



INTERNATIONAL VALUATION STANDARDS COUNCIL

# IVS 500: FINANCIAL INSTRUMENTS

## EXPOSURE DRAFT

*Publication date: 2 June 2016*

Comments on this Exposure Draft are invited before 31 August 2016. All replies may be put on public record unless confidentiality is requested by the respondent. Comments may be sent as email attachments to:

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## IVSC Financial Instrument Initiative

The IVSC has recently been collaborating with stakeholders in the financial instruments area to improve financial instrument valuations. The aim of the IVSC's Financial Instrument Initiative is to strengthen the valuation of financial instruments by:

- (a) developing high quality valuation standards for financial reporting and regulatory purposes,
- (b) improving consistency and transparency in the valuation of financial instruments, and
- (c) enhancing the overall governance of financial instruments.

In particular, the IVSC has been organising numerous meetings and roundtables with banking institutions, valuation firms, and securities and prudential regulators. The intention of the meetings is to initiate a dialogue with stakeholders to understand if they have concerns with the valuation of financial instruments and, if so, how best to address these concerns. The meetings have concluded with support from both the regulators and the banks that improvement is needed in the valuation of financial instruments. There is a clear directive from the meetings to create a Financial Instrument Taskforce comprised of various stakeholders to identify and execute financial instrument valuation projects. The IVSC's Financial Instrument Task Force will be a private sector group representing both the users and preparers of financial and regulatory information. The Taskforce will include representatives from financial institutions, prudential and securities regulators, valuation practitioners, accounting standards setters, financial data providers, pricing services, investors and audit firms.

With the IVSC's Financial Instrument Initiative underway, the existing IVS 500 *Financial Instruments* Exposure Draft is being presented as a placeholder until the Financial Instrument Task Force is established to execute on financial instrument valuation projects.

## Introduction to Exposure Draft

### Why is the International Valuation Standards Board (IVSB) issuing IVS 500 Financial Instruments?

In October 2015 the IVSC published its *Purpose and Strategy Document* which stated that the priority of the IVSC is to expand the quality and depth of International Valuations Standards (IVS) and ensure they are fit for purpose and provide much needed clarity and market efficiency. Further to discussions with the Standards Board and other stakeholders, IVS 500 *Financial Instruments* was identified as a priority chapter within IVS 2017.

### What are the Main Provisions?

The main provisions of this chapter are:

- a) an overview of financial instruments and the circumstances in which they are valued,
- b) a framework for the selection and application of approaches and methodologies for the valuation of plant and equipment, and
- c) a discussion of special topics related to the valuation of financial instruments including valuation inputs, credit risk, liquidity and market activity and control environment.

### How do the Proposed Provisions Compare with IVS 2013?

This chapter includes elements from IVS 2013 that were included in IVS 500 *Financial Instruments*. Some of the concepts from IVS 2013 have been clarified and/or expanded upon in this Exposure Draft, but the majority of the content has remained the same. Sections have been added relating to selection and application of approaches and methodologies.

## Questions for Respondents

The Board invites individuals and organisations to comment on all matters in this proposed update, particularly on the issues and questions below. Comments are requested from those who agree with the proposed guidance as well as from those who do not agree. Comments are most helpful if they identify and clearly explain the issue or question to which they relate. Those who disagree with the proposed guidance are asked to describe their suggested alternatives, supported by specific reasoning.

- (a) In IVS 2013, all substantive portions of IVS 500 *Financial Instruments* were labelled as “commentary” (except for scope and effective date). This label seems to have created some confusion amongst stakeholders as to whether the standard was mandatory. The Board’s position is that all aspects of IVS 2017 should be mandatory and this Exposure Draft has removed the “commentary” label for clarity. Do you agree with the removal of the commentary label?
- (b) The Board believes that the standard presented in this Exposure Draft can be applied in the valuation of financial instruments regardless of the purpose of the valuation (acquisitions, mergers and sales of businesses or parts of businesses, financial reporting, regulatory requirements, internal risk and compliance procedures and regulatory requirements). Do you agree? If not, for what purpose(s) do you believe this standard cannot be applied? Why?
- (c) Are there any further topics that you feel the Board should add or remove from IVS 500 *Financial Instruments*? If so, what are they and what is your rationale?

