

Auditing Complex Financial Instruments—Draft International Auditing Practice Statement 1012

[Marked to Show Changes since March IAASB Meeting]

CONTENTS

	Paragraph
<u>Introduction</u> Scope of this IAPS	1- 19 18
Nature of Financial Instruments <u>Addressed by this IAPS</u>	5-9 5-11
Types of Entities <u>to which this IAPS Applies</u>	10 12-13
Purpose and Risks of Using Complex Financial Instruments	14-17 20-23
<u>Key Audit</u> Considerations in Auditing <u>Relating to Complex</u> Financial Instruments	18-19 24
Responsibilities of Management and Those Charged with Governance	20-28 25-35
The Applicable Financial Reporting Framework	26-29
<u>Management's Responsibilities for Presentation and Disclosure about Complex Financial Instruments</u>	20-21
Management's Use of Third-Party Expertise	22-28 30-35
Responsibilities of the Auditor	29-51 36-55
<u>Professional Skepticism and Professional Judgment</u> Overall Responsibilities in Accordance with ISAs	30-31 36-38
Involving Those with Specialized Skills and Knowledge in the Audit	32-39 39-48
Fraud Risk Factors	40-43 49-52
<u>Indicators of Management Bias</u>	43
Significant Risks	44-51 53-55
<u>Substantive Procedures to Respond to Significant Risks</u>	49-51
Understanding the Entity and Its Environment, Including Its Internal Control	56-89
Understanding the Financial Instruments to which an Entity Is Exposed	59-60
Understanding the Relevant Industry, Regulatory and Other External Factors Including the Applicable Financial Reporting Framework	61-62
Understanding the Entity's Internal Control	63-89
<u>Understanding the Entity and Its Environment, Including Its Internal Control, and</u> Identifying and Assessing the Risks of Material Misstatement	52-65 90-92
<u>The Role of the Internal Audit Function</u>	61-63

Deficiencies in Internal Control	64-65 <u>93-94</u>
Control Objectives and Financial Statement Assertions	95-136
Completeness and Accuracy of Recording	96-105
Valuation	106-131
Presentation and Disclosure	132-136
The Auditor's Responses to Assessed Risks	66-75 <u>137-180</u>
Reliance on Control Activities	69-71 <u>140-142</u>
Dual-Purpose Tests	72 <u>143</u>
Substantive Procedures	73-75 <u>144-147</u>
Substantive Procedures Related to Financial Statement Assertions	148-177
Completeness and Accuracy of Recording of Complex Financial Instruments	76-86
Trade Confirmations and Clearing Houses	78-79
Reconciliations with Banks and Custodians	80-85
<u>Substantive Procedures Relating to Completeness and Accuracy of Recording of</u> <u>Complex Financial Instruments</u>	86
Valuation of Complex Financial Instruments	87-124
Fair Value Hierarchy	88-89
Management's Method for Valuing Its Complex Financial Instruments	90-112
Management's Assumptions	92-93
Sources of Evidence to Support Management's Assumptions	94-100
Using Models	101-102
Effects of Inactive Markets	103-107
Management's Use of Sensitivity Analysis	108-109
Considerations Unique to Valuing Financial Liabilities	110-112
Substantive Procedures Relating to Valuation of Complex Financial Instruments ...	113-124
<u>Evaluating Whether the Valuation Method, Including Models, Used Is</u> <u>Appropriate in the Circumstances</u>	115-120
<u>Evaluating Whether the Assumptions and Inputs Used by Management Are</u> <u>Reasonable</u>	121-124
Presentation and Disclosure of Complex Financial Instruments	125-148
Disclosures in the Financial Statements	125-135
Categories of Disclosures	128-135

Presentation of Financial Statements	136-137
<u>Substantive Procedures Relating to Presentation and Disclosure of Complex Financial Instruments.....</u>	<u>138-148</u>
Evaluating the Entity’s Presentation of Financial Statements	138
Evaluating the Reasonableness and Adequacy of Disclosures	139-145
Estimation Uncertainty and Significant Risks	146-148
Further Substantive Procedures to Respond to Significant Risks	178-180
Evaluating Audit Evidence	149-161181-194
Evaluating the Overall Results of Valuations	149-154 181-186
Evidence Considerations Relating to Management’s Use of Third-Party Expertise	155-157 187-189
Going Concern	158-160 190-192
Written Representations	161 193-194
Forming an Opinion and Reporting on Financial Statements	162-165195-199
Evaluating Misstatements	162-163 196-197
Inability to Obtain Sufficient Appropriate Audit Evidence	164 198
Emphasis of Matter Paragraphs and Other Matter Paragraphs	165 199
Communicating with Those Charged with Governance and Others	166-168200-202
Communications with Regulators and Others	168 202
Appendix 1: Glossary of Terms	
<u>Appendix 2: Examples of Possible Internal Controls Relating to Complex Financial Instruments that May Exist at an Entity</u>	
Appendix 32 : Risks to W hich Entities May b e Exposed through Their Use of <u>Complex Financial Instruments</u>	
Appendix 43 : Additional Information about Broker Quotes and Pricing Services	

International Auditing Practice Statement (IAPS) 1012, “Auditing Complex Financial Instruments,” should be read in the context of the *Preface to the International Standards on Quality Control, Auditing, Review, Other Assurance and Related Services*,² which sets out the application and authority of IAPSs.

IntroductionScope of this IAPS

~~2. IAPSs are issued to provide interpretive guidance and practical assistance to the auditor in implementing International Standards on Auditing (ISAs) and to promote good practice. In conducting an audit of financial statements in accordance with ISAs, auditors are required to comply with all ISAs relevant to the audit.⁺ This includes having an understanding of the entire text of an ISA, including its application and other explanatory material, to understand its objectives and to apply its requirements properly.~~

1. The purpose of this International Auditing Practice Statement (IAPS) is to provide guidance to the auditor dealing with complex financial instruments, in planning and performing auditing procedures for financial statement assertions related to financial instruments, where such instruments are measured or disclosed at fair value to assist the auditor in:

- (a) Obtaining an understanding of the entity, including internal control relevant to the audit, sufficient to identify and assess the risks of material misstatement;
- (b) Designing and performing further audit procedures responsive to those risks;
- (c) Evaluating the audit evidence obtained from those procedures;
- (d) Forming an opinion and reporting on financial statements in light of the audit evidence obtained; and
- (e) Communicating relevant matters about an entity's complex financial instruments to those charged with governance and others.

~~For example, certain financial reporting frameworks may require the entity to include disclosures of fair value information in the notes to the financial statements when financial instruments are carried at amortized cost.~~

23. Certain ISAs may be particularly relevant to audits of complex financial instruments. For example:

- ~~ISA 540² deals with the auditor's responsibilities relating to auditing accounting estimates, including accounting estimates related to complex financial instruments measured at fair value; and~~
- In addition, this IAPS expands upon how the requirements in ISA 315,³ and ISA 330⁴ deal with identifying and assessing risks of material misstatement and responding to those risks and other relevant ISAs are to be applied in relation to financial instruments.

⁺ ~~ISA 200, Overall Considerations of the Independent Auditor and the Conduct of an Audit in Accordance with International Standards on Auditing~~

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

³ ISA 315, Identifying and Assessing the Risks of Material Misstatement through Understanding the Entity and Its Environment

⁴ ISA 330, The Auditor's Responses to Assessed Risks

Although the requirements of these and certain other ISAs are highlighted, reading the IAPS is not a substitute for reading the ISAs themselves and there may be other requirements that are relevant.

3. Certain financial reporting frameworks require the entity to measure complex financial instruments at fair value, while other financial reporting frameworks require disclosures of fair value information in the notes to the financial statements when financial instruments are carried at amortized cost. The guidance in this IAPS applies to complex financial instruments measured or disclosed at fair value.
4. This IAPS is designed to be applicable to the audits of large and small entities, including small- and medium-sized entities (SMEs) that have complex financial instruments, and financial and non-financial entities~~both financial and non-financial institutions that have financial instruments, and can be applied by auditors of entities of all sizes with financial instruments of varying complexities, including audits of small and medium-sized entities (SMEs).~~
- ~~11. Many of the considerations described in this IAPS can also be applied to simpler financial instruments. However, further work may be required on matters such as loan loss provisioning which are not covered in this IAPS.~~

Nature of Financial Instruments Addressed by this IAPS

5. Different definitions of financial instruments may exist among financial reporting frameworks. International Financial Reporting Standards (IFRS) define a financial instrument as a contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.⁵ Financial instruments may be cash, the equity of another entity, the right to receive or deliver cash or exchange financial assets or liabilities, and certain contracts settled in an entity's own equity instruments. This definition encompasses a wide range of financial instruments from simple loans and deposits to complex derivatives and structured products.
~~Different definitions of financial instruments may exist among financial reporting frameworks.~~
6. This IAPS focuses on audit considerations relating to those financial instruments, both financial assets and financial liabilities, that are more complex than, for example, a simple loan, deposit or spot foreign exchange transaction. In particular, this IAPS does not deal with simple financial instruments such as cash, trade accounts receivable and trade accounts payable. ~~10. The guidance in this IAPS can also be applied by auditors considering~~ Sometimes financial instruments that ordinarily ~~may be~~ are relatively easy to value ~~address~~ but where aspects have become complex because of particular circumstances, for example, instruments for which the market has become inactive, necessitating the use of a model for valuation.
7. The complexity of a financial instrument ~~depends on three factors~~ is influenced by:
 - (a) The characteristics of the instrument – Whether it is actively traded, it is a compound financial instrument, or has an embedded derivative. Structured products combine a

⁵ International Accounting Standard (IAS) 32, *Financial Instruments: Presentation*

number of financial instruments to achieve a desired overall effect, thereby becoming more complex;

~~(b) How the instrument is measured—Measurements of financial instruments are driven by the requirements of the applicable financial reporting framework. When measurements of financial instruments at fair value use market-based inputs from active markets, these financial instruments are generally less complex as the values are generally less difficult to value in normal market conditions. When those financial instruments use entity-specific or model-based inputs these financial instruments tend to be more complex notably because their fair value may be highly sensitive to changes in valuation assumptions. Also, an instrument may generally become more complex when markets become inactive; or~~

~~(be) The variability of the future cash flows —Valuation may be more complex due to assumptions used by management about the timing and amount of future cash flows when the factors in (a) or (b) are present, or depending on the timing and conditions for any options in the contract. Whether the contractual terms specific the amount and timing of cash flows that arise from a financial instrument. Uncertainty of amount and timing often give rise to complexity of financial instruments, in terms of their risks, since Tthe higher the variability of cash flows with a financial instrument to changes in market conditions, the more complex the fair value measurement of the financial instrument is likely to be.~~

~~It is this complexity that~~ The complexity of the financial instrument influences the auditor's approach to identifying and assessing the risks of material misstatement associated with complex financial instruments and to designing and implementing responses to address these risks in accordance with the ISAs. In addition, the availability of information to support valuation of a complex financial instrument, whether due to the unobservability of inputs to its valuation or the effects of inactive markets, may also have implications for the auditor's procedures.

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, futures, swaps, caps, floors, swaptions, credit default options, credit default swaps, and other option contracts);~~
- ~~• Financial instruments traded in over-the-counter (OTC) markets;~~
- Structured products- (for example, Collateralized Debt Obligations (CDOs) and Mortgage Backed Securities (MBSs)); and
- Structured Debt carried on the entity's balance sheet at fair value and repurchases.

Generally such instruments are required to be presented in the financial statements at fair value. Derivatives and structured products become more complex when they have characteristics that are both linear and non-linear or are comprised of a combination of individual complex financial instruments. A Glossary of Terms is included as Appendix 1 to define some of these instruments and other key terms.

9. It is important to note, however, that contracts such as agreements entered into by the entity with its major suppliers and other service providers may contain embedded derivatives. An example is a contract for the supply of electricity entered into by a utilities distribution company with its supplier, which includes an option that affects the purchase price of electricity. In such cases, the terms of the contract may make it necessary for the entity to measure or disclose a complex financial instrument associated with the contract, even though the entity may not view the transaction as creating a financial instrument. The original intent of the entity in entering into such agreements may not include the creation of derivatives and ~~¶~~ The complexities of the contract terms may make it difficult to identify such embedded derivatives. However, in such cases, the terms of the contract may make it necessary for the entity to measure or disclose a financial instrument associated with the contract.

Types of Entities to which this IAPS Applies

1042. The general principles applicable to auditing complex financial instruments are applicable to all entities. The use of complex financial instruments varies by entity. For example, some entities are market makers and may take leveraged proprietary positions in complex financial instruments to earn profits. Other entities may use financial instruments to earn yield on cash or to hedge exposures, as discussed in paragraphs 14-15. The guidance in this IAPS is intended to be helpful for audits of entities with complex financial instruments ~~of varying levels of complexity~~, ranging from:

- Entities with high levels of trading and use of complex financial instruments (for example, banks with complex dealing rooms, 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).

1143. ~~The relevance of each area of guidance may differ considerably between different entities and is dependent on the complexity of the financial instruments being audited. For example, for~~ In those entities with relatively few transactions involving complex financial instruments:

- Management and those charged with governance may have only a limited ~~less~~ understanding of the complex financial instruments and how they affect the business; ~~and may engage management's experts and other third parties to perform valuation of such instruments; and~~
- The entity may only have a few different types of instruments with little or no ~~and their~~ interaction between them ~~is likely to be much simpler, if it exists at all;~~
- There is unlikely to be a complex control environment ~~The entity may design controls and account for a few instruments using a more manual system, rather than designing a complex information technology (IT) or trading room environment, in light of the costs associated with doing so.; and~~
- Management may engage third parties to value such instruments.

~~Regardless of the size of the entity or the complexity of its financial instruments, it is management's responsibility to understand their financial instruments and how they are valued. In such circumstances, some aspects of the guidance will be more relevant than others.~~

12. ~~For example, 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, the characteristics of the instruments and how they are controlled. In such circumstances, much of the audit evidence is likely to be substantive in nature and third-party confirmations are likely to provide evidence in relation to both the completeness and accuracy of the recording of the transactions. However, the knowledge and experience of management and those charged with governance is an important element of the control environment. The use of complex financial instruments without relevant expertise within the entity may result in the entity unknowingly assuming a significant amount of risk (e.g., business, reputational, liquidity, etc.), and increase the risks of material misstatement in the financial statements.~~
13. ~~Entities with a large volume of trading and use of complex financial instruments may have a more complex control environment and the auditor may be more likely to test controls in obtaining evidence about the completeness and accuracy of the recording of the transactions. In such circumstances, the auditor is also likely to use the work of management's experts and may need to evaluate the entity's own models for valuations of complex financial instruments at period end.~~

Purpose and Risks of Using Complex Financial Instruments

~~1416.~~ More complex financial instruments, such as those arising from derivatives contracts, generally exist to do two things:

- Change an existing risk profile to which an entity is exposed (i.e., for hedging purposes). 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
- Enable an entity to take a risk position to benefit from long term investment returns or from short term market movements (i.e., for trading purposes).

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 in short order. Such volatility can also dramatically affect an entity's credit risk exposure to its counterparties.

