

Proposed International Auditing Practice Statement

*IAPS 1000, Special Considerations in
Auditing Complex Financial
Instruments*



**International Federation
of Accountants**

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EXPLANATORY MEMORANDUM

Introduction

This memorandum provides background to, and an explanation of, the proposed International Auditing Practice Statement (IAPS) 1000, *Special Considerations in Auditing Complex Financial Instruments*. The International Auditing and Assurance Standards Board (IAASB) approved the proposed IAPS in September 2010 for exposure.

Background

Amid the market turmoil and financial crisis in the past few years, audits of complex financial instruments and related disclosures were highlighted as of the utmost importance. In April 2008, the Financial Stability Forum¹ in its report recommended the IAASB consider the lessons learned during the market turmoil and, where necessary, enhance the guidance for audit of valuations of complex or illiquid financial products and related disclosures.

The International Standards on Auditing (ISAs) specifically deal with auditing fair value measurements and disclosures in ISA 540.² Amongst other matters, ISA 540 addresses audit considerations relating to the measurement, presentation and disclosure of accounting estimates, including consideration of estimation uncertainty and indicators of possible management bias. While matters discussed in the application and other explanatory material of ISA 540 were influenced by the changes in the credit markets that had become apparent immediately before the ISA was finalized in 2008, the IAASB anticipated that there would be a need for additional practical guidance on auditing fair value accounting estimates associated with complex financial instruments.

In October 2008, staff of the IAASB issued a Staff Audit Practice Alert³ to assist auditors by highlighting areas within the ISAs that are particularly relevant to the audit of fair value accounting estimates in times of market uncertainty, including related issues regarding uncertainty as to an entity's ability to continue as a going concern. The Alert was considered to be relevant to audits of all entities that have investments in financial instruments, especially those negatively impacted by the illiquid capital markets.

In June 2009, the IAASB commenced a project to revise existing IAPS 1012.⁴ Existing IAPS 1012 provides guidance to the auditor in planning and performing auditing procedures for financial statement assertions related to derivative financial instruments, focusing on derivatives held by end users, including banks and other financial sector entities. However, since its release in 2001, the landscape in which audits of derivative financial instruments are conducted has changed, as have the ISAs themselves, and the use of fair value accounting has become more prevalent. The IAASB also recognized that the economic environment resulting from the global

¹ The Financial Stability Forum was reorganized into the Financial Stability Board in April 2009.

² ISA 540, *Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosures*

³ Staff Audit Practice Alert, *Challenges in Auditing Fair Value Accounting Estimates in the Current Market Environment*. The Alert is available at web.ifac.org/download/Staff_Audit_Practice_Alert.pdf.

⁴ IAPS 1012, *Auditing Derivative Financial Instruments*. The IAASB project proposal to revise IAPS 1012 is available at www.ifac.org/IAASB/Meeting-FileDL.php?FID=4807.

financial crisis, which gave rise to issues in relation to valuations and to financial statement disclosures about risks and uncertainties pertaining to complex financial instruments, would likely continue to prove challenging for both preparers and auditors.

In October 2009, the IAASB issued a Consultation Paper (CP)⁵ describing the IAASB's plans with respect to revising IAPS 1012. The CP included the IAASB's views that work completed by the UK's Auditing Practices Board (APB) on its Practice Note (PN) 23 (Revised)⁶ could be leveraged as part of the revision. The CP included the APB's guidance as an Appendix and sought views from respondents about its usefulness in the international context and how a revised IAPS should deal with four main topics:

- The definition of complex financial instruments and the applicability of the proposed guidance to entities of all sizes;
- Application of the audit risk standards;
- Sufficient appropriate audit evidence, including relevance and reliability of fair value information; and
- Disclosure and reporting considerations.

The comment period for the CP closed in January 2010, with 33 responses to the document being received. Respondents generally supported the material in PN 23 and confirmed the IAASB's initial view that it should be used as a starting point for developing proposed IAPS 1000. Since then, the IAASB has leveraged the guidance in PN 23 to develop the attached exposure draft of proposed IAPS 1000.

In revising existing IAPS 1012 and considering the status and authority of this and other new IAPSs and the proposed withdrawal of existing IAPSs (see discussion below), the IAASB agreed to renumber IAPS 1012 to IAPS 1000.

Significant Matters

Status and Authority of the Proposed IAPS

Accompanying this exposure draft are the IAASB's proposals concerning the clarification of the status and authority of new IAPSs, including proposed IAPS 1000. While consistent with the current authority in that an IAPS is not intended to establish new requirements, the proposal explicitly states that auditors are expected to determine whether any IAPS is relevant to the circumstances of the audit and, if so, to obtain an understanding of its content. The IAASB's proposals on IAPSs also include a provision that all existing IAPSs, including IAPS 1012, would be withdrawn.

Respondents are asked for their views as to the appropriateness of the material included in proposed IAPS 1000, in light of the proposed status and authority of new IAPSs.

⁵ The Consultation Paper, *Auditing Complex Financial Instruments*, can be downloaded at www.ifac.org/Guidance/EXD-Details.php?EDID=0131.

⁶ PN 23 (Revised), *Auditing Complex Financial Instruments*. When the APB's PN was originally issued, it was based on existing IAPS 1012.

Scope of the Proposed IAPS, Including Its Applicability to Entities of All Sizes

Because of the proposal for the auditor to determine whether an IAPS is relevant, an important consideration in developing IAPS 1000 was to make clear its scope. Accordingly, the IAASB believes it is necessary to first clarify the types of financial instruments the IAPS is intended to address, as well as the types of entities that may hold such instruments.

The proposed IAPS does not define what is meant by the term “complex financial instrument.” Consultations with expert groups, and responses to the CP, indicated that doing so would not be practicable because of the many considerations, some of them subjective, that need to be taken into account in assessing complexity. Instead, it was suggested that complexity should be described rather than defined. The IAASB has done so within the IAPS while acknowledging that certain instruments may become complex to value when markets become inactive (see paragraph 7 of the IAPS).⁷ The IAPS also incorporates the concept of “estimation uncertainty” as defined in ISA 540 as a factor affecting the complexity of the measurement of financial instruments (see paragraph 9).

Paragraph 3 of the IAPS highlights the fact that the IAPS provides guidance on valuation of complex financial instruments that is relevant when such instruments are measured or disclosed at fair value, while acknowledging other guidance within the IAPS is equally relevant to instruments measured at amortized cost. It also notes that the IAPS is relevant to both financial assets and financial liabilities. Discussions with financial instrument experts indicated that auditor considerations for both are generally the same, with the exception of own credit risk, which is addressed in paragraphs 71–72 of the IAPS.

IAPS 1000 is intended to be helpful in audits of both financial sector and non-financial sector entities with varying levels of financial instrument transactions (see paragraphs 1 and 10–11). Recognizing that auditors dealing with small- and medium-sized entities (SMEs) will also need to determine whether the IAPS is relevant, the Scope section describes which types of financial instruments the IAPS addresses (see paragraph 5).

Form and Content of the Proposed IAPS

In developing proposed IAPS 1000, the IAASB aims to help promote consistency in practice and share good practices in auditing, drawing attention to matters relevant to effective implementation of the clarified ISAs in the context of complex financial instruments. A challenge in developing this proposed international pronouncement, however, has been determining the balance between providing guidance that highlights key issues relevant to auditors working with financial instruments of varying complexities, and addressing more comprehensively specific issues that may arise, for example, in audits of large financial institutions. The IAASB believes the proposed IAPS would be most useful, and the demand for auditing guidance is best served, by addressing the more general needs of the broadest group of auditors on an international basis, rather than endeavoring to comprehensively address the issues faced by auditors in a highly specialized industry who may already have adequate guidance.

⁷ All paragraph references within this Explanatory Memorandum refer to paragraphs in proposed IAPS 1000, unless otherwise noted.

Taking account of the views of respondents to the CP, the IAASB believes that the general applicability of the IAPS is best preserved by retaining the basic content of PN 23. However, to the extent appropriate, the IAASB incorporated additional material within proposed IAPS 1000 to reflect current issues in the marketplace and to address suggestions received from stakeholders during its development. Amongst other material, guidance has been included in IAPS 1000 in relation to:

- The use of specialized skills or knowledge in the audit, in particular in relation to valuation (see paragraphs 30–31);
- The auditor’s consideration of the balance between tests of controls, substantive tests, and dual-purpose tests, as well as the timing of the auditor’s procedures (see paragraphs 34–45);
- Credit risk, in particular own credit risk when valuing financial liabilities (see paragraphs 71–72);
- The auditor’s procedures with respect to significant risks (see paragraphs 91–92);
- The auditor’s development of a range to evaluate management’s estimate (see paragraph 103); and
- Communications with regulators and others (see paragraph 115).

Structure and Presentation of the Material within the IAPS

Some of the material within PN 23 was of a more educational nature, rather than specifically providing auditing guidance. The IAASB is of the view that such material will be useful to auditors, in particular those that may not have extensive prior experience in dealing with complex financial instruments. In deciding to retain this material in IAPS 1000, however, the IAASB has taken steps to differentiate the educational material from the detailed auditing guidance. Proposed IAPS 1000 is therefore presented in two sections: Section I dealing with background information about complex financial instruments; and Section II dealing with audit considerations relating to complex financial instruments. The structure should allow more experienced auditors to quickly navigate to the relevant auditing guidance.

To further enhance the readability of the proposed IAPS, the IAASB has used shaded tables within the document to highlight background material. The type of material in the shaded tables includes descriptions of the types of controls that may be in place at the entity, categories of disclosures and other requirements of the applicable financial reporting framework, an entity’s considerations when using models, and the effects of inactive markets.

References to the Applicable Financial Reporting Framework

While the pronouncements of the IAASB are generally framework-neutral, the IAASB concluded that, based on support expressed by respondents to the CP, reference to the fair value hierarchy used in U.S. Generally Accepted Accounting Principles (GAAP) and proposed in International Financial Reporting Standards (IFRS) would be a useful means of explaining the complexities faced by management in valuing its complex financial instruments and by auditors in auditing these valuations (see Table 5).

A few respondents to the CP, including two Member Organizations of the IAASB Consultative Advisory Group (CAG), were of the view that more guidance could be added in the proposed IAPS to address difficult areas such as: hedge accounting; accounting for day 1 profits and losses; recognition and derecognition of financial instrument transactions; own credit risk; and risk transfer for originators of financial instruments. While the IAASB agrees that these areas can be complex, it does not believe it possible or appropriate to develop comprehensive guidance for inclusion in the proposed IAPS without significantly limiting its general applicability and usefulness. Further, the role of auditing guidance is not to clarify what is meant by the accounting literature. Nevertheless, the IAASB recognizes that it would be helpful to alert auditors to the complex requirements of the financial reporting framework. Accordingly, proposed IAPS 1000 makes reference to the requirement in ISA 540 for the auditor to obtain an understanding of the requirements of the applicable financial reporting framework relevant to accounting estimates and highlights that these areas may be addressed by the applicable financial reporting framework (see paragraph 21).

Focus on Specific Assertions that Are Most Relevant to Complex Financial Instruments

While the IAASB considered whether it would be appropriate to include guidance on all the assertions detailed in ISA 315,⁸ it concluded that, consistent with PN 23, the proposed IAPS should focus on those assertions most relevant to complex financial instruments. Accordingly, proposed IAPS 1000 focuses on three areas:

- Completeness, accuracy and existence of complex financial instruments;
- Valuation of complex financial instruments; and
- Presentation and disclosure of complex financial instruments.

Respondents to the CP recommended the proposed IAPS further address issues relating to presentation and disclosure. Material has therefore been incorporated into Section I to describe disclosure requirements that may be required by the applicable financial reporting framework (see Table 3). Further, Section II highlights areas of particular importance in relation to presentation and disclosure, including consideration of whether the disclosures are complete and understandable (see paragraphs 105–109).

Understanding Management’s Process for Valuing Complex Financial Instruments

ISA 540 requires the auditor to understand how management makes accounting estimates, and the data on which they are based.⁹ The material in proposed IAPS 1000 therefore first focuses on the process management may use to value its complex financial instruments (see paragraphs 50–81), and then the auditor’s considerations in evaluating whether management’s valuations are reasonable (see paragraphs 82–104).

⁸ See paragraph A111 of ISA 315, *Identifying and Assessing the Risks of Material Misstatement through Understanding the Entity and Its Environment*.

⁹ ISA 540, paragraph 8(c)

Sources of Evidence, Including Broker Quotes and Pricing Services

Paragraph 50 of the proposed IAPS highlights that management's responsibility for the preparation of financial statements includes applying the requirements of the applicable financial reporting framework to the valuation of complex financial instruments. Paragraph 52 further explains that risks of material misstatement relating to valuation of complex financial instruments primarily relate to the risk that an inappropriate model(s) was used, and the risk that the entity has not used the appropriate information to support its valuations.

The question of what constitutes sufficient appropriate audit evidence for fair value estimates, in particular when markets are illiquid, has been a significant issue in practice. In the absence of guidance for preparers that discusses the evidence that is appropriate to support measurements and disclosures under particular financial reporting frameworks, auditors have been challenged to evaluate the sources of audit evidence and often rely on multiple sources of evidence when concluding as to the reasonableness of management's accounting estimates.

Generally, pricing services and brokers consider information from multiple sources to develop fair value estimates. This information may include, for example, transactions of similar securities, consensus prices, values of the same or similar securities in their portfolio, and values derived using their own models. Often, transactions of the same or similar securities are private and not observable other than to the parties and brokers involved in the transaction. Further, models often represent simplified approaches rather than attempts to recreate the precise model used by the original seller of the security, which generally is proprietary. The proposed IAPS stresses that understanding how the broker or pricing service calculated a price enables management to determine whether such data is suitable for use in its valuation methodology, including as an input to a model (see paragraphs 66–68). In practice, it has been noted that management may not always be able to obtain such an understanding, in particular in relation to the proprietary models used by brokers and pricing services to arrive at a price. If management is unable to do so, it may be difficult for the auditor to obtain sufficient appropriate audit evidence (see paragraph 104).

In some cases, a broker or pricing service may be engaged to value an entity's complex financial instrument portfolio. The proposed IAPS notes that in such circumstances, it is likely that the broker or pricing service would be considered a management's expert, and the requirements in ISA 500¹⁰ for the auditor when information to be used as audit evidence has been prepared using the work of a management's expert would apply (see paragraphs 77 and 102). While the IAASB does not believe it is necessary to establish a "bright line" to determine whether brokers or pricing services are management's experts, the proposed IAPS highlights the important message that both the auditor and management should have a sufficient understanding as to how the broker or pricing service determined a price before using such information as evidence to support the valuation.

Illustrations of Commonly Used Models

The IAASB deliberated whether to include illustrative examples of commonly used models within the proposed IAPS. After discussion with experts, the IAASB concluded it was not

¹⁰ ISA 500, *Audit Evidence*

appropriate to do so given the evolving nature of financial instruments and the models used in valuation. Rather, the proposed IAPS focuses on the entity's considerations when using models (see Table 6), whether adjustments for valuation uncertainty may be needed to model outputs (see paragraphs 53–57), the nature of inputs used in models (see paragraphs 58–60), and factors considered by the auditor in evaluating whether models used by the entity are appropriate (see paragraph 93).

Effective Date

Because they did not establish any new requirements, the existing IAPSs became effective immediately upon issuance. While the IAASB also does not intend that proposed IAPS 1000 establishes new requirements, some concern has been expressed that it would not be appropriate to continue the practice of having IAPSs become effective upon release. This is in part due to the need to allow jurisdictions sufficient time to translate the IAPS and for firms and auditors to consider the guidance relative to their training programs and audit methodologies in light of the proposed status and authority of new IAPSs. The current timetable for finalizing the IAPS is September 2011, with the final document being released after the Public Interest Oversight Board (PIOB) has considered the application of due process followed for its development.

The IAASB has not concluded on the matter of establishing an effective date, but invites comments from respondents as to whether an effective date should be established and, if so, what the appropriate amount of time to allow for translation and implementation would be.

