



IVS 220 Non-Financial Liabilities Exposure Draft



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Please send comments to: comments@ivsc.org



Notice to Recipients of This Exposure Draft

A copy of the IVS 2017 Basis of Conclusions is also available at www.ivsc.org.

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Letter from IVSC board Chairs

Dear All

The valuation of non-financial liabilities project resulted from feedback received during the agenda consultation process conducted by the IVSC in 2017 and 2018. The project has been led by the Business Valuation Board, with support from the Standards Review Board, Tangible Asset Board and Financial Instrument Board. As outlined in this Exposure Draft, the Business Valuation Board led a robust standard setting process that entailed research, market engagement, and this this Exposure Draft and resulting consultation process.

This Exposure Draft not only provides the draft standard (IVS 220), but also outlines additional insights on the process, information considered, and ultimate rationale for preliminary conclusions reached by the Boards.

Depending on feedback received as part of this consultation process, the IVSC Boards would propose issuing a final Standard for IVS 220 in mid-2019, with an effective date no earlier than the 1st of January 2020. As with the entirety of IVS 2017, due to ever changing market conditions, the IVSC will continue to monitor the applicability of IVS 220 during and after the issuance of the final Standard.

We thank those who participated in the consultation process and look forward to your participation in the future standard setting activities of the IVSC.

Kind Regards



Mark Zyla, Chair
IVSC Standards Review Board



Andreas Ohl, Chair
IVSC Business Valuation Board



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IVSC Business Valuation Board



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I. Introduction

Purpose of the IVS 220 Exposure Draft

As part of ongoing efforts to improve its standard-setting process and consistent with the goals in the IVS Purpose and Strategy Document, the IVSC believes that the IVSC should be operating in an open and transparent way. The Boards (collectively Standards Review, Business Valuation, and Tangible Asset Boards) believe that this document (Exposure Draft) outlining the draft standard and considerations related to IVS 2017 Section 220 is a critical part of a transparent standard-setting process, consistent with the practices of other standard-setters around the world, such as the IASB and FASB.

The background and basis for conclusions in this Exposure Draft do not form part of proposed IVS 2017 Section 220, but have been drafted to provide the reader with background and rationale for the Exposure Draft. IVSC believes that this Exposure Draft provides important insights into the standard-setting process and provides historical context which may aid in the interpretation of these standards and in future standard-setting activities.

To make the IVS more adaptable to future standard-setting, the Boards recognised that most standard-setters engage in targeted improvements to their standards over time, potentially adding or removing paragraphs or entire standards over time in response to market needs. The numbering for standards and paragraphs within IVS is intended to allow greater flexibility in making targeted improvements to IVS over time. IVS 220 represents the first new Chapter since the issuance of IVS 2017.

Background

IVS 2017 was issued in January 2017 and became effective on 1st of July 2017. Since that time, the IVSC Boards issued the Invitation to Comment (ITC) on the 15th of May 2017. On the basis of IVSC's "Gap Analysis" and other input from stakeholders submitted as part of the IVS 2017 consultation process, the ITC included the following major valuation topics:

1. Non-Financial Liabilities



2. Discount Rates
3. Early Stage Valuation
4. Biological Assets
5. Extractive Industries
6. Inventory

Based on the feedback gathered during the ITC process the Boards prioritised certain topics, which were the subject of the IVS 2017 Proposed Revisions Exposure Draft issued on July 17, 2018. The proposed revisions contained in the IVS 2017 Proposed Revisions Exposure Draft relate namely to discount rates, as well as new standards on complex capital structures that are often applicable to the valuation early stage company valuations.

Prior to the ITC, on February 1, 2013, the IVSC issued a discussion paper related to the valuation of liabilities, aimed at obtaining views on the scope of the project and the nature of the issues identified. IVSC received 16 responses from this initial consultation process. The previous Standards Board was in the process of updating IVS necessary to make them more applicable to liabilities prior to the publication of the IVSC Purpose, Structure and Strategy paper, where it was decided that the primary focus for the next two years was to revise and publish IVS 2017.

