reporting objectives of revenue recognition includes the accounting system and consists of the procedures, whether automated or manual, and records established to initiate, authorize, record, process, and report transactions (as well as the processes used to prepare significant accounting estimates and disclosures, regarding relevant assertions about revenue) and to maintain accountability for the related assets, liabilities, and equity. Characteristics of a high-technology entity's information and communication systems that may improve the effectiveness of controls and decrease control risk include the following:

- Accounting systems that maintain a history of data necessary to estimate sales returns, price protection credits, and other sales incentives liabilities
- Collection of timely, reliable data from distributors, if applicable, to estimate sales returns
- Adequate coordination and communication between sales, legal, and accounting functions regarding the terms of the arrangement between the entity and its customers, especially those terms that affect revenue recognition

Monitoring

3.61 Management monitors controls to consider whether they are operating as intended and, if not, to take corrective action. Characteristics of a high-technology entity's monitoring process that may improve the effectiveness of internal control and decrease control risk include the following:

- A robust management reporting process that allows management to take timely action on sales and revenue recognition related matters, including

— the identification of new or unusual transactions.
— the introduction of new product offerings.
— changes to existing marketing programs or the introduction of new ones.
— the implications of customer acceptance provisions.

- Management oversight of customer credit and payment issues.
- Monitoring of compliance with written policies related to revenue recognition.

Assessing Control Risk

3.62 The auditor's assessment of control risk and determination of whether to obtain audit evidence about the operating effectiveness of controls for relevant assertions related to revenue recognition often is influenced by the following:

- *The entity's use of IT*. In entities where a significant amount of information is initiated, authorized, recorded, processed, or reported electronically, the auditor may determine that it is not practical or possible to restrict detection risk to an acceptable level by performing only substantive tests for one or more financial statement assertions. In such circumstances, the auditor should perform tests of controls to gather audit evidence that the controls operate effectively.
- *Nonroutine or complex transactions*. Software revenue arrangements are negotiated between the vendor and the customer, and this negotiation process may result in unique, nonroutine transactions. For revenue recognition related to nonroutine transactions or complex applications of GAAP, the control risks may be greater.
- *Unsophisticated internal controls*. Smaller computer software vendors may be characterized by unsophisticated organizational structures that lack certain pervasive controls, for example, segregation of duties. A lack of controls over revenue transactions may cause the auditor to assess the control risks as high and perform substantive audit procedures;[11] however, the auditor needs to be satisfied that performing only substantive procedures for the relevant assertions related to revenue would be effective in reducing detection risk to an acceptably low level.

Assessing the Risks of Material Misstatement[12,*]

3.63 Paragraph .102 of AU section 314 states that the auditor should identify and assess the risks of material misstatement at the financial statement

[11] See Technical Questions and Answers (TIS) section 8200.10, "Defaulting to Maximum Control Risk" (AICPA, *Technical Practice Aids*), for further guidance.

[12] Securities and Exchange Commission (SEC) Staff Accounting Bulletin (SAB) No. 108 Topic 1N, *Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements*, provides interpretive guidance on how the effects of the carryover or reversal of prior year misstatements should be considered in quantifying a current year misstatement. For additional information, see the issuance at www.sec.gov/interps/account/sab108.pdf.

[*] In August 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*

(continued)

level and at the relevant assertion level related to classes of transactions, account balances, and disclosures. For this purpose, the auditor should

a. 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.

b. relate the identified risks to what can go wrong at the relevant assertion level.

c. consider whether the risks are of a magnitude that could result in a material misstatement of the financial statements.

d. consider the likelihood that the risks could result in a material misstatement of the financial statements.

3.64 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.

Identification of Significant Risks

3.65 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. Refer to paragraphs .45 and .53 of AU section 318, *Performing Audit Procedures in Response to Assessed Risks and Evaluating the Audit Evidence Obtained* (AICPA, *Professional Standards*), for requirements and guidance regarding further audit procedures pertaining to significant risks.

Designing and Performing Further Audit Procedures

3.66 AU section 318 establishes requirements and provides guidance about implementing the third standard of field work, 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.

(footnote continued)

(AICPA, *PCAOB Standards and Related Rules*, Select PCAOB Releases). With this release, the PCAOB adopted eight auditing standards related to the auditor's assessment of and response to risk that will supersede six of the board's interim auditing standards and related amendments to PCAOB standards. These standards are effective for audit engagements conducted pursuant to the standards of the PCAOB for fiscal years beginning on or after December 15, 2010. Refer to the preface of this guide for important information about the release and applicability of these standards. Readers can download the entire release, which includes full text of the standards, at http://pcaobus.org/.