Guide for Respondents

The IAASB welcomes comments on all matters addressed in the exposure draft. Comments are most helpful when they refer to specific paragraphs, include the reasons for the comments, and, where appropriate, make specific suggestions for any proposed changes to wording. When a respondent agrees with proposals in this exposure draft (especially those calling for change in current practice), it will be helpful for the IAASB to be made aware of this view.

Request for Specific Comments

The IAASB would welcome views on the following:

1. Whether the material included in the proposed IAPS is appropriate in light of the proposed status and authority of new IAPSs.
2. Whether the balance of material included in the proposed IAPS is appropriate in light of its purpose of assisting a wide range of auditors on an international basis.
3. Whether the proposed form of the IAPS, including the use of two separate sections and shaded tables, enhances its readability.
4. Whether respondents believe an effective date should be established for the proposed IAPS and, if so, what would be an appropriate date would be.

Comments on Other Matters

The IAASB is also interested in comments on matters set out below.

- *Special Considerations in the Audit of Smaller Entities*—Respondents are asked to comment whether, in their opinion, material addressing considerations in the audit of smaller entities is sufficient and appropriate in the IAPS.
- *Special Considerations in the Audit of Public Sector Entities*—Respondents are asked to comment whether, in their opinion, special considerations with respect to public sector entities have been dealt with appropriately in the proposed IAPS.
- *Developing Nations*—Recognizing that many developing nations have adopted or are in the process of adopting the International Standards, the IAASB invites respondents from these nations to comment, in particular, on any foreseeable difficulties in using the proposed IAPS in a developing nation environment.
- *Translations*—Recognizing that many respondents may intend to translate the final IAPS for adoption in their own environments, the IAASB welcomes comment on potential translation issues noted in reviewing the proposed IAPS.

PROPOSED INTERNATIONAL AUDITING PRACTICE STATEMENT 1000
SPECIAL CONSIDERATIONS IN AUDITING COMPLEX FINANCIAL
INSTRUMENTS
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[Proposed] International Auditing Practice Statement (IAPS) 1000, *Special Considerations in Auditing Complex Financial Instruments*, should be read in the context of the [proposed amended] *Preface to the International Quality Control, Auditing, Review, Other Assurance, and Related Services Pronouncements* (the Preface), which sets out the application and authority of IAPSs. The [proposed amended] Preface explains that IAPSs are issued to provide practical assistance to auditors in implementing ISAs and to promote good practice. IAPSs do not impose additional requirements on auditors beyond those included in the ISAs, nor do they change the auditor’s responsibility to comply with the requirements of all ISAs relevant to the audit. Auditors should determine whether any IAPS is relevant to the circumstances of the audit and, if so, obtain an understanding of its content. Depending on the nature of the topic(s) covered, an IAPS may assist the auditor in:

- (a) Obtaining an understanding of the circumstances of the entity, and in making judgments about the identification and assessment of risks of material misstatement;
- (b) Making judgments about how to respond to assessed risks, including judgments about procedures that may be appropriate in the circumstances; or
- (c) Addressing reporting considerations, including forming an opinion on the financial statements and communicating with those charged with governance.

While this IAPS highlights the requirements of certain ISAs, reading this IAPS is not a substitute for reading the ISAs themselves and there may be other requirements in the ISAs that are relevant.

Scope of this IAPS

1. The purpose of this International Auditing Practice Statement (IAPS) is to provide background information and guidance to the auditor regarding special considerations when auditing complex financial instruments. Complex financial instruments may be used by financial and non-financial entities of all sizes for a variety of purposes. Some entities have large holdings and transaction volumes while other entities may only engage in a few complex financial instrument transactions. This IAPS is relevant to all of these situations.
2. Certain ISAs may be particularly relevant to audits of complex financial instruments. For example:
 - (a) ISA 540¹ deals with the auditor's responsibilities relating to auditing accounting estimates, including accounting estimates related to complex financial instruments measured at fair value; and
 - (b) ISA 315² and ISA 330³ deal with identifying and assessing risks of material misstatement and responding to those risks.
3. The applicable financial reporting framework may require the entity to measure complex financial instruments at fair value or disclose fair value information for financial instruments carried at amortized cost. The guidance on valuation in this IAPS is particularly relevant for complex financial instruments measured or disclosed at fair value, while the guidance on areas other than valuation applies equally to complex financial instruments either measured at fair value or amortized cost. This IAPS is also applicable to both financial assets and financial liabilities, as the auditing considerations for both are generally the same, except that measurement of credit risk for financial liabilities can be particularly challenging.

Nature of Financial Instruments Addressed by this IAPS

4. Different definitions of financial instruments may exist among financial reporting frameworks. For example, International Financial Reporting Standards (IFRS) define a financial instrument as any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.⁴ Financial instruments may be cash, the equity of another entity, the right to receive or deliver cash or exchange financial assets or liabilities, contracts settled in an entity's own equity instruments, certain contracts on non-financial items, or certain contracts issued by insurers that do not meet the definition of an insurance contract. This definition encompasses a wide range of financial instruments from simple loans and deposits to complex derivatives, structured products, and some commodity contracts.

¹ ISA 540, *Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosures*

² ISA 315, *Identifying and Assessing the Risks of Material Misstatement through Understanding the Entity and Its Environment*

³ ISA 330, *The Auditor's Responses to Assessed Risks*

⁴ International Accounting Standard (IAS) 32, *Financial Instruments: Presentation*, paragraph 11

5. This IAPS focuses on those financial instruments, both financial assets and financial liabilities that are complex. It does not deal, for example, with financial instruments such as cash, simple loans, trade accounts receivable and trade accounts payable.
6. Also, this IAPS does not deal with loan loss provisioning. Although that subject matter can relate to how a financial institution deals with credit risk associated with complex financial instruments, a discussion of the many potential complexities of loan loss provisioning is beyond the scope of this IAPS.
7. The complexity of a financial instrument often lies in the way in which future cash flows are determined. All financial instruments represent the right or obligation to pay or receive future cash flows. Examples of complexity can be:
 - (a) A very high volume of individual cash flows, where a lack of homogeneity requires analysis of each one or a large number of grouped cash flows to evaluate, for example, credit risk (for example, Collateralized Debt Obligations (CDOs)).
 - (b) Complex formulas for determining the cash flows.
 - (c) Uncertainty or variability of future cash flows, such as option contracts or financial instruments with lengthy contractual terms.

The higher the variability of cash flows to changes in market conditions, the more complex and uncertain the fair value measurement of the financial instrument is likely to be. In addition, sometimes financial instruments that ordinarily are relatively easy to value become complex to value because of particular circumstances, for example, instruments for which the market has become inactive or which have lengthy contractual terms. In addition, the accounting for financial instruments under certain financial reporting frameworks or certain market conditions may be complex.

8. Originators of complex financial instruments are continuously developing new products and, as a result, it is not possible to provide an exhaustive list of all such instruments. For the purposes of this IAPS, complex financial instruments include, but are not limited to:
 - Derivatives (including forward contracts, swaps, caps, floors, swaptions, credit default options, credit default swaps, and other option contracts);
 - Leveraged finance commitments; and
 - Structured products—Some of these products may include embedded derivatives and can combine a number of financial instruments to achieve a desired overall effect (for example, CDOs, Asset Backed Securities (ABSs), and structured debt).
9. Complex financial instruments are susceptible to estimation uncertainty, which is defined in ISA 540 as “the susceptibility of an accounting estimate and related disclosures to an inherent lack of precision in its measurement.”⁵ Valuation uncertainty is an aspect of estimation uncertainty. The nature and reliability of information available to support the valuation of complex financial instruments varies widely, which thereby affects the degree of estimation uncertainty associated with their measurement. The degree of estimation uncertainty affects, in turn, the risks of material misstatement related to complex financial instruments, including

⁵ ISA 540, paragraph 7(c)

their susceptibility to unintentional or intentional management bias. The importance of disclosures regarding the basis of measurement increases as the measurement uncertainty of the financial instruments increases. Many of the complex financial instruments referred to in paragraph 8 are required to be presented in the financial statements at fair value. Derivatives and structured products become more complex when they are a combination of individual complex financial instruments.

Types of Entities to which this IAPS May Be Relevant

10. Regardless of their size, all entities may be subject to risks of material misstatement when using complex financial instruments. For example, entities may not have accurately recorded all financial instrument transactions, or may not have valued these instruments properly in accordance with the applicable financial reporting framework.
11. The use of complex financial instruments varies by entity. For example, some entities may take positions in complex financial instruments to assume and benefit from risk. Other entities may use complex financial instruments to reduce risk by hedging or managing exposures. The guidance in this IAPS is intended to be helpful in audits of entities with different levels of use of complex financial instruments ranging from:
 - Entities with high levels of trading and use of complex financial instruments (for example, banks with complex dealing rooms, insurance companies and non-financial sector entities with treasury departments); to
 - Entities with relatively few transactions involving complex financial instruments (for example, an entity that wishes to hedge a relatively low number of foreign currency transactions or obtains a few instruments for investment purposes).

Section I—Background Information about Complex Financial Instruments

Purpose of Using Complex Financial Instruments

12. More complex financial instruments, such as those arising from derivatives contracts, generally exist for:
 - Hedging purposes (i.e., to change an existing risk profile to which an entity is exposed). This includes:
 - The forward purchase or sale of currency to fix a future exchange rate;
 - Converting future interest rates to fixed or floating through the use of swaps; and
 - The purchase of option contracts to provide an entity with protection against a particular price movement, including contracts which may contain embedded derivatives; and
 - Trading purposes (i.e., to enable an entity to take a risk position to benefit from long term investment returns or from short term market movements).

In addition, a complex financial instrument arising from a derivative contract may be a financial asset or a financial liability at different times and subject to different circumstances and can move from a financial asset to a financial liability very quickly. Such volatility can also dramatically affect an entity's credit risk exposure to its counterparties.

Risks of Using Complex Financial Instruments

13. The use of complex financial instruments has become more commonplace and the accounting requirements to provide fair value and other information about them in financial statement presentations and disclosures have changed significantly in recent years. Management and those charged with governance may not:
 - Fully understand the risks of using complex financial instruments;
 - Have the expertise to value them appropriately in accordance with the applicable financial reporting framework; or
 - Have sufficient controls in place over financial instrument activities.
14. The knowledge and experience of management and those charged with governance is an important element of the control environment at entities of all sizes. The use of complex financial instruments without relevant expertise (e.g., valuation and accounting expertise) within the entity may result in the entity unknowingly assuming a significant amount of risk (e.g., credit risk, market risk, and liquidity risk, among others), and increase the risks of material misstatement in the financial statements. The inability of management to fully appreciate the risks inherent in a complex financial instrument can have a direct effect on their ability to manage these risks appropriately, and may ultimately threaten the viability of the entity.
15. The use of complex financial instruments can reduce exposures to certain business risks, for example changes in exchange rates, interest rates and commodity prices, or a combination of those risks. On the other hand, the inherent complexities also may result in increased business risk, in particular if entities are inappropriately hedging risks and inadvertently creating additional risks by doing so. This may in turn increase risks of material misstatement and present new challenges to management and auditors. Table 1 lists the principal types of risk related to financial instrument activities to which entities may be exposed.

Table 1: *Types of Risks to which Entities May Be Exposed through the Use of Complex Financial Instruments*

The principal types of risk are listed below. This list is not meant to be exhaustive and different terminology may be used to describe these risks or classify the components of individual risks.

- (a) Credit (or counterparty) risk, which is the risk that one party to a financial instrument will cause a financial loss to another party by failing to discharge an obligation. Credit risk includes settlement risk and is often associated with default. Settlement risk is the related risk that one side of a transaction will be settled without consideration being received from the customer or counterparty.
- (b) Market risk, which is the risk that the fair value or future cash flow of a financial instrument will fluctuate because of changes in market prices, in an adverse way not anticipated by the entity when it entered into the transaction. Examples of market risk include currency risk, interest rate risk, commodity and equity price risk, and volatility risk.

- (c) Liquidity risk, which relates to the risk that an entity will be unable to fund increases in assets and meet obligations as they become due.
- (d) Operational risk, which relates to the specific processing required for financial instruments and which includes:
 - (i) The risk that confirmation and reconciliation controls are inadequate resulting in incomplete or inaccurate recording of financial instruments;
 - (ii) The risks that there is inappropriate documentation of hedged transactions and insufficient monitoring of these transactions;
 - (iii) The risk that transactions from a trade entry, operational processing, financial accounting or risk management perspective are split into individual transaction legs or cash flows, which do not reflect the economics of the overall trade, and which are therefore potentially incorrectly recorded, processed or risk managed;
 - (iv) The risk that undue reliance is placed by staff on the accuracy of model valuations or processing, without adequate review, and transactions are therefore incorrectly valued or risk managed;
 - (v) The risk of loss resulting from inadequate or failed internal processes, people, and systems, or from external events; and
 - (vi) The risk that there is inadequate or non-timely maintenance of models used to measure financial instruments.

Operational risk also includes legal (enforceability) risk, which is the risk relating to losses resulting from a legal or regulatory action that invalidates or otherwise precludes performance by the end user or its counterparty under the terms of the contract or related netting arrangements. For example, legal risk could arise from insufficient or incorrect documentation for the contract, an inability to enforce a netting arrangement in bankruptcy, adverse changes in tax laws, or statutes that prohibit entities from investing in certain types of financial instruments.

Controls Relating to Complex Financial Instruments

16. ISA 315 establishes requirements for the auditor to understand the entity and its environment, including its internal control. Obtaining an understanding of the entity and its environment, including the entity's internal control, is a continuous, dynamic process of gathering, updating and analyzing information throughout the audit. The understanding obtained establishes a frame of reference within which the auditor plans the audit and exercises professional judgment throughout the audit. The volume of the financial instrument transactions at an entity typically determines the nature and extent of controls that may exist at an entity and an understanding of how complex financial instruments are monitored and controlled assists the auditor in determining the nature, timing and extent of audit procedures. Table 2 describes internal controls that may exist in an entity that deals in a high volume of financial instrument transactions.

17. Key elements of process and internal control relating to an entity’s complex financial instrument transactions include:
- Setting an approach to define the amount of risk exposure that the entity is willing to accept when engaging in financial instrument transactions (this may be referred to as its “risk appetite”), including policies for investing in complex financial instruments, and the control framework in which the financial instrument activities are conducted;
 - Establishing processes for the authorization of new types of financial instrument transactions which consider the accounting, regulatory, legal, market and operational risks that are associated with such instruments;
 - Processing financial instrument transactions, including confirmation and reconciliation of cash and asset holdings to external statements, and the payments process;
 - Segregation of duties between those investing in the complex financial instruments and those responsible for valuing such instruments;
 - Valuation processes, including the use of third-party expertise;
 - Risk management; and
 - Monitoring of controls.

Table 2: *Internal Controls Relating to Complex Financial Instruments that May Exist within the Entity*

The extent of an entity’s use of complex financial instruments and the degree of complexity of the instruments are important determinants of the necessary level of sophistication of the entity’s internal control. For example, smaller entities may use less structured products and simple processes and procedures to achieve their objectives. It is the role of those charged with governance to determine an appropriate attitude towards the risks. It is management’s role to monitor and manage the entity’s exposures to those risks.

The following provides background information and examples of internal controls that may exist in an entity that deals in a high volume of financial instrument transactions, whether for trading or investing purposes. The examples are not meant to be exhaustive and entities may establish different control environments and processes depending on their size, the industry in which they operate, and the extent of their financial instrument transactions.

Management and, where appropriate, those charged with governance are responsible for designing and implementing a system of internal control necessary to enable the preparation of financial statements in accordance with the applicable financial reporting framework with respect to complex financial instruments. An entity’s internal control may be effective when management and those charged with governance have:

- (a) Established an appropriate control environment, including a commitment to competence, participation by those charged with governance, a clear organizational structure, assignment of authority and responsibility, and human resource policies and procedures. In

particular, clear rules are needed on the extent to which those responsible for financial instrument activities are permitted to participate in the trading markets. Such rules have regard to any legal or regulatory restrictions on using complex financial instruments. For example, certain public sector entities may not have the power to conduct business using derivative financial instruments;

- (b) Established a risk assessment process relative to the size of the entity and the complexity of its financial instruments (for example, in some entities a formal risk management function may exist);
- (c) Established information systems that provide those charged with governance with an understanding of the nature of the complex financial instrument activities and the associated risks;
- (d) Designed and implemented a system of internal control to:
 - Provide reasonable assurance that the entity's use of complex financial instruments is within its risk management policies; and
 - Ensure that the entity is in compliance with applicable laws and regulations; and
 - Monitor risk and financial control;
- (e) Considered the integrity of the entity's accounting and financial reporting systems to ensure the reliability of management's financial reporting of financial instrument activities.