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 ~~certain those business risks, for example changes in exchange rate risks and in interest rate~~

~~risks~~. On the other hand, the inherent complexities also may result in increased business risk, which may in turn increase risks of material misstatement and present new challenges to management and auditors. ~~For example, potential risks and rewards can be substantially greater than the current outlays as often:~~

~~Little or no cash outflows/inflows are required until maturity of the transactions;~~

~~No principal balance or other fixed amount is paid or received; and~~

~~The value of a financial instrument may be greater or less than the amount, if any, of the instrument that is recognized in the financial statements where the financial reporting framework does not require such instruments to be recorded at fair value in the financial statements.~~

1614. ~~Financial instruments are becoming more complex, their use is becoming~~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 are expanding. ~~Values of financial instruments may be volatile. Large and sudden decreases in their value may increase the risk that a loss to an entity using financial instruments may exceed the amount, if any, recorded on the balance sheet. Furthermore, b~~Because of these developments complexity of financial instrument activities, management and those charged with governance may not:

- ~~Fully~~hFully understand the risks of using complex financial instruments; ~~may not~~
- ~~h~~hHave the expertise to value them appropriately in accordance with the applicable financial reporting framework; or
- ~~may not h~~hHave sufficient controls in place over financial instrument activities.

17. ~~Complex F~~Complex Ffinancial instruments ~~and related quantitative disclosures~~ are susceptible to an inherent lack of precision in their measurement, known as 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~~financial instruments~~. The degree of estimation uncertainty affects, in turn, the risks of material misstatement of complex financial instruments, including 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.~~In some cases the level of estimation uncertainty may be so large as to give rise to significant risk, for example when the accounting estimates are highly dependent upon judgment, or are valued using a model with no observable inputs. Significant risks are discussed in more detail in paragraphs 53-55.~~

Key Audit Considerations in Auditing Relating to Complex Financial Instruments

1895. 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 disclosures⁶ because doing so directly assists in determining the nature, timing, and

⁶ ISA 315, paragraph 25

extent of further audit procedures ~~at the assertion level~~ necessary to obtain sufficient appropriate audit evidence. ~~This IAPS focuses on T~~the assertions⁷ 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, which are:

- Completeness and accuracy of recording;
- Valuation; and
- Presentation and disclosure, including classification in the financial statements.

Guidance relating to these three assertions is addressed further in subsequent sections. Other assertions relating to existence and occurrence, rights and obligations and cut-off will affect the design of ~~further audit~~the auditor's procedures relating to complex financial instruments, but are not covered in detail in this IAPS.

19. ~~This section presents key considerations in auditing financial instruments. These considerations are addressed further in subsequent sections. This IAPS also highlights considerations that may be particularly relevant in audits of complex financial instruments, including:~~

- Applying professional skepticism and professional judgment (see paragraphs 30-31);
- Using specialized skills or knowledge on the audit engagement (see paragraphs 32-39);
- Identifying fraud risk factors relating to complex financial instruments (see paragraphs 40-43);
- Identifying significant risks relating to complex financial instruments and designing further procedures to respond to those risks (see paragraphs 44-51);
- Identifying, assessing, and responding to risks of material misstatement (see paragraphs 52-148);
- Obtaining sufficient appropriate audit evidence relating to complex financial instruments and forming an opinion and reporting on the financial statements (see 149-165); and
- Communicating with those charged with governance and others (see paragraphs 166-168).

Responsibilities of Management and Those Charged With Governance

- ~~25. An audit in accordance with ISAs is conducted on the premise that management and, where appropriate, those charged with governance have acknowledged their responsibilities for the preparation of the financial statements in accordance with the applicable financial reporting framework, including where relevant their fair presentation.⁸ As part of the process of preparing those financial statements, where applicable, these responsibilities include ensuring that:~~

⁷ ISA 315, paragraph A111, lists assertions used by the auditor to consider the different types of potential misstatements.

⁸ ~~ISA 200, paragraphs 4 and A2~~

- ~~• All financial instruments recorded in the financial statements exist;~~
- ~~• There are no unrecorded financial instruments at the balance sheet date;~~
- ~~• The financial instruments recorded in the financial statements are properly valued and presented; and~~
- ~~• All relevant disclosures are made in the financial statements.~~

~~Management's responsibilities for internal control necessary to enable the preparation of the financial statements are described further in paragraph 63.~~

~~The Applicable Financial Reporting Framework~~

- ~~26. The preparation of the financial statements by management requires the identification of the applicable financial reporting framework and adherence to such framework. The preparation of the financial statements requires management to exercise judgment in making accounting estimates that are reasonable in the circumstances, as well as to select and apply appropriate accounting policies in the context of the applicable financial reporting framework.⁹ This includes making judgments as to whether recognition and measurement criteria in the applicable financial reporting framework have been met, which may be particularly important in relation to the initial measurement of certain financial instruments. Some financial reporting frameworks establish a fair value hierarchy to develop increased consistency and comparability within and between entities (see paragraph 108).~~
- ~~27. Accounting standards in relation to financial instruments are complex and require extensive disclosures. Law or regulation in the relevant jurisdiction or industry in which the entity operates may also set out supplementary accounting and disclosure requirements, and regulatory bodies may publish guidance and recommendations in relation to financial instruments, for example highlighting best practices for disclosures or raising awareness about issues encountered in inactive markets. Furthermore, relevant accounting standards are under review and entities need to monitor developments to ensure the correct accounting requirements, including possible transitional arrangements, are complied with.~~
- ~~28. Failure on the part of management and accounting personnel within the entity to keep abreast of the changes in the relevant accounting standards and guidance issued by accounting standard setters and regulatory bodies, and inexperience or lack of appropriate knowledge within the entity, may result in inappropriate accounting policies or practices, which may lead to financial instruments not being properly recorded or disclosed in the financial statements. An entity's policies for accounting for financial instruments also need to take into account the different purposes for which they can be transacted (such as trading or hedging).~~
- ~~29. Some financial reporting frameworks may permit hedge accounting for financial instruments. Where hedge accounting techniques are used, the financial reporting framework may require management, at the inception of the transaction, to designate the instrument as a hedge and contemporaneously formally document: (a) the hedging relationship, (b) the entity's risk management objective and strategy for undertaking the hedge, and (c) how the entity will assess~~

⁹—ISA 200, paragraph A3

~~the hedging instrument's effectiveness in offsetting the exposure to changes in the hedged item's fair value or the hedged transaction's cash flow that is attributable to the hedged risk. Accounting standards may also require that management have an expectation that the hedge will be highly effective in achieving offsetting changes in fair value or cash flows attributable to the hedged risk, consistent with the originally documented risk management strategy for that particular hedging relationship.~~

Management's Responsibilities for Presentation and Disclosure about Complex Financial Instruments*Responsibilities of Management*

20158. Management's responsibilities ~~regarding include~~ the preparation ~~and fair presentation~~ of the financial statements in accordance with the applicable financial reporting framework.¹⁰ ~~include~~ Most frameworks require the disclosure of quantitative and qualitative information (including accounting policies) relating to complex financial instruments. The accounting requirements to provide fair value and other information about them in financial statement presentations and disclosures are extensive in most financial reporting frameworks.

21459. 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.
- (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.

Management's Use of Third-Party Expertise

20. ~~Due to the complex nature of certain financial instruments, it is important that both the entity and auditor understand the instruments in which the entity has invested or to which it is exposed. The knowledge and experience of management and those charged with governance is an important element of the control environment, as is management's philosophy and operating style. The use of financial instruments without relevant expertise within the entity may result in the entity assuming significant risk, often unintentionally, and increases the risk of material misstatement in the financial statements.~~

2224. The preparation of an entity's financial reporting, 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. When management

¹⁰ See paragraphs 4 and A2 of ISA 200, *Overall Considerations of the Independent Auditor and the Conduct of an Audit in Accordance with International Standards on Auditing*.

~~does not have this expertise~~In such cases, it management often engages third-party experts to provide assistance with valuation of its complex financial instruments, ~~discussed in more detail in paragraphs 30-35. Doing so does not relieve management of its responsibilities for the preparation of the financial statements, and it is particularly important for management to understand the assumptions used by a management's expert in the valuation of financial instruments. The use of a management's expert has implications for the auditor, including the auditor's decision whether to involve persons with specialized skills or knowledge (see paragraphs 39-48) and the auditor's procedures to evaluate the sufficiency and appropriateness of evidence to support the financial instruments measured or disclosed in the financial statements (see paragraphs 187-189).~~

2330. ~~The preparation of an entity's financial reporting, including the valuation of financial instruments and the preparation of financial statement disclosures relating to these instruments, may require expertise that management does not possess.~~ 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.¹¹ 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). ~~Failure to employ or engage a management's expert when such expertise is necessary increases the risks of material misstatement. Accordingly, t~~The use of one or more management's experts may be fairly common, regardless of the size of the entity.

2431. The use of a management's expert ~~or a service organization~~¹² 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 ~~informationsources~~ from internal and external sources, the relevance and reliability of which will vary. Management's experts ~~are meant to~~ supplement, but do not replace, management's own process for valuation. In particular, it will be necessary for management to understand the assumptions and inputs used by the management's expert in valuing the complex financial instruments to determine whether these assumptions are appropriate, and the controls in place at a service organization. If management is unable to obtain this understanding, the auditor may not be able to obtain sufficient appropriate audit evidence to conclude about the reasonableness of the valuation of the complex financial instruments or the effectiveness of the controls at the service organization.

~~See further discussion at paragraphs 114-123.~~

2532. For example, individuals such as brokers and organizations such as pricing services ~~(see paragraphs 97-99 and Appendix 4)~~ may possess expertise in the application of models to estimate

¹¹ ISA 500, *Audit Evidence*, establishes requirements for the auditor if information to be used as audit evidence has been prepared using the work of a management's expert.

¹² ~~ISA 402, *Audit Considerations Relating to an Entity Using a Service Organization*, establishes requirements for the auditor to obtain sufficient appropriate audit evidence when an entity uses the services of one or more service organizations.~~

the fair value of complex financial instruments for which there is no observable market. If the broker or pricing service makes an estimate or provides an indicative price which the entity uses in valuing its complex financial instruments, the broker or pricing service would be considered a management's expert. If the third party merely provides price data regarding private transactions not otherwise available to the entity which the entity uses in its own estimation methods, such information, if used as audit evidence, is not considered to be evidence produced by an expert.

2633. Entities may also use service organizations¹³ (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 valuations of the complex financial instruments held.

2734. 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.

2835. 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 (see paragraphs 32-39) 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 (see paragraphs 155-157). Additional evidence considerations relating to the use of a management's expert and service organizations are described in paragraphs 187-189, respectively.

Responsibilities of the Auditor

Obtaining Sufficient Appropriate Audit Evidence about Financial Instruments

2938. ISA 540 deals with the auditor's responsibility to obtain sufficient appropriate audit evidence about whether the accounting estimates, including fair value accounting estimates, in the financial instruments, whether recognized or disclosed, are reasonable, and related disclosures are adequate, in the context of the applicable financial reporting framework.¹⁴ Financial instruments are usually subject to estimation and, in particular, financial instruments measured at fair value are fair value accounting estimates. Sufficient appropriate audit evidence is necessary to support the auditor's opinion on the financial statements as a whole. The purpose of an audit, including audit work on complex financial instruments, is not to provide assurance on the adequacy of the entity's risk management related to these instruments, or the controls over related activities. To avoid any misunderstanding of the

¹³ ISA 402, Audit Considerations Relating to an Entity Using a Service Organization, establishes requirements for the auditor to obtain sufficient appropriate audit evidence when an entity uses the services of one or more service organizations.

¹⁴ ISA 540, paragraph 6

auditor's responsibility in this regard, the auditor may discuss with management and those charged with governance the nature and extent of the audit work related to complex financial instruments.

Professional Skepticism and Professional Judgment Overall Responsibilities in Accordance with ISAs

3036. ISA 200 establishes requirements and provides guidance for the auditor on planning and performing an audit with professional skepticism and exercising professional judgment throughout the audit.¹⁵ Professional skepticism is necessary 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, for example, in the case where fraud risk factors exist and a single document, of a nature that is susceptible to fraud, is the sole supporting evidence for a material financial statement amount. Maintaining professional skepticism requires an ongoing questioning of whether the information and audit evidence obtained suggests that a material misstatement due to fraud may exist or whether there are circumstances or conditions that exist that increase the susceptibility of accounting estimates to possible management bias.

31. Professional judgment is essential to the proper conduct of an audit and informed decisions cannot be made without the application of relevant knowledge and experience to the facts and circumstances. The nature and reliability of information available to support valuation of complex financial instruments varies depending on the observability of inputs to its measurement, complexity of the instrument and which is influenced by other factors ~~the nature of the market (e.g., the level of market activity and whether it is through an exchange or over-the-counter (OTC)), for example when markets become inactive.~~ Application of professional judgment by the auditor increases in importance with the complexity of financial instruments, and is necessary in particular regarding decisions about:

- Materiality¹⁶ relating to the financial statements as a whole and ~~audit~~-risk of material misstatement arising from the entity's-relating to complex financial instruments.
- Evaluating whether sufficient appropriate audit evidence has been obtained, which can be particularly challenging in inactive markets or when entity-developed 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

¹⁵ ISA 200, paragraphs 15-16 and A18-A27

¹⁶ ISA 320, Materiality in Planning and Performing an Audit, requires the auditor to determine materiality for the financial statements as a whole and performance materiality for purposes of assessing the risks of material misstatement and determining the nature, timing and extent of further audit procedures.

reasonableness of valuations prepared by management's experts and evaluating whether disclosures in the financial statement achieve fair presentation.

Documentation

~~37. ISA 230 establishes requirements for the auditor to prepare documentation that provides a sufficient and appropriate record of the basis for the auditor's report and evidence that the audit was planned and performed in accordance with ISAs and applicable legal and regulatory requirements.¹⁷ Documentation of the auditor's professional judgments made in relation to significant matters arising during the audit serves to explain the auditor's conclusions and to reinforce the quality of the judgments made in reaching those conclusions. For example, the auditor may document how the classification of the financial instruments in the entity's financial statements (e.g., in the income statement or the statement of changes in equity) have been assessed and whether the criteria for initial measurement of financial instruments established by the applicable financial reporting framework have been met. ISA 540 also requires documentation of the basis for the auditor's conclusions about the reasonableness of valuation of financial instruments and their disclosure that give rise to significant risks.~~

Involving Those with Specialized Skills and Knowledge in the Audit

~~3239.~~ In planning the audit, the auditor is required to ascertain the nature, timing and extent of resources necessary to perform the audit engagement.¹⁸ ~~ISA 220 requires the engagement partner to be satisfied that the engagement team, and any auditor's experts who are not part of the engagement team, collectively have the appropriate competence and capabilities to perform the audit engagement.¹⁹ The complexity challenges inherent in auditing some complex financial instruments means that there may be areas of the audit that require particular skills and expertise in order for to enable the auditor to understand the risks of material misstatement associated with the auditing of such financial instruments, the understanding and testing of related information technology (IT) controls (since complex financial instruments often require complex systems to control them), and to obtain sufficient appropriate audit evidence related to the valuation of complex financial instruments.~~

~~40. In the case of a sole practitioner, or smaller firms with few partners and employees, it is more likely that expertise from external parties is necessary to assist the auditor in performing risk assessment procedures, evaluating valuations of financial instruments that are highly complex, and concluding on the application of the requirements of the applicable financial reporting framework.~~

~~3344.~~ In particular, ISA 540²⁰ requires the auditor to consider whether, in order to obtain sufficient appropriate audit evidence, specialized skills or knowledge in relation to one or more aspects of

¹⁷ ~~ISA 230, *Audit Documentation*~~

¹⁸ ISA 300, *Planning an Audit of Financial Statements*, paragraph 8(e)

¹⁹ ~~ISA 220, *Quality Control for an Audit of Financial Statements*, paragraph 14~~

²⁰ ISA 540, paragraph 14

~~accounting estimates~~ are required ~~in order to obtain sufficient appropriate audit evidence.~~²⁺ ~~This is done in conjunction with the auditor's~~ determination of:

- (a) Whether management has appropriately applied the requirements of the applicable financial reporting framework relevant to the accounting estimate;
- (b) Whether the methods for making the accounting estimates are appropriate and have been applied consistently, and whether changes, if any, in accounting estimates or in the method for making them from the prior period are appropriate in the circumstances; and
- (c) Which procedure(s) to undertake to appropriately respond to the assessed risks of material misstatement.