3.67 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.

Overall Responses

3.68 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

3.69 Further audit procedures provide important audit evidence to support an audit opinion. These procedures consist of tests of controls and substantive tests. The nature, timing, and extent of the further audit procedures to be performed by the auditor should be based on the auditor's assessment of risks of material misstatement at the relevant assertion level. In some cases, an auditor may 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. 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. Refer to the following sections titled "Tests of Controls" and "Substantive Procedures" in addition to AU section 318 for additional guidance on further audit procedures.

> *Considerations for Audits Performed in Accordance with PCAOB Standards*
>
> Paragraph .97 of AU section 319, *Consideration of Internal Control in a Financial Statement Audit* (AICPA, *PCAOB Standards and Related Rules*, Interim Standards), states that when performing an integrated audit of financial statements and internal control over financial reporting, if the auditor assesses control risk as other than low for certain assertions or significant accounts, the auditor should document the reasons for that conclusion. Refer to paragraph 54 of PCAOB Auditing Standard No. 5 for a discussion on the extent of tests of controls.
>
> Also refer to paragraphs B10.–B16. of appendix B, "Special Topics," of PCAOB Auditing Standard No. 5 for discussion of considerations when an entity has multiple locations or business units, the use of service organizations, and benchmarking of automated controls.

Test of Controls

3.70 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.

Substantive Procedures

3.71 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[13]

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.

3.72 Auditors should design substantive procedures that are responsive to the assessed risks of material misstatement for the relevant assertions about revenue recognition—existence or occurrence, completeness, rights and obligations, valuation and allocation, cutoff, classification, and presentation and disclosure—and the risks of misstatement that are specific to software revenue recognition.

Types of Potential Misstatement

3.73 The following table lists the types of potential misstatements related to revenue recognition for high-technology companies.

Potential Misstatement	*Example*
a. Failure to identify the existence of multiple elements in the transaction	• The product contains embedded software that is *not* incidental, therefore requiring the application of FASB ASC 985-605. • The arrangement includes vendor obligations for more than just the product (for example, services and future products).
b. Inappropriate recognition of revenue related to separate elements of an arrangement or a transaction	• Undelivered elements of the arrangement are essential to the functionality of delivered elements. • Objective evidence of fair value of undelivered elements does not exist.
c. For sale of product, earnings process is not complete	• The product has not been shipped. • Title and risk of loss has not passed to the buyer.

(continued)

[13] See TIS section 8200.16, "Examining Journal Entries" (AICPA, *Technical Practice Aids*), for further information regarding the types of journal entries to be examined.

Potential Misstatement	*Example*
	• Installation or acceptance provisions exist. • Buyer's payment is not probable. • Buyer did not order the product. • Uncertainty exists about the ultimate functionality of the product. • Significant postsale seller obligations exist. • Distributors do not assume the risks of ownership. • Transaction includes extended payment terms that are inconsistent with the entity's historical credit practices.
d. Revenue recognized at time of sales with right of return when management is unable to reasonably estimate future product returns	• Product is subject to significant obsolescence. • Absence of relevant historical experience. • Lack of "visibility" into distribution channels. • Distributors are new, undercapitalized, or in financial difficulty.
e. Improper accounting for service revenue	• Service revenue is not recognized ratably over contract period or as the service is performed. • Failure to consider or improper application of contract accounting.
f. Improper accounting for revenue from maintenance agreements and extended warranties	• Revenue from maintenance agreements and extended warranties is not deferred. • Deferred revenue is improperly amortized.
g. For sales to distributors, failure to account for incentives and concessions	• Potential price protection credits and other sales incentives are not properly accrued against current period sales.
h. Improper recognition of bill and hold sales	• Revenue from bill and hold sales is recognized when criteria stated in SAB No. 104 have not been met.

3.74 There is not necessarily a one-to-one correspondence between substantive procedures and audit objectives—some procedures accomplish more than one objective and address several potential risks of misstatement. To reduce the risks of material misstatement of revenue, auditors might consider the substantive procedures described in paragraphs 3.71–.93.

