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**AUDITING COMPLEX FINANCIAL
INSTRUMENTS
– INTERIM GUIDANCE**

The Auditing Practices
Board

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- Standards and guidance for auditing;
- Standards and guidance for reviews of interim financial information performed by the auditor of the entity;
- Standards and guidance for the work of reporting accountants in connection with investment circulars; and
- Standards and guidance for auditors' and reporting accountant's integrity, objectivity and independence

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This Practice Note replaces Practice Note 23, 'Auditing Derivative Financial Instruments,' which was issued in April 2002.

PRACTICE NOTE 23 (REVISED)

AUDITING COMPLEX FINANCIAL INSTRUMENTS

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INTRODUCTION

1. The purpose of Practice Note 23 is to provide guidance to auditors in planning and performing auditing procedures for financial statement assertions related to complex financial instruments.
2. ISA (UK and Ireland) 545, 'Auditing fair value measurements and disclosures,' includes requirements and guidance that are relevant to the audit of the fair valuation of complex financial instruments. This Practice Note does not obviate the need for the auditor to understand and apply ISA (UK and Ireland) 545.
3. The APB has decided to issue this version of the Practice Note as interim guidance because:
 - Relevant accounting standards are under review and future changes may have implications for auditors; and
 - For audits of entities with accounting periods ending on or after 15 December 2010 the ISAs (UK and Ireland) will be revised to reflect the 'Clarity ISAs' issued by the IAASB. One feature of the Clarity ISAs is that ISA 545 has been subsumed into a revised ISA 540, 'Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosures.' Conforming changes will be needed to this Practice Note when the new ISA (UK and Ireland) 540 applies.

Complex financial instruments

4. International Financial Reporting Standards (IFRS) define a financial instrument as cash, the equity of another entity, the right to receive cash or exchange financial assets or liabilities, and certain contracts settled in an entity's own equity. This definition encompasses a very wide range of financial instruments from simple loans and deposits to complex derivatives and structured products.
5. This Practice Note focuses on financial instruments that are more complex than, for example, a simple loan, deposit or spot foreign exchange transaction. Complex financial instruments generally exist to do two things:
 - change an existing risk profile to which an entity is exposed. This is commonly called hedging and 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;
 - the purchase of option contracts to provide an entity with protection against a particular price movement;

- enable an entity to take a risk position to benefit from long term investment returns or from short term market movements.
6. 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 Practice Note complex financial instruments include, but are not limited to:
- Derivatives (including option contracts, futures and swaps); and
 - Structured products. Some of these products may include embedded derivatives and can combine a number of financial instruments to achieve a desired overall effect (e.g. Collateralised Debt Obligations (CDOs) and Mortgage Backed Securities (MBSs)).

Generally such instruments are required to be presented in the financial statements at fair value¹.

7. The guidance may be helpful also when considering financial instruments that ordinarily may be relatively easy to address but where aspects have become complex because of particular circumstances; for example instruments for which the market has become illiquid, necessitating the use of a model for valuation.
8. Many of the considerations described in this Practice Note 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 Practice Note.

Types of entity

9. The general principles applicable to auditing complex financial instruments are applicable to all entities. The guidance in this Practice Note is intended to be helpful for audits of entities with different levels of use of complex financial instruments, ranging from:
- Entities with high levels of trading/use of complex financial instruments (e.g. banks with complex dealing rooms, non-financial sector entities with treasury departments); to
 - Entities with relatively few transactions involving complex financial instruments (e.g. an entity that wishes to hedge a relatively low number of foreign currency transactions or obtains a few instruments for investment purposes).

1 The Practice Note does not address specific valuation techniques for unquoted equities, such as those set out in the International Private Equity and Venture Capital Guidelines.

10. The relevance of each area of guidance may differ considerably between different entities. For example, for entities with relatively few transactions involving complex financial instruments the auditor:
- Only needs to understand a few types of instruments and their interaction is likely to be much simpler, if it exists at all;
 - Does not face the problem of the entity controlling large volumes of transactions. It may be possible to limit audit testing of the completeness and accuracy of the recording of complex instruments to direct confirmation with the entity's bankers;
 - Is not faced with a complex IT or trading room environment. It may be possible for the entity to control and account for a few instruments using a more manual system;
 - May be able to take a predominantly substantive approach to the audit by obtaining audit evidence from independent sources outside the entity.
11. However, the auditor of an entity with relatively few transactions may also have problems not typically faced in an entity with high levels of trading/use of complex financial instruments. For example:
- Management may have less understanding of the complex financial instruments and how they affect the business;
 - The auditor may have limited access to evidence of valuation, because the entity may not be regularly trading in the instruments.

In these circumstances the auditor considers whether an expert needs to be involved to assist in the audit, particularly when the auditor lacks experience is dealing with such exposures.

12. The auditor determines the appropriate 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. The larger and more complex the operations, and the better the control environment, the more likely that the entity will have effective controls over its complex financial instruments and, therefore, the emphasis is more likely be on testing the operating effectiveness of controls. Conversely, when auditing an entity with just a small number of complex financial instruments, a substantive testing approach is likely to be more efficient. Tests of controls will not be sufficient on their own as the auditor is required by ISA (UK and Ireland) 330 to design and perform substantive procedures for each material class of transactions, account balance and disclosure².

2 ISA (UK and Ireland) 330, 'The Auditor's Procedures in Response to Assessed Risks,' paragraph 49.

OVERVIEW

13. This section presents an overview of the main considerations when auditing complex financial instruments. These considerations are addressed further in the subsequent sections.

Use of experts

14. The audit engagement team needs to include members with appropriate competence and capabilities to perform the audit work. The complexity inherent in auditing some financial instruments means that there may be areas of the audit that require particular skills and expertise. Examples are valuation and the testing of IT controls (since complex financial instruments often require complex systems to control them).

Understanding the purpose and risks of complex financial instruments

15. It is important that the auditor obtains an understanding of the purpose for which complex financial instruments are transacted and what risks their use exposes the entity to.
16. This understanding is important because the characteristics of complex financial instruments can serve to obscure their real effect. An understanding of them 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 by the entity.
17. The use of complex financial instruments can reduce exposures to certain business risks, for example changes in exchange rates, interest rates and commodity prices. 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 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 complex financial instrument may exceed the amount, if any, of the instrument that is recognised in the financial statements where the financial reporting framework does not require such instruments to be recorded at fair value in the financial statements.
18. Values of complex financial instruments may be volatile. Large and sudden decreases in their value may increase the risk that a loss may exceed the amount, if any, recorded on the balance sheet. Furthermore, because of the complexity of these activities, management may not fully understand the risks of using complex financial instruments.

Understanding how complex financial instruments are managed and controlled

19. The auditor obtains an understanding of how the entity manages and controls its exposure to financial instruments, including how the entity ensures that:
- all instruments are completely and accurately recorded;
 - payments and receipts are monitored and made on time;
 - financial risks are analysed and monitored;
 - valuations are accurate, reviewed and used for monitoring purposes;
 - only competent and trained staff can enter into transactions;
 - risk limits are applied;
 - segregation of duties between those transacting, settling and accounting for complex financial instruments are maintained.

Assessing and responding to the risks of material misstatement

20. Obtaining an understanding of the entity's use of complex financial instruments and the related risks, 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. In some cases the level of estimation uncertainty may be so large as to give rise to significant risk. The financial statement assertions most likely to be affected include those relating to:
- Completeness and accuracy of recording;
 - Valuation;
 - Presentation and disclosure.
21. **Completeness and accuracy of recording** – High volumes of transactions and their complexity can make confirming completeness and accuracy very 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. This can be addressed by testing reconciliation, confirmation and booking controls.
22. **Valuation** – Most financial reporting frameworks require complex financial instruments to be marked to market for external reporting purposes, either for computing profit or loss or for disclosure in the notes to the accounts. Obtaining sufficient appropriate audit evidence to support the prices used is important.
23. **Presentation and disclosure** – very often the key aspects of complex financial instruments cannot all be encapsulated in the profit and loss account and balance sheet.