~~42. Requirements in many financial reporting frameworks pertaining to the measurement and disclosure of financial instruments and the related risks and uncertainties are complex and extensive. A proper understanding of the requirements of the applicable financial reporting framework to the extent they relate to the circumstances of the entity is important and will enable the auditor to understand alternative methods for measurement where permitted by the framework and to challenge management if the applied methods do not appear to be appropriate.~~

~~3444. The engagement partner may also consider it necessary to use person(s), from within or external to the firm, with the necessary Specialized skills or knowledge may be needed to help plan and perform the auditing procedures, especially when:~~

- The financial instruments are ~~highly~~ complex;
- ~~• Relatively simple financial instruments are combined to produce a more complex product;~~
- The entity is engaged in active trading of complex financial instruments;
- Management has used a management's expert in valuing complex financial instruments (see paragraphs 22-2830-32);
- ~~• The valuations of the complex financial instruments are based on pricing models; Non-financial systems are used to record and disclose the complex financial instruments, including information about risks and uncertainties associated with the entity's financial instrument activities;~~
- 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; or
- The auditor's risk assessment procedures have identified significant risks relating to complex financial instruments (see paragraphs 44-4853-55).

~~3543. During the course of the audit of When auditing complex financial instruments, the auditor may identify, in light of the experience of the auditor and the circumstances of the engagement, the need for specialized skills of knowledge to be applied in relation to one of more aspects of the~~

²⁺—ISA 540, paragraph 14

~~financial instruments. For example,~~ specialized skills and knowledge may be needed to obtain an understanding of:

- The operating characteristics and risk profile of the industry in which the entity operates;
- The structure of complex financial instruments used by the entity, and their characteristics, including their level of complexity;
- The legal, tax and accounting implications resulting from ~~the contracts for~~ the complex financial instruments, including whether the contracts are enforceable by the entity;
- The entity's information system for complex financial instruments, including any relevant services provided by a service organization (see paragraphs 26-2733-34). This may include, for example, specialized skills or knowledge about computer applications when significant information about those complex financial instruments is transmitted, processed, maintained or accessed electronically;
- The methods of valuation of the complex financial instruments, for example, when fair value is determined by a pricing model ("marked to model"), or when management has a choice of models; and
- The requirements of relevant legislation, regulations and the applicable financial reporting framework for financial statement assertions related to complex financial instruments.

3645. When such a person's expertise is in auditing and accounting, regardless of whether the person is from within or external ~~for to~~ the firm, this person is considered to be part of the engagement team and is subject to the requirements of ISA 220. 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 620²² apply.

3746. 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).²³ Accordingly, more than one individual or organization with specialized skills may be involved in order to assist in various stages of the audit.

3847. Market conditions may also lead to the need for the auditor to make use of a person with specialized skills or knowledge where previously it was not considered necessary. For example, when markets have become inactive and market price information is unavailable, the auditor may use a person with different expertise than one who was used previously in certain circumstances, since valuation methods are changed to become more complicated, such as by switching to using pricing models rather than using observable market prices.

3948. 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

²² ISA 620, *Using the Work of an Auditor's Expert*

²³ ISA 620, paragraph A2

for the engagement team to consult²⁴ with other professionals, from within or outside the firm, with relevant technical accounting or auditing expertise and experience. In addition, if not otherwise required²⁵ to do so, the auditor may consider it appropriate to appoint an engagement quality control reviewer to provide an objective evaluation of the significant judgments made by the engagement team and the conclusions reached in formulating the opinion, 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.

Fraud Risk Factors

4049. ISA 240 includes requirements for the auditor to obtain information for use in identifying the risks of material misstatement due to fraud.²⁶ Fraudulent financial reporting often involves management override of controls that otherwise may appear to be operating effectively. This may include inappropriately adjusting assumptions and changing judgments used to estimate account balances, for example using assumptions for fair value accounting estimates, including complex financial instruments, that are inconsistent with observable marketplace assumptions. In inactive markets, the increased use of models and lack of market comparisons may present opportunities for manipulation. ~~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.~~

4150. Incentives for fraudulent financial reporting by employees may exist where incentive compensation schemes are dependent on returns made from the use of complex financial instruments and the complexity of the instruments and related transactions may make it difficult to monitor the quality of the returns.

4251. When financial market conditions are difficult, ~~the risk of fraudulent financial reporting may be increased related to the valuation of financial instruments. Circumstances~~this may give rise to increased incentives for management or employees to engage in fraudulent financial reporting: to

²⁴ 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.

²⁵ International Standard on Quality Control (ISQC) 1, *Quality Control for Firms that Perform Audits and Reviews of Financial Statements, and Other Assurance and Related Services Engagements*, establishes requirements for firms to ensure engagement quality control reviews are conducted for audits of financial statements for listed entities. ISQC 1 also requires firms to set out criteria against which all other audits and reviews of historical financial statements are evaluated to determine whether an engagement quality control review should be performed.

²⁶ ISA 240, *The Auditor's Responsibilities Relating to Fraud in an Audit of Financial Statements*

protect personal bonuses, to hide management error, to avoid breaching borrowing limits or to avoid reporting catastrophic 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 who are concerned about the solvency of the business.

Indicators of Management Bias

~~4352.~~ ISA 540 requires the auditor to review the judgments and decisions made by management in the making of accounting estimates to identify whether there are indicators of possible management bias and to document any indicators noted.²⁷ The susceptibility to management bias increases with the subjectivity of the valuation ~~of financial instruments~~. For example, management may ~~tend to choose~~ to ignore observable marketplace assumptions or inputs and instead use their own internally-developed model if the model yields more favorable results ~~(e.g., by resulting in a smaller adjustment to the value of the financial instruments in the balance sheet)~~. ~~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.~~ 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.

Significant Risks

~~4453.~~ ~~The risk of material misstatement for assertions related to financial instruments varies with the degree of complexity of such instruments. The characteristics of financial instruments mean that there may be significant risks relating to their completeness and accuracy of recording, valuation and presentation and disclosure. The auditor's risk assessment serves to identify these risks. As part of the risk assessment process, ISA 315 requires the auditor to determine whether any of the risks identified are, in the auditor's judgment, significant risks.~~²⁸ If the auditor has determined that a significant risk exists, the auditor is required to obtain an understanding of the entity's controls, including control activities, relevant to that risk.²⁹ When the auditor has determined that an assessed risk of material misstatement at the assertion level is a significant risk, the auditor is required to perform substantive procedures that are specifically responsive to that risk.³⁰ Substantive procedures to respond to significant risks are described further in paragraphs ~~45-51~~178-180.

~~23.~~ ~~In some cases the level of estimation uncertainty may be so large as to give rise to significant risk, for example when the accounting estimates are highly dependent upon judgment, or are~~

²⁷ ISA 540, paragraphs 21 and 23

²⁸ ISA 315, paragraph 27

²⁹ ISA 315, paragraph 29

³⁰ ISA 330, paragraph 21

~~valued using a model with no observable inputs. Significant risks are discussed in more detail in paragraphs 53–55.~~

~~18. Significant risks relate not only to whether an accounting estimate should be recognized, but also to the adequacy of the disclosures. With respect to such accounting estimates, the applicable financial reporting framework may require disclosure of the accounting estimates and the high estimation uncertainty associated with them. The purpose of these disclosures is to alert users of the financial statements that these instruments have not been recognized in the financial statements at fair value because their fair value cannot be measured reliably, so that these users can make their own judgments about the extent of possible differences between the carrying amount of those instruments and their fair value.~~

~~4554. ISA 240 requires the auditor to treat those assessed risks of material misstatement due to fraud as significant risks.³¹ Other e~~Examples of circumstances that may lead the auditor to determine that a significant risk exists relating to complex financial instruments may include:

- ~~• Financial instruments that have been identified as having~~Whether there is high estimation uncertainty related to the valuation of complex financial instruments (for example, those with unobservable inputs (see paragraphs ~~88–89~~108–110)). ~~In these circumstances, ISA 540 establishes requirements for the auditor to perform substantive procedures for significant risks and to evaluate the adequacy of the disclosure of their estimation uncertainty.³²~~
- ~~• Lack of proper controls over financial instrument activities; If an entity engages in a high volume of financial instrument transactions and does not have a strong control environment, this will constitute a significant risk. However, complex financial instruments could represent a significant risk even if the entity has a strong control environment.~~
- Complex requirements in the applicable financial reporting framework relating to measurement and disclosure of complex financial instruments, and the level of management judgment required to properly apply those requirements;
- Lack of The unavailability of sufficient evidence to support be used by management's valuation of its in valuing the complex financial instruments, in particular for those that have less observable inputs or that are affected by inactive market conditions;
- ~~• Lack of active markets, which may lead to the potential systemic issues giving rise to potential implications on managements' use of the going concern assumption, especially for those entities which are substantially engaged in trading complex financial instruments or are highly leveraged; and~~
- 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.
- The significance of valuation adjustments made to model outputs when the applicable financial reporting framework requires or permits such adjustments.

³¹—ISA 240, paragraph 27

³²—ISA 540, paragraphs 15 and 20

~~4655.~~ Particular difficulties ~~giving rise to significant risks~~ may develop where there is severe curtailment or even cessation of trading in particular complex financial instruments, ~~for example when markets become inactive. For example, i~~n 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 modelling.

~~47.~~ Changing market conditions are likely to be challenging for those entities that are engaged in trading complex financial instruments or are highly leveraged and, in extreme circumstances, may lead to potential systemic issues raising concerns over the potential implications on management's use of the going concern assumption.³³

~~48.~~ 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.³⁴

~~Further~~ *Substantive Procedures to Respond to Significant Risks*

~~49178.~~ ISA 540 requires the auditor to undertake additional procedures when significant risks have been identified. The auditor is required to evaluate the following:³⁵

- (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.
- (c) Where relevant to the reasonableness of the significant assumptions used by management or the appropriate application of the applicable financial reporting framework, management's intent and ability to do so.

~~50179.~~ If, in the auditor's judgment, management has not adequately addressed the effects of estimation uncertainty on the accounting estimates that give rise to significant risks, the auditor is required, if considered necessary, to develop a range with which to evaluate the reasonableness of the accounting estimate.³⁶ Additional procedures relating to the evaluation of the adequacy of disclosures are described in paragraphs ~~139-148~~169-177.

~~51180.~~ An assumption may be deemed to be significant if a reasonable variation in the assumption would materially affect the measurement of the complex financial instrument. Management may have considered alternative assumptions or outcomes by performing a sensitivity analysis (see

³³ See ISA 570, *Going Concern*. Management's assessment of the entity's ability to continue as a going concern involves making a judgment, at a particular point in time, about inherently uncertain future outcomes or events or conditions.

³⁴ ISA 540, paragraphs 11, 15 and 20

³⁵ ISA 540, paragraph 15

³⁶ ISA 540, paragraph 16

paragraphs ~~108-109-134~~). The auditor's considerations in evaluating assumptions made by management are described in paragraphs ~~121-124~~~~154-157~~.

Understanding the Entity and Its Environment, Including Its Internal Control, and

Identifying and Assessing the Risks of Material Misstatement

~~[Paragraphs 56-89 of the March 2010 draft have been incorporated into Appendix 2 and renumbered accordingly, or incorporated later in the document]~~

~~5256. 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.³⁷ The understanding establishes a frame of reference within which the auditor plans the audit and exercises professional judgment throughout the audit. Because the nature and extent of financial instrument transactions varies by entity, and depends upon whether the entity is an originator of, or investor in, complex financial instruments, the control environment at each entity will be unique. Appendix 2 describes internal controls that may exist in an entity that deals in a high volume of financial instrument transactions, for example, when:~~

~~Assessing risks of material misstatement of the financial statements;~~

~~Determining materiality in accordance with ISA 320;~~

~~Considering the appropriateness of the selection and application of accounting policies, and the adequacy of financial statement disclosures;~~

~~Identifying areas where special audit consideration may be necessary, for example, related party transactions, the appropriateness of management's use of the going concern assumption,³⁸ or considering the business purpose of transactions;~~

~~Developing expectations for use when performing analytical procedures;~~

~~Responding to the assessed risks of material misstatement, including designing and performing further audit procedures to obtain sufficient appropriate audit evidence; and~~

~~Evaluating the sufficiency and appropriateness of audit evidence obtained, such as the appropriateness of assumptions and of management's oral and written representations.~~

~~5390. The process of obtaining an understanding of the entity and its environment relating to complex financial instruments, including relevant controls, assists the auditor in identifying and assessing the risks of material misstatement in the financial statements and designing audit procedures in response to those risks. The nature and extent of internal control that exists at an entity will~~

³⁷ ISA 315, paragraph A1

³⁸ ~~See ISA 570, *Going Concern*. Management's assessment of the entity's ability to continue as a going concern involves making a judgment, at a particular point in time, about inherently uncertain future outcomes or events or conditions.~~

influence the auditor's determination of the balance between tests of controls and substantive procedures, as discussed in paragraphs 66-68. As noted in paragraph 45, if an entity engages in a high volume of financial instrument transactions and does not have a strong control environment, this may constitute a significant risk, which in turn affects the extent of the auditor's procedures and the auditor's ability to obtain sufficient appropriate audit evidence. Failure of management to design an appropriate control environment may also constitute a deficiency in internal control (see paragraphs 64-65).

Understanding the Financial Instruments to which an Entity Is Exposed

5459. Due to the complex nature of certain financial instruments, it is important that the auditor understand the instruments in which the entity has invested or to which it is exposed, including The auditor's understanding of the entity and its environment in accordance with ISA 315³⁹ encompasses the purpose for which financial instruments are transacted and to what risks their use exposes the entity. This understanding is important because the characteristics of complex financial instruments can be such that they obscure their real effect certain elements of risk and exposure. An understanding of the characteristics of financial instruments 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 controlled managed by the entity.

55.60. While intended to mitigate risk, inappropriate hedge transactions can cause significant financial loss if the risks are not properly identified or managed. An example might be the hedging of baskets of bonds or shares with an index if the basket does not match the index closely, price movements may not offset each other, therefore increasing risk not reducing it.

57. Determining materiality involves both quantitative and qualitative considerations, and the use of professional judgment. When planning the audit, materiality may be difficult to assess for an entity using financial instruments given some of their characteristics, for example, because:

- There is volatility of valuations.
- Some financial instruments can be assets or liabilities depending on their valuation and this may change over the course of the audit.
- Some financial instruments (for example, those with zero value at inception) may have little effect on the balance sheet, even though they may result in the addition of significant risks.
- It may be difficult to apply a percentage to a chosen benchmark as a starting point in determining materiality for the financial statements as a whole, because the values of certain financial assets or financial liabilities may be volatile.

58. ISA 320 also establishes requirements for the auditor to revise materiality as the audit progresses.⁴⁰ This may be necessary, for example, when:

³⁹ —ISA 315, paragraph 11(b)

⁴⁰ —ISA 320, paragraphs 12-13

~~The auditor's understanding of the financial instruments and the risks associated with them indicates that, due to the complexity of the entity's financial instrument activities and the leverage of the entity, the circumstances related to misstatements may cause the auditor to evaluate them as material even if they are below materiality.~~

~~The auditor's evaluation of disclosures of estimation uncertainty identifies a wide range of possible outcomes of the financial instrument in relation to materiality.~~

~~22. In complying with the requirements of ISA 315,⁴⁺ the auditor is required to obtain an understanding of the entity's objectives and strategies for using financial instruments, as well as understanding the entity's processes for identifying business risks relevant to financial reporting objectives and deciding how to address those risks.~~

~~23. Examples of matters that the auditor may consider when obtaining an understanding of the entity's objectives, strategies and related business risks in the context of financial instruments may include:~~

- ~~• What financial instruments the entity is exposed to (see paragraphs 14-18);~~
- ~~• What they are used for (see paragraphs 59-60);~~
- ~~• Their exact terms and characteristics so that their implications can be fully understood and, in particular where transactions are linked, the overall impact (see paragraphs 68 and 81); and~~
- ~~• How they fit in to the entity's overall risk management strategy (see paragraphs 70-74).~~

Inquiries of the risk management function, if such a function has been established by the entity, may be particularly relevant to the auditor's understanding.