## IVS 500 Financial Instruments

### 10. Introduction

- 10.1. The principles contained in the General Standards apply to valuations of financial instruments. This standard only includes modifications, additional requirements or specific examples of how the General Standards apply for valuations to which this standard applies.

### 20. Overview

- 20.1. A financial instrument is a contract that creates rights or obligations between specified parties to receive or pay cash or other financial consideration, or an equity instrument. An equity instrument is any contract that creates a residual interest in the assets of an entity after deducting all of its liabilities. A financial instrument can also be created through the combination of other financial instruments in a portfolio to achieve a specific net financial outcome.
- 20.2. Valuations of financial instruments conducted under IVS 500 *Financial Instruments* can be performed for many different purposes including, but not limited to:
- (a) acquisitions, mergers and sales of businesses or parts of businesses,
  - (b) financial reporting and audit,
  - (c) regulatory requirements (subject to any specific requirements set by the relevant authority),
  - (d) internal risk and compliance procedures,
  - (e) tax, and
  - (f) litigation.
- 20.3. A thorough understanding of the instrument being valued is required to identify and evaluate the relevant market information available for identical or similar instruments. Such information includes prices from recent transactions in the same or a similar instrument, quotes from brokers or pricing services, indices or any other inputs to the valuation process, such as the appropriate interest rate curve.
- 20.4. When valuations are being undertaken by the holding entity that are intended for use by external investors, regulatory authorities or other entities, to comply with the requirement to confirm the identity and status of the valuer in IVS 101 *Scope of Work*, para 20.3 (a), reference shall be made to the control environment in place, see Control Environment paras 110.1–110.5 below.
- 20.5. To comply with the requirement to identify the asset or liability to be valued as in IVS 101 *Scope of Work*, para 20.3 (d) the following matters shall be addressed:
- (a) the class or classes of instrument to be valued, and
  - (b) whether the valuation is to be of individual instruments or a portfolio.

- 20.6. *IVS 102 Investigations and Compliance*, paras 20.2–20.4 provide that the investigations required to support the valuation must be adequate having regard to the purpose of the assignment. To support these investigations, sufficient evidence supplied by the valuer and/or a credible and reliable third party must be assembled. To comply with these requirements:
- (a) All market data used or considered as an input into the valuation process must be understood and validated.
  - (b) Any model used to estimate the value of a financial instrument shall be selected to capture the contractual and financial terms of the financial instrument.
  - (c) Where observable prices of, or market inputs from, similar financial instruments are available, any model used to estimate value should also be calibrated to the similar, comparable financial instruments.
- 20.7. To comply with the requirement to disclose the valuation approach and reasoning in *IVS 103 Reporting*, para 20.1, consideration shall be given to the appropriate degree of reporting detail. This will differ for different categories of financial instruments. Sufficient information should be provided to allow users to understand the nature of each class of instrument valued and the primary factors influencing the values. Information that adds little to a users' understanding as to the nature of the asset or liability, or that obscures the primary factors influencing value shall be avoided. In determining the level of disclosure that is appropriate, regard shall be had to the following:
- (a) **Materiality:** The value of an instrument or class of instruments in relation to the total value of the holding entity's assets and liabilities or the portfolio that is valued.
  - (b) **Uncertainty:** The value of the instrument may be subject to material uncertainty on the *valuation date* due to the nature of the instrument, the model or inputs used or to market abnormalities. Disclosure of the cause and nature of any material uncertainty should be made.
  - (c) **Complexity:** The greater the complexity of the instrument, the greater the appropriate level of detail to ensure that the assumptions and inputs affecting value are identified and explained.
  - (d) **Comparability:** The instruments that are of particular interest to users may differ with the passage of time. The usefulness of the valuation report, or any other reference to the valuation, is enhanced if it reflects the information demands of users as market conditions change, although to be meaningful the information presented should allow comparison with previous periods.
  - (e) **Underlying instruments:** If the cash flows of a financial instrument are generated from or secured by identifiable underlying assets or liabilities, the relevant factors that influence the underlying value shall be provided in order to help users understand how the underlying value impacts the estimated value of the financial instrument.