IVS' definition of Asset or Assets states that it includes assets, groups of assets, liabilities and groups of liabilities. Additionally, the IVS Framework and the definition of Market Value specifically state that the standards can be applied to the valuation of both assets and liabilities. However, there is no definition of what constitutes a liability, little consideration of any characteristics or attributes that are specific to liabilities as opposed to assets, or standards specific to the valuation of liabilities. Additionally, investigations by the Boards have established a lack of guidance in the broader marketplace related to the valuation of non-financial liabilities. Such factors, combined with the unique issues faced when valuing non-financial liabilities and significant divergence in practice, suggests that standards would be helpful toward improving consistency and quality in the marketplace.

The lack of standards related to non-financial liabilities represented a convergence of stakeholder feedback and the Boards' perceived need for new standards, and as such, represented a critical priority topic for the IVSC.



Scope

The International Accounting Standards Board (IASB) framework states that a liability is a present obligation of the enterprise arising from past events, the settlement of which is expected to result in an outflow from the enterprise of resources embodying economic benefits. The Financial Accounting Standards Board (FASB) defines liabilities as the probable future sacrifices of economic benefits arising from present obligations of a particular entity to transfer assets or provide services to other entities in the future as a result of past transactions or events.

The Boards note that certain non-financial, or operating, liabilities have distinct characteristics or regulatory environments that would likely require separate agenda topics, and therefore the Boards determined that such liabilities are outside this Standard. These liability groups principally include insurance contracts and pension/retirement obligations. Additionally, given the pending formation of the Financial Instruments Board, the Business Valuation Board felt it appropriate to exclude financial liabilities from the scope of the proposed IVS 220 standard (the “Proposed Standard”). A non-exhaustive list of such financial liabilities excluded from the Standard include:

- Notes payable,
- Bonds payable,
- Trust preferred securities,
- Derivatives such as forwards and futures contracts, put and call options, mortgage backed securities, collateralised debt obligations, swaps,
- Deposit liabilities

The Board noted in certain instances there exists no clear distinction between financial and non-financial liabilities. As the treatment of a subject liability as either financial or non-financial has certain accounting and regulatory implications, the Board sought to identify characteristics to differentiate non-financial liabilities subject to the Proposed Standard from financial liabilities.

- I. Non-financial liabilities are typically characterised by an obligation to deliver goods or services, rather than an obligation to deliver cash or another financial asset. For example, warranty obligations require the obligor to perform a service to repair or restore the asset the warranty obligation is written on.



- II. Non-financial liabilities typically do not have a corresponding and offsetting asset recognised by the counterparty, whereas financial liabilities typically do. For financial liabilities, typically sufficient liquidity provided by cash settlement prevents arbitrage and results in asset-liability symmetry. Asset-liability symmetry typically does not exist for non-financial liabilities for multiple reasons, including:
- a. No corresponding asset exists with a counterparty (e.g., environmental obligations)¹,
 - b. The corresponding asset is held by numerous parties that do not recognise a corresponding asset (e.g., consumer warranty obligations), or
 - c. The market for the non-financial liability is highly illiquid due to their unique nature, limited transaction volume, and fulfilment requirements. Such illiquidity results in asymmetric information and high bid ask spreads.
- III. The party assuming the liability typically requires additional compensation above the expected cost to satisfy the obligation (e.g., delivery of goods or services), such as a profit margin on the fulfilment effort. Whereas for financial liabilities, settlement by cash or another financial asset is the mechanism by which the specified obligation is discharged and no additional compensation is typically needed.

As a result of such considerations, a non-exhaustive list of such non-financial liabilities includes: deferred revenue, warranties, environmental liabilities, asset retirement obligations, certain contingent consideration obligations, loyalty programs, power purchase agreements, certain litigation reserves and contingencies, and certain indemnifications and guarantees.

However, while the Board notes that the above criteria are typical characteristics of non-financial liabilities, they do not alone define what constitutes a non-financial liability. For instance, the Board noted that in some instances certain non-financial liabilities may be settled in cash or through means other than fulfilment. A non-exhaustive list of such non-financial

¹ The Board notes that local Italian valuation standards define non-financial liabilities as those which do not have a corresponding asset.



liabilities includes: operating leases, certain contingent consideration obligations, certain indemnifications and guarantees.