~~5624. The auditor's risk assessment and the nature, timing and extent of audit procedures relating to financial instruments depends on a number of factors addressed throughout this IAPS, including:~~

- ~~• The auditor's understanding of the entity and its environment, including the auditor's consideration of the entity's control environment, risk assessment process, information systems, control activities, and monitoring of controls complexity of an entity's financial instruments (see paragraphs Appendix 256-89);~~
- ~~• The entity's risk assessment process and the controls it has put in place over its financial instrument activities (see paragraphs 70-77);~~
- ~~• Whether the auditor has identified significant risks related to financial instruments (see paragraphs 44-4853-55); and~~
- ~~• The evidence that management has to support the valuations of its complex financial instruments (see paragraphs 117-125); and~~
- ~~• The requirements in the applicable financial reporting framework for measurement presentation and disclosure of financial instruments (see paragraphs 125-13718, 26-29 and~~

⁴⁺—ISA 315, paragraph 11(d)

~~132-135). The importance of disclosures in the financial statements increases as the measurement uncertainty of the financial instruments increases.~~

~~5790. The process of obtaining an understanding of the entity and its environment relating to financial instruments, including relevant controls, assists the auditor in identifying and assessing the risks of material misstatement in the financial statements and designing audit procedures in response to those risks.~~

94. The nature, timing and extent of the auditor's procedures will also depend on the susceptibility to misstatement ~~of the valuation of~~ associated with complex financial instruments. Examples of considerations that might affect the auditor's assessment of the risks of material misstatement relating to complex financial instruments include:

- Whether ~~those charged with governance~~ the entity has ~~ve~~ adequate governance structures and control processes ~~for to ensure that~~ all complex financial instruments ~~that~~ are measured at fair value both for risk management and financial reporting purposes that are consistently applied across the entity and integrated with risk measurement and management processes;
- Whether ~~the entity's senior~~ management ensures s that policies for categorizing complex financial instruments ~~in financial reporting on the balance sheet~~ are consistent, insofar as possible, for accounting, regulatory and management purposes;
- Whether ~~senior~~ management ensures that these entity's policies are strictly aligned with ~~the~~ its valuation capabilities ~~of the entity, and adhered to by those employees responsible for the entity's valuations;~~
- Whether the entity has in place sound processes for the design and validation of methodologies used to produce valuations;
- Whether the entity has maximized the use of relevant and reliable inputs and has incorporated all other important information so that valuations of complex financial instruments are as reliable as possible;
- Whether the entity has a rigorous and consistent process to determine valuation adjustments for risk management, regulatory and financial reporting purposes, where appropriate;
- Whether the entity has valuation and risk management processes that explicitly assess valuation uncertainty and that assessments of all material valuation uncertainty are included in the information communicated to those charged with governance;
- Whether the entity has control procedures in place for making investment decisions, including whether ~~these significant~~ decisions are communicated with those charged with governance;
- The strength of the entity's control environment;
- Economics and business purpose of the entity's financial instrument activities, including the level of due diligence associated with particular complex financial instruments and other contracts ~~to determine whether they contain embedded derivatives;~~

- ~~• An entity's experience with the financial instrument, including the expertise of those responsible for making investment decisions;~~
- 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, including whether there is appropriate segregation of duties between those responsible for the complex financial instrument and those responsible for determining the valuation of the complex financial instrument;
- Management's track record for assessing the risks of particular instruments; and
- ~~• The degree of complexity of a financial instrument's features, including;~~
- ~~Whether the transaction giving rise to the complex financial instrument involved the exchange of cash; and whether the complex financial instrument is traded on national exchanges, across borders, or not at all.~~
- ~~• Whether external factors affect the assertion; and~~
- ~~• Whether the financial instrument is traded on national exchanges, across borders, or not at all.~~

5874. Poor risk management processes can affect the audit in a number of indirect ways by, for example:

- Exposing an entity to levels of risk that breach legal or regulatory restrictions.⁴² ~~The auditor may have responsibilities in respect of such breaches as set out in ISA 250;~~⁴³
- Increasing the risk of material misstatement due to fraud or error;
- Making it more difficult to obtain an understanding of the impact of complex financial instruments on the entity as a whole; or
- In extreme circumstances, increasing the risk of a going concern problem.

5964. ~~On a recurring engagement, having evaluated the design of the entity's internal control in a previous audit does not obviate the auditor's need to consider it in the current period.~~ Matters to consider on recurring engagements include whether there have been changes to the design of the entity's related controls to ensure that it remains capable of effectively preventing, or detecting and correcting, material misstatements, and whether there have been changes in key personnel responsible for overseeing or performing control activities. For example, changes in the entity's activities, the way it uses complex financial instruments and the types of complex financial instruments held, or changes in the environment or market conditions in which the entity operates, may have introduced new or increased risks to be addressed.

6092. Understanding how an entity's compensation policies interact with its exposure to risk and its control environment is also useful in light of increased attention from regulators to entities compensation structures relating to complex financial instruments, including rules governing

⁴² The auditor may have responsibilities in respect of such breaches as set out in ISA 250, *Consideration of Laws and Regulations in an Audit of Financial Statements*.

⁴³ ~~ISA 250, *Consideration of Laws and Regulations in an Audit of Financial Statements*~~

incentive compensation schemes. When adequate controls surrounding the development and approval of incentive compensation schemes do not exist, this may represent a fraud risk factor to be considered by the auditor (see paragraphs 40-43~~49-52~~).

The Role of the Internal Audit Function⁴⁴

6187. ISA 315 requires the auditor to obtain an understanding of ~~any the entity's~~ internal audit function (if the function exists), including the nature of ~~its the function's~~ responsibilities, how ~~it the function~~ fits in the entity's organizational structure, and the activities ~~it performs~~ed or to be performed, in order to determine whether the internal audit function is likely to be relevant to the overall audit strategy and audit plan.⁴⁵ The knowledge and skills required of an internal audit function to understand and ~~audit 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 ~~in auditing for~~ other parts of the business. ~~The external auditor's determination of whether the internal audit function is likely to be relevant to the audit considers t~~The extent to which any the internal audit function has the knowledge and skill to cover, and has in fact covered, the entity's financial instrument activities 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.

6288. In many large entities, the internal audit function ~~forms an essential part of the risk management function may perform work~~ that enables senior management and those charged with governance to review and evaluate the entity's controls~~s procedures covering relating to~~ the use of complex financial instruments. ~~The work performed by~~ 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, the accounting systems and internal controls and therefore to assessing the risks of material misstatement. Areas where the work ~~performed by of~~ the internal audit function may be particularly relevant are:⁴⁶

- 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

⁴⁴ The IAASB has a project in progress to revise extant ISA 610, *Using the Work of Internal Auditors*. Where this Exposure Draft refers to proposed draft wording under consideration at present, the IAASB will consider the need for modification of the wording of this IAPS as part of the deliberations relating to the finalization of proposed revised ISA 610.

⁴⁵ ISA 315, paragraph 23

⁴⁶ Work performed by an independent risk management function may also be relevant to the auditor in these areas.

- 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.

~~6389.~~ ~~Certain aspects of The external auditor's use of the work of~~ the internal audit function's ~~work may be useful in determining will affect~~ the nature, timing and extent of ~~the~~ external auditor's procedures relating to complex financial instruments. When the external auditor ~~intends to use specific work of~~ determines that the internal auditor's ~~function is likely to be relevant to the overall audit strategy and audit plan~~, the external auditor evaluates whether and to what extent that work of the internal audit function can be used, and to determine its adequacy for the purposes of the audit as required by ISA 610.⁴⁷

Deficiencies in Internal Control

~~6493.~~ In some cases, management may not have appropriately responded to significant risks of material misstatement of complex financial instruments by implementing controls over these significant risks. Failure by management to implement such controls is an indicator of a significant deficiency in internal control.

~~6594.~~ In addition, if deficiencies in internal control were noted in prior periods, it will be important for the auditor to understand whether management has taken action to address these deficiencies, as this may influence the auditor's reliance on control activities and the extent of substantive testing.

The Auditor's Responses to Assessed Risks

~~66137.~~ The auditor's assessment of the identified risks at the assertion level provides a basis for considering the appropriate audit approach for designing and performing further audit procedures, including the balance between substantive procedures and tests of controls. This 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.

~~67.~~ An expectation that controls are operating effectively may be more common when dealing with a financial institution with a well-developed control environment, and therefore controls testing may be ~~the most an~~ effective means of obtaining ~~sufficient appropriate~~ audit evidence. 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 efficient. 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.⁴⁸

⁴⁷ ~~—ISA 610, Using the Work of Internal Auditors~~

⁴⁸ ISA 330, paragraph 18

~~68138~~. The balance between tests of controls and substantive procedures is influenced by a number of factors including:

- The entity's control environment, including whether any deficiencies in internal control have been identified;
- The design of controls and their perceived implementation;
- The ability to obtain sufficient appropriate audit evidence, including the sources and nature of the evidence;
- The size and complexity of the entity and the volume and complexity of transactions.

Reliance on Control Activities

~~69140~~. In reaching a decision on the nature, timing and extent of testing of controls, the auditor may consider factors such as:

- The importance of the financial instrument activities to the entity;
- ~~_____~~ The nature, frequency and volume of financial instrument transactions;
- The control objectives and processes in place at the entity;
- The potential effect of any identified deficiencies in control procedures;
- The types of control activities being tested;
- The frequency of performance of these control activities;
- The level of precision the controls are intended to achieve;
- The evidence of performance; and
- The involvement of a service organization.⁴⁹

~~70141~~. Tests of controls are performed on those controls that the auditor has determined are suitably designed to prevent, or detect and correct, a material misstatement in an assertion. In circumstances where the entity undertakes a limited number of financial instrument transactions, or that the magnitude of these instruments is especially significant to the entity as a whole, dual-purpose tests and substantive procedures, may be more appropriate.

~~71142~~. The population from which items are selected for detailed testing may not be limited to the accounting records. Items to be tested may be drawn from other sources, for example counterparty confirmations and trade tickets, so that the completeness assertion can be tested.

Dual-Purpose Tests

~~72143~~. 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. This is particularly common when auditing complex financial instruments. For example, the auditor may design and

⁴⁹ ISA 402, paragraphs 16-17

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. Paragraphs 76-148 highlight the three main assertions relating to complex financial instruments (i.e., completeness and accuracy of recording, valuation, and presentation and disclosure), controls that may be in place by an entity to address those assertions, and substantive procedures that the auditor may undertake.

Substantive Procedures

~~73144.~~ While ~~A~~ analytical procedures⁵⁰ undertaken by the auditor can be effective as risk assessment procedures to provide the auditor with information about an entity's business, but they are usually not less effective as substantive procedures because ~~In the audit of financial instrument activities they may give information about an entity's business but, by themselves, are generally unlikely to provide sufficient appropriate audit evidence with respect to assertions related to financial instruments.~~ The complex interplay of the factors from which the values of these instruments are derived often masks any unusual trends that might arise.

~~74139.~~ Substantive procedures related to the existence, completeness and valuation of complex financial instruments are typically performed at the balance sheet date, even if controls have been in place throughout the period. This is because:

- Individual transactions can be significant in themselves, so that the omission or misrecording of even a few can have a material impact~~;~~
- Cash flows from such transactions can be significant and these can also affect carrying values. These have to be properly accounted for right up to the period end; and
- Valuations can change significantly in a short period of time~~;~~

~~75145.~~ Designing substantive tests includes consideration of:

- Significant risks relating to complex financial instruments that have been identified~~;~~ (see paragraphs ~~44-51~~ 53-55);
- Appropriateness of accounting – A primary audit objective often addressed through substantive procedures is determining the appropriateness of an entity's accounting for complex financial instruments. For example, depending on the volume of transactions, the auditor may determine whether revenues and expenses related to complex financial instruments have been appropriately recognized and recorded in the correct financial reporting period by performing cut-off procedures;

⁵⁰ 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 analytical procedures in forming an overall conclusion on the financial statements. Analytical procedures may also be applied at other stages of the audit.

- Involvement of 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;⁵¹
- Interim audit procedures – Market movements in the period between the interim testing date and year-end may necessitate further audit procedures if substantive procedures were performed before the balance sheet date. The value of complex financial instruments may fluctuate greatly in a relatively short period, and evidence to support valuation may become less available if market conditions change, which may also warrant a change in valuation methodology. As the amount, relative significance, or composition of an account balance becomes less predictable, the value of testing at an interim date becomes less valuable;
- Routine vs. 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;
- 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.

~~146. The auditor is required to obtain sufficient appropriate audit evidence to determine whether management has appropriately applied the requirements of the applicable financial reporting framework.⁵² Financial instruments may be designated as accounting hedges in accordance with the applicable financial reporting framework. Where hedge accounting techniques are used, the auditor would gather audit evidence to determine whether management's designation of a financial instrument as a hedge is appropriate. The nature and extent of the evidence obtained by the auditor will vary depending on the nature of the hedged items and the hedging instruments~~

~~147. The auditor's procedures to obtain sufficient appropriate audit evidence to determine whether management complied with the applicable hedge accounting requirements of the financial reporting framework may include:~~

~~Reviewing designation and documentation requirements; and~~

~~Obtaining audit evidence to support management's expectation, both at the inception of the hedge transaction, and on an ongoing basis, that the hedging relationship will be highly effective.⁵³~~

⁵¹ ISA 402, paragraph 15

⁵² ~~ISA 540, paragraph 12(a)~~

⁵³ ~~If the hedging relationship is no longer effective, the hedging instrument ceases to qualify for treatment as a hedge.~~

~~The nature and extent of the documentation prepared by the entity will vary depending on the nature of the hedged items and the hedging instruments. If sufficient audit evidence to support management's use of hedge accounting is not available, or there is disagreement with management's use of hedge accounting, there may be implications for the auditor's report.~~ **Control Objectives and Financial Statement Assertions**

~~Substantive Procedures Related to Financial Statement Assertions~~

Completeness and Accuracy of Recording of Complex Financial Instruments

7696. Completeness and accuracy of recording is an essential core assertion on which many others are built. For example, without a process that completely and accurately records all complex financial instruments:

- Financial information will be incomplete or inaccurate;
- Risks will be improperly managed, because the entity's exposures will be inaccurately recorded; and
- The entity will be unable to settle transactions accurately.

7797. High volumes of transactions and their complexity can make verifying or corroborating completeness and accuracy difficult for complex financial instruments. However, completeness and accuracy are essential if the accounting records are to provide an appropriate basis for the preparation of the financial statements.

Trade Confirmations and Clearing Houses

7898. Generally, the terms of complex financial instruments are documented in confirmations exchanged between counterparties or legal agreements. Clearing houses serve to Mmonitoring the exchange of confirmations ~~can be an effective control, because an external party takes responsibility for~~by matching trades and settling them. ~~Often this function is performed by a~~ central clearing house is attached to an exchange and entities typically have processes to manage the information delivered to the clearing house.