### 30. **Bases of Value**

- 30.1. In accordance with *IVS 104 Bases of Value*, a valuer must select the appropriate basis(es) of value when valuing financial instruments.
- 30.2. Often, financial instrument valuations are performed using bases of value defined by entities/organisations other than the IVSC (some examples of which are mentioned in *IVS 104*

*Bases of Value*) and it is the valuer's responsibility to understand and follow the regulation, case law, and other interpretive guidance related to those bases of value as of the valuation date.

#### **40. Valuation Approaches**

- 40.1. The three principal valuation approaches described in IVS 105 *Valuation Approaches and Methods* can all be applied to the valuation of financial instruments.
- 40.2. When selecting an approach and method, in addition to the requirements of this chapter, a valuer must follow the requirements of IVS 105 *Valuation Approaches and Methods*, including para 10.3.
- 40.3. The various valuation methods used in financial markets are based on variations of the market approach, the income approach or the cost approach as described in the IVS 105 *Valuation Approaches and Methods*. This standard describes the commonly used methods and matters that need to be considered or the inputs needed when applying these methods.
- 40.4. When using a particular valuation method or model, it is important to ensure that it is calibrated with observable market information, where available, on a regular basis to ensure that the model reflects current market conditions. As market conditions change, it may become necessary either to change the model(s) used and/or to make additional adjustments to the valuation inputs. Those adjustments should be made to ensure consistency with the required valuation basis, which in turn is determined by the purpose for which the valuation is required; see the IVS Framework.

#### **50. Market Approach**

- 50.1. A price obtained from trading on an exchange on, or very close to, the time or date of valuation is normally the best indication of the market value of a holding of the identical instrument. In cases where there have not been recent relevant transactions, the evidence of quoted or consensus prices may also be relevant.
- 50.2. It may be necessary to make adjustments to the price information if the observed instrument is dissimilar to that being valued or if the information is not recent enough to be relevant. For example, if an observable price is available for similar instruments with one or more different characteristics to the instrument being valued, then the implied inputs from the comparable observable price are to be adjusted to reflect the specific terms of the financial instrument being valued.

#### **60. Income Approach**

- 60.1. The value of a financial instrument may be determined using a discounted cash flow method. The terms of an instrument determine, or allow estimation of, the undiscounted cash flows. The terms of a financial instrument typically set out:
  - (a) the timing of the cash flows, ie when the entity expects to realise the cash flows related to the instrument,
  - (b) the calculation of the cash flows, eg for a debt instrument, the interest rate that applies, or for a derivative instrument, how the cash flows are calculated in relation to the underlying instrument or index (or indices),



- (c) the timing and conditions for any options in the contract, eg put or, call, prepayment, extension or conversion options, and
  - (d) protection of the rights of the parties to the instrument, eg terms relating to credit risk in debt instruments or the priority over or subordination to other instruments held.
- 60.2. In establishing the appropriate discount rate, it is necessary to assess the return that would be required on the instrument to compensate for the time value of money and risks related to:
- (a) the terms and conditions of the instrument, eg subordination,
  - (b) the credit risk, ie uncertainty about the ability of the counterparty to make payments when due,
  - (c) the liquidity and marketability of the instrument,
  - (d) the risk of changes to the regulatory or legal environment, and
  - (e) the tax status of the instrument.
- 60.3. Where future cash flows are not based on fixed contracted amounts, estimates of the probable income will need to be made in order to provide the necessary inputs. The determination of the discount rate will also require assumptions about the risks of the expected cash flows. The discount rate also needs to be consistent with the cash flows, eg if the tax flows are gross of tax then the discount rate should be derived from other gross of tax instruments.
- 60.4. Depending upon the purpose of the valuation, the inputs and assumptions made into the cash flow model will need to reflect either those that would be made by market participants, or those that would be based on the holder's current expectations or targets. For example, if the purpose of the valuation is to determine market value, or fair value as defined in IFRS, the assumptions should reflect those of market participants. If the purpose is to measure performance of an asset against management determined benchmarks, eg a target internal rate of return, then alternative assumptions may be appropriate.