The Entity's Control Environment

Commitment to Competence

The degree of complexity of some financial instrument activities may mean that only a few individuals within the entity fully understand those activities or have the expertise necessary to value the instruments on an ongoing basis. Significant use of complex financial instruments, without relevant expertise within the entity, increases the risk of material misstatement.

Participation by Those Charged with Governance

Those charged with governance oversee and concur with management's establishment of the entity's overall risk appetite and provide oversight over the entity's financial instrument activities. An entity's policies for the purchase, sale and holding of complex financial instruments are aligned with its attitude toward risk and the expertise of those involved in financial instrument activities. In addition, an entity may establish governance structures and control processes aimed at:

- (a) Communicating investment decisions and assessments of all material valuation uncertainty to those charged with governance; and
- (b) Evaluating the entity's overall risk appetite when engaging in financial instrument transactions.

Organizational Structure

Financial instrument activities may be run on either a centralized or a decentralized basis. Such activities and related decision making depend heavily on the flow of accurate, reliable, and timely management information. The difficulty of collecting and aggregating such information increases with the number of locations and businesses in which an entity is involved. The risks of material misstatement associated with financial instrument activities may increase with greater decentralization of control activities. This may especially be true where an entity is based in different locations, some perhaps in other countries.

Assignment of Authority and Responsibility

Investment and Valuation Policies

Providing direction, through clearly stated policies approved by those charged with governance, for the purchase, sale, and holding of complex financial instruments, enables management to establish an effective approach to taking and managing business risks. These policies are most clear when they state the entity's objectives with regard to its risk management activities and the investment and hedging alternatives available to meet these objectives and reflect the:

- (a) Level of the entity's management expertise;
- (b) Sophistication of the entity's internal control and monitoring systems;
- (c) Entity's asset/liability structure;
- (d) Entity's capacity to maintain liquidity and absorb losses of capital;
- (e) Types of complex financial instruments that management believes will meet its objectives; and
- (f) Uses of complex financial instruments that management believes will meet its objectives, for example, whether derivatives may be used for speculative purposes or only for hedging purposes.

Management may design policies aligned with its valuation capabilities and may establish controls to ensure that these policies are adhered to by those employees responsible for the entity's valuation. These may include:

- (a) Processes for the design and validation of methodologies used to produce valuations, including how valuation uncertainty is addressed; and
- (b) Policies regarding maximizing the use of observable inputs and the types of information to be gathered to support valuations of complex financial instruments.

In smaller entities, dealing in complex financial instruments may be rare and management's knowledge and experience limited. Nevertheless, establishing policies over complex financial instruments helps an entity to determine its risk appetite and consider whether investing in particular complex financial instruments achieves a stated objective.

Human Resource Policies and Practices

Entities may establish policies requiring key employees dealing with complex financial instruments to take mandatory time off from their duties. This type of internal control is used as a means of preventing and detecting fraud, in particular if those engaged in trading activities are creating false trades or inaccurately recording transactions.

The Entity's Risk Assessment Process

An entity's risk assessment process exists to establish how management identifies business risks that derive from its use of complex financial instruments, including how management estimates the significance of the risks, assesses the likelihood of their occurrence and decides upon actions to manage them.

The entity's risk assessment process forms the basis for how management determines the risks to be managed. Risk assessment processes exist with the objective of ensuring that management:

- (a) Understands the risks inherent in a complex financial instrument before they enter into it, including the objective of entering into the transaction and its structure (e.g., the economics and business purpose of the entity's financial instrument activities);
- (b) Performs adequate due diligence commensurate with the risks associated with particular complex financial instruments;
- (c) Monitors their outstanding positions to understand how market conditions are affecting their exposures;
- (d) Has procedures in place to reduce or change risk exposure if necessary and for managing reputational risk; and
- (e) Subjects these processes to rigorous supervision and review.

Table 1 provides examples of risks related to complex financial instruments to which entities may be exposed.

The structure implemented to monitor and manage exposure to risks should:

- (a) Be appropriate and consistent with the entity's attitude toward risk as determined by those charged with governance;
- (b) Specify the approval levels for the authorization of different types of complex financial instruments and transactions that may be entered into and for what purposes. The permitted instruments and approval levels should reflect the expertise of those involved in financial instrument activities, demonstrating management's commitment to competence;
- (c) Set appropriate limits for the maximum allowable exposure to each type of risk (including approved counterparties). Levels of allowable exposure may vary depending on the type of risk, or counterparty;
- (d) Provide for the independent and timely monitoring of the financial risks and control activities;

- (e) Provide for the independent and timely reporting of exposures, risks and the results of financial instrument activities in managing risk; and
- (f) Evaluate management's track record for assessing the risks of particular complex financial instruments.

The types and levels of risks an entity faces are directly related to the types of complex financial instruments with which it deals, including the complexity of these instruments and the volume of complex financial instruments transacted.

Risk Management Function

Some entities, for example large financial institutions with a high volume of financial instrument transactions, may be required by law or regulation, or may choose, to establish a formal risk management function. This function is independent of those responsible for undertaking and managing financial instrument transactions. The function is responsible for reporting on and monitoring financial instrument activities. Examples of key responsibilities in this area may include:

- (a) Implementing the risk management policy set by those charged with governance (including analyses of the risks to which an entity may be exposed);
- (b) Designing risk limit structures and ensuring these risk limits are implemented in practice;
- (c) Developing stress scenarios and subjecting open position portfolios to sensitivity analysis, including reviews of unusual movements in positions; and
- (d) Reviewing and analyzing new financial instrument products.

Complex financial instruments may have the associated risk that a loss might exceed the amount, if any, of the value of the complex financial instrument recognized on the balance sheet. For example, a sudden fall in the market price of a commodity may force an entity to realize losses to close a forward position in that commodity due to collateral, or margin, requirements. In some cases, the potential losses may be enough to cast significant doubt on the entity's ability to continue as a going concern. The entity may perform sensitivity analyses or value-at-risk analyses to assess the future hypothetical effects on complex financial instruments subject to market risks. However, value-at-risk analyses may not fully consider all the risks that may affect the entity.

The volume and sophistication of financial instrument activity and relevant regulatory requirements will influence the entity's consideration of whether to establish a formal risk management function and how the function may be structured. In entities that have not established a separate risk management function, for example entities with a relatively few number of complex financial instruments or financial instruments that are less complex, reporting on and monitoring financial instrument activities may be a component of the accounting or finance function's responsibility or management's overall responsibility.

The Entity's Information Systems

The key objective of an entity's information systems is that they are capable of capturing and recording all the transactions accurately, settling them, valuing them, and producing information

to enable the financial instruments to be risk managed and for controls to be monitored. Difficulties can arise in entities that engage in a high volume of complex financial instruments, in particular if there is a multiplicity of systems that are poorly integrated and have manual interfaces without adequate controls.

Certain complex financial instruments may require a large number of accounting entries. As the sophistication or level of the financial instrument activities increases, it is necessary for the sophistication of the information system to also increase. Specific issues which can arise in respect to complex financial instruments include:

- (a) Information systems, in particular for smaller entities, not having the capability or not being appropriately configured to process financial instrument transactions, especially when the entity does not have any prior experience in dealing with complex financial instruments. This may result in an increased number of manual transactions;
- (b) The potential diversity of systems required to process more complex transactions, and the need for regular reconciliations between them, in particular when the systems are not interfaced or may be subject to manual intervention;
- (c) The potential that more complex transactions, if they are only traded by a small number of individuals, may be valued or risk managed on spreadsheets rather than on main processing systems, and for the physical and logical password security around those spreadsheets to be more easily compromised;
- (d) A lack of review of systems exception logs, external confirmations and broker quotes, where available, to validate the entries generated by the systems;
- (e) Difficulties in controlling and evaluating the key inputs to systems for valuation of complex financial instruments, particularly where those systems are maintained by the group of traders known as the front office or a third-party service provider and/or the transactions in question are non-routine or thinly traded;
- (f) Failure to evaluate the design and calibration of complex models used to process these transactions initially and on a periodic basis;
- (g) The potential that management has not set up a model library, with controls around access, change and maintenance of individual models, in order to maintain a strong audit trail of the accredited versions of models and in order to prevent unauthorized access or amendments to those models;
- (h) The disproportionate investment that may be required in risk management and control systems, where an entity only undertakes a limited number of financial instrument transactions, and the potential for misunderstanding of the output by management if they are not used to these types of transactions;
- (i) The potential requirement for third-party systems provision, for example from a service organization, to record, process, account for or risk manage appropriately financial instrument transactions, and the need to reconcile appropriately and challenge the output from those providers; and
- (j) Additional security and control considerations relevant to the use of an electronic network when an entity uses electronic commerce for financial instrument transactions.

Information systems relevant to financial reporting serve as an important source of information for the quantitative disclosures in the financial statements. However, entities may also develop and maintain non-financial systems used for internal reporting and to generate information included in qualitative disclosures, for example regarding risks and uncertainties or sensitivity analyses.

The Entity's Control Activities

Control activities over financial instrument transactions are designed to prevent or detect problems that hinder an entity from achieving its objectives. These objectives may be either operational, financial reporting, or compliance in nature. Control activities over complex financial instruments are designed relative to the complexity and volume of transactions of complex financial instruments and will generally include an appropriate authorization process, adequate segregation of duties, and other policies and procedures designed to ensure that the entity's control objectives are met. This IAPS focuses on control activities related to completeness, accuracy and existence, valuation, and presentation and disclosure.

Authorization

Authorization can affect the financial statement assertions both directly and indirectly. For example, even if a transaction is executed outside an entity's policies, it nonetheless may be recorded and accounted for accurately. However, unauthorized transactions could significantly increase risk to the entity, thereby significantly increasing the risk of material misstatement since they would be undertaken outside the system of internal control. To mitigate this risk, an entity will often establish a clear policy as to what transactions can be traded by whom and adherence to this policy will then be monitored by an entity's back office. Monitoring trading activities of individuals, for example by reviewing unusually high volumes or significant losses incurred, will assist management in ensuring compliance with the entity's policies, including the authorization of new types of transactions, and evaluating whether fraud has occurred.

The function of an entity's deal initiation records is to identify clearly the nature and purpose of individual transactions and the rights and obligations arising under each complex financial instrument contract, including the enforceability of the contracts. In addition to the basic financial information, such as a notional amount, complete and accurate records at a minimum typically include:

- (a) The identity of the dealer;
- (b) The identity of the person recording the transaction (if not the dealer), when the transaction was initiated (including the date and time of the transaction), and how it was recorded in the entity's information systems; and
- (c) The nature and purpose of the transaction, including whether or not it is intended to hedge an underlying commercial exposure.

Segregation of Duties

Segregation of duties and the assignment of personnel is an important control activity. Financial instrument activities may be categorized into a number of functions, including:

- (a) Executing the transaction (dealing). In entities with a high volume of financial instrument transactions, this may be done the front office;
- (b) Initiating cash payments and accepting cash receipts (settlements);
- (c) Sending out trade confirmations and reconciling the differences between the entity's records and replies from counterparties, if any;
- (d) Recording of all transactions correctly in the accounting records;
- (e) Monitoring risk limits. In entities with a high volume of financial instrument transaction, this may be performed by the risk management function; and
- (f) Monitoring positions and valuing complex financial instruments.

Where an entity is too small to achieve proper segregation of duties, the role of management and those charged with governance in monitoring financial instrument activities is of particular importance.

Monitoring of Controls

Entities' ongoing monitoring activities are designed to detect and correct any deficiencies in the effectiveness of internal controls over transactions for complex financial instruments and their valuation. It is important that there is adequate supervision and review of financial instrument activity within the entity. This includes:

- (a) All controls being subject to review, for example:
 - A detailed review of the application of particular controls. An example would be the review by a supervisor of bank or custodian reconciliations; or
 - The monitoring of operational statistics such as the number of reconciling items or the difference between internal pricing and external pricing sources;
- (b) The need for robust information technology (IT) controls and monitoring and validating their application; and
- (c) The need to ensure that information resulting from different processes and systems is adequately reconciled. For example, there is little benefit in a valuation process if the output from it is not reconciled properly into the general ledger.

In larger entities, sophisticated computer information systems generally keep track of financial instrument activities, and are designed to ensure that settlements occur when due. More complex computer systems may generate automatic postings to clearing accounts to monitor cash movements, and controls over processing are put in place with the objective of ensuring that financial instrument activities are correctly reflected in the entity's records. Computer systems may be designed to produce exception reports to alert management to situations where complex financial instruments have not been used within authorized limits or where transactions

undertaken were not within the limits established for the chosen counterparties. However, even a sophisticated computer system may not ensure the completeness of financial instrument transactions. Accordingly, management often may put additional procedures in place to increase the likelihood that all transactions will be recorded, as discussed in Table 4.

Presentation and Disclosure about Complex Financial Instruments

18. Management’s responsibilities include the preparation of the financial statements in accordance with the applicable financial reporting framework.⁶ Disclosures in the financial statements are important to enable users of the financial statements to make meaningful assessments of effects of the entity’s financial instrument activities, including the risks and uncertainties associated with these complex financial instruments. Accordingly, disclosures are of equal importance to the amounts recorded in the financial statements relating to financial instrument activities. Disclosures are most effective when they:
- Faithfully represent the underlying transactions and events, and illustrate how amounts recognized in the balance sheet, income statement, or statement of changes in equity relate to other quantitative and qualitative disclosures;
 - Provide comprehensive and meaningful information that appropriately describes the entity’s risks and exposures from complex financial instruments and allow users to have an adequate understanding of the entity’s financial instrument transactions (including reasonably possible alternative outcomes); and
 - Allow for comparison over time and between entities.
19. Most frameworks require the disclosure of quantitative and qualitative information (including accounting policies) relating to complex financial instruments. The accounting requirements for fair value accounting estimates in financial statement presentations and disclosures are extensive in most financial reporting frameworks and encompass more than just valuation of the financial instruments. In preparing financial statement disclosures, management complies with the requirements of the applicable financial reporting framework in their jurisdictions. For example, qualitative disclosures about financial instruments provide important contextual information about the characteristics of the financial instruments and their future cash flows that may help inform investors about significant risks.

Table 3: *Categories of Disclosures*

<p>Disclosure requirements can typically be characterized in three main categories:</p> <ul style="list-style-type: none"> (a) Quantitative disclosures that are derived from the amounts included in the financial statements—for example, categories of financial assets and liabilities; (b) Quantitative disclosures that require significant judgment—for example, sensitivity analysis for each type of market risk to which the entity is exposed; and (c) Qualitative disclosures—for example, those that describe the entity’s objectives,
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⁶ See paragraphs 4 and A2 of ISA 200, *Overall Objectives of the Independent Auditor and the Conduct of an Audit in Accordance with International Standards on Auditing*.

policies and procedures for managing each type of risk arising from complex financial instruments and the methods used to measure the risks.

The applicable financial reporting framework may permit, or prescribe, disclosures related to accounting estimates, and some entities may disclose voluntarily additional information in the notes to the financial statements. These disclosures may include, for example:

- A summary of significant accounting policies.
- Relevant assumptions used.
- The method of estimation used, including any applicable model.
- The basis for the selection of the method of estimation.
- The effect of any changes to the method of estimation from the prior period.
- The sources and implications of estimation uncertainty.

Disclosures that give information about the significance of complex financial instruments to an entity's financial position and performance and may be required by the applicable financial reporting framework may include:

- Disclosures about the carrying amounts of financial assets and liabilities;
- Disclosures about reclassifications of financial assets;
- Disclosures about the carrying amounts of financial assets that have been pledged as collateral, including the terms and conditions;
- Disclosures about the recognition of profits or losses at the initiation of the complex financial instrument transactions (referred to as "day 1 profits or losses");
- Disclosures about net gains or net losses on particular categories of financial assets and financial liabilities;
- Disclosures about movements in and out of level 3 of the fair value hierarchy; and
- Disclosures about non-linear complex financial instruments and the factors that affect their valuation.