The Board notes that the determination of whether a liability is financial or non-financial may be difficult. However, while non-financial liabilities have limited accounting and valuation guidance, financial liabilities are often subject to specific accounting, valuation, and regulatory requirements. As such, the Board notes that Valuers must use judgement and rely on the applicable accounting and/or regulatory guidance when defining the subject liability as non-financial or financial.

II. Research

The Business Valuation Board (the “Board”) and Staff conducted significant market research as part of the non-financial liabilities project. Given the limited technical guidance and standards for non-financial liabilities, the Board felt that a broad research effort was necessary to identify best practices and ensure consistency with other related markets. The Board and staff conducted research in the following key areas:

- Accounting insights
- Valuation guidance and practice
- Non-financial liabilities markets
- Ancillary markets such as methods and processes employed by actuaries in the insurance industry.

Accounting Insights

In instances in which a corresponding asset is recognised by the counterparty, accounting guidance requires the specific consideration and reconciliation to the value of the asset under certain circumstances. For instance, if a quoted price in an active market for the identical corresponding asset is available, IFRS 13 and ASC 820 require the use of the quoted price. If not available, both standards then suggest the use of other observable inputs for the identical item held by another party as an asset, such as the quoted price in a market that is



not active. If such market conditions do not exist, both standards state that the liability shall be measured using a valuation technique from the perspective of a market participant that owes the liability. As noted in the scope section above, non-financial liabilities typically do not have quoted prices for corresponding identical assets in active or inactive markets. Both standards provide additional considerations for these instances.

IFRS 13 and ASC 820 state that a reporting entity might take into account the future outflows that a market participant would expect to incur in fulfilling the obligation, including the compensation that a market participant would require for taking on the obligation. Such compensation includes 1) the return that a market participant would require for undertaking the activity and thus utilising the resources that could be used for other activities, and 2) the risk premium that reflects the risk that the actual cash outflows might differ from the expected cash outflows at the time of the transaction. Such risk premium can either be included by adjusting the cash flows (e.g., an increase in the amount of the cash outflows), or by adjusting the rate used to discount the future cash to their present value (e.g., a reduction in the discount rate).

Finally, IFRS 13 and ASC 820 state that the fair value of a liability reflects the effect of non-performance risk, which includes but may not be limited to, the reporting entity's own credit risk. The entity shall also take into account any other factors that might influence the likelihood that the obligation will or will not be fulfilled. The standards continue by noting that the impact may differ depending on the specifics of the liability such as it being fulfilled in cash or goods/services, and any potential credit enhancements.

Valuation Guidance and Practice

The Boards identified few sources of technical guidance in the public domain on the valuation of non-financial liabilities in the public domain. The most detailed relevant guidance is the Valuation of Contingent Consideration published by The Appraisal Foundation.² The Board found the content of the Contingent Consideration paper to be instructive and helpful in framing the ultimate scope of the Proposed Standard. In particular, the Contingent Consideration paper emphasises the need to identify the risks inherent to the

² "First Exposure Draft – Valuation of Contingent Consideration." The Appraisal Foundation, February 28, 2017.



contingent consideration as diversifiable (non-systematic) or non-diversifiable (systematic). However, the Board noted that much of the paper focuses on the Option Pricing Method and related risk neutral framework. Such methods assume an active and efficient market, resulting in asset-liability symmetry. As non-financial liabilities typically do not have active and efficient markets, and in many cases do not even have a corresponding recognised asset, the Board determined that the Option Pricing Method and related risk neutral framework outlined in the Contingent Consideration paper were not applicable to the Proposed Standard.