7999. Not all transactions are settled through such an exchange, however, but 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 ensure that the risk of fraud is minimized. In other markets, transactions are confirmed after settlement has begun and sometimes confirmation backlogs also result in settlement beginning before all terms have been fully agreed. This presents additional risk and the transacting entities need to rely on alternative means of agreeing trades. These can 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 and in depth review of traders' profits and losses to ensure that they reconcile to what the back office has calculated.

Reconciliations with Banks and Custodians

~~80100~~. Some components of complex financial instruments, such as exchange traded futures and options, bonds and shares are held in independent depositories or are settled through central settlement houses. In addition, most complex financial instruments result in payments of cash at some point and often these begin early in the contract's life. These cash payments and receipts will pass through an entity's bank account. Regular and thorough 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.

~~81101~~. It should be noted that not all complex financial instruments result in a cash flow in the early stages of their lives 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.

~~82102~~. 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.

~~83103~~. 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.

~~84104~~. 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~~It is therefore important that the way in which~~ 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. ~~In addition, control processes are required to ensure that these policies are adhered to.~~

~~85105. Some transactions may be cancelled or amended after initial execution. In a strong control environment, such cancellations or amendments are subject to the same level of control as original trades. Application of appropriate controls relating to cancellation or amendment can mitigate the risks of material misstatement due to fraud or error. Failure to do so increases the risk of material misstatement due to fraud or error.~~

Substantive Procedures Relating to Completeness and Accuracy of Recording of Complex Financial Instruments

~~86148.~~ Substantive procedures that may provide audit evidence to support the completeness and accuracy assertion include:

- External confirmation⁵⁴ of bank accounts, custodian statements, valuation sources and so on. 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 ensuring that reconciling items are properly understood, followed up and dealt with.
- Reviewing operational data and contract registers detailing the entity's contractual obligations thereby verifying existence and rights and obligations.
- Determining whether the complexities inherent in a transaction have been fully identified and reflected in the accounts, including reading transaction documentation and confirming the accounting entries relating to it.

Valuation of Complex Financial Instruments

~~87107.~~ Most complex financial instruments are required to be measured at fair value either for the purposes of balance sheet presentation, calculating profit and loss or for disclosure. The objective of fair value measurement is to arrive at the price at which an orderly transaction would take place between market participants⁵⁵ 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. 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.

⁵⁴ 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.

⁵⁵ 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.

Fair Value Hierarchy

~~88108~~. 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 within and between entities. Inputs represent assumptions used by management to support valuations.⁵⁶ The hierarchy classifies valuation technique inputs into three broad 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, credit risks 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.

In practice, however, the distinction between the levels in the hierarchy is not always apparent.

~~89109~~. When observable inputs are not available, an entity uses unobservable inputs that reflect the assumption that market participant assumptions 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, which might include an entity's own data. 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.

⁵⁶ 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.

Management's Method for Valuing Its Complex Financial Instruments

~~90144~~. 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 method and the level of the evidence expected to be available. In order for management to measure a complex financial instrument at fair value, it is important that, to the extent possible, evidence be obtained from an observable external source that supports its fair value. Positions are generally valued by management using one of two methods:

- By direct comparison to an external source, for example, quoted shares and bonds; or
- By valuation through a model.

~~91443~~. Changes in markets may require changes in valuation approaches. 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. Reacting to changes in valuation techniques may be difficult ~~for management~~ 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. ~~Consequently, the degree of consistency of valuation approaches and the appropriateness of changes in approach or assumptions require audit attention.~~⁵⁷

Management's Assumptions

~~92445~~. 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. 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. Understanding the method of measurement used by management's experts, therefore, enables management to meet its responsibilities for ensuring the complex financial instruments recorded in the financial statements are properly valued and presented ~~(see paragraph 25)~~ and providing written representations to the auditor about whether they believe significant assumptions used valuing the complex financial instruments are reasonable (see paragraphs ~~161+93-194~~).

⁵⁷—~~ISA 540, paragraph 8(e)(iii), requires the auditor to understand whether there has been or ought to have been a change from the prior period in the methods used and, if so, why. If management has changed the method, it is important that management can demonstrate that the new method is more appropriate or is being used because of change in the environment, circumstances affecting the entity, or the applicable financial reporting framework.~~

93116. For example, understanding the bases on which brokers and pricing services have ~~compiled~~ 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, including the objectivity of the management's expert.

Sources of Evidence to Support Management's Assumptions

94117. The best indicators of fair value are contemporaneous transactions in an active market. 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).

95118. 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. 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 ~~are generally considered to 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.

96119. External prices may be available directly from markets and are likely to be used as inputs to valuation models, because many complex financial instruments are tailored for particular clients and are not therefore comparable among entities. Exchange prices can be used to derive estimates for fair value of complex financial instruments. Theoretical prices for customized products ~~can often may~~ be created by breaking down complex financial instruments into a series of listed options or futures, weighted by standard expiry dates. ~~Most~~ 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.

Broker Quotes and Pricing Services

97120. Pricing information may also be obtained from brokers or pricing services. 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. Brokers and pricing services may value complex financial instruments using proprietary models. 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.

98121. If broker quotes or quotes obtained from pricing services are not based on current prices of actively traded instruments, these quotes on their own, without further evaluation from management, are not sufficient evidence to support the valuation assertion. It will be necessary for management to evaluate whether the 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 – in order to assess whether they are consistent with the fair value measurement objective;
- Whether the prices are indicative prices or binding offers;
- 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.

Additional information on broker quotes and pricing services is included in Appendix [43](#).

~~99~~[122](#). 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, it will be necessary for management to obtain additional quotes 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. [See paragraphs 149-154, which deal with the auditor's evaluation of the overall results of valuations.](#)

Management's Process to Corroborate Evidence Used in Developing Its Valuation

~~100~~[123](#). It is possible that there will be disparities between price indicators from different providers. Investigation of these disparities assists management in corroborating the evidence used in developing its valuation of [complex](#) financial instruments in order to determine whether the valuation is reasonable. Simply taking the average of the quotes provided, without doing further research, ~~may~~[is](#) 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 determine whether its valuations of [complex](#) financial instruments are reasonable, management may:

- ~~• Look at the performance of price providers in the past. For example it may be that a price provider consistently over or under prices a particular asset class and that this would reduce the reliance being placed on that provider;~~
- 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 [complex](#) similar 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 ~~(however, a valuation model will generate a valuation based on level 3 inputs)~~; 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.

Using Models

~~1011~~24. Models are used to value financial instruments, including complex financial instruments, where the price cannot be directly observed in the market. There can be a number of reasons for this. For example, markets might only quote for certain standard transactions such as those with one, three and five year maturities. For example, an A 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.

~~1021~~25. ~~The objective of a valuation model is to maximize the use of relevant observable inputs and minimize the use of unobservable inputs.~~ 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, particularly when inputs are subjective.
- 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.

Effects of Inactive Markets

~~103+26.~~ 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.

~~104+27.~~ Characteristics of an inactive market include a significant decline in the volume and level of trading activity, the 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 not longer active. An active market is one in which transactions are taking place regularly on an arm's length basis. ~~What is~~ "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.

~~105+28.~~ When markets are inactive, ~~the complexity of measuring complex~~ financial instruments ~~increases in relation to their valuation 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 ~~will generally be~~ are based on level 2 or level 3 inputs. It will therefore be necessary for the entity to put more effort into the valuation process to ensure that prices provide evidence of fair value or to determine the adjustments to prices that are necessary to measure the fair value of the complex financial instrument. Under such circumstances it is desirable for entities generally to have:

- ~~A process Evidence~~ for determining whether level 1 inputs are available ~~the market is inactive, such that level 1 inputs are not available~~;
- An understanding of how particular prices from external sources 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;
- Policies for adjusting for valuation uncertainties. Such uncertainties can include lack of liquidity, uncertainties arising from model calibration and ~~counterparty nonperformance~~ credit risks; and
- The capability to calculate the range of realistic outcomes given the uncertainties involved, for example by performing a sensitivity analysis.

~~106+29.~~ Where there is no pricing source based upon current active market trading, indicators of price will be inherently unreliable. It is therefore necessary for the entity to gather other price indicators and evaluate them to determine the most reasonable price. In general, a price based on price indicators will be based on level 2 inputs. Price indicators may include:

- Recent transactions or 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.

~~107+30.~~ It may be necessary for the entity to adjust model derived prices to reflect additional factors, 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; and
- 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 taken 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.

However, adjustments are not appropriate if they adjust the measurement and valuation of the complex financial instrument away from fair value, for example for conservatism, which is a form of management bias.

Management's Use of Sensitivity Analysis

~~108+31.~~ 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 hypothetical effects on complex financial instruments subject to market risks. ~~The auditor may consider these analyses in assessing the risks of material misstatement and in evaluating management's assessment of the entity's ability to continue as a going concern.~~ However, value-at-risk analyses may not fully consider all the risks that may affect the entity and are not a substitute for the auditor's risk assessment procedures.

- ~~109~~134. The more sensitive the valuation is to movements in a particular variable, the more precisely that variable needs to be priced, or, if it cannot be sufficiently precisely priced, the more likely it is that disclosure will be necessary to indicate the uncertainties surrounding the valuation. See paragraphs ~~125-148~~~~158-177~~ for further guidance on disclosures, including estimation uncertainty.

Considerations Unique to Valuing Financial Liabilities

110. 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 of 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. The fair value of a financial liability reflects the non-performance risk associated with the liability, which can include the effects of the entity's own credit risk.
111. 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. Some of the more common factors considered in valuing a financial liability include:
- Collateral asset quality – the assets to which the holder of a financial instrument has recourse in the event of default should be considered, in particular if recourse is to all the assets of the issuer or only to specified assets. The greater the value and quality of the assets to which an entity has recourse in the event of default, the lower the credit risk of the financial instrument.
 - Subordination – establishing the priority of a financial instrument is critical in assessing the default risk. Other financial instruments may have priority issuers assets or the cash flows that support the instrument.
 - Default protection – Many financial instruments contain some form of protection to reduce the risk of non-payment to the holder. Protection might take the form of a guarantee of a third party, an insurance contract, a credit default swap, or an excess of assets supporting the financial instrument above what is needed to make the payments. The default risk is also reduced if subordinated instruments take the first losses on the underlying assets and therefore reduce the risk to more senior instruments. When protection is in the form of a guarantee, an insurance contract or credit default swap, it is necessary for management to identify the party providing the protection and asses that party's creditworthiness. Considering the creditworthiness of a third part involves

not only their current position but also the possible effect of other guarantees or insurance contracts that it might have written. If the provider of a guarantee has also guaranteed many correlated debt securities, the risk of its non-performance might increase significantly.

112. When valuing the interest of the issuer of an instrument that creates a financial liability, the view that market participants would take of the credit risk is an important consideration. This will include the credit risk of the issuer. There are various potential sources for reflecting their own credit in the valuation of financial liabilities. These include the yield curve for the entity's own bonds or other debt issued and credit default swap spreads. The most appropriate source of evidence of their own credit risk depends on the quality of the evidence available and the instrument being valued. For entities for which limited information is available, it might be necessary for management to look to information available for entities with similar risk characteristics; credit indices are published that may assist this process, although any deviations from similar entities or indices may also need to be considered. When adjusting for their own credit risk, it is also important for management to consider the nature of the collateral available for the financial liabilities being valued.

Substantive Procedures Relating to Valuation of Complex Financial Instruments

~~113106.~~ ~~Valuation is another essential assertion when auditing financial instruments.~~ As valuation is a process of estimation and is complex and may be subjective ~~by its nature~~, it often gives rise to significant risks of material misstatement of the financial statements (see paragraphs ~~44-4853-55~~).

~~114149.~~ In understanding how management values the complex financial instrument and in responding to the assessed risks of material misstatement in accordance with ISA 540,⁵⁸ the auditor considers the evidence that the entity has gathered (see paragraphs ~~90-107117-125~~) and the entity's conclusions on pricing and valuation and determines what audit work is required. Audit procedures to support the auditor's understanding of how management values its complex financial instruments may include:

- Considering whether there are any other relevant price indicators or factors to take into account;
- Reconciling data to source materials, after considered the reliability, completeness and accuracy of the source materials;
- Assessing the mathematical accuracy of the method employed;
- Obtaining independent confirmation of price indicators; and
- Reviewing and assessing the judgments made by the entity, for example by reviewing accounting position papers prepared by management.

This is a highly judgmental area and the auditor may consider using persons with specialized skills and knowledge to perform audit procedures, in particular when management has used an expert to value the complex financial instrument.

⁵⁸ ISA 540, paragraphs 12-14

Evaluating Whether the Valuation Method, Including Models, Used Is Appropriate in the Circumstances

~~115150.~~ ISA 540 requires the auditor to undertake one or more actions to respond to the assessed risks of material misstatement relating to financial instruments~~accounting estimates~~.⁵⁹ Due to the nature and complexity of financial instruments, for example because the assessed risks may be a significant risk, it is often necessary for the auditor to test how management has valued the complex financial instruments and the date on which the valuations are based. This testing includes evaluating whether:

- The method of measurement used is appropriate in the circumstances. For example, entities may use varying methodologies for regulatory and internal reporting purposes that may not be suitable for valuation in accordance with the applicable financial reporting framework; and
- The assumptions used by management are reasonable in light of the measurement objectives of the financial reporting framework.

~~116140.~~ Paragraphs 88-89 discuss 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. In general, prices based on alternative valuation sources will contain level 2 inputs. Level 3 inputs (or inputs that have similar characteristics in financial reporting frameworks that do not establish a hierarchy) have high estimation uncertainty 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.

~~117142.~~ In some cases, the applicable financial reporting framework may prescribe the method of measurement 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 method of measurement, or may specify alternative methods. When this is the case, matters that the auditor may consider in obtained an~~may be relevant to the auditor's~~ understanding of management's method used to value complex financial instruments include, for example:

- How management considered the nature of the complex financial instrument to be valued when selecting a particular method;
- 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; and
- Whether there are indicators of management bias in selecting the method to be used.

~~118151.~~ Models can be used to value both financial assets and financial liabilities. Valuation models are used where a complex financial instrument is not quoted in the market, however, inputs to the model may be observable (e.g., derived from complex financial instruments that are

⁵⁹ ISA 540, paragraph 13

quoted) or unobservable (e.g., estimates of future cash flows). ISA 540 provides guidance about matters that the auditor may consider in testing models.⁶⁰ In addition, the degree of consistency of valuation approaches and the appropriateness of changes in approach or assumptions require audit attention.⁶¹

119. When evaluating whether the model used by an entity is appropriate in the circumstances, the factors considered by the auditor may include:

- The theoretical model 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 model is commonly used by other market participants and has been 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;
- Whether the model takes account of the risks inherent in the financial instrument being valued, including own credit risk in the case of models used to measure financial liabilities;
- Who developed the model and whether its design could have been unduly influenced by traders or others who may not be objective;
- How the model is calibrated to the market to verify that its output is a genuine reflection of market prices, including how sensitive the model is 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 model, 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 of those responsible for the development and application of the models, including management's relative experience with particular models that may be newly developed.

120+52. 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

⁶⁰ See paragraphs A74-A76 of ISA 540.

⁶¹ ISA 540, paragraph 8(c)(iii), requires the auditor to understand whether there has been or ought to have been a change from the prior period in the methods used and, if so, why. If management has changed the method, it is important that management can demonstrate that the new method is more appropriate or is being used because of change in the environment, circumstances affecting the entity, or the applicable financial reporting framework.

comparing its output to a point estimate or range developed by the auditor or to other third-party models.⁶²

~~153. The auditor's testing of a model also considers its security controls, which are designed to prevent tampering. It is likely that this will require IT auditing skills and again, the auditor may test this by a combination of controls and substantive testing.~~

Evaluating Whether the Assumptions and Inputs Used by Management Are Reasonable

~~121+54.~~ Paragraphs ~~92-100+114-123~~ describe management's assumptions and the evidence that may be available to support them. ~~114. Assumptions are integral components in the valuation of financial instruments.~~ 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. When performing risk assessment procedures in accordance with ISA 540,⁶³ the auditor is required to understand how management makes its accounting estimates, and an understanding of the data on which they are based, including, among others, the assumptions underlying the accounting estimates. 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 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.