Financial reporting frameworks generally require additional disclosures regarding estimates and related risks and uncertainties to supplement and explain assets, liabilities, income and expense.

RESPONSIBILITIES OF MANAGEMENT AND THOSE CHARGED WITH GOVERNANCE

24. Management and those charged with governance are responsible for the preparation and presentation of the financial statements. As part of the process of preparing those financial statements, where applicable, management and those charged with governance need to ensure that:
- all complex financial instruments recorded in the financial statements exist;
 - there are no unrecorded complex financial instruments at the balance sheet date;
 - the complex financial instruments recorded in the financial statements are properly valued and presented; and
 - all relevant disclosures are made in the financial statements.
25. Effective internal control assists management and those charged with governance to fulfil their responsibilities. Generally, for internal control to be effective, those charged with governance of an entity, through oversight of management, accept responsibility for:
- establishing an appropriate control environment, including clear rules on the extent to which those responsible for complex financial instrument activities are permitted to participate in the trading markets³ (see paragraphs 53-57);
 - establishing information systems that provide those charged with governance with an understanding of the nature of the complex financial instrument activities and the associated risks;
 - the design and implementation of 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
 - the integrity of the entity's accounting and financial reporting systems to ensure the reliability of management's financial reporting of complex financial instrument activities.

³ Such rules should have regard to any legal or regulatory restrictions on using financial instruments. For example, UK public sector bodies may not have the power to conduct business using derivative financial instruments.

THE AUDITOR'S RESPONSIBILITY

26. The auditor's responsibility related to complex financial instruments, in the context of the audit of the financial statements, is to obtain sufficient appropriate audit evidence to conclude whether the financial statements taken as a whole give a true and fair view and are prepared in all material respects in accordance with the applicable financial reporting framework.
27. The auditor establishes an understanding with those charged with governance that the purpose of the audit work is to be able to express an opinion on the financial statements as a whole⁴. It is not to provide assurance on the adequacy of the entity's risk management related to complex financial instruments, or the controls over related activities. To avoid any misunderstanding the auditor may discuss with management and those charged with governance the nature and extent of the audit work related to complex financial instruments.
28. Maintaining professional skepticism throughout the audit is necessary if the auditor is, for example, to reduce the risks of:
- Overlooking unusual circumstances.
 - Over generalizing when drawing conclusions from audit observations.
 - Using inappropriate assumptions in determining the nature, timing, and extent of the audit procedures and evaluating the results thereof.
29. 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.

PLANNING AND RESOURCES

Special skills and knowledge

30. Complex financial instruments may have features that require the audit engagement team to have special skills and knowledge to:
- assess the related risks of material misstatement; and
 - plan and perform audit procedures to obtain sufficient appropriate audit evidence about their measurement, recognition and disclosure.

4 ISA (UK and Ireland) 210 'Terms of Audit Engagements' establishes requirements and guidance on agreeing upon the terms of the engagement.

31. The audit engagement partner needs to be satisfied that the engagement team collectively has the appropriate capabilities, competence and time to perform the audit⁵. Special 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 complex financial instruments used by the entity, and their characteristics;
 - the entity's information system for complex financial instruments, including any relevant services provided by a service organisation (see paragraphs 85-88). This may require the auditor to have special 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 instrument, for example, when fair value is determined by a pricing model ('marked to model'); and
 - the requirements of relevant legislation, regulations and applicable accounting standards for financial statement assertions related to complex financial instruments.
32. The accounting requirements pertaining to the measurement and disclosure of complex financial instruments and the related risks and uncertainties are themselves complex and extensive. A proper understanding of the requirements to the extent they relate to the circumstances of the entity is important and will, for example, 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.
33. Where necessary the audit engagement team make use of the assistance of an expert, from within or external to the firm, with the necessary skills or knowledge to help plan and perform the auditing procedures, especially when:
- the financial instruments are very complex;
 - relatively simple financial instruments are combined to produce a more complex product;
 - the entity is engaged in active trading of complex financial instruments; or
 - the valuations of the instruments are based on complex pricing models.

ISA (UK and Ireland) 620 'Using the Work of an Expert' establishes requirements and guidance on the use of an expert's work to obtain audit evidence.

34. Market conditions may lead to the need for the auditor to make use of the work of an expert where previously it was not considered necessary, or to use an expert with

5 ISA (UK and Ireland) 220, 'Quality Control for Audits of Historical Financial Information,' paragraph 19.

different expertise to one who was used previously (e.g. when valuation methods are changed to become more complicated, such as a switch to using pricing models rather than observable market prices).

Consultation

35. The engagement partner takes responsibility for the audit engagement team undertaking appropriate consultation on difficult or contentious matters⁶. The nature and use of particular types of complex financial instruments, the complexities associated with their valuation and disclosure, and market conditions may lead to a need for the audit team to consult with other professionals with relevant technical expertise and experience.

Engagement quality control review

36. An engagement quality control review is required for all audits of financial statements of listed entities⁷. Criteria that an audit firm considers when determining which audits other than those of listed entities are to be subject to an engagement quality control review include the identification of unusual circumstances or risks in the engagement. In this context, taking into account factors such as the capabilities, competence and relevant experience of the engagement team, the auditor considers whether the attributes of the complex financial instruments used by the entity or market conditions make the appointment of an engagement quality control reviewer appropriate.
37. ISA (UK and Ireland) 220 establishes requirements and provides guidance on what considerations should be included in the performance of an engagement quality control review⁸.

Materiality

38. Determining materiality⁹ involves both quantitative and qualitative considerations. When planning the audit, materiality may be difficult to assess for an entity using complex financial instruments given some of their characteristics (e.g. where there is volatility of valuations). In particular, some financial instruments can be assets or liabilities depending on their valuation and this may change over the course of the audit. The

6 ISA (UK and Ireland) 220, paragraph 30.

7 Paragraph 60 of ISQC (UK and Ireland) 1, 'Quality Control for Firms that Perform Audits and Reviews of Historical Financial Information, and Other Assurance and Related Services Engagements,' and Paragraph 36 of ISA (UK and Ireland) 220.

8 ISA (UK and Ireland) 220, paragraph 38.

9 ISA (UK and Ireland) 320, 'Audit Materiality,' paragraph 8, requires the auditor to consider materiality when determining the nature, timing and extent of audit procedures.

auditor revises materiality in the event of becoming aware of information during the audit that would have caused the auditor to determine a different amount initially¹⁰.

UNDERSTANDING OF THE ENTITY AND ITS ENVIRONMENT

39. In complying with the requirements of ISA (UK and Ireland) 315¹¹, the auditor obtains an understanding of the entity's objectives and strategies for using complex financial instruments, as well as understanding the entity's process for identifying business risks relevant to financial reporting objectives and deciding how to address those risks.
40. 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. In relation to this, the auditor considers the knowledge and experience of management and those charged with governance. The use of complex financial instruments without relevant expertise within the entity may result in the entity's risk being significantly in excess of its risk appetite.
41. The auditor also determines whether the entity, or a group component in the case of a group audit, operates in a regulated industry sector and, if so, obtains an understanding of any relevant requirements established by the regulator. Other Practice Notes issued by the APB provide guidance on auditing entities that operate in particular regulated industry sectors.
42. It may be appropriate for the auditor's understanding of relevant industry and regulatory factors in accordance with ISA (UK and Ireland) 315 to include inquiry of management as to whether there have been discussions with supervisors or other regulators during the year about its policies in respect of complex financial instruments, and whether management has reviewed its processes in the light of those discussions. The auditor reviews relevant correspondence, if any, with regulators.

Understanding the complex financial instruments to which an entity is exposed

43. It is important that the auditor understands the complex financial instruments to which an entity is exposed and the effects they may have on the entity. Given the complexity, subjectivity and specialist nature of the valuation of complex financial instruments the auditor may determine that it is necessary to use the work of an expert.