Entities may also be required under certain financial reporting frameworks to give quantitative disclosures such as:

- Summary data about the exposures at the reporting date; and
- Market risk information such as a sensitivity analysis for each type of market risk to which the entity is exposed at the reporting date, showing how profit or loss and equity would have been affected by changes in the relevant risk variable that were reasonably possible at that date.

The more sensitive the valuation is to movements in a particular variable, the more likely it is that disclosure will be necessary to indicate the uncertainties surrounding the valuation. Certain financial reporting frameworks may also require disclosure of sensitivity analysis, including the effects of changes in assumptions used in the entity's valuation methodology.

Some financial reporting frameworks require disclosure of information that enables users of the financial statements to evaluate the nature and extent of the risks arising from complex financial instruments to which the entity is exposed at the reporting date. This disclosure may be contained in the notes to the financial statements, or in management's discussion and analysis within its annual report. The extent of disclosure depends on the extent of the entity's exposure to risks arising from complex financial instruments. This includes qualitative disclosures about:

- The exposures to risk and how they arise, including the possible effects on an entity's future liquidity and collateral requirements;
- The entity's objectives, policies and processes for managing the risk and the methods used to measure the risk; and
- Any changes in the above two bullet points from the previous period.

Other qualitative disclosures that may be required by certain financial reporting frameworks include:

- The judgments made in applying the entity's accounting policies that have the most significant effect on the amounts recognized in the financial statements;
- Information about the assumptions concerning the future; and
- Other major sources of estimation uncertainty at the balance sheet date that have a significant risk of causing a material adjustment in the carrying amount of assets and liabilities within the next financial year.

In addition, qualitative disclosures are often used to add value to quantitative disclosures in the financial statements by providing analysis and interpretation, for example to provide more information about valuation techniques and inputs to fair value measurements.

As noted in Table 5 (following paragraph 49 of this IAPS), some financial reporting frameworks may establish a fair value hierarchy that reflects the significance of the inputs used in making the measurements. They may also require the entity to disclose whether changing one or more of the inputs to reasonably possible alternative assumptions would change fair value significantly and, if so, how the effect of a change in assumptions was calculated. There may also be a requirement to disclose the effect of correlation between unobservable inputs if such correlation is relevant when estimating the effect on the fair value measurement of using those different levels of inputs. While these disclosures may be quantitative in nature in that an amount is calculated, the selection of reasonably possible alternative assumptions is often a subjective process.

For example, the additional disclosures required for complex financial instruments with fair value measurements that are in level 3 of the hierarchy are aimed at informing users of financial statements about the effects of those fair value measurements that use the most subjective inputs. Because the inputs to these fair value measurements reflect the entity's own assumptions about assumptions that market participants would use, including assumptions about risks, it is critical that disclosures are comprehensive and meaningful.

Section II—Audit Considerations Relating to Complex Financial Instruments

Planning Considerations⁷

20. Certain factors may make auditing complex financial instruments particularly challenging. For example:

- It may be difficult for both management and the auditor to understand the nature of complex financial instruments and what they are used for, and the risks to which the entity is exposed.
- Markets can change quickly, placing pressure on management to manage their exposures effectively.
- Evidence supporting valuation may be difficult to obtain.
- Individual payments associated with certain complex financial instruments may be significant, which may increase the risk of misappropriation of assets.
- The amounts recorded in the financial statements relating to complex financial instruments may not be significant, but there may be significant risks and exposures associated with these complex financial instruments.
- A few employees may exert significant influence on the entity's financial instruments transactions, in particular where their compensation arrangements are tied to revenue from complex financial instruments, and there may be possible undue reliance on these individuals by others within the entity.

These factors may cause risks and relevant facts to be obscured, which may affect the auditor's assessment of the risks of material misstatement, and latent risks can emerge rapidly, especially in adverse market conditions.

21. ISA 540 requires the auditor to obtain an understanding of the requirements of the applicable financial reporting framework relevant to accounting estimates, including related disclosures.⁸ The requirements of the applicable financial reporting framework regarding complex financial instruments may themselves be complex and require extensive disclosures. Certain financial reporting frameworks require consideration of areas such as:

- Hedge accounting;
- Accounting for day 1 profits and losses;
- Recognition and derecognition of financial instrument transactions;
- Own credit risk; and
- Risk transfer, in particular where the entity has been involved in the origination and structuring of the complex financial instruments.

⁷ ISA 300, *Planning an Audit of Financial Statements*, deals with the auditor's responsibility to plan an audit of financial statements.

⁸ ISA 540, paragraph 8(a)

Professional Skepticism

22. Professional skepticism is important to the critical assessment of audit evidence. This includes questioning contradictory audit evidence and the reliability of documents and responses to inquiries and other information obtained from management and those charged with governance. It also includes consideration of the sufficiency and appropriateness of audit evidence obtained in the light of the circumstances.
23. Application of professional skepticism by the auditor increases in importance with the complexity of financial instruments, for example in regard to:
- Evaluating whether sufficient appropriate audit evidence has been obtained, which can be particularly challenging in inactive markets or when models are used.
 - Evaluating management's judgments in applying the entity's applicable financial reporting framework, in particular management's choice of models, use of assumptions in valuation models, and addressing circumstances in which the auditor's judgments and management's judgments differ.
 - Drawing conclusions based on the audit evidence obtained, for example assessing the reasonableness of valuations prepared by management's experts and evaluating whether disclosures in the financial statements achieve fair presentation.
24. Accordingly, the focus of the auditor in planning the audit is particularly on:
- Understanding the complex financial instruments in which the entity has invested or to which it is exposed, and their purpose and risks;
 - Evaluating whether the effectiveness of internal control is appropriate in light of the entity's financial instrument transactions, including whether the lack of effective internal control increases the possibility of fraud;
 - Understanding the accounting and disclosure requirements;
 - Understanding the information systems that fall within the scope of the audit; and
 - Determining whether specialized skills and knowledge are needed in the audit.

Understanding the Complex Financial Instruments

25. It is important to obtain an understanding of the instruments in which the entity has invested or to which it is exposed, including the characteristics of the instruments. The characteristics of complex financial instruments may obscure certain elements of risk and exposure. This understanding can help an auditor to identify whether important aspects of a transaction are missing or inaccurately recorded, whether a valuation appears appropriate and whether the risks inherent in them are fully understood and managed by the entity.
26. Examples of matters that the auditor may consider when obtaining an understanding of the entity's financial instruments include:
- What financial instruments the entity is exposed to;
 - What they are used for;

- Their exact terms and characteristics so that their implications can be fully understood and, in particular where transactions are linked, the overall impact of the financial instrument transactions; and
- How they fit into the entity's overall risk management strategy.

Inquiries of the risk management function, if such a function has been established by the entity, and discussions with those charged with governance may inform the auditor's understanding.

*Fraud Risk Factors*⁹

27. Incentives for fraudulent financial reporting by employees may exist where compensation schemes are dependent on returns made from the use of complex financial instruments. Understanding how an entity's compensation policies interact with its risk appetite and the incentives that this may create for its traders may be important in assessing the risk of fraud.
28. Difficult financial market conditions may give rise to increased incentives for management or employees to engage in fraudulent financial reporting: to protect personal bonuses, to hide management error, to avoid breaching borrowing limits or to avoid reporting losses. For example, at times of market instability, unexpected losses may arise through failure to protect the entity from extreme fluctuations in market prices, from unanticipated weakness in asset prices, through trading misjudgments, or for other reasons. In addition, financing difficulties create pressures on management concerned about the solvency of the business.
29. Misappropriation of assets and fraudulent financial reporting may often involve override of controls that otherwise may appear to be operating effectively. This can be controls over valuation assumptions and detailed process controls that allow losses and theft to be hidden.

*Using Those with Specialized Skills and Knowledge in the Audit*¹⁰

30. Specialized skills or knowledge may be needed, for example, in the audit in the areas of:
 - Understanding the operating characteristics and risk profile of the industry in which the entity operates.

⁹ See ISA 240, *The Auditor's Responsibilities Relating to Fraud in an Audit of Financial Statements*, for requirements and guidance dealing with fraud risk factors.

¹⁰ When such a person's expertise is in auditing and accounting, regardless of whether the person is from within or external to the firm, this person is considered to be part of the engagement team and is subject to the requirements of ISA 220, *Quality Control for an Audit of Financial Statements*. When such a person's expertise is in a field other than accounting or auditing, such person is considered to be an auditor's expert, and the provisions of ISA 620, *Using the Work of an Auditor's Expert*, apply. ISA 620 explains that distinguishing between specialized areas of accounting or auditing, and expertise in another field, will be a matter of professional judgment, but notes the distinction may be made between expertise in methods of accounting for complex financial instruments (accounting and auditing expertise) and expertise in complex modeling for the purpose of valuing complex financial instruments (expertise in a field other than accounting or auditing).

- Understanding the structure of complex financial instruments used by the entity, and their characteristics, including their level of complexity.
- Risk analysis, in particular the risks inherent in a complex financial instrument. Using specialized skills and knowledge helps in checking whether all aspects of the complex financial instrument and related structures have been captured in the accounts, and evaluating whether adequate disclosure in accordance with the applicable financial reporting framework has been made where disclosure of risks is required.
- Valuation. When fair value is determined by a complex pricing model (“marked to model”); when markets are inactive and inputs are difficult to obtain; or when management has used an expert.
- Information technology. In entities with a high volume of complex financial instruments, the information technology may be highly complex, for example when significant information about those complex financial instruments is transmitted, processed, maintained or accessed electronically. In addition, it may include relevant services provided by a service organization.
- Accounting. The applicable financial reporting framework is complex, including circumstances where there are areas known to be subject to differing interpretation or practice is inconsistent or developing.

In addition, understanding the legal, regulatory, and tax implications resulting from the complex financial instruments, including whether the contracts are enforceable by the entity (for example, to review the underlying contracts), may require specialized skills and knowledge. Accordingly, more than one individual or organization with specialized skills may be involved, in order to assist in various stages of the audit.

31. The nature and use of particular types of complex financial instruments, the complexities associated with their valuation and disclosure, and market conditions may also lead to a need for the engagement team to consult¹¹ with other accounting and audit professionals, from within or outside the firm, with relevant technical accounting or auditing expertise and experience, taking into account factors such as:
- The capabilities and competence of the engagement team;
 - The attributes of the complex financial instruments used by the entity;
 - The identification of unusual circumstances or risks in the engagement, as well as the need for professional judgment, particularly with respect to materiality and significant risks; or
 - Market conditions.

¹¹ ISA 220, paragraph 18(b), requires the engagement party to be satisfied that members of the engagement team have undertaken specific consultation during the course of the engagement, both within the engagement team and between the engagement team and others at the appropriate level within or outside the firm.

Assessing and Responding to the Risks of Material Misstatement

Overall Considerations Relating to Complex Financial Instruments

32. The complexity of the financial instrument, and the other factors referred to above, influence the auditor's approach to identifying and assessing the risks of material misstatement associated with complex financial instruments in accordance with ISA 315 and to designing and implementing responses to address these risks in accordance with ISA 330. In an audit of financial statements in accordance with ISAs, risks of material misstatement are identified and assessed at the assertion level for classes of transactions, account balances and disclosures.¹² Doing so directly assists in determining the nature, timing, and extent of further audit procedures necessary to obtain sufficient appropriate audit evidence. This IAPS focuses on the assertions¹³ on which the entity is likely to focus its control objectives in order to reduce the risks of material misstatement related to complex financial instruments. Those assertions are:
- (a) Completeness, accuracy, and existence;
 - (b) Valuation; and
 - (c) Presentation and disclosure, including classification in the financial statements.

There are likely to be areas of significant risks of material misstatement related to these assertions.

33. The nature of risks can differ between entities with a large volume of complex financial instruments and those with only a few financial instrument transactions. For example:
- Typically an institution with large volumes of complex financial instruments will have a dealing room type environment in which there are specialist traders and segregation of duties between those traders and the back office (which refers to the operations function that data-checks trades that have been conducted, ensuring that they are not erroneous, and transacting the required transfers). In such environments, the traders will typically initiate contracts verbally over the phone or via an electronic trading platform. Capturing relevant transactions and accurately recording complex financial instruments in such an environment is significantly more challenging than for an entity with only a few complex financial instruments, whose existence and completeness can be confirmed with a bank confirmation to a few banks.
 - On the other hand, entities with specialist traders and back offices will typically have considerably more access to the market, and therefore possess more valuation indicators and expertise than a smaller entity, whose main business is not trading complex financial instruments.
34. The auditor's assessment of the identified risks at the assertion level in accordance with ISA 315 provides a basis for considering the appropriate audit approach for designing and performing further audit procedures in accordance with ISA 330, including both substantive

¹² ISA 315, paragraph 25

¹³ ISA 315, paragraph A111, lists assertions used by the auditor to consider the different types of potential misstatements.

procedures and test of controls. The approach taken is influenced by the auditor's understanding of internal control relevant to the audit, including the strength of the control environment, the size and complexity of the entity's operations and whether the auditor's assessment of risks of material misstatement include an expectation that controls are operating effectively.

Factors in Determining Whether to Test Controls

35. The nature and extent of internal control that exists at an entity influences the auditor's determination of the nature, timing and extent of tests of controls and substantive procedures. An expectation that controls are operating effectively may be more common when dealing with a financial institution with well-established internal controls, and therefore controls testing may be an effective means of obtaining audit evidence. Tests of controls, however, will not be sufficient on their own as the auditor is required by ISA 330 to design and perform substantive procedures for each material class of transactions, account balance and disclosure.¹⁴ Conversely, when auditing an entity with just a small number of complex financial instruments or when controls are weak, a substantive testing approach may be more effective.
36. Entities with a large volume of trading and use of complex financial instruments may have a more sophisticated control environment and the auditor may be more likely to test controls in obtaining evidence about the completeness, accuracy, and existence of the transactions, having considered whether the controls described in Table 2 are in place at the entity.
37. In those entities with relatively few transactions involving complex financial instruments, for example, SMEs and non-financial institutions without treasury departments:
 - Management and those charged with governance may have only a limited understanding of complex financial instruments and how they affect the business;
 - The entity may only have a few different types of instruments with little or no interaction between them;
 - There is unlikely to be a complex control environment (for example, the controls described in Table 2 may not be in place at the entity); and
 - Management may engage third-party experts to value such instruments.
38. When an entity has relatively few transactions involving complex financial instruments, it may be relatively easy for the auditor to obtain an understanding of the entity's objectives for using the financial instruments and the characteristics of the instruments. In such circumstances, much of the audit evidence is likely to be substantive in nature, the auditor may perform the majority of the audit work at year-end, and third-party confirmations are likely to provide evidence in relation to the completeness, accuracy, and existence of the transactions.

¹⁴ ISA 330, paragraph 18

39. In reaching a decision on the nature, timing and extent of testing of controls, the auditor may consider factors such as the monitoring of controls and:
- Whether sufficient appropriate audit evidence can be obtained by performing substantive procedures alone. ISA 330 requires the auditor to design and perform tests of controls if substantive procedures alone cannot provide sufficient appropriate audit evidence at the assertion level;¹⁵
 - The strength of the control environment, including whether the control environment is appropriately designed to respond to the risks associated with an entity's volume of financial instrument transactions and whether there is a governance framework over the entity's financial instrument activities;
 - The importance of particular controls to the overall control objectives and processes in place at the entity, including the sophistication of the information systems to support financial instrument transactions;
 - Identified deficiencies in control procedures;
 - The issues the control objectives are intended to address, for example, controls related to the exercise of judgments compared with controls over supporting data. Substantive tests are more likely to be effective than relying on controls related to the exercise of judgments;
 - The competency of those involved in the control activities, for example whether the entity has adequate capacity, including during periods of stress, and ability to establish and verify valuations for the complex financial instruments in which it is engaged;
 - The frequency of performance of these control activities;
 - The level of precision the controls are intended to achieve;
 - The evidence of performance; and
 - The nature, frequency and volume of financial instrument transactions.