~~122+55.~~ 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

⁶² 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.

⁶³ ISA 540, paragraph 8(c)

financial instrument.

- 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.

If there are unobservable inputs, it is more likely that the auditor's evaluation of the assumptions will need to be combined with other responses to assessed risks⁶⁴ in order to obtain sufficient appropriate audit evidence. In such cases, it may be necessary for the auditor to perform other audit procedures, for example, examining documentation supporting the review and approval of the valuation of the complex financial instrument by appropriate levels of management and, where appropriate, by those charged with governance.

~~123+56.~~ In evaluating the reasonableness of the assumptions supporting management's valuation of the complex financial instruments, the auditor may identify one or more significant assumptions. If so, it may indicate that there is high estimation uncertainty and may, therefore, give rise to a significant risk. Additional responses to significant risks are described in paragraphs ~~49-51+78-180.~~

~~124+57.~~ 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. As noted in paragraph ~~92+15,~~ it is necessary for management to understand the assumptions and inputs used by the management's expert in valuing the complex financial instruments to determine whether these assumptions are appropriate. It is also necessary for management to understand the objectives of the valuation model to ensure it uses the measurement criteria of the applicable financial reporting framework. If management is unable to obtain this understanding, 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. Further evidence considerations relating to management's use of third-party expertise are discussed in paragraphs ~~155-157+87-189.~~

Presentation and Disclosure of Complex Financial Instruments

Disclosures in the Financial Statements

~~125+61.~~ Disclosures in the financial statements are intended 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;

⁶⁴ See paragraph 13 of ISA 540.

- 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; and
- Allow for comparison over time and between entities.

~~126~~¹³². The financial risks and exposures inherent in complex financial instruments cannot always be effectively captured in a balance sheet and profit and loss account. For example, significant derivative contracts often have zero value at ~~the outset~~initial recognition since they are priced at prevailing market rates. Financial reporting frameworks generally require additional disclosures regarding estimates and related risks and uncertainties to supplement and explain assets, liabilities, income and expense. Entities often establish processes and controls to gather the information required by the applicable financial reporting framework so that it is complete and accurate.

~~127~~¹⁶². In some cases, ~~as noted in paragraph 18~~, the applicable financial reporting framework may preclude recognition of a complex financial instrument in the financial statements, or its measurement at fair value, but may require disclosure of the high estimation uncertainty associated with the complex financial instrument. Disclosures in this circumstance may include acknowledgment that their fair value cannot be measured reliably and why that is the case.

Categories of Disclosures

~~128~~¹⁷². Disclosure requirements can typically be characterized in three main categories:

- (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 describe the entity's objectives, policies and procedures for managing each type of risk arising from complex financial instruments and the methods used to measure the risks.

~~129~~¹⁷³. 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.
- The 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.

~~Such disclosures are relevant to users in understanding the accounting estimates recognized or disclosed in the financial statements, and sufficient appropriate audit evidence needs to be~~

~~obtained about whether disclosures are in accordance with the requirements of the applicable financial reporting framework.~~

~~130~~174. 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 net gains or net losses on particular categories of financial assets and financial liabilities; and~~
- ~~Disclosures about non-linear complex financial instruments and the factors that affect their valuation and~~
- ~~Disclosures about financial instruments designated as hedging instruments.~~

~~In many cases, such disclosures are prepared from the underlying books and records that support the financial statements and can be easily verified. In other cases, such as in evaluating whether management's designation of an instrument as a hedge, audit procedures may be needed to evaluate whether such treatment is appropriate in accordance with the applicable financial reporting framework (see paragraphs 146-147).~~

~~131~~175. 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.

These disclosures are based on the information provided internally to key management personnel of the entity, for example those charged with governance. These types of subjective quantitative disclosure allow users to evaluate the effect of a change in future expectations if the assumptions and probabilities of the occurrence of various scenarios are made clear.

~~132~~133. 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. 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:

- (a) The exposures to risk and how they arise;
- (b) The entity's objectives, policies and processes for managing the risk and the methods used to measure the risk; and

(c) Any changes in (a) or (b) from the previous period.

~~133~~~~135~~. 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.

Where appropriate, management may also need to consider related guidance and recommendations that may have been produced by relevant bodies, such as regulators and audit oversight bodies.

In addition, qualitative disclosure is often used to add value to quantitative disclosures by providing analysis and interpretation of tables, for example to provide more information about valuation techniques and inputs to fair value measurements.

Disclosures Required about the Fair Value Hierarchy

~~134~~~~176~~. As noted in paragraphs ~~88-89~~~~108~~, some financial reporting frameworks may also establish a fair value hierarchy that reflects the significance of the inputs used in making the measurements and may require quantitative disclosures about the level in the fair value hierarchy into which the fair value measurements are categorized in their entirety. They may also require~~d~~ 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, or 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 can often be a subjective process.

~~135~~~~177~~. 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 meaningful and balanced.

Presentation of Financial Statements

~~136~~~~160~~. 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 ~~on, or termination 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.

137. Financial reporting frameworks may also specify how particular transactions should be presented in the financial statements based on their economic substance. For example, convertible debt, preferred shares and derivatives indexed to an entity's own equity may be recorded within equity or as an asset or liability. Repurchase and resale transactions may be used by an entity to secure short-term financing, and the applicable financial reporting framework may specify how these and other sheet transactions should be reported in the financial statements or prescribe additional disclosures relating to these transactions. The posting of collateral with a counterparty may also affect how financial instrument transactions are presented in the financial statements.

Substantive Procedures Relating to the Presentation and Disclosure of Complex Financial Instruments

Responsibilities of the Auditor

Evaluating the ~~e~~Entity's ~~p~~Presentation of ~~f~~Financial ~~s~~Statements

138~~164~~. In assessing whether the classification of financial statement presentation is appropriate, it is important for auditors to consider whether master netting agreements are in effect and relevant assets and liabilities that subjects to such netting contracts are identified comprehensively. In addition, if the total assets or liabilities are used to determine the incentive compensation for managements or corporate tax payments, it is also important for auditors to be alert to the fraud risk that netting is not appropriately made with a fraudulent intent.

Evaluating the ~~r~~Reasonableness and ~~a~~Adequacy of ~~d~~Disclosures

139~~173~~. Paragraphs 125-135 discuss disclosures that may be required by the applicable financial reporting framework. Such disclosures are relevant to users in understanding the accounting estimates recognized or disclosed in the financial statements, and sufficient appropriate audit evidence needs to be obtained about whether disclosures are in accordance with the requirements of the applicable financial reporting framework.

140~~165~~. Evaluating the reasonableness and adequacy of disclosures in the financial statements relating to complex financial instruments, whether required by the applicable financial reporting framework or disclosed voluntarily, involves essentially the same types of considerations applied when auditing complex financial instruments recognized in the financial statements. The auditor's evaluation of the adequacy of disclosure of estimation uncertainty increases in importance as the range of possible outcomes of the complex financial instruments increases in relation to materiality. ~~177.~~——Guidance included in paragraphs 121-124~~154-157~~ relating to evaluating management's use of assumptions is equally applicable when evaluating disclosures of the assumptions and sensitivity analyses.

141~~166~~. ISA 315 requires the auditor to identify and assess the risks of material misstatement at the assertion level for classes of transactions, account balances, and disclosures to provide a basis for

designing and performing further audit procedures (see the assertions about presentation and disclosure in paragraph 21).⁶⁵ Determining the extent of audit work on disclosures is a matter of

professional judgment. The auditor's primary consideration is where the work performed is sufficient to conclude that the financial statements have been prepared in accordance with the applicable financial reporting framework and achieve fair presentation. ISA 700⁶⁶ requires the auditor, to evaluate, among other things, whether:

- The financial statements adequately disclose the significant accounting policies selected and applied;
- The information presented in the financial statements is relevant, reliable, comparable and understandable; and
- The financial statements provide adequate disclosures to enable the intended users to understand the effect of material transactions and events on the information conveyed in the financial statements.

Consideration of whether qualitative disclosures are presented in an understandable manner is a key component of this evaluation.

142+67. For example, in evaluating the information included in disclosures, the auditor may identify areas for improvement and encourage management and those charged with governance to avoid unnecessarily long disclosures that could result in additional complexity rather than clarity. Auditors may also consider whether the disclosures are coherent, 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.

143+63. Disclosures that contain subjective comments and assessments made by management, for example, general “boilerplate” statements such as “our processes are some of the most rigorous in the industry” as well as imprecise descriptions such as “our reconciliations are monitored on a regular basis” (instead of, for example, “our reconciliations are monitored monthly”), fail to convey meaningful information to users of the financial statements and are not factually supportable. If management has included such subjective statements in information that is to be audited, it may be necessary for the auditor to ask management and those charged with governance to amend them.

The Relationship between Internal Control and Disclosures

144+68. As part of complying with ISA 315, the auditor will have obtained information regarding the entity's risk assessment process and control activities. It is important that narrative disclosures required by the accounting framework are consistent with this information, in particular with regard to:

- The entity's objectives and strategies for using complex financial instruments;

⁶⁵ ISA 315, paragraph 15(b)

⁶⁶ ISA 700, *Forming an Opinion and Reporting on Financial Statements*

- 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;

and are consistent with the amounts included for complex financial instruments in the financial statements. If disclosures are made in the financial statements with which the auditor is not familiar, supporting evidence for such disclosures will need to be obtained to support the auditor's opinion on the financial statements. Such evidence may include supporting papers and written representations from management.

~~145136. The auditor's understanding of the entity's internal control, including its information system, includes understanding how management prepares its disclosures relating to financial instruments.~~ As disclosure requirements increase, changes may be needed to an entity's accounting policies, processes, system and technology in order to gather the information and this may affect the entity's internal control. 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.

Estimation ~~u~~Uncertainty and ~~s~~Significant ~~r~~Risks

~~146169.~~ In addition to the auditor's determination of whether disclosures relating to complex financial instruments are in accordance with the applicable financial reporting framework, ISA 540 also 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.⁶⁷

~~147170.~~ In relation to complex financial instruments having significant risk, even where the disclosures are in accordance with the applicable financial reporting framework, the auditor may conclude that the disclosure of estimation uncertainty is inadequate in light of the circumstances and facts involved. The auditor's evaluation of the adequacy of disclosure of estimation uncertainty increases in importance the greater the range of possible outcomes of the complex financial instrument is in relation to materiality.

~~148171.~~ In some cases, the auditor may consider it appropriate to encourage management to describe, in the notes to the financial statements, the circumstances relating to the estimation uncertainty. ISA 705⁶⁸ provides guidance on the implications for the auditor's opinion when the auditor believes that management's disclosure of estimation uncertainty in the financial statements is inadequate or misleading.

⁶⁷ ISA 540, paragraph 20

⁶⁸ ISA 705, *Modifications to the Opinion in the Independent Auditor's Report*

Evaluating Audit Evidence

Evaluating the Overall Results of Valuations

- ~~149~~~~181~~. Unless management is able to support its valuations of complex financial instruments, it will be difficult for the auditor to obtain sufficient appropriate audit evidence. However, as evidence about assumptions and the validity of models is necessarily less reliable than evidence of a market price taken from an active market, it may be necessary to look at more sources of evidence to accumulate sufficient appropriate evidence. For example, the auditor, or an auditor's expert, may use an independent model to compare its results with those of the model used by management in order to evaluate whether the values determined by management's model is reasonable.
- ~~150~~~~182~~. Evaluating audit evidence for assertions about complex financial instruments requires considerable judgment because the assertions, especially those about valuation, may be based on highly subjective assumptions or be particularly sensitive to changes in the underlying assumptions. For example, valuation assertions may be based on assumptions about the occurrence of future events for which expectations are difficult to develop or about conditions expected to exist a long time. Accordingly, competent persons could reach different conclusions about valuation estimates or estimates of valuation ranges. Considerable judgment also may be required in evaluating audit evidence for assertions based on features of the complex financial instrument and applicable accounting principles, including underlying data, that are both extremely complex.
- ~~151~~~~183~~. Valuing complex financial instruments is not a precise science. 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. Certain financial reporting frameworks may require or permit the entity to reserve for valuation uncertainties. For example, if a portfolio of such instruments were sold, a buyer would reduce their price to reflect these uncertainties and the risks that (s)he was thereby assuming. Estimating the level of reserve 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 any reserve required, if any. The auditor may need to draw on an auditor's expert to assist in doing this.
- ~~152~~~~184~~. One important factor in evaluating the overall result is to consider whether counterparty risk (the risk that a counterparty to a transaction will not perform their side of the bargain) has been properly taken into account in valuing the complex financial instrument. It is inherent in mark to market pricing that counterparty risk is taken into account in arriving at the market price and an entity's pricing process may therefore have already dealt with counterparty risk. However, the auditor's testing of the valuation of the complex financial instrument in accordance with ISA 540 considers whether there are any other aspects of counterparty risk that have not properly been addressed, such as the possible need for an impairment provision in respect of any accrual accounted items, if permitted by the applicable financial reporting framework.

~~153~~~~185~~. In addition, the auditor's testing of the valuations considers whether the valuations overall appear reasonable based on the auditor's industry knowledge, market trends and the auditor's understanding of other entities' valuations (having regard to client confidentiality) and other relevant price indicators. If the valuations appear to be consistently overly aggressive or conservative, this may be evidence of management bias.

~~154~~~~186~~. While multiple sources of evidence help to corroborate management's valuation of **complex** financial instruments, it is important to understand whether these sources of evidence may be circular, or act to reinforce a misleading trend of misconception. For example, if both management and the auditor have used the same expert (such as a pricing service) to arrive at a valuation, it will be necessary for the auditor to perform other procedures to corroborate the valuation.

Evidence Considerations Relating to Management's Use of Third-Party Expertise

~~155~~~~187~~. 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.⁶⁹ 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/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).

~~156~~~~188~~. ISA 402 establishes requirements for the auditor to obtain sufficient appropriate audit evidence when the entity uses a service organization. The auditor may consider obtaining a report on the service organization's internal controls by their auditors, if available, covering control objectives applicable to the valuations and evaluating the report to determine if the report can be used as audit evidence). However, reports on internal control will not provide evidence to support the valuation assertion and formal reports on controls and processes are less likely to exist in the context of broker quotes and pricing services, in particular for valuation in inactive markets.

~~157~~~~189~~. 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

⁶⁹ ISA 500, paragraph 8

540, for example by developing a point estimate or a range to evaluate management's point estimate. Paragraph ~~164~~~~198~~ describes the implications of the auditor's inability to obtain sufficient appropriate audit evidence.

Going Concern

~~158~~~~190~~. Under the going concern assumption, an entity is ordinarily viewed as continuing in business for the foreseeable future with neither the intention nor the necessity of liquidation, ceasing trading or seeking protection from creditors pursuant to law or regulation. Accordingly, assets and liabilities are recorded on the basis that the entity will be able to realize its assets and discharge its liabilities in the normal course of business.

~~159~~~~191~~. When an entity is faced with deteriorating market conditions, there may be an increased risk that the entity is unable to continue as a going concern. Going concern issues may arise with respect to poor risk management processes within the entity and potential losses on complex financial instruments, in particular when an entity engages in a high volume of complex financial instruments or holds complex structured products. Even if the use of the going concern is appropriate, a material uncertainty may exist, and it may be necessary for the entity to disclose this fact in the financial statements. However, complex financial instruments are only one factor that is considered in the entity's assessment of the entity's ability to continue as a going concern, and neither the entity nor the auditor can predict future events or conditions.