10 ISA (UK and Ireland) 320, paragraph 9-1, indicates that if the auditor identifies factors which result in the revision of the preliminary materiality assessment, the auditor considers the implications for the audit approach and may modify the nature, timing and extent of planned audit procedures.

11 ISA (UK and Ireland) 315, 'Understanding the Entity and its Environment and Assessing the Risks of Material Misstatement,' paragraph 2, requires the auditor to obtain an understanding of the entity and its environment, including its internal control, sufficient to identify and assess the risks of material misstatement of the financial statements whether due to fraud or error, and sufficient to design and perform further audit procedures.

44. 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. Another example might be hedging of possible future price movements. For example an airline that purchases all its future fuel needs for the next two years at forward prices, will suffer if the price then falls over the next two years, because unhedged competitors will benefit from a cost advantage.
45. The auditor establishes:
- what complex financial instruments the entity is exposed to;
 - what they are used for;
 - their exact terms so that their implications can be fully understood and, in particular where transactions are linked, the overall impact;
 - how they fit in to the entity's overall risk management strategy.

Accounting considerations

46. Accounting standards in relation to complex financial instruments are themselves complex and require extensive disclosures. 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.
47. For entities preparing their financial statements in accordance with IFRSs as adopted by the EU, relevant accounting standards are International Accounting Standard (IAS) 32 'Financial Instruments: Presentation', IAS 39 'Financial Instruments: Recognition and Measurement' and IFRS 7 'Financial Instruments: Disclosures'.
48. For entities preparing their financial statements in accordance with UK or Irish Generally Accepted Accounting Practice (GAAP), relevant accounting standards are:
- Financial Reporting Standard (FRS) 13 'Derivatives and other financial instruments: disclosures'; or
 - FRS 25 '(IAS 32) Financial Instruments: Presentation', FRS 26 '(IAS 39) Financial Instruments: Recognition and Measurement' and FRS 29 '(IFRS 7) Financial Instruments: Disclosures'¹².

12 Entities whose financial statements are prepared in accordance with the fair value accounting rules set out in the Companies Act, fall within the scope of FRS 26 and accordingly are required to comply with it and FRSs 25 and 29 (reporting entities applying the FRSSE are exempt). Other entities are required to comply with FRS 13 if they are within its scope.

49. Paragraphs 47 and 48 above are not intended to be a comprehensive identification of all relevant accounting standards, other applicable accounting standards may also have particular requirements relevant to complex financial instruments. Applicable law may also set out accounting and disclosure requirements, for example the UK and Irish Companies Acts and related legislation. An understanding of all the relevant requirements of the applicable financial reporting framework is important.
50. An entity's policies for accounting for such instruments need to take into account the different purposes for which they can be transacted (such as trading or hedging).

Internal control

51. ISA (UK and Ireland) 315 requires that the auditor obtain an understanding of internal control relevant to the audit¹³. 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.
52. If the auditor identifies material weaknesses in the entity's internal control the auditor communicates them to those charged with governance (see paragraph 151).

Control environment

53. The auditor considers the overall attitude toward, and awareness of, complex 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 auditor considers whether the structure implemented to monitor and manage exposure to risks:
 - is appropriate and consistent with the entity's attitude toward risk as determined by those charged with governance;
 - specifies the approval levels for the authorisation 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 complex financial instrument activities;
 - 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

¹³ ISA (UK and Ireland) 315, paragraph 41.

- provides for the independent and timely reporting of exposures, risks and the results of complex financial instrument activities in managing risk.
54. Complex financial instrument activities may be run on either a centralised or a decentralised 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 complex financial instrument activities may increase with greater decentralisation of control activities. This especially may be true where an entity is based in different locations, some perhaps in other countries.
55. Four elements in particular of the control environment that may have an effect on controls over complex financial instrument activities are:
- *The level of knowledge and experience of management and those charged with governance.* The degree of complexity of some complex financial instrument activities may mean that only a few individuals within the entity fully understand those activities. Furthermore, the complexity of various contracts or agreements may make it possible for an entity to enter inadvertently into a transaction for which the level of risk is higher than expected. Significant use of complex financial instruments, without relevant expertise within the entity, therefore increases the risk of material misstatement. This may prompt the auditor to question whether there is adequate management control, and may affect the auditor's risk assessment and the nature, extent and timing of audit procedures considered necessary.
 - *Direction from management and those charged with governance.* Management is responsible for providing direction, through clearly stated policies approved by those charged with governance, for the purchase, sale and holding of complex financial instruments. The auditor considers whether the policies 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 considers whether the policies and procedures 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;
 - 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 should be appropriate and consistent with its attitude toward risk and the expertise of those involved in complex financial instrument activities.

- *Segregation of duties and the assignment of personnel.* Complex financial instrument activities may be categorised into a number of functions, including:
 - committing the entity to the transaction (dealing);
 - initiating cash payments and accepting cash receipts (settlements);
 - sending out trade confirmations and checking replies from counterparties; and
 - recording of all transactions correctly in the accounting records, including the valuation of complex financial instruments.

As part of the auditor's risk assessment, the auditor considers the segregation of duties among these four functions. Where an entity is too small to achieve proper segregation of duties, the auditor considers the role of management in monitoring complex financial instrument activities.

Some entities have established another function, *Risk Control*, which is responsible for reporting on and monitoring complex 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;
- developing disaster scenarios and subjecting open position portfolios to sensitivity analysis, including reviews of unusual movements in positions;
- reviewing and analysing new complex financial instrument products; and
- independent price verification.

In entities that have not established a separate risk control function, reporting on and monitoring complex financial instrument activities may be a component of the accounting function's responsibility or management's overall responsibility.

- *Whether or not the general control environment has been extended to those responsible for complex financial instrument activities.* An entity may have a control 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 complex financial instrument activities. Alternatively, because of the risks associated with complex 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 complex financial instruments.

56. Some entities may operate an incentive compensation system for those involved in complex financial instrument transactions. In such situations, the auditor considers the extent to which these may constitute fraud risk factors and the impact on the assessment of material misstatement due to fraud (see paragraphs 95-97).
57. When an entity uses electronic commerce for complex financial instrument transactions, it should address the security and control considerations relevant to the use of an electronic network.

Entity's risk assessment process

58. In evaluating the design and implementation of the entity's risk assessment process¹⁴, the auditor determines 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.
59. The auditor obtains an understanding of the principal types of risk, related to complex financial instrument activities, to which entities may be exposed. These include:
 - (a) *Operational risk*, which relates to the specific processing required for complex financial instruments and which captures:
 - the risk that basic confirmation and reconciliation controls are inadequate resulting in incomplete or inaccurate recording of complex financial instruments;
 - 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;
 - 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;
 - the risk that undue reliance is placed by staff on information derived from value at risk or stand alone models, in managing complex 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;

14 ISA (UK and Ireland) 315, paragraph 76, requires that the auditor obtain an understanding of the entity's process for identifying business risks relevant to financial reporting objectives and deciding about actions to address those risks, and the results thereof.

(b) *Valuation risk*, which is the risk that the value of the complex financial instrument and the related sensitivities are determined incorrectly. Components of valuation risk are:

- Model risk, which is the risk that imperfections and subjectivity of valuation models used to determine the value of certain types of complex financial instrument are not properly understood and accounted for or reserved against.
- 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 foreign exchange risk.
- Liquidity risk, which relates to changes in the ability to sell or dispose of the complex financial instrument. Complex 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.
- 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.

Economic losses may occur if the entity makes inappropriate trades based on information obtained using poor valuation models;

(c) *Credit risk*, which relates to the risk that a customer or counterparty will not settle an obligation for full value, either when due or at any time thereafter. For certain complex financial instruments, market values are volatile, so the credit risk exposure also is volatile. Generally, a complex financial instrument has credit exposure only when the complex 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 fulfil its obligation. Furthermore, the market value of a complex financial instrument may fluctuate quickly, alternating between positive and negative values. The potential for rapid changes in prices, coupled with the structure of certain complex financial instruments, also can affect credit risk exposure. For example, highly leveraged complex financial instruments or complex financial instruments with extended time periods can result in credit risk exposure increasing quickly after a transaction has been undertaken.