Substantive Procedures

40. Designing substantive tests includes consideration of:
- Significant risks relating to complex financial instruments that have been identified;
 - Availability of evidence—For example, when the entity uses a service organization, evidence concerning the relevant financial statement assertions may not be available from the entity if another organization holds, services or both holds and services the entity's complex financial instruments;¹⁶
 - Analytical procedures¹⁷—While analytical procedures undertaken by the auditor can be

¹⁵ ISA 330, paragraph 8(b)

¹⁶ See ISA 402, *Audit Considerations Relating to an Entity Using a Service Organization*, paragraph 15.

¹⁷ ISA 315, paragraph 6(b), requires the auditor to apply analytical procedures as risk assessment procedures to assist in assessing the risks of material misstatement in order to provide a basis for designing and implementing responses to the assessed risks. ISA 520, *Analytical Procedures*, paragraph 6, requires the auditor to use

effective as risk assessment procedures to provide the auditor with information about an entity's business, they are usually less effective as substantive procedures because the complex interplay of the factors from which the values of these instruments are derived often masks any unusual trends that might arise.

- Non-routine transactions—Many financial transactions are negotiated contracts between an entity and its counterparty. To the extent that financial instrument transactions are not routine and outside an entity's normal activities, a substantive audit approach may be the most effective means of achieving the planned audit objectives. In instances where financial instrument transactions are not undertaken routinely, the auditor's responses to assessed risk, including the designing and performing audit procedures, have regard to the entity's possible lack of experience in this area; and
- Procedures performed in other audit areas—Procedures performed in other financial statement areas may provide evidence about the completeness of financial instrument transactions. These procedures may include tests of subsequent cash receipts and payments, and the search for unrecorded liabilities.

Dual-Purpose Tests

41. The auditor may design a test of controls to be performed concurrently with a test of details. Although the purpose of a test of controls is different from the purpose of a test of details, both may be accomplished concurrently by performing a test of controls and a test of details on the same transaction, also known as a dual-purpose test. The auditor may often use dual-purpose tests for complex financial instruments since typically the auditor is testing management's process for valuation, and substantive tests related to completeness, accuracy, and existence are often similar to controls performed by the entity. In practice, it may be difficult to distinguish between a test of controls and a substantive test. For example, the auditor may design and evaluate the results of a test to examine the entity's written documentation for a complex financial instrument to determine whether it has been approved and to provide substantive audit evidence of the transaction. A dual-purpose test is designed and evaluated by considering each purpose of the test separately.

Timing of the Auditor's Procedures¹⁸

42. After assessing the risks associated complex financial instruments, the engagement team determines the timing of planned tests of controls and substantive audit procedures. The timing of planned audit procedures varies depending on a number of factors, including the frequency of the control operation, the significance of the activity being controlled, and the related risk of material misstatement. For less complex financial instruments, it may be effective to select an interim date to perform tests of controls and substantive audit

analytical procedures in forming an overall conclusion on the financial statements. Analytical procedures may also be applied at other stages of the audit.

¹⁸ Paragraphs 12 and 22–23 of ISA 330 establish requirements when the auditor performs procedures at an interim period and explains how such audit evidence can be used.

procedures with the objective of forming a conclusion on valuation as of the interim date. The interim date conclusion is revisited, and procedures performed, as of year-end to determine whether such conclusion remains appropriate. For more complex financial instruments, it may be effective to perform tests of controls and substantive audit procedures relative to selected elements of management's valuation as of that date. In those circumstances, further procedures are performed for purposes of forming a conclusion on valuation as of year-end.¹⁹

43. More routine controls, such as IT controls and authorizations for new products, may be tested as of an interim date. For example, to test the operating effectiveness of controls over new product approval, the auditor may gather evidence of the appropriate level of management sign-off on a new complex financial instrument for an interim period, in particular whether a signed contract has been maintained, and whether the details of the complex financial instrument have been appropriately captured in a summary sheet.
44. Auditors may also test models used for valuation as of an interim date (for example, an option pricing model), for example by evaluating the theory of the model, testing its mathematical accuracy, and testing the inputs used in the model. Auditors, or auditor's experts engaged by the auditor, may also independently develop a model at interim to compare to the model used by management as of an interim date.
45. At year-end, the auditor's focus is likely to be on the areas of more significant judgment, in particular relating to valuation and presentation and disclosure. Substantive procedures are likely to be performed at year-end because:
 - Valuations can change significantly in a short period of time, making it difficult to compare and reconcile interim balances with comparable information at the balance sheet date;
 - An entity may engage in an increased volume of financial instrument transactions substantially between an interim period and year-end; and
 - Non-routine or significant transactions may take place late in the accounting period.

Considerations for Specific Assertions Relating to Complex Financial Instruments

Completeness, Accuracy, and Existence of Complex Financial Instruments

46. If transactions regarding complex financial instruments have not been recorded, their absence may be very difficult for auditors to detect. There are, however, controls that entities can implement to help reduce the risk of incomplete or inaccurate recording of transactions, and procedures auditors can perform to address this risk. Many of the auditor's procedures to test completeness and accuracy of transactions will also serve to verify the existence and occurrence of complex financial instrument transactions and establish proper cut-off. This is because financial instruments arise from legal contracts and, by verifying the accuracy of the recording of the transaction, the auditor can also verify its existence and occurrence at the same time and confirm that transactions are recorded in the proper period.

¹⁹ Paragraphs A55–A58 of ISA 330 provide guidance on using audit evidence obtained during an interim period.

Table 4: *Controls over Completeness, Accuracy, and Existence*

Trade Confirmations and Clearing Houses

Generally, for transactions undertaken by financial institutions, the terms of complex financial instruments are documented in confirmations exchanged between counterparties or legal agreements. Clearing houses serve to monitor the exchange of confirmations by matching trades and settling them. A central clearing house is associated with an exchange and entities that clear through clearing houses typically have processes to manage the information delivered to the clearing house.

Not all transactions are settled through such an exchange. However, in many other markets there is an established practice of agreeing the terms of transactions before settlement begins. To be effective, this process needs to be run independently of those who trade the complex financial instruments to minimize the risk of fraud. In other markets, transactions are confirmed after settlement has begun and sometimes confirmation backlogs result in settlement beginning before all terms have been fully agreed. This presents additional risk because the transacting entities need to rely on alternative means of agreeing trades. These may include:

- Enforcing rigorous reconciliation controls between the records of those trading the complex financial instruments and those settling them (strong segregation of duties between the two are important), combined with strong supervisory controls over traders to ensure that they take the task of recording transactions seriously;
- Reviewing summary documentation from counterparties that highlights the key terms even if the full terms have not been agreed; and
- Thorough review of traders' profits and losses to ensure that they reconcile to what the back office has calculated.

Reconciliations with Banks and Custodians

Some components of complex financial instruments, such as bonds and shares, are held in independent depositories. In addition, most complex financial instruments result in payments of cash at some point and often these cash flows begin early in the contract's life. These cash payments and receipts will pass through an entity's bank account. Regular reconciliation of the entity's records to external banks and custodians enables the entity to ensure transactions are properly recorded. Appropriate segregation of duties between those transacting the trades and those reconciling them is important, as is a rigorous process for reviewing reconciliations and clearing reconciling items.

It should be noted that not all complex financial instruments result in a cash flow in the early stages of the contract's life or are capable of being recorded with an exchange or custodian. Where this is the case, reconciliation processes will not identify an omitted or inaccurately recorded trade and confirmation controls are more important. Even where such a cash flow is accurately recorded in the early stages of an instrument's life, this does not ensure that all characteristics or terms of the instrument (e.g., maturity, early termination option, etc.) have been recorded accurately.

In addition, cash movements may be quite small in the context of the overall size of the trade or the entity's own balance sheet and may therefore be difficult to identify. The value of

reconciliations is enhanced when finance or other back office staff review entries in all general ledger accounts to ensure that they are valid and supportable. This process will help identify if the other side to cash entries relating to complex financial instruments has not been properly recorded. Reviewing suspense and clearing accounts is important regardless of the account balance, as there may be offsetting reconciling items in the account.

In entities with a high volume of financial instrument transactions, reconciliation and confirmation controls may be automated and, if so, adequate IT controls need to be in place to support them. In particular controls are needed to ensure that data is completely and accurately picked up from external sources (such as banks and custodians) and from the entity's records and is not tampered with before or during reconciliation, and that the criteria on which entries are matched are sufficiently restrictive to prevent inaccurate clearance of reconciling items.

Other Controls over Completeness, Accuracy, and Existence

The complexity inherent in some financial instruments means that it will not always be obvious how they should be recorded in the entity's systems. In such cases, management may set up control processes to monitor policies that prescribe how particular types of transactions are measured, recorded and accounted for. These policies are typically established and reviewed in advance by suitably qualified personnel who are capable of understanding the full effects of the complex financial instruments being booked.

Some transactions may be cancelled or amended after initial execution. Application of appropriate controls relating to cancellation or amendment can mitigate the risks of material misstatement due to fraud or error. In addition, an entity may have a process in place to reconfirm trades that are cancelled or amended.

In financial institutions with a high volume of trading, a senior employee typically reviews daily profits and losses on individual traders' books to evaluate whether they are reasonable based on the employee's knowledge of the market. Doing so may enable management to determine that particular trades were not completely or accurately recorded, or may identify fraud by a particular trader. It is important that there are transaction authorization procedures that support the more senior review.

Controls may also be established that require traders to identify whether a complex financial instrument may have unique features, for example embedded derivatives. In such circumstances, there may be a separate function that evaluates complex financial instrument transactions at their initiation (which may be known as a product control group), working in connection with an accounting policy group to ensure the transaction is accurately recorded. While smaller entities may not have product control groups, an entity may have a process in place relating to the review of complex financial instrument contracts at the point of origination in order to ensure they are accounted for appropriately in accordance with the applicable financial reporting framework.

The above describes controls that may be in place in a trading room environment, while an entity that does not have this environment may not have all these controls but may confirm their transactions. Doing so may be relatively straightforward in that the entity may only transact with one or two counterparties.

Procedures relating to completeness, accuracy, and existence of complex financial instruments

47. Procedures that may provide audit evidence to support the completeness, accuracy, and existence assertions include:
- Remaining alert during the audit, when inspecting records or documents, for arrangements or other information that may indicate the existence of complex financial instruments that management has not previously identified or disclosed to the auditor. Such records and documents may include, for example:
 - Minutes of meetings of those charged with governance.
 - Specific invoices and correspondence with the entity’s professional advisors.
 - External confirmation²⁰ of bank accounts, trades, and custodian statements. This can be done by direct confirmation with the counterparty (including the use of bank letters), where a reply is sent to the auditor directly. Alternatively this information may be obtained from the counterparty’s systems through a data feed. Where this is done, controls to prevent tampering with the computer systems through which the information is transmitted may be considered by the auditor in evaluating the reliability of the evidence from the confirmation. External confirmations, however, do not provide adequate audit evidence with respect to the valuation assertion.
 - Reconciliation of external data with the entity’s own records. This may necessitate evaluating IT controls around and within automated reconciliation processes and to evaluate whether reconciling items are properly understood, followed up and dealt with.
 - Reading individual contracts and reviewing support documentation of the entity’s financial instrument transactions, including accounting records, thereby verifying existence and rights and obligations. For example, an auditor may read individual contracts associated with complex financial instruments and review supporting documentation, including the accounting entries made when the contract was initially recorded, and may also subsequently review accounting entries made for valuation purposes. Doing so allows the auditor to evaluate whether the complexities inherent in a transaction have been fully identified and reflected in the accounts.
 - Reviewing journal entries, or the internal control over the recording of such entries, to determine if entries have been made by employees other than those authorized to do so.
 - Testing controls, for example by reperforming controls described in Table 4.

Valuation of Complex Financial Instruments

48. Most complex financial instruments are classified to be measured at fair value for the purpose of balance sheet presentation, calculating profit or loss, and disclosure. This would include any embedded derivative feature that would be required to be recorded at fair value. Under

²⁰ ISA 505, *External Confirmations*, deals with the auditor’s use of external confirmation procedures to obtain audit evidence in accordance with the requirements of ISA 330 and ISA 500, *Audit Evidence*. See also the Staff Audit Practice Alert, *Emerging Practice Issues Regarding the Use of External Confirmations in an Audit of Financial Statements*, issued in November 2009.

most financial reporting frameworks, the objective of fair value measurement is to arrive at the price at which an orderly transaction would take place between market participants²¹ at the measurement date; that is, it is not a forced liquidation or a distressed sale. In meeting this objective, all relevant available market information is taken into account.

49. Fair value measurements of financial assets and financial liabilities may arise both at the initial recording of transactions and later when there are changes in value. Changes in fair value measurements that occur over time may be treated in different ways under different financial reporting frameworks. For example, such changes may be recorded as profit or loss, or may be recorded in the statement of comprehensive income. Depending on the applicable financial reporting framework, the whole complex financial instrument or only a component of it (for example, an embedded derivative) may be required to be measured at fair value.

Table 5: *Fair Value Hierarchy*

Some financial reporting frameworks, for example IFRS and U.S. Generally Accepted Accounting Principles (GAAP), establish a fair value hierarchy to develop increased consistency and comparability for disclosures within and between entities. The hierarchy classifies valuation methodology inputs into levels:

- **Level 1 inputs**—Quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date.
- **Level 2 inputs**—Inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices). If the financial asset or financial liability has a specified (contractual) term, a level 2 input must be observable for substantially the full term of the financial asset or financial liability. Level 2 inputs include the following:
 - Quoted prices for similar financial assets or financial liabilities in active markets.
 - Quoted prices for identical or similar financial assets or financial liabilities in markets that are not active.
 - Inputs other than quoted prices that are observable for the financial asset or financial liability (for example, interest rates and yield curves observable at commonly quoted intervals, volatilities, prepayment speeds, loss severities, and default rates).
 - Inputs that are derived principally from or corroborated by observable market data by correlation or other means (market-corroborated inputs).
- **Level 3 inputs**—Inputs for the financial asset or financial liability that are not based on observable market data (unobservable inputs). Unobservable inputs are used to measure fair value to the extent that relevant observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at the measurement date.

²¹ As a result, fair value is market-based and reflects the assumptions that market participants would use in pricing the asset or liability, rather than entity-specific.

In practice, however, the distinction between the levels in the hierarchy may be a matter of judgment.

Understanding management's methodology for valuing its complex financial instruments

50. ISA 540 requires the auditor to obtain an understanding of how management makes accounting estimates and the data on which accounting estimates are based.²² Management's responsibility for the preparation of the financial statements includes applying the requirements of the applicable financial reporting framework to the valuation of complex financial instruments. Management's approach to valuation also takes into account the selection of an appropriate valuation methodology and the level of the evidence expected to be available. To meet the objective of a fair value measurement, an entity develops a valuation methodology to measure the fair value of complex financial instruments that considers all relevant market information that is available. A thorough understanding of the complex financial instrument being valued allows an entity to identify and evaluate the relevant market information available about identical or similar instruments that should be incorporated into the valuation methodology.
51. Such information to be considered includes, for example:
- Prices from recent transactions in the same or a similar instrument;
 - Quotes from brokers or pricing services;
 - Indices; and
 - Other observable inputs to model-based valuation techniques.
52. An entity uses such information to measure the fair value of its complex financial instruments by assessing all available information and applying it as appropriate. The valuation methodology may be simple and may consist of the use of observable prices (level 1), or may be more complex, and involve the use of one or more models to calculate assumptions or inputs used in a valuation, or the output of the valuation. Models can be used for any financial instrument that involves inferring a price for the instrument from market data. Unless a complex financial instrument is traded on an exchange or other market, it is likely that a model will be used in its valuation. Models may also be used to calculate inputs to other models, such as prepayment speeds and discounted cash flows. Risks of material misstatement relating to valuation of complex financial instruments primarily relate to the risk that that an inappropriate model(s) was used, and the risk that the entity has not used the appropriate information to support its valuations, including assumptions and inputs to any models (for example, if level 1 information is available but not used).