~~160~~~~192~~. Consistency of disclosures about the use of the going concern assumption (including the entity's ability to continue as a going concern) and disclosures about the entity's liquidity and use of complex financial instruments is important to ensure the financial statements achieve fair presentation.

Written Representations

~~161~~~~193~~. 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.⁷⁰ 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;

⁷⁰ ISA 540, paragraph 22. Paragraph 4 of ISA 580 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.

- 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;⁷¹
- 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.

~~194. ISA 580⁷² 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.~~

Forming an Opinion and Reporting on Financial Statements

~~195. The auditor's conclusion as to whether the financial instruments are presented in conformity with relevant legislation, regulations and the applicable financial reporting framework is based on the auditor's judgment as to whether:~~

- ~~• The accounting policies selected and applied are in conformity with the applicable financial reporting framework;~~
- ~~• Management's assumptions are reasonable and are used consistently and whether new conditions that may justify a change have been taken into account appropriately;~~
- ~~• Disclosures fully comply with the current disclosure requirements of relevant legislation, regulations and the applicable financial reporting framework under which the financial statements are being reported;~~
- ~~• The information presented in the financial statements is classified and summarized in an appropriate and meaningful manner and is sufficiently clear; and~~
- ~~• The financial statements achieve fair presentation.~~

⁷¹ Paragraph A80 of ISA 540 provides examples of procedures that may be appropriate in the circumstances.

⁷² ~~ISA 580, *Written Representations*, paragraph 4~~

Evaluating Misstatements⁷³

~~162+96~~. Based on the audit evidence obtained, the auditor may conclude that with respect to accounting estimates the evidence points to an estimate that differs from management's estimate regarding complex financial instruments, and that the difference between the auditor's estimate or range and management's estimate constitutes a misstatement. In such cases, where the auditor has developed a range and has concluded that using the auditor's range provides sufficient appropriate audit evidence, a management point estimate that lies outside the auditor's range would not be supported by audit evidence. In such cases, the misstatement is no less than the difference between management's point estimate and the nearest point of the auditor's range.

~~163+97~~. Professional judgment is important in circumstances where management's valuation of a complex financial instrument differs from the auditor's when the auditor has developed a model. Differences may relate to the use of different assumptions in the model, different methods or factual errors. If the auditor uses assumptions or methods that differ from management's, an understanding of management's assumptions and methods is necessary to assist the auditor in understanding and evaluating significant differences from management's point estimate or range.

Inability to Obtain Sufficient Appropriate Audit Evidence

~~164+98~~. Paragraphs ~~149-157+81+89~~ deal with the auditor's evaluation of audit evidence. In some cases, however, it may not be possible for the auditor to obtain sufficient appropriate audit evidence on which to base the opinion. This may be the case for example:

- When management does not have an understanding of the methods and assumptions used by management's experts in preparing valuations.
- When the auditor is unable to obtain sufficient appropriate audit evidence regarding the services provide by a service organization.
- ~~When evidence is not available to support management's use of hedge accounting.~~
- When the auditor is unable to obtain sufficient appropriate audit evidence about whether the going concern assumption is appropriate.

ISA 705 provides guidance on the type of modified audit opinion that would be necessary in such circumstances.

Emphasis of Matter Paragraphs and Other Matter Paragraphs

~~165+99~~. ISA 706⁷⁴ deals with additional communication in the auditor's report using Emphasis of Matter and Other Matter paragraphs. An Emphasis of Matter paragraph to draw users' attention to matters presented or disclosed in the financial statements is not an alternative to

⁷³ ISA 450, *Evaluation of Misstatements Identified during the Audit*, deals with the auditor's responsibility to evaluate the effect of identified misstatements on the audit and of uncorrected misstatements, if any, on the financial statements.

⁷⁴ ISA 706, *Emphasis of Matter Paragraphs and Other Matter Paragraphs in the Independent Auditor's Report*

modification of the auditor's opinion if the auditor is not able to obtain sufficient appropriate audit evidence. However, widespread use of Emphasis of Matter paragraphs diminishes the effectiveness of the auditor's communication of such matters. Nevertheless, an auditor may consider it necessary to include an Emphasis of Matter paragraph to highlight estimation uncertainty that affects measurements of complex financial instruments at fair value or the potential effects of inactive markets on an entity's ability to continue as a going concern (see paragraphs ~~158-160~~~~190-192~~).

Communication with Those Charged with Governance and Others

~~166-200~~. ISA 260⁷⁵ 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;⁷⁶
- 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 methods, including the assumptions, 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;
- 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;
- 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; or

⁷⁵ ISA 260, *Communicating with Those Charged with Governance*

⁷⁶ 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.

- Failure to comply with ethical requirements.

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.

~~167201.~~ Because of the uncertainties associated with the valuation of complex financial instruments, the potential effect on the financial statements of any significant risks may be of governance interest. ~~In accordance with ISA 260,⁷⁷—t~~The auditor may communicate the nature of significant assumptions used in fair value measurements, the degree of subjectivity involved in the development of the 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.

Communications with Regulators and Others

~~168202.~~ In some cases, auditors may be required,⁷⁸ 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. For example, in some jurisdictions, banking regulators and auditors are seeking closer cooperation 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 enhanced coordination may be helpful to the auditor in identifying risks of material misstatement.

⁷⁷—ISA 260, paragraph 16(a)

⁷⁸ For example, ISA 250 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.

Appendix 1

(Ref.: Para. 8)

Glossary of Terms

Cap—A series of call options based on a notional amount. The strike price of these options defines an upper limit to ~~interest rates~~the underlying.

Collateral—Assets pledged by a borrower to secure a loan or other ~~credit~~transaction; these are subject to seizure in the event of default.

Commodity—A physical substance, such as food, grains and metals that is interchangeable with other product of the same type.

Correlation—The degree to which contract prices of hedging instruments reflect price movements in the cash-market position. The correlation factor represents the potential effectiveness of hedging a cash-market instrument with a contract where the deliverable financial instrument differs from the cash-market instrument. Generally, the correlation factor is determined by regression analysis or some other method of technical analysis of market behavior.

Counterparty—The other party to a derivative transaction.

Dealer (for the purposes of this IAPS)—The person who commits the entity to a derivative transaction.

Derivative—A generic term used to categorize a wide variety of financial instruments whose value “depends on” or is “derived from” an underlying rate or price, such as interest rates, exchange rates, equity prices, or commodity prices. Many national financial reporting frameworks, and the International Accounting Standards contain definitions of derivatives. For example, International Accounting Standard (IAS) 39, “Financial Instruments: Recognition and Measurement” defines a derivative as a financial instrument:

- Whose value changes in response to the change in a specified interest rate, security price, commodity price, foreign exchange rate, index of prices or rates, a credit rating or credit index, or similar variable (sometimes called the “underlying”);
- That requires no initial net investment or little initial net investment relative to other types of contracts that have a similar response to changes in market conditions; and
- That is settled at a future date.

Embedded Derivative Instruments—Implicit or explicit terms in a contract or agreement that affect some or all of the cash flows or the value of other exchanges required by the contract in a manner similar to a derivative.

End User—An entity that enters into a financial transaction, either through an organized exchange or a broker, for the purpose of hedging, asset/liability management or speculating. End users consist primarily of corporations, government entities, institutional investors and financial institutions. The derivative activities of end users are often related the production or use of a commodity by the entity.

Exchange-Traded Derivatives—Derivatives traded under uniform rules through an organized exchange (i.e., futures and options).

Fair Value—The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.

Floor—A series of put options based on a notional amount. The strike price of these options defines a lower limit to the ~~interest rate~~underlying.

Foreign Exchange Contracts—Contracts that provide an option for, or require a future exchange of foreign currency assets or liabilities.

Forward Contracts—A contract negotiated between two parties to purchase and sell a specified quantity of a financial instrument, foreign currency, index, or commodity at a price specified at the origination of the contract, with delivery and settlement at a specified future date.

Forward Rate Agreements—An agreement between two parties to exchange an amount determined by an interest rate differential at a given future date based on the difference between an agreed interest rate and a reference rate (LIBOR, Treasury bills, *etc.*) on a notional principal amount.

Futures Contracts—Exchange-traded forward contracts ~~to buy or sell a specified financial instrument, foreign currency or commodity at a specified future date or during a specified period at a specified price or yield.~~

Hedge—A strategy that seeks to protect an entity against the risk of adverse price or interest-rate movements on certain of its assets, liabilities or anticipated transactions. A hedge is used to avoid or reduce risks by creating a relationship by which losses on certain positions are expected to be counterbalanced in whole or in part by gains on separate positions in another market.

~~*Hedging (for accounting purposes)*—Designating one or more hedging instruments so that their change in fair value is an offset, completely or in part, to the change in fair value or cash flows of a hedged item.~~

~~*Hedged Item*—An asset, liability, firm commitment, or forecasted future transaction that (a) exposes an entity to risk of changes in fair value or changes in future cash flows and (b) for hedge accounting purposes, is designated as being hedged.~~

~~*Hedging Instrument (for hedge accounting purposes)*—A designated derivative or (in limited circumstances) another financial asset or liability whose value or cash flows are expected to offset changes in the fair value or cash flows of a designated hedged item.~~

~~*Hedge Effectiveness*—The degree to which offsetting changes in fair value or cash flows attributable to a hedged risk are achieved by the hedging instrument.~~

Interest Rate Swap—A contract between two parties to exchange periodic interest payments on a notional amount (referred to as the notional principal) for a specified period. In the most common instance, an interest rate swap involves the exchange of streams of variable and fixed-rate interest payments.

Linear Contracts—Contracts that involve obligatory cash flows at a future date.

Liquidity—The capability of a financial instrument to be readily convertible into cash.

Non-Linear Contracts—Contracts that have option features where one party has the right, but not the obligation to demand that another party deliver the underlying item to it.

Notional Amount—A number of currency units, shares, bushels, pounds or other units specified in a derivative instrument.

Off-Balance Sheet Instrument—A derivative financial instrument that is not recorded on the balance sheet, although it may be disclosed.

Option—A contract that gives the holder (or purchaser) the right, but not the obligation to buy (call) or sell (put) a specific or standard commodity, or financial instrument, at a specified price during a specified period (the American option) or at a specified date (the European option). or dates (the Bermudan option).

Policy—Management's dictate of what should be done to effect control. A policy serves as the basis for procedures and their implementation.

Position—The status of the net of claims and obligations in financial instruments of an entity.

Risk Management—Using derivatives and other financial instruments to increase or decrease risks associated with existing or anticipated transactions.

Sensitivity Analysis—A general class of models designed to assess the risk of loss in market-risk-sensitive instruments based upon hypothetical changes in market rates or prices.

Settlement Date—The date on which derivative transactions are to be settled by delivery or receipt of the underlying product or instrument in return for payment of cash.

Speculation—Entering into an exposed position to maximize profits, that is, assuming risk in exchange for the opportunity to profit on anticipate market movements.

Swaption—A combination of a swap and an option.

Term Structure of Interest Rates—The relationship between interest rates of different terms. When interest rates of bonds are plotted graphically according to their interest rate terms, this is called the "yield curve." Economists and investors believe that the shape of the yield curve reflects the market's future expectation for interest rates and thereby provide predictive information concerning the conditions for monetary policy.

Trading—The buying and selling of financial instruments for short-term profit.

Underlying—A specified interest rate, security price, commodity price, foreign exchange rate, index of prices or rates, or other variable. An underlying may be a price or rate of an asset or liability, but it is not the asset or liability itself.

Value at Risk—A general class of models that provides a probabilistic assessment of the risk of loss in market-risk-sensitive instruments over a period of time, with a selected likelihood of occurrences based upon selected confidence intervals.

Volatility—A measure of the variability of the price of an asset or index.

Written Option—The writing, or sale, of an option contract that obligates the writer to fulfill the contract should the holder choose to exercise the option.

Appendix 2

(Ref: Para. 52)

Examples of Possible Internal Controls Relating to Complex Financial Instruments that May Exist at an Entity

~~63.~~ 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.⁷⁹ For example, smaller entities may use less structured products and simple processes and procedures to achieve their objectives. ~~The auditor's understanding of the control environment in accordance with ISA 315⁸⁰ includes consideration of the overall attitude toward, and awareness of, financial instrument activities on the part of both management and those charged with governance.~~ 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 guidance provides 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. This guidance is 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.

The Entity's Control Environment

Understanding the Relevant Industry, Regulatory and Other External Factors Including the Applicable Financial Reporting Framework

~~61.~~ The auditor's understanding of the entity and its environment in accordance with ISA 315⁸¹ also encompasses whether the entity, or a group component in the case of a group audit, operates in a regulated industry sector and, if so, whether there are any relevant requirements or guidelines established by the regulator. It may be appropriate for the auditor's understanding of relevant industry and regulatory factors to include whether:

- ~~• There have been changes in the regulatory framework, the regulator's guidelines or industry practices that may affect management's financial instrument activities or the accounting for them;~~
- ~~• There have been discussions between management and supervisors or other regulators during the year about its policies in respect of financial instruments and, if so;~~
- ~~• Management has reviewed its processes in the light of discussions with supervisors and other regulators and review of any relevant correspondence.~~

~~62.~~ Other external factors, such as market conditions, may affect the auditor's risk assessment and

⁷⁹ See ISA 315, paragraph 12.

⁸⁰ ~~ISA 315, paragraph 14~~

⁸¹ ~~ISA 315, paragraph 11(a)~~

~~audit procedures. For example, inactive market conditions may give rise to particular issues in relation to valuations and to financial statement disclosures about risks and uncertainties pertaining to financial instruments. (See paragraphs 126-130.)~~

~~Understanding the Entity's Internal Control~~

- ~~1.~~ Though it is for management to determine what internal control is necessary to enable the preparation of financial statements that are free from material misstatement, effective internal control assists management and, where appropriate, those charged with governance to fulfill their responsibilities to prepare financial statements in accordance with the applicable financial reporting framework with respect to complex financial instruments.

~~Understanding the Control Environment~~

~~Factors that may lead to the auditor's determination of whether the~~ An entity's internal control may be effective ~~include whether when~~ management and those charged with government have:

- Established an appropriate control environment, including a commitment to competence, a clear organizational structure, and assignment of authority and responsibility. 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;⁸² (see paragraphs ~~2-565-69~~)
- 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); (see paragraphs ~~6-1270-77~~)
- 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; (see paragraphs ~~13-1478-79~~)
- Designed and implemented a system of internal control to:
 - Monitor risk and financial control;
 - 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
- 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.

Commitment to Competence

- ~~266.~~ 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,

⁸² Such rules should 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.

without relevant expertise within the entity, therefore increases the risk of material misstatement.

Organizational Structure

367. 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

468. 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 approach to taking and managing business risks. ~~The auditor's evaluation of these policies includes consideration whether these~~ policies are most clear when they state clearly the entity's objectives with regard to its risk management activities and the investment and hedging alternatives available to meet these objectives. ~~The auditor may also consider whether the policies and procedures and~~ reflect the:

- Level of the entity's management expertise;
- Sophistication of the entity's internal control and monitoring systems;
- Entity's asset/liability structure;
- Entity's capacity to maintain liquidity and absorb losses of capital;
- Types of complex financial instruments that management believes will meet its objectives; and
- 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.

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.