Many complex financial instruments are traded under uniform rules through an organised exchange (exchange-traded instruments). Exchange traded instruments generally remove individual counterparty risk and substitute the clearing organisation 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 minimising credit risk include requiring the

counterparty to offer collateral, or assigning a credit limit to each counterparty based on its credit rating.

Settlement risk is the related risk that one side of a transaction will be settled without value being received from the customer or counterparty. One method for minimising 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;

- (d) *Legal risk*, which relates 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 complex financial instrument.

Risk management

60. When managing the risks of using complex financial instruments, entities should:

- understand the risks inherent in a complex financial instrument before they enter into it;
- monitor their outstanding positions to understand how market conditions are affecting their exposures;
- have procedures in place to reduce or change risk exposure if necessary;
- subject these processes to rigorous supervision and review.

61. Controls to manage the types of risk described in paragraph 59 may include:

- analysing all complex financial instruments into their component risks;
- aggregating those risks on a sufficiently frequent basis to be able to control the overall exposure;
- analysing the nature of the exposure in detail, so that hedging activity can be undertaken as needed;
- setting limits as to the amount of exposure taken on, relative to the entity's risk management strategy;
- ensuring that there is adequate segregation of duties between the risk function and the traders, settlement and accounting staff as appropriate;
- ensuring that the risk management functions have sufficient status in the organisation to control how risk is taken on and managed.

62. It is not the job of the auditor to determine the amount of risk an entity should take on, but 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. The auditor may have responsibilities in respect of such breaches as set out in ISA (UK and Ireland) 250 Section B, 'The auditor's Right and Duty to Report to Regulators in the Financial Sector';
 - facilitating fraud or error;
 - making it more difficult to obtain an understanding of the impact of complex financial instruments on the entity as a whole;
 - in extreme circumstances, increasing the risk of a going concern problem.
63. If matters come to the auditor's attention that indicate a significant weakness in the entity's risk management the auditor communicates them to those charged with governance (see paragraph 151).

Information systems

64. Certain complex financial instruments may require a large number of accounting entries. As the sophistication of the complex financial instrument activities increases, so should the sophistication of the information system. Because this is not always the case, the auditor remains alert to the possible need to modify the audit approach if the quality of the information system, or aspects of it, appears weak. Specific issues which can arise in respect of complex financial instruments include:
- the potential diversity of systems required to process more complex transactions, and the need for regular reconciliations between them;
 - 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 potential issues around segregation of duties and lack of clarity in the delineation between development and operational roles for bespoke or more complex transaction systems, where a limited number of trades are being processed;
 - the reliance on recruiting and retaining expert individuals 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;
 - the need to review exception logs from systems, external confirmations and broker quotes, where available, to sense check the entries generated by the complex financial instruments systems;

- the difficulties in controlling and checking 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, thinly traded or illiquid;
- the need for a specialist team of quantitative staff to check the design and calibration of complex models used to process these transactions initially and on a periodic basis;
- the need to set up a model library, with access and change controls around it, in order to maintain an strong audit trail of the accredited versions of models and in order to prevent unauthorised access or amendments to those models;
- the disproportionate investment which may be required in risk management and control systems, where firms only undertake a limited number of complex financial instrument transactions, and the potential for misunderstanding of the output by management if they are not used to these types of transactions; and
- the potential requirement for third party systems provision to record, process, account for or risk manage appropriately complex financial instrument transactions, and the need for staff members to reconcile appropriately and challenge the output from those providers.

Control activities

65. Control activities over complex financial instrument transactions should prevent or detect problems that hinder an entity from achieving its objectives. These objectives may be either operational, financial reporting, or compliance in nature.
66. The auditor, in planning the audit, considers the effectiveness of control activities over complex financial instruments¹⁵. These will generally include adequate segregation of duties, risk management monitoring, management oversight, and other policies and procedures designed to ensure that the entity's control objectives are met.
67. On a recurring engagement, having evaluated the design of the entity's internal control in a previous audit does not obviate the need to consider it in the current period. Matters to consider on recurring engagements include whether the design of the entity's related controls remains capable of effectively preventing, or detecting and correcting, material misstatements. 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.

15 ISA (UK and Ireland) 315, paragraph 90, requires the auditor to obtain a sufficient understanding of control activities to assess the risks of material misstatement at the assertion level and to design further audit procedures responsive to assessed risks.

68. The typical control objectives related to complex financial instruments that directly affect the financial statement assertions are related to:
- Completeness and accuracy of recording;
 - Valuation;
 - Compliance with disclosure requirements;
 - Authorisation.

Complete and accurate recording of all complex financial instruments

69. This is an essential core objective 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 and/or inaccurate;
 - risks will be improperly managed, because the entity's exposures will be inaccurately recorded;
 - the entity will be unable to settle transactions accurately.
70. The auditor assesses whether an entity's deal initiation records identify clearly the nature and purpose of individual transactions, and the rights and obligations arising under each complex financial instrument contract. In addition to the basic financial information, such as a notional amount, the auditor considers whether these records include:
- the identity of the dealer;
 - the identity of the person recording the transaction, if that person is not the dealer;
 - the date and time of the transaction;
 - 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.
71. For complex financial instruments two types of control are particularly relevant in this area:
- **Confirmations.** Generally, the terms of complex financial instruments are documented in confirmations exchanged between counterparties and/or legal agreements. Monitoring the exchange of confirmations is a key control. The strongest form of confirmation control is where an external party takes responsibility

for matching trades and settling them. Often this function is performed by a central clearing house attached to an exchange and the entity should have a process to manage the information delivered to the clearing house. 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 instruments, to ensure that the risk of fraud is minimised. 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 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;
 - thorough and in depth review of traders' profits and losses to ensure that they reconcile to what the back office has calculated.
- **Reconciliations.** 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 is a key control in ensuring 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 checking reconciliations and clearing reconciling items.

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

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. Checking suspense and clearing accounts is particularly important.

72. 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.
73. 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. It is therefore important that the way in which particular types of transaction are recorded and accounted for are established and reviewed in advance by suitably senior personnel, who are capable of understanding the full effects of the instruments being booked. In addition control processes are required to ensure that these policies are adhered to.
74. Some transactions may be cancelled or amended after initial execution. An entity should ensure that such cancellations or amendments are subject to the same level of control as original trades. Failure to do so increases the risk of fraud and error.

Valuation

75. Most financial instruments have to be valued either for the purposes of calculating profit and loss or for disclosure. In order to value a financial instrument, an entity should, as far as possible, obtain evidence from an external source that confirms the price at which a transaction could be sold or closed out. Positions are generally valued in one of two ways:
 - by direct comparison to an external source. For example, quoted shares and bonds;
 - by valuation through a model. Models are used 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. A 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 remaining tenor does 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.
76. Valuation raises a number of issues:
 - Prices used need to be as current as possible. Where markets are illiquid, prices quoted may be stale (i.e. out of date) or not represent prices at which market participants may trade at any volume. An entity should have controls in place to identify such prices and to obtain alternative valuation sources to support their valuations. Such alternatives can include evidence from other related markets or from market consensus pricing services, which poll brokers anonymously for prices and

release average price information. Where it is not possible to get price evidence for all positions, entities can compare pricing information for those positions where data is available to those where it is not to ensure consistency;

- Sometimes price quotations are provided by only one source, which may be the entity itself or its broker. The pricing source should be genuinely independent and where possible there should be more than one provider of a quote;
 - It is necessary to adjust for factors not present in any market quotations. For example the credit spread of a particular counterparty cannot be factored into a general market quote and often needs to be adjusted for;
 - Models used in valuation need to be properly reviewed and checked and comfort gained that they are not amended without appropriate authorisation. Sophisticated entities will have departments devoted to model analysis and approval, which are fully independent from front office. In addition models should be subject to calibration to the market. This involves checking the output of the model to actual trades done in the market place to ensure that it is consistent.
77. Valuation cannot always be precise and accurate. This is particularly the case when markets are illiquid and such markets present particular challenges. Under such circumstances entities should generally have:
- Protocols for acquiring pricing indicators from as many different sources as possible;
 - Evidence for how reliable particular pricing sources are and therefore how much weight they should attract in the pricing process;
 - Reserving policies for adjusting raw prices for uncertainties. Such uncertainties can include lack of liquidity, uncertainties arising from model calibration and counterparty credit risks;
 - The capability to calculate the range of realistic outcomes given the uncertainties involved.
78. Depending on the circumstances, matters that the entity needs to address when establishing a valuation model 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.
 - the model's output, including sensitivities, as compared to actual transactions.
 - appropriate change control policies and procedures exist.