²² ISA 540, paragraph 8(c)

Table 6: *An Entity's Considerations when Using Models in a Valuation Methodology*

Models are used to value financial instruments, including complex financial instruments, where the price cannot be directly observed in the market (that is, for levels 2 and 3 in the fair value hierarchy, which may range from relatively simple to extremely complex). There can be a number of reasons for this. For example, markets might quote only for certain standard transactions such as those with one, three and five year maturities. For example, an OTC transaction with an original maturity of five years will therefore only have a directly observable quote on three days during its life, because for the remainder of the time, its terms do not match one, three or five years. In addition many transactions are not directly quoted in the market place but are constructed through combinations of more simple interest rate, foreign exchange rate and other products.

Depending on the circumstances, matters that the entity may address when establishing or validating a valuation model for a complex financial instrument, include whether:

- The model is validated prior to usage, with periodic reviews to ensure it is still suitable for its intended use. The entity's validation process may include evaluation of:
 - The model's theoretical soundness and mathematical integrity, including the appropriateness of model parameters and sensitivities.
 - The consistency and completeness of the model's inputs with market practices, and whether the appropriate inputs are available for use in the model.
 - The model's output, including sensitivities, as compared to actual transactions (internal or external) or other relevant benchmarks.
- Appropriate change control policies and procedures, and security controls over the model, exist.
- The model is periodically calibrated, reviewed and tested for validity by an independent function, particularly when inputs are subjective. Doing so is a means of ensuring that the model's output is a fair representation of the value that marketplace participants would ascribe to a complex financial instrument.
- The model maximizes the use of relevant observable inputs and minimizes the use of unobservable inputs.
- Adjustments are made to the output of the model, including in the case of fair value accounting estimates of complex financial instruments, whether such adjustments reflect the assumptions marketplace participants would use in similar circumstances.
- The model is adequately documented, including the model's intended applications and limitations and its key parameters, required inputs, and results of any validation analysis performed.

Valuation uncertainty

53. Valuing complex financial instruments is not a precise science. For this reason, management's valuation methodology for a complex financial instrument typically addresses valuation uncertainty. As noted in paragraph 9, valuation uncertainty is an aspect of estimation uncertainty. Uncertainties over the reliability of market quotes, the validity of models and the accuracy of their calibration to actual market activity will exist, particularly for highly complex financial instruments that are not actively traded.
54. Certain financial reporting frameworks may require or permit the entity to adjust for valuation uncertainties, in order to adjust for what a willing buyer would require in the pricing to take account of the uncertainties of the outcome of the complex financial instrument. For example, if such an instrument was sold, a buyer would reduce their price to reflect these uncertainties and the risks that (s)he was thereby assuming. Estimating the level of adjustment required for such factors involves a high level of judgment and will be specific to each entity and its applicable financial reporting framework. Consideration of all the factors taken into account in the valuation process and the use of experience and judgment will assist the auditor in evaluating the amount of the adjustment for valuation uncertainty, if any. The auditor may need to engage individuals with specialized skills or knowledge to assist in doing this.
55. When using a model, an entity may periodically calibrate the model to observable market information to ensure that the model reflects current market conditions and to identify any potential deficiencies in the model. As market conditions change, it may become necessary either to change the model(s) used or to make additional adjustments to model valuations.
56. For example, it may be necessary for the entity to adjust model derived prices for factors that the model cannot take into account in order to reflect assumptions that market participants would use, for example:
 - Credit spreads. Some market prices are quoted for an assumed level of credit risk. Adjustments should be made for counterparties, which do not match this assumption.
 - Bid/offer spreads. Some accounting frameworks require the bid/offer spread to be taken into account when valuing complex financial instruments. If the price quoted does not reflect this, appropriate adjustments will need to be made.
 - Model deficiencies. For example, adjustments needed to calibrate the model to observable market information, and liquidity and credit adjustments that market participants would make. A value measured using a model that does not take into account all factors that market participants would consider in pricing the complex financial instrument does not represent an estimate of a current transaction price on the measurement date, and therefore may need to be adjusted separately to comply with the applicable financial reporting framework.

However, adjustments are not appropriate if they adjust the measurement and valuation of the complex financial instrument away from fair value as defined by the applicable financial reporting framework, for example for conservatism.

57. It is expected that management will document its valuation policies and methodology used for a particular complex financial instrument, including rationale for the model(s)

used, the selection of assumptions in the valuation methodology, and the entity's consideration of whether adjustments for valuation uncertainty are necessary. This documentation provides evidence used by the auditor in determining the nature, timing, and extent of procedures on valuation.

Observable and unobservable inputs

58. The nature and reliability of information available to support valuation of complex financial instruments varies depending on the observability of inputs to its measurement, which is influenced by the nature of the market (e.g., the level of market activity and whether it is through an exchange or over-the-counter (OTC)). Accordingly, there is a continuum of evidence used to support valuation, and it becomes more difficult for management to obtain information to support a valuation when management is dealing with level 3 inputs or when markets become inactive.
59. When observable inputs are not available, an entity uses unobservable inputs that reflect the assumption that market participants would use when pricing the financial asset or the financial liability, including assumptions about risk. Unobservable inputs are developed using the best information available in the circumstances. In developing unobservable inputs, an entity may begin with its own data, which is adjusted if reasonably available information indicates that (a) other market participants would use different data or (b) there is something particular to the entity that is not available to other market participants (for example, an entity-specific synergy), and the entity is able to quantify these adjustments.
60. When the market for a complex financial instrument is no longer active, an entity often measures fair value using a valuation methodology that involves a model. The use of a model within an entity's valuation technique aims to maximize the use of observable inputs and minimize the use of unobservable inputs in order to estimate the price at which an orderly transaction would take place between market participants on the measurement date. Regardless of the valuation methodology used, an entity takes into account current market conditions and includes appropriate risk adjustments that market participants would make, such as for credit and liquidity.

Table 7: *Effects of Inactive Markets*

Valuation is more complicated when the markets in which complex financial instruments or their component parts are traded are inactive or where no price is observable. There is no clear point at which an active market becomes inactive.

Characteristics of an inactive market include a significant decline in the volume and level of trading activity, available prices vary significantly over time or among market participants or the prices are not current. However, these factors alone do not necessarily mean that a market is no longer active. An active market is one in which transactions are taking place regularly on an arm's length basis. "Regularly" is a matter of judgment and depends on facts and circumstances of the market for the complex financial instrument being measured at fair value.

When markets are inactive, measuring complex financial instruments becomes more difficult because of the lack of observable trades and other market data. Prices quoted may be stale (that is, out of date) or may not represent prices at which market participants may trade.

Accordingly, valuations are based on level 2 and level 3 inputs. Under such circumstances it is generally desirable for entities to have:

- A valuation policy that includes a process for determining whether level 1 inputs are available;
- An understanding of how particular prices or inputs from external sources used as inputs to models were calculated in order to assess their reliability. For example, in an active market, a broker quote is likely to reflect actual transactions, but, as the market becomes less active, the broker may rely more on proprietary models to determine prices;
- An understanding of how deteriorating business conditions in one or more entities similar to the counterparty may affect the counterparty's ability to meet its obligations (i.e., the risk of nonperformance);
- Policies for adjusting for valuation uncertainties. Such uncertainties can include lack of liquidity, uncertainties arising from model calibration and nonperformance credit risks; and
- The capability to calculate the range of realistic outcomes given the uncertainties involved, for example by performing a sensitivity analysis.

Where there is no pricing source based upon current observable market trading, the entity will be using level 3 inputs. It is therefore necessary for the entity to gather other price indicators to use in a model to value the complex financial instrument. Price indicators may include:

- Recent transactions, including transactions after the balance sheet date in the same instrument. Consideration is given to whether an adjustment needs to be made for changes in market conditions between the measurement date and the date the transaction was made, as these transactions are not necessarily indicative of the market conditions that existed at the balance sheet date. In addition it is possible that the transaction represents a forced transaction and is therefore not indicative of a price in an orderly trade. Indicators of a forced transaction may include:
 - A legal requirement to transact, for example a regulatory mandate.
 - A necessity to dispose of an asset immediately to create liquidity, resulting in insufficient time to market the asset to be sold.
 - The existence of a single potential buyer as a result of the legal or time restrictions imposed;
- Current or recent transactions in similar instruments. Adjustments will need to be made to such prices to reflect the difference between them and the instrument being priced and to take account of differences in liquidity between the two instruments; and
- Indices for similar instruments. As with transactions in similar instruments, adjustments will need to be made to reflect the difference between the instrument being priced and the index used.

Particular difficulties may develop where there is severe curtailment or even cessation of trading in particular complex financial instruments. In these circumstances, complex financial instruments that have previously been valued using market prices may need to be

valued on a mark to model basis, and changing the manner in which the complex financial instruments are valued may be a difficult process for management, in particular when management does not possess expertise in modeling.

Source of inputs to a valuation methodology

61. Inputs represent assumptions used by management to support valuations.²³ Inputs to a valuation methodology may be obtained or calculated by the entity in a number of ways:
- From external sources, for example, exchanges, indices, brokers, and pricing services;
 - By adjustment to external sources to reflect assumptions that would be used by marketplace participants; and
 - By using the outcome of one or more models as an input to another model.
62. Assumptions are integral components in the valuation of complex financial instruments, as they are used as inputs to valuation models. Management may support assumptions with different types of information drawn from internal and external sources, the relevance and reliability of which will vary.
63. The best indicators of evidence of a complex financial instrument's fair value are found in contemporaneous transactions in an active market (i.e., level 1 inputs). In such cases, the valuation of a complex financial instrument may be relatively simple. Quoted market prices for complex financial instruments that are listed on exchanges or traded in liquid over-the-counter markets may be available from sources such as financial publications, the exchanges themselves, brokers or pricing services, for example prices for interest rate swaps that are based on the London Interbank Offered Rate (LIBOR). When using quoted prices, it is important that management understand the basis on which the quote is given to ensure that the price reflects current market conditions. Quoted prices obtained from publications or exchanges may provide sufficient evidence of value if:
- The prices are not out of date or "stale" (for example, if the quote is based on the last traded price and the trade occurred some time ago); and
 - The quotes are prices at which dealers would actually trade in reasonable volume.
64. However, in many cases complex financial instruments are not actively traded, but components of their valuations are based on observable data (such as interest rate curves, or the assets underlying options), for example, an ABS whose cash flows are tracked by a pricing service. In such cases, management may take the available cash flow data and adjust for certain factors such as prepayment speed and default rates. This moves the valuation into levels 2 and 3, the assessment of which becomes more judgmental for both the entity and the auditor.
65. Exchange prices can be used as inputs to valuation models to derive estimates for fair value of complex financial instruments. Theoretical prices for customized products may be created by breaking down complex financial instruments into a series of listed options or futures,

²³ Paragraph A32 of ISA 540 notes that the term "inputs" may also be used to refer to the underlying data to which specific assumptions are applied.

weighted by standard expiry dates. Many complex financial instruments are likely to be correlated to security and derivative contracts already listed and traded on exchanges. However, management may need to take into account basis differences, credit risk, and other factors in arriving at a valuation.

66. Pricing information may also be obtained from brokers or pricing services.²⁴ Quotes obtained from brokers are not always binding offers to trade and hence may not represent a price at which a transaction would actually take place (referred to as “indicative prices”). Understanding how the broker or pricing services calculated a price enables management to determine whether such data is suitable for use in its valuation methodology, including as an input to a model. For example, brokers and pricing services may value complex financial instruments using proprietary models, and it is important that management understands both the model and assumptions used. Pricing services may also poll a number of market participants and brokers anonymously to obtain prices, which are then averaged in some way to produce a “consensus price.” Pricing services may combine a number of approaches to arrive at a price.
67. An entity may also use pricing data from consensus pricing services as inputs to their models. Consensus pricing services obtain pricing information about an instrument from several participating entities (subscribers). Each subscriber submits prices to the pricing service. The pricing service treats this information confidentially. The pricing service returns to each subscriber the consensus price, which is usually an arithmetical average of the data after a data cleansing routine has been employed.²⁵ For some markets, such as for exotic derivatives, consensus pricing services might constitute the best available data. However, many factors are considered when assessing the representational faithfulness of the consensus prices including, for example:
- Whether the prices submitted by the consensus subscribers reflect actual transactions or just indicative prices based on their own models.
 - The number of sources from which prices have been obtained.
 - The quality of the sources used by the consensus pricing service.

Due to the nature of a consensus pricing service, other sources of evidence in addition to information from pricing services may be needed to support management’s valuation. In particular, this may be the case if the sources are providing indicative prices based on their own models and management is unable to obtain an understanding of how these sources calculated their prices.

68. If broker quotes or quotes obtained from pricing services are not based on current prices of actively traded instruments, it will be necessary for management to evaluate whether the

²⁴ For more information on broker quotes and pricing services, see the October 2008 IASB Expert Advisory Panel report, *Measuring and Disclosing the Fair Value of Financial Instruments in Markets that are no Longer Active*.

²⁵ Some consensus pricing services may provide reports for users of its data to explain their controls over pricing data, that is, a report prepared in accordance with International Standard on Assurance Engagements (ISAE) 3402, *Assurance Reports on Controls at a Service Organization*. Management may request, and the auditor may consider obtaining, such a report to develop an understanding of how the pricing data is prepared and evaluate whether the controls at the pricing service can be relied upon.

quotes were derived in a manner that is consistent with the applicable financial reporting framework. The entity's understanding of the prices includes:

- How the prices were determined—for example, whether the prices were determined by a model, in order to assess whether they are consistent with the fair value measurement objective;
- Whether the prices are indicative prices, indicative spread, or binding offers; and
- How frequently the prices are estimated by the broker or pricing service—in order to assess whether they reflect marked conditions at the measurement date.

Understanding the bases on which brokers and pricing services have determined their quotes in the context of the particular complex financial instruments held by the entity assists management in evaluating the relevance and reliability of this evidence to support its valuations.

69. If a price obtained by management comes from a counterparty (for example, the broker who sold the complex financial instrument to the entity) or another entity with a close relationship with the entity being audited, the price may not be reliable. In such cases, additional quotes are often obtained from counterparties or pricing services that do not have a close relationship to the entity. In these cases, the auditor may consider this in determining the nature, timing and extent of audit procedures to be performed.
70. It is possible that there will be disparities between price indicators from different providers. Understanding how the price indicators were derived, and investigating these disparities, assists management in corroborating the evidence used in developing its valuation of complex financial instruments in order to evaluate whether the valuation is reasonable. Simply taking the average of the quotes provided, without doing further research, may not be appropriate, because one price in the range may be the most representative of fair value and this may not be the average. To evaluate whether its valuations of complex financial instruments are reasonable, management may:
 - Consider whether actual transactions represent forced transactions rather than transactions between willing buyers and willing sellers. This may invalidate the price as a comparison;
 - Analyze the expected future cash flows of the instrument. This could be performed as an indicator of the most relevant pricing data;
 - Depending on the nature of what is unobservable, extrapolate from observed prices to unobserved ones (for example, there may be observed prices for maturities up to ten years but not longer, but the ten year price curve may be capable of being extrapolated beyond ten years as an indicator). Care is needed to ensure that extrapolation is not carried so far beyond the observable curve that its link to observable prices becomes too tenuous to be reliable;
 - Compare prices within a portfolio of complex financial instruments to each other to make sure that they are consistent among similar complex financial instruments;
 - Use more than one valuation model to corroborate the results from each one, having regard to the inputs and assumptions used in each; and

- Evaluate movements in the prices for related hedging instruments and collateral.

In coming to its judgment as to its valuation, an entity may also consider other factors that may be specific to the entity's circumstances.

71. Understanding the credit risk is an important aspect of valuing both financial assets and financial liabilities. This valuation reflects the credit quality and financial strength of both the issuer and any credit support providers. In some financial reporting frameworks, the measurement of a financial liability assumes that it is transferred to a market participant on the measurement date; it is not assumed to be settled with the counterparty or otherwise extinguished. Where there is not an observable market price for a financial liability, its value is typically measured using the same method as a counterparty would use to measure the value of the corresponding asset. Considerations in valuing complex financial liabilities are the same as valuing complex financial assets, with the exception of own credit risk, which may need particular attention.
72. In relation to the fair value of financial liabilities, changes in the entity's credit risk that may affect its value are known as the entity's own credit risk. This is the amount of change in fair value that is not attributable to changes in market conditions, and can often be difficult to measure. The fair value of a financial liability also reflects the non-performance risk associated with the liability. The role of credit risk in valuing financial liabilities increases in importance subsequent to initial recognition of a financial instrument, because a deterioration in an entity's own credit quality (leading to a lower fair value for its liabilities) may result in the entity reporting a gain in profit or loss. The requirements of the applicable financial reporting framework, including how own credit risk is calculated is an important assumption for the auditor to evaluate in testing the valuation of a financial liability.