Deferred Revenue

In addition to the Contingent Consideration paper, the Boards identified publically available guidance on the valuation of deferred revenue, as well as proprietary technical materials of the respective Board member firms'. Both the publically available guidance and proprietary firm materials consistently recommended a fulfilment model approach, inclusive of a normal profit margin (i.e., fulfilment margin), discounted to present value to account for the time value of money, as well as the impact of uncertainty (e.g., change in anticipated fulfilment costs) and non-performance risk (i.e., credit risk of the entity obligated to fulfil the liability). Although not commonly applied in practice, the Board's research also determined that a market/top-down approach could be applied. A market participant fulfilling the obligation to deliver the services associated with the deferred revenue could theoretically price the liability by deducting costs unnecessary to the fulfilment obligation, plus a mark-up on those costs, from the market price of services.

As of the release date of this exposure draft, the Board notes that the FASB is currently undergoing a project related to deferred revenue entitled "EITF Issue No. 18-A: Recognition under ASC Topic 805 for an Assumed Liability in a Revenue Contract". According to the FASB, the issuance and adoption of ASC Topic 606, Revenue from Contracts with Customers, has raised questions about what definition should be applied in the recognition of a liability under ASC Topic 805 for an assumed liability in a revenue contract for a business combination that occurs after the adoption of ASC Topic 606. Given the diversity of potential views, the objective of the project is to narrow the diversity on the definition that should be used in the recognition of a liability under ASC Topic 805 for revenue contracts acquired after an entity has adopted ASC Topic 606.



FASB further noted that Stakeholder feedback has indicated that for business combinations that occur prior to the adoption of ASC Topic 606, entities often use a legal obligation definition for recognition of a liability under ASC Topic 805 for deferred revenue. However, ASC Topic 606 has introduced the performance obligation definition for revenue contracts with customers.

At the June 7, 2018 EITF meeting, the Task Force discussed different alternatives for the recognition and measurement of an assumed liability in a revenue contract in a business combination. The Task Force reached a consensus-for-exposure that the performance obligation concept should be used to determine when to recognise a liability assumed in a revenue contract. At its June 27, 2018 Board meeting, the FASB ratified the consensus-for-exposure reached by the Task Force on this issue and directed the staff to draft a proposed Update reflecting the consensus-for-exposure for vote by written ballot.

The Board understands the FASB plans to discuss the recognition of a liability under ASC Topic 805 for an assumed liability in a revenue contract at future EITF meetings. More specifically, under the performance obligation criteria, there has been diversity in views as to what costs should be included when quantifying the Fair Value. The Board understands that some stakeholders believe opportunity costs should be considered under certain circumstances (e.g. when the contract liability relates to an exclusive license).

The Board plans to monitor the discussions and ultimate conclusion reached by the FASB, but notes that the definition and recognition of non-financial liabilities is outside the scope of this Proposed Standard. Rather, as noted in the Proposed Standard, valuers must rely on applicable accounting and regulatory guidance. However, the Board does note that the FASB's consideration of a performance obligation definition has resulted in constructive discussion regarding the potential inclusion of opportunity costs for determination of Fair Value.

Warranties

For warranties, IAS 37 states “for a large population of homogeneous events: at probability-expected fair value. The amount is discounted using a pre-tax discount rate that reflects the current market assessments of the time value of money and the risks specific to the liability. Credit risk is excluded because it is entity specific, not liability specific.” In addition, firm guidance and valuation



practice suggest a fulfilment based approach consistent with deferred revenue noted above.

AROs and Environmental Liabilities

Asset retirement obligations and environmental liabilities are the subject of both specific accounting guidance and valuation technical guidance. IAS 37 (Environmental Clean-up)_states:

*For one-off events (environmental clean-up, decommissioning): at the most likely amount. The amount is discounted present value using a pre-tax discount rate that reflects the current market assessments of the time value of money and the risks specific to the liability. Credit risk of the entity is NOT added as it is entity specific, not liability specific.*³

Additional accounting insights are provided by IFRS - IFRIC 6 Liabilities Arising from Participating in a Specific Market states:

At the most likely amount. The amount is discounted present value using a pre-tax discount rate that reflects the current market assessments of the time value of money and the risks specific to the liability. Credit risk of the entity is NOT added as it is entity specific, not liability specific.