- the model is periodically calibrated and tested for validity, particularly when inputs are subjective.
 - adjustments are made to the output of the model, including in the case of fair value accounting estimates, 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.
79. 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. ISA (UK and Ireland) 545 gives the example of the introduction of an active market as an illustration of changed circumstances leading to a move from valuation by model to valuation by market price. However, as markets become inactive, the changes can be in the opposite direction. Even where models have been consistently used, there is a need to examine the continuing appropriateness of the models and assumptions. 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.

Disclosure requirements

80. 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 since they are priced at prevailing market rates. The provision of additional information is often required by the financial reporting framework. Entities therefore need to have processes and controls to gather the information required by the applicable financial reporting framework so that it is complete and accurate.

Authorisation controls

81. Authorisation controls can affect the financial statement assertions both directly and indirectly. For example even if a transaction is executed outside an entity's policies, it will normally be valid nonetheless and has to be recorded and accounted for. However, the implication of unauthorised transactions is very severe in that it could significantly increase risk both to the entity and therefore significantly increase audit risk. Consequently 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 checked by an entity's back office.
82. It is important to an entity that payments are only made on valid instructions. From a purely financial statement perspective, however, it is only important that any payments errors are appropriately reflected in the accounts. While the entity will focus on ensuring

that there both adequate preventative and detective controls in place in this area, the auditor is likely to focus more (or even in appropriate circumstances exclusively) on detective controls to determine that the financial statement risks are adequately addressed.

Monitoring of controls

83. Entities' ongoing monitoring activities should detect and correct any weaknesses in the effectiveness of internal controls over transactions for complex financial instruments and their valuation¹⁶.
84. It is important that there is adequate supervision and review within the entity. This includes:
- Adequate segregation of duties where possible between those who transact complex financial instruments, those who settle them and those who are responsible for managing their risks and accounting for them;
 - All controls being subject to review. This can take two forms:
 - a detailed review of the application of particular controls. An example would be the review by a supervisor of bank or custodian reconciliations;
 - 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 checking their application;
 - The need to ensure that information resulting from different processes and systems is adequately reconciled. For example there is little benefit in a valuation process if the output from it is not reconciled properly into the general ledger;
 - In larger entities, sophisticated computer information systems generally keep track of complex 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 considers controls over processing to ensure that complex 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 authorised 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 complex financial instrument transactions. Accordingly, the auditor obtains an

16 ISA (UK and Ireland) 315, paragraph 96, requires the auditor to obtain an understanding of the major types of monitoring activity, including those related to those control activities relevant to the audit.

understanding as to how management ensures completeness of all transactions (see paragraphs 69-74).

Service organisations

85. Entities may use service organisations (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 organisations to provide valuations of the complex financial instruments held.
86. ISA (UK and Ireland) 402 requires the auditor to consider how an entity's use of a service organisation affects the entity's internal control so as to identify and assess the risk of material misstatement and to design and perform further audit procedures¹⁷.
87. The use of service organisations may strengthen controls over complex financial instruments. For example, a service organisation's personnel may have more experience with complex financial instruments than the entity's management. The use of the service organisation also may allow for greater segregation of duties. On the other hand, the use of a service organisation may increase risk because it may have a different control culture or process transactions at some distance from the entity.
88. If the auditor considers that sufficient audit evidence about transactions and balances affected by the services provided by the service organisation may not be available at the entity the auditor considers other possible sources of audit evidence, including whether a report on the service organisation's internal controls by their auditors is available covering control objectives relevant to the audit.

The role of internal audit

89. As part of obtaining an understanding of the entity's internal control, the auditor considers the role of any internal audit function. The knowledge and skills required of an internal audit function to understand and audit an entity's use of complex financial instruments are generally quite different from those needed in auditing other parts of the business. The external auditor considers the extent to which any internal audit function has the knowledge and skill to cover, and has in fact covered, the entity's complex financial instrument activities.
90. In many large entities, internal audit forms an essential part of the risk control function that enables senior management and those charged with governance to review and evaluate the control procedures covering the use of complex financial instruments. The work performed by internal audit may assist the external auditor in understanding the

17 ISA (UK and Ireland) 402, 'Audit Considerations Relating to Entities Using Service Organisations,' paragraph 2.

accounting systems and internal controls and therefore assessing risk. Areas where the work performed by internal audit may be particularly relevant are:

- 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 effectiveness of control activities;
- evaluating the accounting systems used to process complex financial instrument transactions;
- evaluating systems relevant to complex financial instrument activities;
- assessing whether new risks relating to complex financial instruments, are being identified, assessed and managed; and
- conducting regular evaluations to:
 - provide management with assurance that complex 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.

91. Certain aspects of internal audit may be useful in determining the nature, timing and extent of external audit procedures. When the external auditor intends to use specific internal audit work, the external auditor evaluates that work to confirm its adequacy for the external auditor's purposes. ISA (UK and Ireland) 610 'Considering the Work of Internal Audit' applies to the external auditor in considering the work of internal audit.

RISK ASSESSMENT

92. The assertions related to complex financial instruments that are subject to the greatest risk of material misstatement are likely to be completeness and accuracy of recording, valuation and disclosure¹⁸. Examples of considerations that might affect the auditor's assessment of the risks of material misstatement, in compliance with ISA (UK and Ireland) 315, include:

- Economics and business purpose of the entity's complex financial instrument activities;
- The degree of complexity of a complex financial instrument's features;
- Whether the transaction giving rise to the complex financial instrument involved the exchange of cash;

¹⁸ ISA (UK and Ireland) 500, 'Audit Evidence,' paragraph 17 lists assertions used by the auditor.

- An entity's experience with the complex financial instrument;
 - Whether the complex financial instrument includes an embedded derivative;
 - Whether external factors affect the assertion;
 - Whether the complex financial instrument is traded on national exchanges or across borders;
 - The strength of the entity's control environment.
93. 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 recognised on the balance sheet. For example, a sudden fall in the market price of a commodity may force an entity to realise losses to close a forward position in that commodity. In some cases, the potential losses may be enough to cast significant doubt on the entity's ability to continue as a going concern¹⁹. 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.
94. 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 is required to indicate the uncertainties surrounding the valuation. The auditor considers this when planning and performing audit procedures, interpreting the results and communicating with those charged with governance²⁰.

Fraud risk factors

95. The nature and use of some complex financial instruments may increase the likelihood of fraud risk factors related to them²¹. For example, incentives for fraudulent financial reporting may exist where incentive compensation schemes are dependent on returns made from the use complex financial instruments and the complexity of the instruments and related transactions may make it difficult to monitor the quality of the returns.

19 ISA (UK and Ireland) 570 'Going Concern' establishes requirements and provides guidance on the auditor's responsibility in the audit of financial statements with respect to the going concern assumption used in the preparation of the financial statements.

20 ISA (UK and Ireland) 545, paragraph 45, indicates that 'The auditor considers the sensitivity of the valuation to changes in significant assumptions, including market conditions that may affect the value. Where applicable, the auditor encourages management to use such techniques as sensitivity analysis to help identify particularly sensitive assumptions. In the absence of such management analysis, the auditor considers whether to employ such techniques. ...'

21 ISA (UK and Ireland) 240 addresses 'The Auditor's Responsibility to Consider Fraud in an Audit of Financial Statements.'