Understand Terms of Sale

3.75 The entity ordinarily should document the terms of its arrangements with its customers, either with a standard sales agreement for routine sales, or a legal contract for nonroutine sales. Additional documentation regarding

the entity's arrangements with its customers may be found in the customer correspondence files. Reading this documentation, including the contract and customer correspondence, and analyzing the terms of the arrangement will allow auditors to determine whether the revenue associated with the transaction was recognized in accordance with U.S. GAAP.

3.76 In determining which contracts and correspondence files to read and analyze, the auditor should select a sufficient number and type of transactions to reduce audit risk to an acceptable level. Auditors generally will not need to read and analyze all contracts and customer correspondence supporting revenue recognized during the audit period. In determining which transactions to select for analysis, the auditor might consider the following information provided in paragraphs 3.77–.79.

3.77 Deferred revenue from high-technology entity sales may result from the following circumstances:

a. *The materiality of the transaction.* For example, an auditor may be able to reduce audit risk to an acceptable level by analyzing all material transactions entered into during the audit period together with a selection of other transactions that, individually, were not considered material.

b. *The date the contract was entered into.* It is not uncommon for high-technology companies to make a proportionately higher amount of sales close to the end of the reporting period. In order to reduce the risk of revenues being recorded in the wrong period, auditors might consider focusing audit attention on those transactions near the end of the period.

c. *Contracts relating to transactions with a high inherent risk.* Paragraph 3.45 describes revenue transactions that typically have a higher inherent risk of material misstatement. When selecting contracts for detailed analysis, auditors may focus audit attention on such transactions. For example, a careful review of the contract can help the auditor develop an understanding of the scope and nature of services to be performed. Indications of the importance of the services to the overall arrangement often can be viewed through the conditions of acceptance and payment terms.

3.78 When the entity uses standardized agreements, audit procedures may be limited to

- evaluating the standardized contract for terms that may affect revenue recognition.
- reviewing a sample of transactions for compliance with the standardized agreement.
- reviewing documentation, such as purchase orders, that indicate the product was desired and ordered by the customer.
- reviewing shipping or acceptance documentation to ensure proper cut-off and revenue recognition.

3.79 When analyzing a contract and customer correspondence, the auditor might consider

- whether the contract was fully executed by both parties during the audit period.

- the specified delivery dates.
- all provisions that could affect the timing of revenue recognition, such as
  - — significant postsale seller obligations.
  - — rights of return.
  - — price protection and other sales incentive programs.
  - — cancellation privileges.
  - — installation requirements and other service deliverables.[14]
  - — acceptance clauses.

3.80 High-technology companies may enter into oral or written "side agreements" to contracts that effectively modify those contracts. Some side agreements may contain terms prohibiting the customer from disclosing the existence of the side agreement to third parties. Auditors should make inquiries of those familiar with the terms of the sale (for example, sales personnel) to determine whether side agreements exist and to ensure that all terms of the agreement between the entity and its customer have been considered when determining revenue recognition. To detect the existence of undisclosed side agreements, the auditor might consider the need to perform substantive procedures, such as reviewing credit memos, sales concessions, or similar marketing allowances granted in the subsequent period for adjustment or reversal of revenues previously recorded.

Understand Arrangements With Distributors and VARs

3.81 The auditor may review relevant documentation and make inquiries to gain an understanding of arrangements the entity has with its distributors and VARs. Terms of those arrangements that are relevant for revenue recognition include

- the presence of incentives or concessions that may affect the timing of revenue recognition, including those items listed in paragraph 3.08.
- the reliability of the information provided by the distributors and VARs, for example inventory and sales levels, that enables management to make a reasonable estimates of product returns, price protection credits, and other sales incentive liabilities.
- the economic substance of the distributor or VAR and its ability to pay and whether its distributor's financial condition indicates that the earnings process may not be complete until the distributor or VAR sells the product to the end user.

Confirm Terms of the Sale

3.82 AU section 330, *The Confirmation Process* (AICPA, *Professional Standards*), establishes requirements and provides guidance on the use of confirmations to gather audit evidence. When the combined level of inherent risk and control risk is high, AU section 330 states that the auditor should consider

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[14] See paragraph 3.33.

confirming the terms of complex transactions with other parties in addition to examining documentation held by the entity. Complexity combined with high levels of inherent and control risk frequently characterize certain high-technology entity sales, including

- nonroutine sales;
- "solution sales" and other bundles that include products and services;
- bill and hold sales; and
- unusual rights of return, acceptance or installation provisions, cancellation privileges, or warranty provisions.