## 70. Cost Approach

- 70.1. The substitution principle inherent in the cost approach is applied to the valuation of financial instruments through the use of the replication method. This method provides an indication of the current value of an instrument or portfolio by reproducing or "replicating" its risks and cash flows in a hypothetical, or synthetic, alternative. This alternative is based on a combination of securities and/or simple derivatives in order to estimate the cost of offsetting, or hedging, the position at the *valuation date*. Portfolio replication is often used to simplify the procedures applied to value a portfolio of complex financial instruments (e.g. expected insurance claims or structured products) by substituting a replicating portfolio of assets that are easier to value and therefore more efficiently risk managed on a daily basis.

## 80. Special Considerations for Financial Instruments

80.1. The following sections address a non-exhaustive list of topics relevant to the valuation of financial instruments.

### 90. Valuation Inputs

- 90.1. Valuation inputs may come from a variety of sources. Commonly used valuation input sources are broker quotations, consensus pricing services, and the prices of comparable instruments from third party pricing services. Implied inputs can be derived from such observable prices.
- 90.2. As with any data set used as a valuation input, understanding the sources and how these are statistically adjusted by the provider, if any, is essential to understanding the reliance that should be given to the use of the valuation input.
- 90.3. Broker quotations provide evidence of how market participants would price the asset. However, there are factors that can affect their reliability as a valuation input, including the following:
- (a) Brokers will normally only be willing to make markets and provide bids in respect of more popular instruments and may not extend coverage to less liquid instruments. Because liquidity often reduces with time, quotations may be harder to find for older instruments.
  - (b) A broker is concerned with trading, not supporting valuation, and they have little incentive to research an indicative quotation as thoroughly as they would an executable quotation. This can impact on the quality of the information.
  - (c) There is an inherent conflict of interest where the broker is the counterparty to an instrument.
  - (d) Brokers have an incentive to encourage trading.
- 90.4. Consensus pricing services operate by collecting price information about an instrument from several participating subscribers. They reflect a pool of quotations from different sources, sometimes with statistical adjustment to compensate for any sampling bias. This overcomes the conflict of interest problems associated with single brokers. However, as with a broker quotation; it may not be possible to find a suitable input for all instruments in all markets. Additionally, despite its name, a consensus price may not necessarily constitute a true market “consensus”, but rather is more of a mean or median of recent market transactions or quoted prices. Therefore, the resulting price may not necessarily be representative of real market activity.
- 90.5. Comparable financial instrument prices serve to provide information regarding financial instruments that share certain base characteristics. Assumptions regarding the valuation of an illiquid instrument can often be gleaned through comparable transactions.

## 100. Credit Risk

100.1 Understanding the credit risk is an important aspect of valuing any financial instrument<sup>1</sup>. Some of the common factors that need to be considered in establishing and measuring credit risk include the following:

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<sup>1</sup> See Interim Guidance on “Credit & Debit Valuation Adjustments” for further guidance concerning the measurement of credit risk when valuing derivatives.