96. When financial market conditions are difficult the risk of fraudulent financial reporting may be increased. 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. Such circumstances may give rise to incentives to engage in fraudulent financial reporting: to protect personal bonuses, to hide management error, to avoid breaching borrowing limits or to avoid reporting catastrophic losses.
97. 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 that are inconsistent with observable marketplace assumptions. In illiquid markets, the increased use of models and lack of market comparisons may present opportunities for manipulation or override of amounts calculated by brokers or experts. 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. What is favorable is not always the position leading to the highest profit or lowest loss.

Significant risks

98. The risk of material misstatement for assertions related to complex financial instruments may vary with the degree of complexity of such instruments. The characteristics of complex financial instruments mean that there may be significant risks relating to their completeness and accuracy of recording, valuation and disclosure. When the auditor determines there is a significant risk related to fair value, ISA (UK and Ireland) 545 requires that the auditor should evaluate whether the significant assumptions used by management in measuring fair values, taken individually and as a whole, provide a reasonable basis for the fair value measurements and disclosures²². This evaluation includes consideration of whether these assumptions are reasonable, (e.g. whether they reflect current market conditions and information).
99. Particular difficulties giving rise to significant risks²³ may develop where there is severe curtailment or even cessation of trading in particular complex financial instruments. For example, in these circumstances, complex financial instruments that have previously been valued using market prices may need to be valued on a mark-to-model basis.

22 ISA (UK and Ireland) 545, paragraph 39.

23 ISA (UK and Ireland) 315, paragraph 108, requires that, as part of the risk assessment, the auditor determines which of the risks identified are, in the auditor's judgment, 'significant risks' that require special audit consideration.

AUDIT PROCEDURES IN RESPONSE TO ASSESSED RISKS

100. Audit procedures in response to assessed risks are a combination of controls and substantive procedures²⁴. The balance between the two is influenced by a number of factors including:

- The strength of the control environment;
- The quality of the design of controls and their perceived implementation;
- The ease with which verifiable information can be gathered and its comprehensiveness;
- The size and complexity of the entity and the volume of transactions.

101. A feature of complex financial instruments is that their existence, completeness and valuation need to be tested as at the period end, even if controls have been robust throughout the period. This is because:

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

Reliance on control activities

102. In reaching a decision on the nature, timing and extent of testing of control activities²⁵, the auditor considers factors such as:

- the importance of the complex financial instrument activities to the entity;
- the nature, frequency and volume of complex financial instrument transactions;
- the potential effect of any identified weaknesses in control procedures;
- the types of control activities being tested;

24 ISA (UK and Ireland) 330, paragraph 3, requires, in order to reduce audit risk to an acceptably low level, that the auditor determines overall responses to assessed risks at the financial statement level, and designs and performs further audit procedures to respond to assessed risks at the assertion level.

25 ISA (UK and Ireland) 330, paragraph 23, requires that when the auditor's assessment of risks of material misstatement at the assertion level includes an expectation that controls are operating effectively, the auditor performs tests of controls to obtain sufficient appropriate audit evidence that the controls were operating effectively at relevant times during the period under audit.

- the frequency of performance of these control activities; and
 - the evidence of performance.
103. Tests of the operating effectiveness of controls are performed only 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 only a limited number of complex financial instrument transactions, or that the magnitude of these instruments is especially significant to the entity as a whole, a substantive approach, sometimes in combination with tests of control, may be more appropriate.
104. The population from which items are selected for detailed testing is not limited to the accounting records. Tested items may be drawn from other sources, for example counterparty confirmations and trader tickets, so that the possibility of omission of transactions in the recording procedure can be tested.

Substantive procedures

105. Even though the auditor may determine that the risk of material misstatement may be reduced to an acceptably low level by performing tests of controls for a particular assertion, the auditor is required to always perform substantive procedures for each material class of transactions, account balance and disclosure²⁶. Further, 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 risk²⁷.
106. Substantive audit procedures performed to obtain audit evidence to detect material misstatements in the financial statements are generally of two types:
- (a) analytical procedures; and
 - (b) other substantive procedures, such as tests of details of transactions and balances, circularisations, and review of minutes of directors' meetings and enquiry.
107. In designing substantive tests, the auditor considers:
- *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;

26 ISA (UK and Ireland) 330, paragraph 49, requires that, irrespective of the assessed risk of material misstatement, the auditor designs and performs substantive procedures for each material class of transactions, account balance and disclosure.

27 ISA (UK and Ireland) 330, paragraph 51.

- *Involvement of a service organisation.* When planning the substantive procedures for complex financial instruments, the auditor considers whether another organisation holds, services or both holds and services the entity's complex financial instruments;
- *Interim audit procedures.* When performing substantive procedures before the balance sheet date, the auditor considers market movements in the period between the interim testing date and year-end. The value of complex financial instruments may fluctuate greatly in a relatively short period. 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 complex 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 complex financial instrument transactions are not undertaken routinely, the auditor plans and performs audit procedures having 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 complex financial instrument transactions. These procedures may include tests of subsequent cash receipts and payments, and the search for unrecorded liabilities.

108. Analytical procedures²⁸ undertaken by the auditor can be effective as risk assessment procedures or as substantive procedures. In the audit of complex financial instrument activities they may give information about an entity's business but, by themselves, are generally unlikely to provide sufficient evidence with respect to assertions related to complex 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.

Substantive procedures related to assertions

Completeness and accuracy

109. In performing substantive procedures the auditor may focus on:

- Direct confirmation of external 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 direct to the auditor. Alternatively this information may be obtained from the counterparty's systems through a data feed. Where this is done the auditor needs to ensure that the

28 ISA (UK and Ireland) 520, 'Analytical Procedures,' paragraph 2, requires the auditor to apply analytical procedures as risk assessment procedures to obtain an understanding of the entity and its environment and in the overall review at the end of the audit. Analytical procedures also may be applied at other stages of the audit.

computer systems through which the information is transmitted cannot be tampered with by the client before the report reaches the auditor.

- Reconciliation of external data with the entity's own records. This may necessitate checking IT controls around and within automated reconciliation processes and ensuring that reconciling items are properly followed up and dealt with.
- Reviewing operational data, such as reconciliation breaks. To do this the auditor will have to obtain sufficient evidence to indicate that this data is reliable.
- Checking that the complexities inherent in a transaction have been fully identified and reflected in the accounts. This includes reading transaction documentation and confirming the accounting entries relating to it.

Valuation

110. Tests of valuation mainly fall under three headings:

- Verifying the external prices that are used to value complex financial instruments. External prices may be available directly from markets but it is likely that external price information will be used as inputs to valuation models. This is because many complex financial instruments are tailored for particular clients and are not therefore homogenous with each other;
- Confirming the validity of valuation models. Valuation models are used, where an instrument is not quoted in the market, but prices for its component parts can be derived from instruments that are quoted (where inputs to the model are observable) or from estimates of fair value (where inputs are unobservable);
- Evaluating the overall result and reserving for residual uncertainties. By their nature complex financial instruments are often not traded in active liquid markets and hence their valuation is often uncertain and requires considerable judgement. Once the detailed evidence has been gathered and valuations have been made on an instrument by instrument basis, it is important to review the overall result and consider whether there are residual uncertainties not taken into account by the valuation process that require further adjustment.

111. The entity being audited should have its own processes to undertake these tasks. The auditor reviews the output from these processes and considers what independent confirmation needs to be undertaken. If there are weaknesses in these processes, the auditor communicates them to those charged with governance. Where there are serious weaknesses, the auditor considers whether there is a scope limitation on the audit and whether applicable law and regulations require a report to be made to a regulator.

Verifying external prices

112. The objective of fair value measurement is to arrive at the price at which an orderly transaction would take place between market participants at the measurement date. In

meeting this objective the entity should take into account all relevant available market information.