3.83 Interpretation No. 1, "Use of Electronic Confirmations," of AU section 330 (AICPA, *Professional Standards*, AU sec. 9330 par. .01–.08) 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 alteration, including the risk that the confirmation respondent will not be the intended respondent, paragraph .05 of Interpretation No. 1 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.

3.84 The auditor's understanding of the client's arrangements and transactions with its customers is key to determining the information to be confirmed. By reading the contract and customer correspondence file and understanding the terms of the arrangements, the auditor should determine the appropriate information to include on the confirmation request. When confirmations are used by the auditor to gather audit evidence relating to revenue recognition, the auditor should consider the types of information respondents will be readily able to confirm. Such information includes confirming the following terms:

- Date(s) of delivery
- Pricing details
- The existence of any side agreements or oral modifications to the contract
- Unusual rights of return, acceptance or installation provisions, cancellation privileges, or warranty provisions
- Rights to future products or services
- Other pertinent contract provisions

3.85 AU section 330 states that the auditor should direct the confirmation request to a third party that the auditor believes is knowledgeable about the information to be confirmed. When confirming the terms of sales agreements in the high-technology industry, the customer's representative who executed the sales contract typically is most knowledgeable of its terms.

Test for Product Shipment

3.86 Revenue from product sales may not be recognized until the product is shipped (assuming FOB shipping point).[15] Auditors should obtain audit evidence to corroborate that the product was shipped and title transferred to the buyer. To obtain audit evidence, the auditor might consider the performing the following procedures on a sample basis:

- Confirm the delivery and acceptance of the product with the customer, as described in paragraphs 3.82–.85
- Review shipping documents and packing slips to ensure the product was delivered and title transferred before the end of the reporting period and a proper accounting cut-off was achieved
- Physically observe the appropriateness of the shipping cutoff, either in conjunction with the observation of physical inventory or as a standalone audit procedure

Test for Collectibility

3.87 The earnings process is not considered complete unless payment from the customer is probable. For material transactions, the auditor should consider obtaining audit evidence to support creditworthiness of the customer and the related collectibility of the receivable. Subsequent cash receipts can provide audit evidence to support the collectibility of the fee.

Test Recognition of Deferred Revenue

3.88 Deferred revenue from high-technology entity sales may result from the following circumstances:

a. Terms of the sale that indicate that the earnings process is not complete, as described in paragraph 3.22 of this chapter

b. The sale of services when the performance of the services extends over more than one accounting period

c. The sale of maintenance agreements or extended warranties

3.89 For deferred revenue relating to the items described in paragraph 3.77, the auditor should obtain audit evidence to support management's assertion that all deferred revenue has been recognized when the criteria for revenue recognition have been met.

3.90 Contract accounting requires the deferral of revenue and subsequent revenue recognition as the service is performed. When the services are performed over several accounting periods, management may be required to estimate the percentage of the service that has been performed to date in order to recognize revenue under contract accounting. AU section 342, *Auditing Accounting Estimates* (AICPA, *Professional Standards*), provides guidance on evaluating the reasonableness of accounting estimates made by management. The auditor should evaluate the reasonableness of accounting estimates made by management. In doing so, the auditor may consider focusing on key factors and assumptions underlying the estimate. For estimates relating to the performance of high-technology services, the auditor might consider factors and assumptions related to the following:

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[15] See paragraph 3.22(b).

- The technical complexity of the project (the more complex a project, the more difficult it may be to estimate the percentage of the work that has been performed)
- The project maturity (the closer the service project is to completion, the more reliable the estimate of the percentage of the work performed to date)
- The project duration and size
- The entity's history of completing similar projects
- The susceptibility of the project design to change
- The entity's history of revisions of estimates

3.91 To evaluate the reasonableness of estimates relating to the performance of services, the auditor may consider the following procedures:

- Make inquiries of management, both financial and operational
- Review detailed client analysis of hours or costs, or both, incurred and estimates to complete
- Review data, such as time cards, to support the estimate of services performed

3.92 For deferred revenue related to the sale of maintenance contracts and extended warranties, the auditor may review the terms of the contracts or warranties and evaluate whether the revenue from their sale is being amortized over the life of the agreement using the straight-line method. If the straight-line method is not being used, the auditor should obtain audit evidence to support management's assertion that the costs of performing services under the contract are incurred on other than a straight-line basis.