The Board did note some inconsistency with US GAAP regarding whether risk should be liability or entity specific as an excerpt from US GAAP Accounting Standards Codification states:

*An expected present value technique will usually be the only appropriate technique with which to estimate the fair value of a liability for an asset retirement obligation. An entity, when using that technique, shall discount the expected cash flows using a credit-adjusted risk-free rate. Thus, the effect of an entity's credit standing is reflected in the discount rate rather than in the expected cash flows.*⁴

The Board notes the above inconsistency between the accounting guidance provided, as IFRS dictates consideration of the liability risk, while US GAAP requires consideration of the entity's credit standing. The Board also notes that

³ IAS 37.40

⁴ ASC 410-20-30-1



in both instances, the accounting may not be consistent with the concepts of Market Value as defined in IVS 2017.

US GAAP also provides additional insight on the prescribed methodology:

In estimating the fair value of a liability for an asset retirement obligation using an expected present value technique, an entity shall begin by estimating the expected cash flows that reflect, to the extent possible, a marketplace assessment of the cost and timing of performing the required retirement activities. Considerations in estimating those expected cash flows include developing and incorporating explicit assumptions, to the extent possible, about all of the following:

- a) *The costs that a third party would incur in performing the tasks necessary to retire the asset*
- b) *Other amounts that a third party would include in determining the price of the transfer, including, for example, inflation, overhead, equipment charges, profit margin, and advances in technology*
- c) *The extent to which the amount of a third party's costs or the timing of its costs would vary under different future scenarios and the relative probabilities of those scenarios*
- d) *The price that a third party would demand and could expect to receive for bearing the uncertainties and unforeseeable circumstances inherent in the obligation, sometimes referred to as a market-risk premium.*⁵

Finally, the Board identified that Ernst & Young (EY) publishes a guide on financial reporting developments for asset retirement obligations. The EY guide further supports other observations by the Board as it describes a present value based approach to determine the fair value of an asset retirement obligation, inclusive of considerations for expected cost, a profit margin, and a market risk premium. With regard to discount rate considerations of the US GAAP accounting guidance, the guide includes the below excerpts:

The FASB believes that a fair value measurement incorporates a market risk premium intended to reflect what a market participant would hypothetically demand for bearing the uncertainty inherent in the cash flows of an asset or a liability. In the case of an ARO, this would represent the premium a market participant would demand for agreeing to assume

⁵ ASC 410-20-55-13



*an obligation for a fixed price today, when it will satisfy the obligation many years in the future.*⁶

The EY guide notes the risk premium may be incorporated into the expected cash flows or the discount rate when an expected present value technique is used.⁷ The EY guide provides additional insights on the market risk premium:

*An entity that performs an expected cash flow approach that encompasses many different cash flow probabilities may effectively incorporate the implicit market risk premium associated with variability into those cash flows. Arguably the more robust an expected cash flow approach is, the less likely a premium for variability in cash flows would be significant. Entities may also include an implicit market risk premium in their determination of an appropriate discount rate when explicit evidence of such a premium is not available. In this case, the discount rate would no longer be solely the credit-adjusted risk-free rate.*⁸

The EY guide does not provide further insights on the quantification of the risk premium when incorporated into the discount rate. However, the Board understands that given the unique nature of AROs being one of the few liabilities not deemed to have a corresponding asset by accounting guidance, the explicit incorporation of the risk premium in the discount rate would result in a reduction to the overall discount rate, thus increasing the value of the liability. This is consistent with the guidance in ASC 820-10-35-16L which states that the appropriate adjustment to the discount rate is "... as a reduction in the discount rate". As noted throughout the Exposure Draft, the Board believes that a reduction of the discount rate to account for a risk premium is appropriate as it would increase the calculated settlement amount and value, consistent with the reality that the counterparty would demand additional compensation for accepting incremental risk.

While prescriptive guidance on estimating the risk premium in the discount rate is outside the scope of the Proposed Standard, the Board believes the proposed revisions regarding discount rate derivation within IVS 105 paragraph 50 outlined in "IVS 2017 Proposed Revisions Exposure Draft" would apply.