569. An entity may have a culture that is generally focused on maintaining a high level of internal control. Because of the complexity of some treasury activities, this culture may not pervade the group of personnel responsible for financial instrument activities. Alternatively, because of the risks associated with financial instrument activities, management may enforce a more strict control environment than it does elsewhere within the entity. In entities without a treasury function, dealing in complex financial instruments may be rare and management's knowledge and experience limited. ~~Accordingly, the auditor may need to consider in its risk assessment the control environment applicable to those responsible for functions dealing with financial instruments.~~

Understanding the Entity's Risk Assessment Process

~~670. The auditor's understanding of whether the entity has a~~ An entity's risk assessment process ~~in accordance with ISA 315⁸³ includes understanding exists to establish~~ how management identifies business risks relevant to financial reporting 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.

~~772. The entity's risk assessment process forms the basis for how management determines the risks to be managed. Factors the auditor may consider in evaluating how management assesses the risks of using financial instruments includes whether management~~ Risk assessment processes exist to ensure that management:

- 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;
- Monitors their outstanding positions to understand how market conditions are affecting their exposures;
- Has procedures in place to reduce or change risk exposure if necessary and, for entities heavily engaged in trading complex financial instruments, for managing reputational risk; and
- Subjects these processes to rigorous supervision and review.

Appendix ~~32~~ provides examples of risks related to complex financial instruments to which entities may be exposed.

~~871. Considerations that may be relevant to the auditor's understanding include whether the~~ The structure implemented to monitor and manage exposure to risks should:

- ~~Is~~Be appropriate and consistent with the entity's attitude toward risk as determined by those charged with governance;
- Specifies 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;
- Sets 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;
- Provides for the independent and timely monitoring of the financial risks and control activities; and
- Provides for the independent and timely reporting of exposures, risks and the results of financial instrument activities in managing risk.

~~973. The types and levels of risks present in an entity are directly related to the types of~~ complex

⁸³—ISA 315, paragraphs 15-17

financial instruments with which it deals, including the complexity of these instruments, and the volume of complex financial instruments transacted. For example, smaller entities other than financial institutions may not use models to value complex financial instruments, and therefore certain components of operational risk may be less relevant to the entity in designing controls to address risks and to the auditor in assessing those risks. In addition, financial liabilities are exposed to different risks than financial assets, in particular in relation to operational risk and credit risk.

Risk Management Function

1075. 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 independent function is responsible for reporting on and monitoring financial instrument activities. Examples of key responsibilities in this area may include:

- Setting and monitoring risk management policy (including analyses of the risks to which an entity may be exposed);
- Designing risk limit structures and ensuring these risk limits are implemented in practice;
- Developing stress scenarios and subjecting open position portfolios to sensitivity analysis, including reviews of unusual movements in positions;
- Reviewing and analyzing new financial instrument products; and
- Independent price verification (IPV).

~~Inquiries of management involved in the entity's risk management function may provide the auditor with information that is likely to assist in identifying risks of material misstatement due to fraud or error.~~

1176. ~~Understanding and assessing the linkage between the IPV process and the subsequent fair value measurement process gives the auditor an indication whether the level of uncertainties in the prices of financial instruments are appropriately reflected in the methods in place for determining their measurement. In this regard, t~~The relationship between the financial reporting and risk management functions is particularly important, in particular the linkage between the IPV process and the subsequent fair value measurement process. The level of uncertainties in the prices of complex financial instruments should be appropriately reflected in the methods in place for determining their measurement.

1277. The volume and sophistication of financial instrument activity and relevant regulatory requirements will influence the entity's consideration whether to establish a 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 function's responsibility or management's overall responsibility (see paragraphs ~~1883-84~~).

Understanding the Entity's Information Systems

1378. 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. ~~Because this is not always the case, the auditor's assessment of the risk of material misstatement will be affected if the quality of the information system,⁸⁴ or aspects of it, appears weak.~~ Specific issues which can arise in respect to complex financial instruments include:

- Information systems, in particular for smaller entities, ~~may not have~~ing the capability or ~~may not be~~ing appropriately configured to process financial instrument transactions, especially when the entity does not have any prior experience in dealing with complex financial instruments;
- 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;
- 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;
- The reliance on recruiting, training, and retaining qualified individuals, or engaging management's experts, to represent the accounting, processing, and risk management of transactions correctly initially on systems and to validate periodically that they continue to be correctly recorded;
- ~~A lack of~~The need to review of exception logs from systems, external confirmations and broker quotes, where available, to validate the entries generated by the systems;
- ~~The d~~Difficulties in controlling and evaluating the key inputs to systems for valuation of complex financial instruments, particularly where those systems are maintained by the front office and/or the transactions in question are bespoke or thinly traded;
- ~~Failure~~The need to evaluate the design and calibration of complex models used to process these transactions initially and on a periodic basis;
- ~~The potential that management has not~~The need to 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;
- The disproportionate investment which 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;

⁸⁴ ~~—ISA 315, paragraph 18, requires the auditor to obtain an understanding of the information system, including the related business processes, relevant to financial reporting.~~

- 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
- ~~The need for~~Additional security and control considerations relevant to the use of an electronic network when an entity uses electronic commerce for financial instrument transactions.

1479. 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~~there may be~~ non-financial systems used for internal reporting and to generate information included in qualitative disclosures, for example regarding risks and uncertainties or sensitivity analyses. ~~Sufficient understanding of both financial and non-financial systems inform the auditor's consideration of the nature and extent of audit procedures needed on quantitative and qualitative disclosures in the financial statements. (see paragraphs 164-177)~~

Understanding ~~the~~ The Entity's Control Activities

1580. 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.

1681. ~~The auditor's understanding of control activities relevant to the audit in accordance with ISA 315⁸⁵ includes whether a~~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:

- The identity of the dealer;
- The identity of the person recording the transaction, 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
- ~~The nature and purpose of the transaction, including whether or not it is intended to hedge an underlying commercial exposure; and~~
- ~~Information on compliance with accounting requirements related to hedging, such as:~~
- ~~Designation at inception as a hedge; and~~
- Identification of the hedged item in a hedging relationship.

⁸⁵ ~~ISA 315, paragraph 20~~

Authorization

1782. 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. 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 and determining whether fraud has occurred.

Segregation of Duties

1883. 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:

- Executing the transaction (dealing);
- Initiating cash payments and accepting cash receipts (settlements);
- Sending out trade confirmations and reconciling the differences between the entity's records and replies from counterparties, if any;
- Recording of all transactions correctly in the accounting records;
- Monitoring risk limits; and
- Monitoring positions and valuing complex financial instruments.

~~84. The auditor's consideration of the segregation of duties among these functions is part of the auditor's risk assessment.~~ 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

1985. Entities' ongoing monitoring activities⁸⁶ 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:

- 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

⁸⁶~~—ISA 315, paragraph 23, requires the auditor to obtain an understanding of the major activities that the entity uses to monitor internal control over financial reporting, including those related to those control activities relevant to the audit, and how the entity initiates remedial actions to deficiencies in its controls.~~

- The monitoring of operational statistics such as the number of reconciling items or the difference between internal pricing and external pricing sources.
- The need for robust IT controls and monitoring and validating their application; and
- 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.

2086. In larger entities, sophisticated computer information systems generally keep track of financial instrument activities, and ensure that settlements occur when due. More complex computer systems may generate automatic postings to clearing accounts to monitor cash movements. ~~The auditor's understanding of the entity's monitoring of controls considers whether there are, and~~ controls over processing are put in place to ensure 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, ~~the auditor's understanding of control activities includes an understanding as to how~~ management may put additional procedures in place to ensures completeness of all transactions (as discussed insee paragraphs 96-10576-85 of the IAPS).

Appendix 32

(Ref: ~~Appendix 2, Para. 772~~)

Risks to which Entities May Be Exposed through Their Use of Complex Financial Instruments

The following list illustrates the principal types of risk, related to financial instrument activities, to which entities may be exposed. 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. They include:

- (a) Operational risk, which relates to the specific processing required for financial instruments and which captures:
 - (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 risks that there is inadequate or non-timely maintenance of models used to measure financial instruments; and
 - (vi) The risk that undue reliance is placed by staff on information derived from value at risk or stand alone models, in managing financial instrument positions, with the result that they overlook the fundamentals of risk management and control of market, counterparty and operational risk for these types of transactions;
- (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. Market risk includes currency risk, interest rate risk and other price risk.
 - (i) Currency risk, which is the risk that fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates.
 - (ii) Interest rate risk, which is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates.
 - (iii) Other price risk, which is the risk that the fair value or future cash flows of an instrument will fluctuate because of changes in market prices (other than those arising from interest rate risk or currency risk), whether those changes are caused by factors specific to the

individual financial instrument or to its issuer, or factors affecting all similar instruments traded in the market. Other price risk includes volatility risk.

- (c) Valuation (or measurement) risk, which is the risk that the value of the financial instrument and the related sensitivities are determined incorrectly. This is closely related to market risk. Components of valuation (or measurement) risk are:
- (i) Model risk, which is the risk that imperfections and subjectivity of valuation models used to determine the value of certain types of financial instrument are not properly understood and accounted for or reserved against.
 - (ii) Parameter (or assumption) risk, which is the risk that the assumptions on which inputs to models are based, are not appropriate. Parameter risk differs from model risk in that model risk refers to the appropriateness of the model and parameter risk refers to the appropriateness of the inputs to the model.
 - (iii) Price risk, which relates to changes in the level of prices due to changes in interest rates, foreign exchange rates, or other factors related to market volatilities of the underlying rate, index, or price. Price risk includes interest rate risk and currency risk.
 - (iv) Liquidity risk, which relates to the risk that an entity will encounter difficulty in meeting obligations associated with financial liabilities, for example changes in the ability to sell or dispose of the financial instrument. Financial instrument activities bear the additional risk that a lack of available contracts or counterparties may make it difficult to close out a transaction or enter into an offsetting contract.
 - (v) Basis risk, which is the risk associated with imperfect hedging where there is a difference between the fair value (or cash flows) of the hedged item and the fair value (or cash flows) of the hedging instrument. Basis risk may, for example, be affected by a lack of liquidity in either the hedged item or the hedging instrument resulting in changes to the correlation between them while the hedging contract is open.
 - (vi) Economic losses risk, which is the risk that an entity makes inappropriate trades based on information using valuation models or based on inputs or assumptions that are no longer relevant.
- (d) 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. Generally, a financial instrument has credit exposure only when the financial instrument has positive market value. That value represents an obligation of the counterparty and, therefore, an economic benefit that can be lost if the counterparty fails to fulfill its obligation. Furthermore, the market value of a financial instrument may fluctuate quickly, alternating between positive and negative values. The potential for rapid changes in prices, coupled with the structure of certain financial instruments, also can affect credit risk exposure. For example, highly leveraged financial instruments or financial instruments with extended time periods can result in credit risk exposure increasing quickly after a transaction has been undertaken.

Many financial instruments are traded under uniform rules through an organized exchange (exchange-traded instruments). Exchange traded instruments generally remove individual

counterparty risk and substitute the clearing organization as the settling counterparty. Typically, the participants in an exchange-traded instrument settle changes in the value of their positions daily, which further mitigates credit risk. Other methods for minimizing credit risk include requiring the counterparty to offer collateral, or assigning a credit limit to each counterparty based on its credit rating.

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.

- (e) Off-balance sheet risk, which is the risk of loss to the entity in excess of the amount, if any, of the asset or liability that is recognized on the balance sheet.
- (f) High volatility (leverage) risk, which is the risk that, due to high volatility or leverage embedded in a financial instrument, the financial or economic result might change rapidly (due to volatility) and substantially (due to leverage) within a relatively short period of time
- (g) Settlement risk, which is the risk that one side of a transaction will be settled without consideration being received from the customer or counterparty. One method for minimizing settlement risk is to enter into a master netting agreement, which allows the parties to set off all their related payable and receivable positions at settlement;
- (h) 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.
- (i) Suitability risk, which is the risk that the entity selling financial instruments may be subject to claims made by the counterparties, who are not suitable in term of their ability and business operations to buy such products.
- (j) Disclosure risk, which is the risk that the entity includes incorrect disclosures, or omits disclosures, relating to financial instruments.

Appendix ~~43~~

(Ref.: Para. ~~25121~~)

Additional Information about Broker Quotes and Pricing Services⁸⁷

Broker Quotes

A quote obtained from a broker is generally an indicative price and not a binding offer (unless the broker is a market maker). In a liquid market, a broker quote is likely to reflect actual transactions in the instrument. However, as the number of transactions decreases, brokers rely more on proprietary models with inputs based on the information available to the broker. For example, they might use information about observable market transactions and assumptions based on their knowledge of the current market for the instrument to arrive at the quoted price. A broker quote might be in the form of an indicative price or an indicative spread for an instrument.

Quotes are more representationally faithful if they come from brokers that have a substantial presence in the market and the experience and expertise to provide a representationally faithful quote for the instrument.

A broker quote generally is not a binding offer to buy, but the more it is based on actual market transactions the more likely it is to represent fair value.

Some broker quotes might be provided by the broker who originally brokered the instrument. In such circumstances, that broker might have the most detailed information about the instrument and hence might be best placed to arrive at a representationally faithful price.

Pricing Services

Pricing services differ from brokers in that pricing services do not transact in the instruments for which they provide pricing information. There are two main types of pricing service:

- (a) Pricing services that use a proprietary model to estimate a price.
- (b) Consensus pricing services.

Pricing Services Using Proprietary Models

Pricing services typically provide prices on a wider range of simpler instruments for which widely accepted standard pricing models are used. However, because of this, some pricing services might use general assumptions across a range of assets, potentially resulting in prices that might not accurately reflect the instrument being valued. The longer a pricing service has been in existence, the more time it has had to develop the pricing expertise to measure fair value.

Consensus Pricing Services

Consensus pricing services obtain pricing information about an instrument from several participating

⁸⁷ This material is extracted from the October 2008 IASB Expert Advisory Panel report, “Measuring and disclosing the fair value of financial instruments in markets that are no longer active.”

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, and submission statistics that provide information about the quality of each subscriber's submission compared with the other subscribers. This information might include standard deviations or other data that allows the subscriber to assess whether the prices submitted to the service provider were dispersed or whether they formed a tight cluster. When consensus data are widely dispersed, the consensus price might be more subjective and need further review.

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, 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 and the quality of the sources are key factors in the quality of the consensus data. A consensus price determined from a large number of high quality subscribers might provide a more representationally faithful price than a consensus of only a few subscribers. However, although a consensus price might be derived from a large number of different subscribers, if none is a leading participant in the relevant market then the consensus price might not be meaningful. For example, for some instruments in the commodities markets there are only a limited number of subscribers and those subscribers are leading market participants. However, consensus pricing services might receive submissions from many other subscribers. In such circumstances, it is possible that many of the submissions received by the pricing service will not reflect actual transactions and an entity places less reliance on these when measuring fair value.

Consensus pricing service providers might use data cleansing routines (algorithms) to eliminate outlying prices, with the aim of increasing the reliability of the consensus data. A cleansing routine that is too strict could remove valid data from the consensus price. Conversely, a cleansing routine that is not rigorous enough might include weak data in arriving at the consensus price.

Submitted prices might represent a mid-level price rather than a bid price or an offer price.

On occasion, consensus data might indicate that the distribution of prices might not be normal in the statistical sense. One example of this is when the data indicate that the distribution of prices received from consensus pricing services is bimodal, i.e., the submitted prices are clustered around two differing price points. If so, the average price is a price at which nobody will trade. In such circumstances, it is possible that participating entities are using two different types of model to arrive at prices. Consensus pricing distributions might not be normal. Consensus services might exist for only a relatively small subset of products, for example for a limited range of maturities. When the consensus data have been found to be a faithful representation of the price at which an orderly transaction would take place between market participants, the information can be used to calibrate models used to price similar instruments. However, calibrating models to consensus data is not always straightforward. For simpler products when the industry has converged on a common modelling approach, it is possible to calibrate models with some confidence. But it is harder to do this for more complex products with more complex models, and in such cases calibration might be highly subjective.