Use of management's experts and service organizations

73. The preparation of an entity's financial statements, including the valuation of complex financial instruments and the preparation of financial statement disclosures relating to these instruments, may require expertise that management does not possess. Entities may not be able to develop appropriate valuation methodologies, including models used in valuation, and may rely on third-party valuation experts to arrive at a valuation or to prepare disclosures for the financial statements. This may particularly be the case in smaller entities or in entities that do not engage in a high volume of financial instruments transactions (for example, non-financial institutions with treasury departments). In such cases, management often engages third-party experts to provide assistance with valuation of its complex financial instruments.
74. Where such expertise is in a field other than accounting or auditing, such as valuation, individuals or organizations possessing such expertise who are used by the entity to assist it in preparing the financial statements are referred to as management's experts. Management's experts may be employed by the entity (management's internal experts, for example, quantitative staff) or engaged by the entity (management's external experts, for example, third-party valuation specialists). The use of one or more management's experts may be fairly common, regardless of the size of the entity.

75. The use of a management's expert does not relieve management or those charged with governance of their responsibilities for the preparation of the financial statements. In measuring the entity's complex financial instruments, management may support its valuation with information from internal and external sources, the relevance and reliability of which will vary. Management's experts supplement, but do not replace, management's own process for valuation. Assumptions may be made or identified by a management's expert to assist management in valuing its complex financial instruments. Such assumptions, when used by management, become management's assumptions.
76. Understanding the methodology used by management's experts to develop assumptions, therefore, enables management to meet its responsibilities for ensuring the complex financial instruments recorded in the financial statements are properly valued and presented and providing written representations to the auditor about whether they believe significant assumptions used valuing the complex financial instruments are reasonable.
77. Brokers and pricing services often have expertise in the application of models to estimate the fair value of complex financial instruments for which there is no observable market and may offer such services to entities in addition to providing pricing data. For example, an entity may engage a broker or pricing services to value an entity's complex financial instrument portfolio, typically by using proprietary models. In such cases, the broker or pricing service would likely be considered a management's expert. Entities that use pricing services on a contractual basis to provide routine pricing data use in an entity's models may not necessarily be considered to be a management's expert. Regardless of whether such individuals or organizations are considered management's experts, management's understanding includes the process described in paragraph 68.
78. Entities may also use service organizations (for example asset managers) to initiate the purchase or sale of complex financial instruments or maintain records of transactions for the entity. Some entities may be dependent on these service organizations to provide the basis of reporting for the complex financial instruments held. However, if management does not have an understanding about the controls in place at a service organization, the auditor may not be able to obtain sufficient appropriate audit evidence to rely on controls at that service organization. See ISA 402, which establishes requirements for the auditor to obtain sufficient appropriate audit evidence when an entity uses the services of one or more service organizations.
79. The use of service organizations may strengthen controls over complex financial instruments. For example, a service organization's personnel may have more experience with complex financial instruments than the entity's management or may have more robust internal control over financial reporting. The use of the service organization also may allow for greater segregation of duties. On the other hand, the use of a service organization may increase risk because it may have a different control environment that is not in line with the entity's accounting policies or process transactions at some distance from the entity.

Consistency of valuation methodology across periods

80. Consistency is generally a desirable quality in financial information, but may be inappropriate if circumstances change. As markets become inactive, the change in circumstances may lead

to a move from valuation by market price to valuation by model, or may result in a change from one particular model to another. Reacting to changes in valuation techniques may be difficult if management does not have policies in place to consider the ramifications of changing market conditions, prior to their occurrence. Management may also not possess the expertise necessary to develop a model on an urgent basis, or select the valuation technique that may be appropriate in the circumstances. Even where models have been consistently used, there is a need for management to examine the continuing appropriateness of the models and assumptions used for determining valuation of complex financial instruments. Further, models may have been calibrated in times where reasonable market information was available, but may not provide reasonable valuations in times of unanticipated stress.

81. The susceptibility to management bias increases with the subjectivity of the valuation. For example, management may tend to ignore observable marketplace assumptions or inputs and instead use their own internally-developed model if the model yields more favorable results. Even without fraudulent intent, there may be a natural temptation to bias judgments towards the most favorable end of what may be a wide spectrum, rather than the point in the spectrum that might be considered to be most consistent with the applicable financial reporting framework. Changing the valuation methodology from period to period without a clear and appropriate reason for doing so may also be an indicator of management bias. Although some form of management bias is inherent in subjective decisions relating to the valuation of complex financial instruments, when there is intention to mislead, management bias is fraudulent in nature.

Procedures relating to understanding and testing the valuation of complex financial instruments

82. Table 5 discusses the establishment of a fair value hierarchy by some financial reporting frameworks. The objective of a fair value measurement is the same regardless of the level of the hierarchy. As the inputs become less observable, the degree of estimation uncertainty increases and affects the auditor's assessment of the risks of material misstatements. As estimation uncertainty increases, the availability of evidence to support a particular valuation decreases, requiring more judgment by both management and the auditor and may represent a significant risk, as it may be challenging for the auditor to substantiate the valuations of complex financial instruments with unobservable inputs.
83. In accordance with ISA 540,²⁶ the auditor considers the entity's valuation policies and methodology and supporting documentation for inputs and assumptions used in the valuation methodology. In some cases, the applicable financial reporting framework may prescribe the valuation methodology for complex financial instruments, for example, a particular model to be used. In many cases, however, the applicable financial reporting framework does not prescribe the valuation methodology. When this is the case, matters that may be relevant to the auditor's understanding of management's methodology used to value complex financial instruments include, for example:
- Whether management has a formal valuation policy and, if so, whether the valuation methodology used for a complex financial instrument is appropriately documented in accordance with that policy;

²⁶ ISA 540, paragraph 8(c)

- How management considered the nature of the complex financial instrument to be valued when selecting a particular methodology;
 - Whether there is a greater risk of material misstatement because management has internally developed a model to be used to value complex financial instruments or is departing from a method commonly used to value the particular complex financial instrument;
 - Whether those involved in developing and applying the valuation methodology have the appropriate skills and expertise to do so, including whether a management's expert may have been used; and
 - Whether there are indicators of management bias in selecting the methodology to be used.
84. In testing how management values the complex financial instrument and in responding to the assessed risks of material misstatement in accordance with ISA 540,²⁷ the auditor undertakes one or more of the following options, taking account of the nature of the accounting estimates:
- (a) Determine whether events occurring up to the date of the auditor's report provide audit evidence regarding the accounting estimate.
 - (b) Test how management made the accounting estimate and the data on which it is based (including models used by the entity in its valuations).
 - (c) Test the operating effectiveness of the controls over how management made the accounting estimate, together with appropriate substantive procedures.
 - (d) Develop a point estimate or a range to evaluate management's point estimate.

This section of the IAPS deals primarily with the auditor's procedures to test how management made the accounting estimate and the data on which it is based and to develop a point estimate or range to evaluate management's point estimate.²⁸ While subsequent events may provide some evidence about the valuation of complex financial instruments, other factors may need to be taken into account to address any changes in market conditions subsequent to the balance sheet date.

85. Audit procedures to test how management values its complex financial instruments may include:
- Reviewing and assessing the judgments made by management, for example by reviewing accounting position papers prepared by management;
 - Considering whether there are any other relevant price indicators or factors to take into account, including requesting additional information that management may have collected but did not take into account in its valuation methodology;
 - Obtaining third-party evidence of price indicators, for example by obtaining a broker quote;

²⁷ ISA 540, paragraphs 12–14

²⁸ ISA 540, paragraphs 13(b) and 13(d)

- Assessing the mathematical accuracy of the methodology employed; and
- Testing data to source materials, including documentation to support inputs, after considering the reliability, completeness and accuracy of the source materials.

The auditor may consider using persons with specialized skills and knowledge to perform these audit procedures, in particular when management has used an expert to value the complex financial instrument. If such expertise is not available within the auditor's firm, the auditor may need to engage external auditor's experts.

86. When the auditor determines that testing how management made the accounting estimate is an appropriate response to the assessed risk of material misstatement in accordance with ISA 540,²⁹ the auditor tests the models and assumptions and inputs, regardless of whether management develops the estimates themselves, uses third-party information, or utilizes a management's expert.
87. When markets become inactive or dislocated, management's valuations may be more judgmental and less verifiable and, as result, may be less reliable. In such circumstances, the auditor may test the model by a combination of testing controls operated by the entity, evaluating the design and operation of the model, testing the assumptions and inputs used in the model, and comparing its output to a point estimate or range developed by the auditor or to other third-party models.³⁰
88. In addition, the auditor's industry knowledge, knowledge of market trends and understanding of other entities' valuations (having regard to confidentiality) and other relevant price indicators informs the auditor's testing of the valuations and the consideration of whether the valuations overall appear reasonable. If the valuations appear to be consistently overly aggressive or conservative, this may be an indicator of possible management bias.
89. Obtaining prices from multiple sources may be useful to see the range of prices. A wide range of prices indicates higher estimation uncertainty and may suggest that the complex financial instrument is sensitive to small changes in inputs and assumptions. A narrow range may indicate lower estimation uncertainty and may suggest less sensitivity to small changes in inputs and assumptions. Simply obtaining prices from multiple sources does not substitute for gaining an understanding of and testing inputs and assumptions that underlie the price used by the entity to value its position. In addition, what appear to be multiple sources of pricing information may be utilizing the same prices and therefore not really represent multiple prices that are independently determined.
90. If management and the auditor have utilized the same pricing service or broker to obtain a price, utilizing an alternative source of pricing information may be useful in addition to the auditor independently gaining an understanding of and testing the inputs and assumptions used by the broker or pricing service.

²⁹ ISA 540, paragraph 13(b)

³⁰ ISA 540, paragraph 13(d) describes requirements when the auditor develops a point estimate or range to evaluate the entity's point estimate. Models developed by third parties and used by the auditor may be considered the work of an auditor's expert and subject to the requirements in ISA 620.

Significant risks

91. The auditor's risk assessment process may lead the auditor to identify one or more significant risks relating to the valuation of complex financial instruments, when any of the following circumstances exist:
- High estimation uncertainty related to the valuation of complex financial instruments (for example, those with unobservable inputs).³¹
 - Lack of sufficient evidence to support management's valuation of its complex financial instruments.
 - Lack of management understanding of its complex financial instruments or expertise necessary to value such instruments properly, including the ability to determine whether valuation adjustments to valuations from models are needed.
 - Lack of management understanding of complex requirements in the applicable financial reporting framework relating to measurement and disclosure of complex financial instruments, and inability of management to make the judgments required to properly apply those requirements.
 - The significance of valuation adjustments made to model outputs when the applicable financial reporting framework requires or permits such adjustments.
92. For accounting estimates that give rise to significant risks, in addition to other substantive procedures performed to meet the requirements of ISA 330, ISA 540³² requires the auditor to evaluate the following:
- (a) How management has considered alternative assumptions or outcomes, and why it has rejected them, or how management has otherwise addressed estimation uncertainty in making the accounting estimate.
 - (b) Whether the significant assumptions used by management are reasonable. Auditing the valuation of a complex financial instrument requires the auditor to use professional judgment, due to the estimation uncertainty associated with many complex financial instruments.

Evaluating models used by the entity

93. When evaluating whether the models used by an entity are appropriate in the circumstances, and whether controls over models are in place and operating effectively (see Table 6), the factors considered by the auditor may include:
- The theoretical models being used. For example, there are a number of option pricing models and it is important that the uncertainty inherent in the assumptions underlying each one are understood and taken into account in the valuations;
 - Whether the models are commonly used by other market participants and have been

³¹ Where the auditor determines that the high estimation uncertainty related to the valuation of complex financial instruments gives rise to a significant risk, ISA 540 requires the auditor to perform substantive procedures and evaluate the adequacy of the disclosure of their estimation uncertainty. See ISA 540, paragraphs 11, 15 and 20.

³² ISA 540, paragraph 15(a)-(b)

previously demonstrated to provide a reliable estimate of prices obtained from market transactions;

- Whether the models operate as intended and there are no flaws in their design, particularly under extreme conditions, and whether they have been independently validated;
- Whether the models take account of the risks inherent in the financial instrument being valued, including counterparty creditworthiness, and own credit risk in the case of models used to measure financial liabilities;
- Who developed the models and whether their design could have been unduly influenced by traders or others who may not be objective;
- How the models are calibrated to the market, including how sensitive the models are to changes in variables and whether this reflects market behavior;
- Whether market variables and assumptions are used consistently and whether new conditions justify a change in the models, market variables or assumptions used;
- Whether sensitivity analyses indicates that valuations would change significantly with only small or moderate changes in assumptions; and
- The competence and objectivity of those responsible for the development and application of the models, including management's relative experience with particular models that may be newly developed.

The auditor (or auditor's expert) may also independently develop one or more models to compare its output with that of the models used by management.

Evaluating whether the assumptions and inputs used by management are reasonable

94. An assumption used in a valuation methodology may be deemed to be significant if a reasonably possible variation in the assumption would materially affect the measurement of the complex financial instrument.³³ Management may have considered alternative assumptions or outcomes by performing a sensitivity analysis. The extent of subjectivity associated with assumptions influences the degree of estimation uncertainty and may lead the auditor to conclude there is a significant risk, for example in the case of level 3 inputs (see paragraphs 91–92).
95. Audit procedures to test the assumptions used by management, including those used as inputs to valuation models, are based on information available to the auditor at the time of the audit and may include evaluating:
 - Whether management has the intent and ability to carry out certain courses of actions that affect its assumptions (if taking these intentions or plans into account is permitted by the applicable financial reporting framework);
 - Whether and, if so, how management has incorporated market-specific inputs into the development of assumptions, as it is generally preferable to seek to maximize

³³ See ISA 540, paragraph A107.

market-specific inputs and minimize entity-specific inputs;

- Whether the assumptions are consistent with observable market conditions, and the characteristics of the financial asset or financial liability;
 - Whether the sources of market-participant assumptions are relevant and reliable, and how management has selected the assumptions to use when a number of different marketplace assumptions exist;
 - Whether the inputs to the models are complete and appropriate for the model, including whether sources of the inputs have changed during the period; and
 - Whether sensitivity analyses indicate that valuations would change significantly with only small or moderate changes in assumptions.
96. In some cases, one particular assumption may be adjusted to account for the uncertainties in the valuation, rather than adjusting each assumption. In many cases, this is the discount rate used in the present value calculation, which is adjusted to reflect what willing buyers in the marketplace would pay. In such cases, an auditor's procedures may focus on the discount rate, by looking at an observable trade on a similar security to compare the discount rates used or developing an independent model to calculate the discount rate and compare with that used by management.
97. Where valuation of complex financial instruments is based on unobservable inputs, matters that the auditor may consider include, for example, how management supports the following:
- The identification and characteristics of marketplace participants relevant to the complex financial instrument.
 - How models are calibrated on day 1 to determine the unobservable inputs.
 - Modifications it has made to its own assumptions to reflect its view of assumptions marketplace participants would use.
 - Whether it has incorporated the best input information available in the circumstances.
 - Where applicable, how its assumptions take account of comparable transactions, financial assets or financial liabilities.
 - Sensitivity analysis of models when unobservable inputs are used and whether adjustments have been made to address valuation uncertainty.
98. Where there is a lack of observable external evidence, it is particularly important that those charged with governance have been appropriately engaged to understand the subjectivity of management's valuations and the evidence that has been obtained to support these valuations. In such cases, it may be necessary for the auditor to evaluate whether there has been a thorough review and consideration of the issues, including any documentation, at all appropriate management levels within the entity, including with those charged with governance.
99. Finally, it is likely that in testing the inputs used in an entity's valuation methodology, for example, where such inputs are classified in the fair value hierarchy, the auditor will also be obtaining evidence to support the disclosures required by the applicable financial reporting

framework. For example, the auditor's substantive procedures to evaluate whether the inputs used in an entity's valuation methodology (that is, level 1, level 2 and level 3 inputs) are appropriate and testing of an entity's sensitivity analysis will be relevant to the auditor's evaluation of whether the disclosures achieve fair presentation.