- (a) Counterparty risk: The financial strength of the issuer or any credit support providers will involve consideration of not only the trading history and profitability of the relevant entity but also consideration of performance and prospects for the industry sector generally. Many jurisdictions now require certain derivatives to be transacted through a central counterparty (CCP). Although a CCP mitigates risk, the residual counterparty risk needs to be considered.
- (b) Collateral: The assets to which the holder of an instrument has recourse in the event of default need to be considered. In particular, it needs to be understood whether recourse is to all the assets of the issuer or only to specified assets. The greater the value and quality of the assets to which an entity has recourse in the event of default, the lower the credit risk of the instrument. Additionally, the more frequently any collateral is exchanged between entities, the lower the resulting credit risk.
- (c) Subordination: Establishing the priority of an instrument is critical in assessing the default risk. Other instruments may have priority over an issuer's assets or the cash flows that support the instrument.
- (d) Leverage: The amount of debt used to fund the assets from which an instrument's return is derived affects the volatility of returns to the issuer and can affect credit risk.
- (e) Netting agreements: Where derivative instruments are held between counterparties, credit risk may be reduced by a netting or offset agreement that limits the obligations to the net value of the transactions, ie if one party becomes insolvent, the other party has the right to offset sums owed to the insolvent party against sums due under other instruments.
- (f) Default protection: Many instruments contain some form of protection to reduce the risk of non-payment to the holder. Protection might take the form of a guarantee by a third party, an insurance contract, a credit default swap or more assets to support the instrument than are needed to make the payments. The credit risk is also reduced if subordinated instruments take the first losses on the underlying assets and therefore reduce the risk to more senior instruments. When protection is in the form of a guarantee, an insurance contract or a credit default swap, it is necessary to identify the party providing the protection and assess that party's creditworthiness. Considering the credit worthiness of a third party involves not only the current position but also the possible effect of other guarantees or insurance contracts that it might have written. If the provider of a guarantee has also guaranteed many correlated debt securities, the risk of its non-performance might increase significantly.

100.2 For parties for which limited information is available, if secondary trading in structured debt exists, there may be sufficient market data to provide evidence of the appropriate risk adjustment. If not, it might be necessary to look to credit indices, information available for entities with similar risk characteristics, or estimate a credit rating for the party using its own financial information. The varying sensitivities of different liabilities to credit risk should be taken into account in evaluating which source of credit data provides the most relevant information. The risk adjustment or credit spread applied is based on the amount a market participant would require for the particular instrument.

100.3 The credit risk associated with a liability is important to its value as the credit risk of the issuer is relevant to the value in any transfer of that liability. Where it is necessary to assume a transfer of the liability regardless of any actual constraints on the ability of the counterparties to do so, eg in order to comply with financial reporting requirements, there are various potential sources for reflecting own credit risk in the valuation of liabilities. These include the yield curve for the entity's own bonds or other debt issued, credit default swap spreads, or by reference to the value of the corresponding asset. However, in many cases the issuer of a liability will not have the ability to transfer it and can only settle the liability with the counterparty.

100.4 When adjusting for an entity's own credit risk, it is also important to consider the nature of the collateral available for the liabilities being valued. Collateral that is legally separated from the issuer normally reduces the credit risk. If liabilities are subject to a frequent collateralisation process, there might not be a material own credit risk adjustment because the counterparty is mostly protected from loss in the event of default. However, collateral provided to one counterparty is not available to other counterparties. Thus, although some collateralised liabilities might not be subject to significant credit risk, the existence of that earmarked collateral may reduce the overall collateral available to other creditors which might affect the credit risk of other liabilities.

## 110. Liquidity and Market Activity

110.1 The liquidity of financial instruments range from those that are standardised and regularly transacted in high volumes to those that are agreed between counterparties that are incapable of assignment to a third party. This range means that consideration of the liquidity of an instrument or the current level of market activity is important in determining the most appropriate valuation approach.

110.2 Liquidity and market activity are distinct. The liquidity of an asset is a measure of how easily and quickly it can be transferred in return for cash or a cash equivalent. Market activity is a measure of the volume of trading at any given time, and is a relative rather than an absolute measure.