113. The best indicators of fair value are contemporaneous transactions in a deep and liquid market. However, in many cases complex financial instruments are not quoted by such sources, but components of them (such as interest rate curves, or the assets underlying options) are.
114. 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 to 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 provide sufficient evidence of value but it is important to check that:
- 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);
 - The quotes are prices at which dealers would actually trade in reasonable volume;
 - Prices do not come from quotations provided by the entity being audited.
115. Care is needed when using broker quotes or quotes obtained from pricing services. Quotes obtained from brokers are not always binding offers to trade (unless the broker is a market maker) and hence may not represent a price at which a transaction would actually take place. In a liquid market, a broker quote is likely to reflect actual transactions, but, as the market becomes less liquid, the broker may rely more on proprietary models to determine prices and even if this is not the case, the information available to the broker may be less reliable. Pricing services either value instruments using proprietary models or by polling a number of market participants and obtaining prices, which are then averaged in some way to produce a 'consensus price'. Again, in liquid markets the pricing services are likely to reflect current transactions but, as markets become less liquid, the information they use to price instruments may become less reliable. It is important therefore that the bases on which brokers and pricing services have compiled their quotes is understood, so that their reliability can be checked. In addition, if the price comes from a counterparty or another entity with a close relationship with the entity being audited, the information may not be objective. If broker quotes are being used, it may be necessary to obtain more than one quote to corroborate the prices received.
116. Valuation is more complicated when the markets in which complex financial instruments or their component parts are traded are illiquid or where no price is observable. There is no clear point at which a liquid market becomes illiquid. Characteristics of an illiquid market include low trade volumes, especially if they do not represent regular

transactions, prices which are out of date and insufficient buyers and sellers to ensure transactions take place on a 'willing buyer/willing seller' basis.

117. Where there is no pricing source based upon current liquid market trading, indicators of price will be inherently unreliable. It is therefore necessary to gather other price indicators and evaluate them to determine the most reasonable price. Price indicators 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. In addition it is possible that the transaction represents a forced sale and is therefore not indicative of a price in an orderly trade;
- 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;
- Quotes from brokers or pricing services. It is important to understand the basis on which these prices have been prepared, especially when the market is illiquid. This is because they may not represent prices at which the provider is willing to trade and the provider's information on the market may be limited or flawed;
- 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.

118. It is possible that there will be disparities between price indicators from different providers. It is then necessary to investigate the disparities in order to settle at the most reasonable price. Simply taking the average of the quotes provided, without doing further research would be inappropriate, because one price in the range may be the most representative of fair value and this may not be the average. Factors that could be taken into account include:

- Looking 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;
- Considering whether actual transactions represent forced sales rather than transactions between willing buyers and willing sellers. This may invalidate the price as a comparison;
- An analysis of the fundamentals of the 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, it may be possible to 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;

- Prices within a portfolio can be compared to each other to make sure that they are consistent;
- Using more than one valuation model to corroborate the results from each one;
- Movements in the prices for related hedging instruments and collateral.

In coming to its judgement as to the most appropriate price to use an entity may consider all these factors together with others that may be specific to the entity's circumstances.

119. The auditor considers the evidence that the entity has gathered and the entity's conclusions on pricing and determines what audit work is required. Audit procedures may include:

- Considering whether there are any other relevant price indicators or factors to take into account;
- Checking that the entity's assessment has been subject to adequate internal control including review by sufficiently senior and experienced personnel;
- Checking data to source materials;
- Obtaining independent confirmation of price indicators;
- Reviewing and assessing the judgements made by the entity.

This is a highly judgemental area and the auditor may consider using an expert to help.

Valuation models

120. When checking the validity of valuation models used by an entity, the factors considered by the auditor include:

- The theoretical model being used and whether it is appropriate. For example there are a number of option pricing models and it is important that the limitations 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 complex financial instrument being valued;

- Whether the inputs to the models are complete and appropriate for the model;
 - 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 behaviour;
 - Whether market variables and assumptions are used consistently and whether new conditions justify a change in the market variables or assumptions used;
 - The competence, knowledge and experience of those responsible for the development and application of the models.
121. The auditor may test this by a combination of testing controls operated by the entity, checking the design and operation of the model and comparing its output to that of the auditor's or other third party models and to recent market transactions.
122. It may be necessary to adjust model derived prices to reflect additional factors such as:
- 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 standards 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 should be made.
123. The auditor also considers the security of the model to check that it cannot be tampered with so that it does not operate as intended. 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.
124. Unless management is able to support its valuations, 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, as the quantity and quality of audit evidence needed is affected by the risk of misstatement (the greater the risk, the more audit evidence is likely to be required). 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.

Evaluating the overall result and reserving for valuation uncertainties

125. 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 very complicated instruments that are not actively traded. 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 is very judgemental and will be specific to each entity. The auditor considers all the factors taken into account in the valuation process and uses experience and judgment to evaluate the amount of any reserve required. The auditor may need to draw on expert help to assist in doing this.
126. 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 instrument. It is inherent in market pricing that counterparty risk is taken into account in arriving at the market price and an entity's pricing process should therefore have already dealt with counterparty risk. However, auditors consider 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.
127. In addition, the auditor 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. The auditor takes this into consideration when evaluating the audit evidence obtained (see paragraphs 143 – 148).

Use of management's expert

128. Entities may obtain valuation reports containing valuations of complex financial instruments for which there is no observable market directly from third parties such as banks or other financial institutions. In such cases, the auditor may decide to obtain confirmation of the valuations direct from the third party, applying the requirements and guidance in ISA (UK and Ireland) 505, 'External confirmations'.
129. If the third party applies particular expertise, for example in the use of models, in making an estimate which the entity uses in preparing its financial statements, the third party is considered a management's expert and the requirements and guidance in ISA (UK and Ireland) 620 'Using the work of an expert' are relevant. If, on the other hand, 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 (the auditor considers the relevance and reliability of the information, but the requirements of ISA (UK and Ireland) 620 specific to using the work of an expert do not apply).

130. In assessing whether the valuation reports supplied by an expert provide sufficient appropriate audit evidence for the valuations, the auditor considers:
- the competence and objectivity of the third party bank/other financial institution, for example: their independence from 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
 - the appropriateness of the valuations and sensitivities, including assessing the appropriateness of the model(s) used and the key market variables and assumptions used in the model(s).
131. Management of the entity may not have access to details of the model(s) used, and the key assumptions. In such cases, the auditor considers whether is necessary and possible to obtain information directly, with management's authority, from the third party. The auditor also considers whether a report on the third party's internal controls by their auditors is available covering control objectives applicable to the valuations (see paragraph 88).
132. 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 considers whether evidence can be obtained by re-performing the valuation using a model developed by the auditor, and applying market variables and assumptions that management and the auditor consider appropriate.

Hedge Accounting

133. Where hedge accounting techniques are used, the auditor gathers audit evidence to determine whether management's designation of a complex 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. Generally, the auditor obtains evidence as to:
- (a) whether the complex financial instrument was designated as a hedge at the inception of the transaction;
 - (b) the nature of the hedging relationship;
 - (c) the entity's risk management objective and strategy for undertaking the hedge;
 - (d) the entity's assessment of the effectiveness of the hedge;
 - (e) where the complex financial instrument is hedging a future transaction, the entity's assessment of the certainty of that future transaction; and

- (f) whether the hedging instrument, hedged item and hedging relationship are permitted under the relevant accounting standards.

If sufficient audit evidence to support management's use of hedge accounting is not available, the auditor may have a scope limitation. If there is disagreement with management's use of hedge accounting the auditor considers whether to qualify the audit opinion on the financial statements.

134. To account for a complex financial instrument transaction as a hedge, some financial reporting frameworks, for example, IAS 39 and FRS 26, require that management, at the inception of the transaction, 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 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. IAS 39 and FRS 26 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.
135. The auditor gathers audit evidence to determine whether management complied with the applicable hedge accounting requirements of the financial reporting framework, including designation and documentation requirements. In addition, the auditor gathers 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 effective²⁹. 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, the auditor considers the implications for the auditor's report.