⁶ "Financial Reporting Developments: Asset Retirement Obligations." Ernst & Young L.L.P., Revised December 2017, Paragraph 4.2.

⁷ "Financial Reporting Developments: Asset Retirement Obligations." Ernst & Young L.L.P., Revised December 2017, Paragraph 4.2.

⁸ "Financial Reporting Developments: Asset Retirement Obligations." Ernst & Young L.L.P., Revised December 2017, Paragraph 4.2.



Guarantees

The Board noted little guidance on the valuation of non-financial guarantees. The assumption by the Board is that the unique fact patterns typical of guarantees, as well as the relatively infrequent need to value guarantees, has limited the need and relevance for technical guidance. The Board did not identify any disconfirming information to the conclusions reached within this Exposure Draft.

Litigation Contingencies

The Board noted little guidance on the valuation of litigation contingencies. All practice examples identified did utilise a scenario or expected value based method, consistent with other non-financial liabilities identified. The Board did not identify any disconfirming information to the conclusions reached within this Exposure Draft.

Indemnifications

The Board noted little guidance on the valuation of indemnifications. The most frequent practice examples related to tax indemnifications and utilised a scenario or expected value based method, consistent with other non-financial liabilities identified. The Board did not identify any disconfirming information to the conclusions reached within this Exposure Draft.

Contingent Consideration

As noted above, the Board considered the technical guidance published by The Appraisal Foundation. The Board determined that the Option Pricing Method and related risk neutral framework outlined in the Contingent Consideration paper were beyond the scope of the Proposed Standard as it assumes asset liability symmetry.

Leases

Given the new IFRS and US GAAP accounting standards for the recognition of lease liabilities for lessees, the Boards considered the accounting and technical guidance as it relates to discounting using the incremental borrowing rate (IBR). IFRS 16 notes the following considerations when determining the appropriate IBR:

- The IBR is lessee specific, it is a company specific rate



- The term of the lease arrangement
- The amount of the funds borrowed
- The security granted to the lessor, i.e., the nature and quality of the underlying right-of-use asset; and
- The economic environment, (i.e., the jurisdiction and the time at which the lease is entered into, the currency in which the lease payments are denominated).⁹

Summary of Findings

Based on the research performed, the Board summarised the practice observations and technical guidance on methodology and discount rate/risk considerations for each in-scope non-financial liability. The findings are outlined in the table on the following page:

⁹ IFRS 16.BC161



Summary of practice observations and technical guidance

	Risk Free Rate	Counter-Party Risk	Liability Specific Risk	Risk Premium (discount Rate)	Risk Margin (Cash Flows)	Incremental Borrowing Rate	Payout Structure/Non-Linear Risk	Fulfillment Margin/Profit	Pre/After Tax
Deferred Revenue	Yes	Yes	Yes/No	No	As Needed	NA	NA - SBM	Yes	Pre-Tax
Warranties	Yes	Yes	No guidance	No	As Needed	NA	NA - SBM	Yes	Pre-Tax
Asset Retirement Obligations	Yes	No (IFRS) Yes (US GAAP)	Yes (IFRS) No (US GAAP)	No	As Needed	Yes	NA - SBM	Yes	Pre-Tax
Litigation Contingencies	Yes	Yes	As Needed	No	As Needed	NA	NA - SBM	Yes/No	Pre-Tax
Guarantees	Yes	Fact dependent	Fact dependent	No	Fact dependent	NA	Fact dependent	No	Pre-Tax
Indemnifications	Yes	Fact dependent	Fact dependent	No	Fact dependent	NA	Fact dependent	No	Pre-Tax
Contingent Consideration	Yes	Yes	Yes – Consider Structure	No	As Needed – Consider Structure	NA	Yes	No	Pre-Tax
Leases	Yes	Yes	Yes	No	No	Yes	NA	No	Pre-Tax



Non-Financial Liability Markets

Given the limited technical guidance in this area, the Board sought to identify markets in which non-financial liabilities are traded to 1) Leverage any best practices used to price non-financial liabilities by market participants, and 2) Ensure the Proposed Standard is not in conflict with how non-financial liabilities are priced and transacted in the market. The Board identified the following non-financial liabilities/markets:

- Catastrophic bonds
- Non-practicing patent entities
- Litigation financing
- Publically traded companies with primary function to service liabilities
- Contingent value rights
- Airline miles and other loyalty programs
- Power purchase agreements
- Streaming exchanges

While the information on pricing techniques was limited in most cases, the Board noted that in almost all cases market participants relied on a SBM with discrete assumptions.¹⁰

While the Board noted that standalone transactions of non-financial liabilities are infrequent, the Board believes that there are meaningful market-based observable inputs. Although such market based indications likely do not provide sufficient information with which to apply the market approach, the Board believes that the use of market-based inputs should be maximised in the application of other approaches. The Board identified the following list of market indications of value and observable inputs:

- Pricing from third parties to provide identical or similar products as the subject non-financial liability (e.g., deferred revenue). For example, in certain industries there may exist sufficient price transparency and commoditisation to identify a market based price to rely on for valuation of the subject deferred revenue.
- Pricing for warranty policies issued by third parties for identical or similar obligations. For example, some industries often rely on third parties to

¹⁰ The Board did note limited use of Monte Carlo simulation, which it deemed to be fundamentally the same as the SBM.



service warranty obligations. Additionally, many companies specialise in direct sales of warranties on third party manufactured products to end consumers.

- The prescribed monetary conversion amount as published by market participants for certain loyalty reward obligations. Many loyalty programs provide participants the option to convert their reward balances to cash or benefits that enable an observed price.
- The traded price for contingent value rights (CVRs) with similarities to the subject non-financial liability (e.g., contingent consideration). Observed price movements in CVRs may provide useful information on the probability and risk perceived by market participants associated with certain non-systemic events (e.g., pharmaceutical milestones).
- Interest rates implicit in lease terms that equates the present value of lease payments plus residual asset value, and the value of the underlying asset. As noted in the US GAAP and IFRS lease accounting standards, given certain inputs it is possible to determine the interest rate implied by lease terms.
- Observed rates of return for litigation finance investment funds. The Board notes the market for litigation financing continues to grow and mature, and the expected and realised returns achieved by such funds may be instructive when considering inputs for litigation contingencies.¹¹

Ancillary Markets

The Board considered the potential overlap between non-financial liabilities with other asset classes. The Board identified financial instruments and insurance liabilities as key areas for further coordination.

With regard to financial instruments, the Board regularly consulted the IVSC Financial Instruments Technical Director on the Proposed Standard. Based on such consultations the Board understands the principles contained in the Proposed Standard are broadly consistent with principles applied in financial instruments asset classes.

For investigation into insurance practices, the Board sought input from outside the IVSC organisation and outside the valuation industry. The Board identified the International Actuarial Association (IAA) as a key resource. The IAA is the

¹¹ <https://www.economist.com/finance-and-economics/2018/08/18/litigation-finance-offers-investors-attractive-yields>



worldwide association of professional actuarial associations, with a number of special interest sections for individual actuaries. The IAA exists to encourage the development of a global profession, acknowledged as technically competent and professionally reliable, which will ensure that the public interest is served. The IAA produces educational materials for its members, some of which were considered by the Board. The Board reviewed and discussed “Measurement of Liabilities for Insurance Contracts: Current Estimates and Risk Margins” as published by the IAA. The paper provides significant views and technical discussion on the quantification of risk for liability measurement. The Board also conducted conference calls with representatives of the IAA to further discuss this material, as well as upcoming considerations and a model standard under development by the IAA related to the IFRS 17 Insurance Contracts. IFRS 17 requires a company that issues insurance contracts to report them on the balance sheet as the total of:

(a) the fulfilment cash flows—the current estimates of amounts that the insurer expects to collect from premiums and pay out for claims, benefits and expenses, including an adjustment for the timing and risk of those cash flows; and

(b) the contractual service margin—the expected profit for providing future insurance coverage (ie unearned profit).¹²

IFRS 17 further states:

The fulfilment cash flows consist of the following components.

– Estimates of future cash flows that will arise as the entity fulfils the contracts.