Analyze Allowance for Sales Returns

3.93 As described in paragraph 3.23, management is required to estimate sales returns at the time the sale of the product is made. Auditors might perform the following procedures as a means to obtain audit evidence to evaluate the reasonableness of management's estimate:

- Review credit memos and accounts receivable or revenue adjustments made subsequent to the end of the reporting period.
- Analyze the entity's historical experience with sales returns of similar products to similar customers.
- Make inquiries regarding the presence of the factors listed in FASB ASC 605-15-25-3 and, if applicable, the additional factors listed in paragraph 3.27 of this chapter, to determine whether the amount of returns can be reasonably estimated.
- Determine that the other criteria for revenue recognition when the right of return exists have been met.

Designing Analytical Procedures

3.94 AU section 329, *Analytical Procedures* (AICPA, *Professional Standards*), establishes requirements and provides guidance on the use of analytical procedures and requires auditors to the use of analytical procedures to some extent in the planning and overall review stages of all audits. Analytical procedures are used for the following purposes:

- To assist in planning the nature, timing, and extent of other auditing procedures
- As an overall review of the financial information in the final review stage of the audit

Analytical procedures also may be used as substantive tests to obtain audit evidence about revenue recognition. In accordance with paragraph .06 of AU section 314, analytical procedures are also performed as risk assessment procedures to obtain an understanding of the entity and its environment, including its internal control. AU section 339, *Audit Documentation* (AICPA, *Professional Standards*), establishes standards on audit documentation and provides further guidance in this area, including, among other things, the documentation of substantive analytical procedures.

Considerations for Audits Performed in Accordance with PCAOB Standards

PCAOB Auditing Standard No. 3, *Audit Documentation* (AICPA, *PCAOB Standards and Related Rules*, Auditing Standards), established general requirements for documentation the auditor should prepare and retain in connection with engagements conducted pursuant to PCAOB standards.

3.95 For high-technology manufacturing companies, analytical procedures the auditor may apply include the following:

- Review days sales outstanding (DSO) and related trends over the last several quarters
- Segregate and analyze DSO by geography, industry, and salesperson, as appropriate, based on identified or perceived risk (for example, economic conditions in certain countries or industries, and key salespeople identified as being aggressive)
- Compare actual revenues by product line with budgeted amounts and revenues of the preceding period and consider whether results are consistent with other known information
- Review internally used metrics or nonfinancial indicators of sales activity
- Review gross margin trends and compare to competitor's trends
- Compare the number of weeks of inventory in distribution channels with prior periods for unusual increases that may indicate channel stuffing[16]
- Compare revenue deductions, such as discounts and returns and allowances, as a percentage of revenues with budgeted and prior period percentages and determine whether changes appear reasonable in light of other revenue information and current-year trends in the business and industry

3.96 According to AU section 318, when designing substantive analytical procedures, the auditor also should evaluate the risk of management override

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[16] Refer to SEC SAB No. 104, *Revenue Recognition*, for further information on channel stuffing. Although SEC SABs are directed specifically to transactions of public companies, management and auditors of nonpublic companies may find this guidance helpful in analyzing revenue recognition matters.

of controls. As part of this process, the auditor should evaluate whether such an override might have allowed adjustments outside of the normal period-end financial reporting process to have been made to the financial statements. Such adjustments might have resulted in artificial changes to the financial statement relationships being analyzed, causing the auditor to draw erroneous conclusions. For this reason, substantive analytical procedures alone are not well suited to detecting fraud. In addition, before using results obtained from substantive analytical procedures, the auditor may either test the design and operating effectiveness of controls over financial information used in the substantive analytical procedures or perform other procedures to support the completeness and accuracy of the underlying information.

3.97 For significant risks of material misstatement in an integrated audit, it is unlikely that audit evidence obtained from substantive analytical procedures alone will be sufficient.