Presentation and disclosure

136. Management need to consider the disclosure of information (including accounting policies) relating to complex financial instruments when preparing and presenting the financial statements that show a true and fair view. The accounting requirements to provide fair value and other information about them in financial statement presentations and disclosures are extensive.
137. Consideration of disclosures about the risks and uncertainties related to complex financial instruments is also important. For example, to comply with IFRS 7 and FRS 29,

²⁹ If the hedging relationship is no longer effective, the hedging instrument ceases to qualify for treatment as a hedge.

entities are required to disclose information that enables users of the financial statements to evaluate the nature and extent of the risks arising from financial instruments to which the entity is exposed at the reporting date. 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.

Entities are also required 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.

Practice Note 19 provides guidance on auditing disclosures of market risk information. It was written specifically for the audit of deposit takers, such as banks and building societies, but may also be helpful for auditors of other businesses that have significant financial instrument activity.

138. IAS 1, 'Presentation of Financial Statements,' includes a requirement to disclose³⁰:

- the judgements made in applying the entity's accounting policies that have the most significant effect on the amounts recognised 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 are expected to have regard to related guidance and recommendations that may have been produced by relevant bodies (e.g. The Committee

30 Further, under UK and Irish company law, in relation to the use of financial instruments by the company, the directors' report is required to give an indication of:

- (a) the financial risk management objectives and policies of the company, including the policy for hedging each major type of forecasted transaction for which hedge accounting is used, and
- (b) the exposure of the company to price risk, credit risk, liquidity risk and cash flow risk, unless such information is not material for the assessment of the assets, liabilities, financial position and profit or loss of the company. (In the UK: SI 2008/410 – The Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008, Schedule 7.6; in Ireland: Companies (Amendment) Act 1986, s13(1)(f).)

of European Securities Regulators (CESR), the Financial Services Authority (FSA), and the Financial Stability Board).

139. The auditor's conclusion as to whether the complex financial instruments are presented in conformity with relevant legislation, regulations and 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 relevant 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;
- disclosure is adequate to ensure that the entity is in full compliance with the current disclosure requirements of relevant legislation, regulations and applicable financial reporting framework under which the financial statements are being reported;
- the information presented in the financial statements is classified and summarised in an appropriate and meaningful manner; and
- the financial statements show a true and fair view.

140. As part of complying with ISA (UK and Ireland) 315, the auditor will have obtained information regarding the entity's risk assessment process and control activities. The auditor checks that the 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;
- 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 primary financial statements. If disclosures are made in the financial statements with which the auditor is not familiar the auditor obtains supporting evidence for them, including considering supporting papers and obtaining such written representations from management as the auditor considers appropriate.

141. In order for a disclosure to be audited it has to be capable of being verified and not contain subjective comments and assessments made by management, which cannot be audited in accordance with auditing standards. Such statements might include general 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'). If management has included such subjective statements in information that is to be audited, the auditor asks management and those charged with governance to amend them.

142. Many entities present significant amounts of financial information in the audited financial statements in the form of tables of numbers. The auditor checks that this information agrees to, or reconciles with, the financial information that has been subject to audit.

EVALUATING AUDIT EVIDENCE

143. 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 criteria, that are both extremely complex³¹.
144. 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, and that the difference between the auditor's estimate or range and management's estimate constitutes a financial statement misstatement. In such cases, where the auditor has developed a range, a misstatement exists when management's estimate lies outside the auditor's range. The misstatement is measured as the difference between management's estimate and the nearest point of the auditor's range.
145. Management bias, whether unintentional or intentional, can be difficult to detect in a particular estimate. It may only be identified when there has been a change in the method for calculating estimates from the prior period based on a subjective assessment without evidence that there has been a change in circumstances, when considered in the aggregate of groups of estimates or all estimates, or when observed over a number of accounting periods. Although some form of management bias is inherent in subjective decisions, management may have no intention of misleading the users of financial statements. If, however, there is intention to mislead through, for example, the intentional use of unreasonable estimates, management bias is fraudulent in nature. ISA (UK and Ireland) 240, 'The Auditor's Responsibility to Consider Fraud in an Audit of Financial Statements,' provides standards and guidance on the auditor's responsibility to consider fraud in an audit of financial statements.

31 ISA (UK and Ireland) 540 'Audit of Accounting Estimates' provides guidance to the auditor on obtaining and evaluating sufficient audit evidence to support significant accounting estimates contained in financial statements, and ISA (UK and Ireland) 545 provides further guidance on obtaining and evaluating sufficient audit evidence to support fair values.

146. Indicators of possible management bias may affect the auditor's conclusion as to whether the auditor's risk assessment and related responses remain appropriate, and the auditor may need to consider the implications for the rest of the audit. Further, they may affect the auditor's evaluation of whether the financial statements as a whole are free from material misstatement.
147. Examples of indicators of possible management bias with respect to accounting estimates include:
- Changes in an accounting estimate, or the method for making it, where management has made a subjective assessment that there has been a change in circumstances.
 - Use of an entity's own assumptions for fair value accounting estimates when they are inconsistent with observable marketplace assumptions.
 - Selection or construction of significant assumptions that yield a point estimate favorable for management objectives.
 - Selection of a point estimate that may indicate a pattern of optimism or pessimism.
148. The auditor documents significant matters arising during the audit and the conclusions reached thereon in compliance with ISA (UK and Ireland) 230.³² Documentation of the auditor's professional judgements made in relation to these significant matters serves to explain the auditor's conclusions and to reinforce the quality of the judgments.

MANAGEMENT REPRESENTATIONS

149. Depending on the volume and degree of complexity of complex financial instrument activities, management representations to support other evidence obtained about complex financial instruments may include:
- management's objectives with respect to complex financial instruments, for example, whether they are used for hedging, asset/liability management or investment purposes;
 - the financial statement disclosures concerning complex financial instruments, for example:
 - the records reflect all complex financial instrument transactions;
 - the assumptions and methodologies used in the complex financial instrument valuation models are reasonable;
 - all embedded derivative instruments have been identified;
 - whether all transactions have been conducted at arm's length and at market value;

³² ISA (UK and Ireland) 230, paragraph 9(c).

- 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;
- 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.

150. Sometimes, with respect to certain aspects of complex financial instruments, management representations may be the only audit evidence that reasonably can be expected to be available³³; however, ISA (UK and Ireland) 580 states that representations from management cannot be a substitute for other audit evidence that the auditor could reasonably expect to be available. If the audit evidence the auditor expects to be available cannot be obtained, this may constitute a limitation on the scope of the audit and the auditor considers the implications for the auditor's report.

COMMUNICATIONS WITH THOSE CHARGED WITH GOVERNANCE

151. As a result of obtaining an understanding of an entity's accounting and internal control systems and, if applicable, tests of controls, the auditor may become aware of matters to be communicated to those charged with governance³⁴. With respect to complex financial instruments, those matters may include:

- the auditor's views about the qualitative aspects of the entity's accounting practices and financial reporting for complex financial instruments;
- material weaknesses in the design or operation of the systems of internal control and/or risk management that the auditor has identified during the audit;
- a lack of management understanding of the nature or extent of the complex financial instrument activities or the risks associated with such activities;
- a lack of comprehensive and clearly stated policies for the purchase, sale and holding of complex financial instruments, including operational controls, procedures

33 ISA (UK and Ireland) 580, 'Management Representations,' paragraphs 2 and 4, require the auditor to obtain appropriate representations from management, including written representations on matters material to the financial statements when other sufficient appropriate audit evidence cannot reasonably be expected to exist.

34 ISA (UK and Ireland) 260, paragraphs 11-12(e) and 13 require the auditor to communicate to those charged with governance, on a timely basis to enable them to take appropriate action, material weaknesses in internal control identified during the audit.

for designating complex financial instruments as hedges, and monitoring exposures;
or

- a lack of segregation of duties.

152. ISA (UK and Ireland) 545 draws attention to the fact that because of the uncertainties associated with fair value measurements, the potential effect on the financial statements of any significant risks may be of governance interest. For example, the auditor considers communicating 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.

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