Considerations when a management's expert or service organization is used by the entity

100. The use of a management's expert or service organization may have implications for the auditor, including the auditor's decision whether to involve persons with specialized skills or knowledge and the auditor's procedures to evaluate the sufficiency and appropriateness of evidence to support the complex financial instruments measured or disclosed in the financial statements.
101. For example, management of the entity may not have access to details of the model(s) used, and the key assumptions, used by brokers and pricing services to value complex financial instruments. The auditor may not be able to obtain sufficient appropriate audit evidence in order to conclude about the reasonableness of the valuation of the complex financial instruments if management is unable to understand:
 - The assumptions and inputs used by the management's expert in valuing the complex financial instruments in order to evaluate whether these assumptions are appropriate; or
 - The objectives of the valuation model in order to ensure it uses the measurement criteria of the applicable financial reporting framework.
102. ISA 500 establishes requirements for the auditor when information to be used as audit evidence has been prepared using the work of a management's expert.³⁴ The extent of the auditor's procedures in relation to a management's expert and that expert's work depend on the significance of the expert's work for the auditor's purposes. Evaluating the appropriateness of management's expert's work assists the auditor in assessing whether the prices or valuations supplied by a management's expert provide sufficient appropriate audit evidence to support the valuations. Examples of procedures the auditor may perform include:
 - Evaluating the competence, capabilities and objectivity of the third-party bank or other financial institution, for example: their relationship with the entity; their reputation and standing in the market; their experience with the particular types of instruments; and their understanding of the relevant financial reporting framework applicable to the valuations; and
 - Evaluating the appropriateness of the valuations and sensitivities developed by management's expert, including assessing the appropriateness of the model(s) used and the key market variables and assumptions used in the model(s).

Developing a range

103. An auditor may develop a model and adjust the inputs and assumptions used in the model to develop a range for use in evaluating the reasonableness of management's estimate of

³⁴ ISA 500, paragraph 8

value. In accordance with ISA 540,³⁵ if the auditor uses assumptions, inputs, or a methodology that differs from management's, the auditor shall obtain an understanding of management's assumptions, inputs, and methodology sufficient to establish that the auditor's range takes into account relevant variables and to evaluate any significant differences from management's valuation.

104. If the auditor concludes that sufficient evidence cannot be obtained from the above procedures, for example where the third party uses internally developed models and software and does not allow access to information on the models, the auditor may not be able to obtain sufficient appropriate audit evidence about the valuation if the auditor is unable to perform other procedures to respond to the risks of material misstatement as explained in paragraph 13 of ISA 540, for example by developing a point estimate or a range to evaluate management's point estimate. ISA 705³⁶ describes the implications of the auditor's inability to obtain sufficient appropriate audit evidence.

Presentation and Disclosure of Complex Financial Instruments

105. Management's responsibilities include the preparation of the financial statements in accordance with the applicable financial reporting framework.³⁷ Disclosures in the financial statements are intended to enable users of the financial statements to make meaningful assessments of the effects of the entity's financial instrument activities, including the risks and uncertainties associated with these complex financial instruments. Accordingly, disclosures are of equal importance to the amounts recorded in the financial statements relating to financial instrument activities. Disclosures are most effective when they:

- Faithfully represent the underlying transactions and events, and illustrate how amounts recognized in the balance sheet, income statement, or statement of changes in equity relate to other quantitative and qualitative disclosures;
- Provide comprehensive and meaningful information that fully describes the entity's risks and exposures from complex financial instruments and allow users to have an adequate understanding of the entity's financial instrument transactions (including reasonably possible alternative outcomes); and
- Allow for comparison over time and between entities.

106. In representing that the financial statements are in accordance with the applicable financial reporting framework, management implicitly or explicitly makes assertions regarding the recognition, measurement, presentation and disclosure of the various elements of financial statements and related disclosures. Assertions about presentation and disclosure encompass:

- (a) Occurrence and rights and obligations—disclosed events, transactions, and other matters have occurred and pertain to the entity.

³⁵ ISA 540, paragraph 13(d)

³⁶ ISA 705, *Modifications to the Opinion in the Independent Auditor's Report*

³⁷ See paragraphs 4 and A2 of ISA 200.

- (b) Completeness—all disclosures that should have been included in the financial statements have been included.
- (c) Classification and understandability—financial information is appropriately presented and described, and disclosures are clearly expressed.
- (d) Accuracy and valuation—financial and other information are disclosed fairly and at appropriate amounts.

The auditor’s procedures around auditing disclosures are designed in consideration of these assertions.

Procedures relating to the presentation and disclosure of complex financial instruments

107. Areas of particular importance in respect to complex financial instruments are:

- The financial risks and exposures inherent in complex financial instruments cannot always be effectively captured in a balance sheet and profit and loss account. Financial reporting frameworks generally require additional disclosures regarding estimates and related risks and uncertainties to supplement and explain assets, liabilities, income, and expenses. The auditor’s focus may need to be on the disclosures relating to risks and sensitivity analysis. Information obtained during the auditor’s risk assessment procedures and testing of control activities may provide evidence in order for the auditor to conclude about whether the disclosures in the financial statements are in accordance with the requirements of the applicable financial reporting framework, for example about:
 - The entity’s objectives and strategies for using complex financial instruments, including the entity’s stated accounting policies;
 - The entity’s control framework for managing its risks associated with complex financial instruments; and
 - The risks and uncertainties associated with the complex financial instruments.
- The information required to do this may come from systems outside traditional financial reporting systems, such as risk data. For example, information included in disclosures relating to the hierarchy of inputs to valuation, ranging from level 1 to level 3 may be derived from information systems that are not otherwise used to generate information for inclusion in the financial statements. In order to test the adequacy of disclosures, the auditor may test the operating effectiveness of the controls over the process by which management identifies the need for disclosures in the financial statements and the processes from which they derive the information used in disclosures.
- In relation to complex financial instruments having significant risk,³⁸ even where the disclosures are in accordance with the applicable financial reporting framework, for

³⁸ ISA 540, paragraph 20, requires the auditor to perform further procedures on disclosures relating to accounting estimates that give rise to significant risks to evaluate the adequacy of the disclosure of their estimation uncertainty in the financial statements in the context of the applicable financial reporting framework.

example the auditor may conclude that the disclosure of estimation uncertainty is inadequate in light of the circumstances and facts involved and, accordingly, the financial statements may not achieve fair presentation. ISA 705 provides guidance on the implications for the auditor's opinion when the auditor believes that management's disclosures in the financial statements are inadequate or misleading.

- Auditors may also consider whether the disclosures are complete and understandable, for example, all relevant information may be included in the financial statements (or accompanying reports) but it may be insufficiently drawn together to enable users of the financial statements to obtain an understanding of the position or there may not be enough qualitative disclosure to give context to the amounts recorded in the financial statements. For example, even when an entity has included sensitivity analysis disclosures, the disclosure may not fully describe the risks and uncertainties that may arise because of changes in valuation, for example, possible effects on debt covenants, collateral requirements, and the entity's liquidity. The auditor may wish to bring concerns in this area to the attention of those charged with governance and the audit committee.

Master netting agreements

108. An entity that undertakes a number of financial instrument transactions with a single counterparty may enter into a master netting arrangement with that counterparty. Such an agreement provides for a single net settlement of all complex financial instruments covered by the agreement in the event of default of any one contract. These arrangements are commonly used by financial institutions to provide protection against loss in the event of bankruptcy or other circumstances that result in a counterparty being unable to meet its obligations. Financial reporting frameworks may establish requirements relating to such agreements which permit or prohibit netting for purposes of balance sheet presentation.
109. Assessing whether the classification of financial statement presentation is appropriate includes considering whether master netting agreements are in effect and relevant assets and liabilities that are subject to such netting contracts are identified completely. In addition, a possible fraud risk factor may exist (for example, netting may be made with a fraudulent intent) if the total assets or liabilities are used to determine the incentive compensation for management's or corporate tax payments or other key amounts. Consideration of day 1 accounting and the effects on presentation, for example on short-term and long-term classification, in substantive testing of complex financial instruments is relevant to the auditor's evaluation of the disclosures.

Other Relevant Audit Considerations

The Role of the Internal Audit Function

110. In many large entities, the internal audit function may perform work that enables senior management and those charged with governance to review and evaluate the entity's controls relating to the use of complex financial instruments. [Proposed] ISA 315 (Revised) requires the auditor to make inquiries of appropriate individuals within the internal audit function, if

the function exists, as part of the auditor's risk assessment procedures.³⁹ Inquiries with the appropriate individuals within the internal audit function may provide information to assist the external auditor in obtaining an understanding of the entity and its environment, including its use of complex financial instruments, and therefore in assessing the risks of material misstatement. The knowledge and skills required of an internal audit function to understand and perform procedures to provide assurance to management or those charged with governance on the entity's use of complex financial instruments are generally quite different from those needed for other parts of the business. The extent to which the internal audit function has the knowledge and skill to cover, and has in fact covered, the entity's financial instrument activities, as well as the competence and objectivity of the internal audit function, is a relevant consideration in the external auditor's determination of whether the internal audit function is likely to be relevant to the overall audit strategy and audit plan.

111. Areas where the work of the internal audit function may be particularly relevant are:⁴⁰

- Developing a general overview of the extent of use of complex financial instruments;
- Evaluating the appropriateness of policies and procedures and management's compliance with them;
- Evaluating the operating effectiveness of financial instrument control activities;
- Evaluating systems relevant to financial instrument activities;
- Assessing whether new risks relating to complex financial instruments are being identified, assessed and managed; and
- Conducting regular evaluations to:
 - Provide management with assurance that financial instrument activities are being properly controlled; and
 - Ensure that new risks and the use of complex financial instruments to manage these risks are being identified, assessed and managed.

If the nature of the internal audit function's responsibilities and assurance activities are related to the entity's financial reporting the auditor may also be able to use the work of the internal audit function to modify the nature or timing, or reduce the extent, of audit procedures to be performed in relation to complex financial instruments.⁴¹ However, [proposed] ISA 610 (Revised) notes that, for a particular account balance, class of transaction or disclosure, the higher an assessed risk of material misstatement at the assertion level (in particular for significant risks), the more judgment is often involved in planning and performing the audit procedures and evaluating the results thereof. In such circumstances, it is

³⁹ [Proposed] ISA 315 (Revised), paragraph 6(a). In addition, paragraph 23 of [proposed] ISA 315 (Revised) requires the auditor to obtain an understanding of the nature of the internal audit function's responsibilities, how the function fits in the entity's organizational structure, and the activities performed, or to be performed.

⁴⁰ Work performed by functions such as the independent risk management function, model review functions, and product control, also be relevant to the auditor in these areas.

⁴¹ Paragraphs 13–19 of [proposed] ISA 610 (Revised), *Using the Work of Internal Auditors*, establish requirements and provide guidance to the auditor in determining whether and to what extent to use the work of the internal audit function.

less likely that the external auditor can make substantial use of the work of the internal audit function in obtaining sufficient appropriate audit evidence.

Written Representations

112. ISA 540 requires the auditor to obtain written representations from management and, where appropriate, those charged with governance whether they believe significant assumptions used making accounting estimates are reasonable.⁴² Depending on the volume and degree of complexity of financial instrument activities, written representations to support other evidence obtained about complex financial instruments may also include:

- Management's objectives with respect to complex financial instruments, for example, whether they are used for hedging, asset/liability management or investment purposes;
- Representations about the appropriateness of presentation of the financial statements, for example the recording of financial instrument transactions as sales or financing transactions;
- Representations about the financial statement disclosures concerning complex financial instruments, for example that:
 - The records reflect all financial instrument transactions; and
 - All embedded derivative instruments have been identified;
- Whether all transactions have been conducted at arm's length and at market value;
- The terms of transactions;
- Whether there are any side agreements associated with any complex financial instruments;
- Whether the entity has entered into any written options;
- Management's intent and ability to carry out certain actions;⁴³
- If applicable, the appropriateness of the basis used by management to overcome the presumption relating to the use of fair values; and
- Whether subsequent events require adjustment to the valuations and disclosures included in the financial statements.

Communication with Those Charged with Governance and Others

113. Because of the uncertainties associated with the valuation of complex financial instruments, the potential effects on the financial statements of any significant risks are likely to be of governance interest. The auditor may communicate the nature of significant assumptions used in fair value measurements, the degree of subjectivity involved in the development of the

⁴² ISA 540, paragraph 22. Paragraph 4 of ISA 580, *Written Representations*, states that written representations from management do not provide sufficient appropriate audit evidence on their own about any of the matters with which they deal. If the auditor is otherwise unable to obtain sufficient appropriate audit evidence, this may constitute a limitation on the scope of the audit may have implications for the auditor's report.

⁴³ Paragraph A80 of ISA 540 provides examples of procedures that may be appropriate in the circumstances.

assumptions, and the relative materiality of the items being measured at fair value to the financial statements as a whole. In addition, the need for appropriate controls over commitments to enter into complex financial instrument contracts and over the subsequent measurement processes are matters that may give rise to the need for communication with those charged with governance.

114. ISA 260⁴⁴ deals with the auditor's responsibility to communicate with those charged with governance in an audit of financial statements. With respect to complex financial instruments, matters to be communicated to those charged with governance may include:

- A lack of management understanding of the nature or extent of the financial instrument activities or the risks associated with such activities;
- Significant deficiencies in the design or operation of the systems of internal control or risk management relating to the entity's financial instrument activities that the auditor has identified during the audit;⁴⁵
- Significant difficulties encountered when obtaining sufficient appropriate audit evidence relating to valuations performed by management or a management's expert, for example, where management is unable to obtain an understanding of the valuation methodologies, including the assumptions and inputs, used by the management's experts and such information is not made available to the auditor by management's expert;
- Significant differences in judgments between the auditor and management or a management's expert regarding valuations;
- The potential effects on the entity's financial statements of material risks and exposures required to be disclosed in the financial statements, including the valuation uncertainty associated with complex financial instruments;
- The auditor's views about the appropriateness of the selection of accounting policies and presentation of financial instrument transactions in the financial statements;
- The auditor's views about the qualitative aspects of the entity's accounting practices and financial reporting for complex financial instruments; or
- A lack of comprehensive and clearly stated policies for the purchase, sale and holding of complex financial instruments, including operational controls, procedures for designating complex financial instruments as hedges, and monitoring exposures.

The appropriate timing for communications will vary with the circumstances of the engagement; however, it may be appropriate to communicate significant difficulties encountered during the audit as soon as practicable if those charged with governance are able to assist the auditor to overcome the difficulty, or if it is likely to lead to a modified opinion.

⁴⁴ ISA 260, *Communication with Those Charged with Governance*

⁴⁵ ISA 265, *Communicating Deficiencies in Internal Control to Those Charged with Governance and Management*, establishes requirements and provides guidance on communicating deficiencies in internal control to management, and communicating significant deficiencies in internal control to those charged with governance. It explains that deficiencies in internal control may be identified during the auditor's risk assessment procedures in accordance with ISA 315 or at any other stage of the audit.

Communications with Regulators and Others

115. In some cases, auditors may be required,⁴⁶ or may consider it appropriate, to communicate directly with regulators or prudential supervisors, in addition to those charged with governance, regarding matters relating to complex financial instruments. Such communication may be most useful in the early stages of the audit. For example, in some jurisdictions, banking regulators seek to cooperate with auditors to share information about the operation and application of controls over financial instrument activities, challenges in valuing complex financial instruments in inactive markets, and compliance with regulations. This coordination may be helpful to the auditor in identifying risks of material misstatement.

⁴⁶ For example, ISA 250, *Consideration of Laws and Regulations in an Audit of Financial Statements*, requires auditors to determine whether there is a responsibility to report identified or suspected non-compliance with laws and regulations to parties outside the entity. In addition, requirements concerning the auditor's communication to banking supervisors and others may be established in many countries either by law, by supervisory requirement or by formal agreement or protocol.



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