Presentation and Disclosure

3.98 According to paragraph .15 of AU section 326, *Audit Evidence* (AICPA, *Professional Standards*), assertions used by the auditor fall into the following categories:

- Assertions about classes of transactions and events for the period under audit:
  - *Occurrence.* Transactions and events that have been recorded have occurred and pertain to the entity.
  - *Completeness.* All transactions and events that should have been recorded have been recorded.
  - *Accuracy.* Amounts and other data relating to recorded transactions and events have been recorded appropriately.
  - *Cutoff.* Transactions and events have been recorded in the correct accounting period.
  - *Classification.* Transactions and events have been recorded in the proper accounts.
- Assertions about account balances at the period end:
  - *Existence.* Assets, liabilities, and equity interests exist.
  - *Rights and obligations.* The entity holds or controls the rights to assets, and liabilities are the obligations of the entity.
  - *Completeness.* All assets, liabilities, and equity interests that should have been recorded have been recorded.
  - *Valuation and allocation.* Assets, liabilities, and equity interests are included in the financial statements at appropriate amounts and any resulting valuation or allocation adjustments are appropriately recorded.
- Assertions about presentation and disclosure:
  - *Occurrence and rights and obligations.* Disclosed events and transactions have occurred and pertain to the entity.

— *Completeness.* All disclosures that should have been included in the financial statements have been included.

— *Classification and understandability.* Financial information is appropriately presented and described and disclosures are clearly expressed.

— *Accuracy and valuation.* Financial and other information are disclosed fairly and at appropriate amounts.

3.99 The auditor should evaluate whether the presentation and disclosure of revenue are in conformity with U.S. GAAP.

3.100 Marketing arrangements may vary among distributors and value-added resellers. For example, some distributors may not take title to the product sold to the customer and have no risk of loss or other responsibility for the product. In those situations, a question may arise concerning whether revenue from the sale of the product should be reported gross with a separate display of cost of sales to arrive at gross profit or whether the margin on the sale should be reported net, similar to a commission.

3.101 FASB ASC 605-45-45-1 states that whether an entity should recognize revenue based on (*a*) the gross amount billed to a customer because it has earned revenue (as a principal) from the sale of the goods or services or (*b*) the net amount retained (that is, the amount billed to the customer less the amount paid to a supplier) because it has earned a commission or fee as an agent is a matter of judgment. Paragraphs 3–18 of FASB ASC 605-45-45 set forth factors or indicators to consider in making the evaluation.

3.102 Regulation S-X requires SEC registrants to disclose separately, on the face of the income statement, revenue from the sales of products, services, and other products. In addition, Topic 13 B question 1 states that the SEC staff believes that costs related to each type of revenue similarly should be reported separately on the face of the income statement.

3.103 With respect to disclosure, FASB ASC 235-10-50-3 states

> Disclosure of accounting policies shall identify and describe the accounting principles followed by the entity and the methods of applying those principles that materially affect the determination of financial position, cash flows, or results of operations. In general, the disclosure shall encompass important judgments as to appropriateness of principles relating to recognition of revenue and allocation of asset costs to current and future periods; in particular, it shall encompass those accounting principles and methods that involve any of the following:
>
> *a.* A selection from existing acceptable alternatives
>
> *b.* Principles and methods peculiar to the industry in which the entity operates, even if such principles and methods are predominantly followed in that industry
>
> *c.* Unusual or innovative applications of GAAP

3.104 Accordingly, high-technology manufacturers should consider disclosing their accounting policies concerning

- revenue recognition for each significant type of revenue (for example, product sales, installation and other services, and barter transactions).

- accounting for discounts, incentives and sales returns, and, if applicable, the methods used to develop estimates of significant sales allowances.
- amortization of deferred revenues.

3.105 AU section 431, *Adequacy of Disclosure in Financial Statements* (AICPA, *Professional Standards*), states that if management omits from the financial statements, including the accompanying notes, information that is required by U.S. GAAP, the auditor should express a qualified or an adverse opinion and should provide the information in his report, if practicable, unless its omission from the auditor's report is recognized as appropriate by a specific Statement on Auditing Standards. The auditor should review the financial statements to determine whether disclosures are adequate with regard to such matters as revenue recognition policies, information about major customers or significant concentrations of credit risk, related-party transactions, and the effect of significant revisions to estimates in percentage-of-completion contracts.

Written Representations From Management

3.106 AU section 333, *Management Representations* (AICPA, *Professional Standards*), establishes a requirement that the independent auditor obtain written representations from management and provides guidance concerning the representations to be obtained. Such representations are part of the audit evidence the auditor obtains but are not a substitute for the application of auditing procedures. Paragraph .07 of AU section 333 states that the representation letter ordinarily should be tailored to include appropriate representations from management relating to matters specific to the entity's business or industry. The letter should be dated as of the date of the auditor's report.