110.3. Although separate concepts, illiquidity or low levels of market activity pose similar valuation challenges through a lack of relevant market data, ie data that is either current at the *valuation date* or that relates to a sufficiently similar asset to be reliable. The lower the liquidity or market activity, the greater the reliance that will be needed on valuation approaches that use techniques to adjust or weight the inputs based on the evidence of other transactions to reflect either market changes or differing characteristics of the asset.

## 120. Control Environment

120.1. The control environment consists of the internal governance and control procedures that are in place with the objective of increasing the confidence of those who may rely on the valuation in the valuation process and conclusion.

120.2. In comparison to other asset classes, financial instruments are more commonly valued internally by the same entity that creates and trades them. This creates a significant risk to the perceived objectivity of valuations. Where valuations are for external parties, steps should be taken to ensure that an adequate control environment exists to minimise threats to the independence of the valuation.

120.3. Many entities which deal with the valuation of financial instruments are registered and regulated by statutory financial regulators. Most financial regulators require banks or other regulated entities that deal with financial instruments to have independent price verification procedures that operate separately from trading desks to produce valuations required for financial reporting or the calculation of regulatory capital guidance on the specific valuation controls required by different regulatory regimes is outside the scope of this standard. However, as a general principle, valuations produced by one department of an entity that are to be included in financial statements or otherwise relied on by third parties should be subject to scrutiny and approval by an independent department of the entity. Ultimate authority for such valuations should be separate from, and fully independent of, the risk taking functions. The practical means of achieving a separation of the function will vary

according to the nature of the entity, the type of instrument being valued and the materiality of the value of the particular class of instrument to the overall objective. The appropriate protocols and controls should be determined by careful consideration of the threats to objectivity that would be perceived by a third party relying on the valuation.

120.4. Examples of typical components of an appropriate control environment include:

- (a) establishing a governance group responsible for valuation policies and procedures and for oversight of the entity's valuation process, including some members external to the entity,
- (b) systems for regulatory compliance if applicable,
- (c) a protocol for the frequency and methods for calibration and testing of valuation models,
- (d) criteria for verification of certain valuations by different internal or external experts,
- (e) identifying thresholds or events that trigger more thorough investigation or secondary approval requirements, and
- (f) identifying procedures for establishing significant inputs that are not directly observable in the market, eg by establishing pricing or audit committees.

## **IVS 500 Financial Instruments: Basis for Conclusions**

*The basis for conclusions do not form part of IVS 2017 and will not be included in the finalised document, but have been drafted to provide the reader with the rationale behind certain changes made within this Exposure Draft. The Board feels that the inclusion of this section is a necessary part of the consultative process and is in line with the recommendation contained within the IVS Purpose and Strategy Document requirement that “standards need sufficient consultation” and that the IVSC should be “operating in an open and transparent way”.*

In October 2015 IVSC published their *Purpose and Strategy Document* which stated that the priority of the IVSC is to expand the quality and depth of IVS and ensure they are fit for purpose and provide much needed clarity and market efficiency. Further to discussions with the Standards Board and other stakeholders, IVS 500 *Financial Instruments* was identified as a priority chapter within IVS 2017.

Discussions with stakeholders indicated that there was a significant amount of confusion related to what content in IVS 500 *Financial Instruments* represented mandatory standards versus what content represented non-mandatory commentary. The Board notes that in IVS 500 *Financial Instruments* (like many other IVS 2013 standards), all substantive portions of the standard were labelled as “commentary” with the exception of the scope and effective date sections. This Exposure Draft has eliminated the “commentary” label to make it clear that the contents are mandatory for compliance with IVS.

The Board believes that one of the primary purposes of standards is to reduce diversity in practice. The IVSC performed outreach to stakeholders and identified several areas of diversity in practice related to the valuation of financial instruments. As a result of that outreach, this Exposure Draft includes new requirements related to:

- an overview of financial instruments and the circumstances in which they are valued,
- the selection of valuation approaches and methodologies.