> *Considerations for Audits Performed in Accordance with PCAOB Standards*
>
> Paragraph .05 of AU section 333, *Management Representations* (AICPA, *PCAOB Standards and Related Rules*, Interim Standards), states that 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.

Representations specific to high-technology revenue transactions may include the following:

- The entity has provided all relevant agreements, correspondence, and documentation regarding revenue transactions. There are no additional written or oral side agreements.
- Management intends not to provide refunds or concessions that are not required under the provisions of the arrangement.
- Provisions have been made for the fulfillment or inability to fulfill any sales commitments.

3.107 AU section 333 (AICPA, *Professional Standards*) states that the management representation letter should be signed by those members of management with overall responsibility for financial and operating matters whom the auditor believes are responsible for and knowledgeable about, directly or

through others in the organization, the matters covered by the representations. AU section 333 also states that in certain circumstances, the auditor may want to obtain written representations from other individuals. For entities in the high-technology manufacturing industry, the auditor should consider obtaining additional representations relating to revenue assertions directly from operating management, such as sales personnel.

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 non-government-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]

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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.

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 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.

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[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.

- 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 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

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[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*.

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 March 1, 2011

This schedule of changes identifies areas in the text and footnotes of this guide that have been changed from 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.
Paragraph 1.01, footnote 2 in paragraph 1.02, paragraphs 1.03 and 1.12	Revised for clarification.
Footnote 6 in paragraph 1.13	Revised to reflect the issuance of Securities and Exchange Commission Final Rule Release No. 33-9142, *Internal Control Over Financial Reporting in Exchange Act Periodic Reports of Non-Accelerated Filers*.
Footnote * in heading before paragraph 1.18	Added.
Paragraph 1.27, 1.40, and 1.43–.45	Revised for clarification.
Former footnote * in heading before paragraph 1.39	Deleted.
Paragraphs 1.48–.52 and 1.56	Added to reflect the issuance of Financial Accounting Standards Board (FASB) Accounting Standards Update (ASU) No. 2009-14, *Software (Topic 985): Certain Revenue Arrangements That Include Software Elements—a consensus of the FASB Emerging Issues Task Force*.
Former footnote † in heading before 1.48	Deleted.
Paragraphs 1.55 and 1.57–.58	Revised to reflect the issuance of FASB ASU No. 2009-14.
Footnote 10 in paragraph 1.53	Revised for clarification.

(continued)

Reference	*Change*
Paragraphs 1.60–.71	Added to reflect the issuance of FASB ASU No. 2009-13, *Revenue Recognition (Topic 605): Multiple-Deliverable Revenue Arrangements—a consensus of the FASB Emerging Issues Task Force*.
Footnote 13 in paragraph 1.80, footnote 16 in paragraph 1.97, and paragraphs 1.107 and 1.123	Revised for clarification.
Footnote † in heading before paragraph 1.128	Added.
Paragraphs 1.179–.181 and footnote 20 in paragraph 1.181	Added to reflect the issuance of FASB ASU No. 2009-13.
Paragraphs 1.194–.195	Revised for clarification.
Paragraph 2.02–.03 and 2.06	Revised for clarification.
Former footnote * in heading before paragraph 2.15	Deleted.
Paragraph 2.18	Revised to reflect the issuance of FASB ASU No. 2009-14.
Paragraphs 2.25–.29	Added to reflect the issuance of FASB ASU No. 2009-14.
Paragraphs 2.33 and 2.41	Revised for clarification.
Former footnote † in paragraph 2.36	Deleted.
Footnote * in heading before paragraph 2.48	Added.
Paragraphs 2.54–.55, 2.58, 2.67, 2.71, and 2.73	Revised for clarification.
Footnote 25 in paragraph 2.89, and paragraphs 2.99, and 2.105	Revised for clarification.
Former footnote * in heading before paragraph 3.12	Deleted.
Paragraph 3.13	Revised to reflect the issuance of FASB ASU No. 2009-14.
Paragraphs 3.14–.18	Added to reflect the issuance of FASB ASU No. 2009-14.
Footnotes 5 and 6 in paragraph 3.22	Revised for clarification.

Reference	*Change*
Paragraph 3.32	Added to reflect the issuance of FASB ASU No. 2009-13.
Former footnote † in paragraph 3.26	Deleted.
Paragraph 3.33	Revised for clarification.
Footnote * in heading before paragraph 3.63	Added.
Paragraphs 3.101 and 3.104	Revised for clarification.
Index	Added.

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