– An adjustment to reflect the time value of money – i.e. discounting – and the financial risks related to the future cash flows (to the extent that they are not already included in the estimates of future cash flows).

– An explicit risk adjustment for non-financial risk: to reflect the compensation that the entity requires for bearing the uncertainty about the amount and timing of cash flows that arise from non-financial risk.¹³

¹² “IFRS Standards Project Summary: IFRS 17 Insurance Contracts.” IFRS, May 2017, page 3.

¹³ IFRS 17.32



Finally, IFRS provides the following related to the risk adjustment:

The risk adjustment conveys information to users of financial statements about the amount the entity charged for bearing the uncertainty over the amount and timing of cash flows arising from non-financial risk. It measures the compensation that the entity would require to make it indifferent between:

- fulfilling a liability that has a range of possible outcomes arising from nonfinancial risk; and*
- fulfilling a liability that will generate fixed cash flows with the same expected present value as the insurance contract.¹⁴*

The Board noted that related technical guidance from a source other than the IAA stated the following regarding the risk adjustment:

Because IFRS 17 does not prescribe a methodology, entities have a significant degree of autonomy over the method they use to determine the risk adjustment for non-financial risk. The appropriateness of a methodology will depend on the individual circumstances of each entity. Entities are likely to leverage their current techniques to determine the risk adjustment for the purpose of applying IFRS 17. These methods include cost of capital, confidence level and conditional tail expectation.

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The IAA's Insurance Accounting Committee's Education and Practice Subcommittee also recently released an educational monograph on risk adjustments as required by IFRS 17. The subcommittee's mission is to develop and maintain information of an educational and practice nature that will be useful to actuaries globally in the area of insurance accounting and auditing. This includes International Actuarial Notes (IANs) and other educational material such as the aforementioned monographs and books relating to actuarial practice in the context of financial reporting of insurers. The Board reviewed and discussed the monograph, and found the detailed educational material to be consistent with previous publications from the IAA.

¹⁴ IFRS 17.B87

¹⁵ "Insurance Contracts: First Impressions IFRS 17." KPMG, July 2017, page 71.



III. Findings

Consensus Themes

Based on the research and observations outlined above, the Board identified consensus viewpoints in several areas.

As highlighted in the table below, the Board first noted that all observed practices for the in-scope non-financial liabilities utilise at least the risk free rate and consideration for non-performance risk (i.e., credit risk of the entity obligated to fulfil the liability) when deriving the appropriate discount rate (see IVS 220 Paragraph 100.4). Inclusion of the other risk components within the derivation of the discount rate (e.g. counter-party, liability specific) vary based on related accounting guidance. Finally, the Board observed that in most instances a risk premium is not included in the discount rate, but rather included in the cash flows (see IVS 220 Paragraph 100.5).

For cash flow considerations, the Board observed that most in-scope non-financial liabilities are valued using a SBM that estimate costs to fulfil and add a fulfilment margin (see IVS 220 Paragraph 60.5). The Board also noted near universal use of pre-tax discount rates and cash flows (see IVS 220 Paragraph 120.1).

	Risk Free Rate	Counter-Party Risk	Liability Specific Risk	Risk Premium (discount Rate)	Risk Margin (Cash Flows)	Incremental Borrowing Rate	Payout Structure/Non-Linear Risk	Fulfillment Margin/Profit	Pre/After Tax
Deferred Revenue	Yes	Yes	Yes/No	No	As Needed	NA	NA - SBM	Yes	Pre-Tax
Warranties	Yes	Yes	No guidance	No	As Needed	NA	NA - SBM	Yes	Pre-Tax
Asset Retirement Obligations	Yes	No (IFRS) Yes (US GAAP)	Yes (IFRS) No (US GAAP)	No	As Needed	Yes	NA - SBM	Yes	Pre-Tax
Litigation Contingencies	Yes	Yes	As Needed	No	As Needed	NA	NA - SBM	Yes/No	Pre-Tax
Guarantees	Yes	Fact dependent	Fact dependent	No	Fact dependent	NA	Fact dependent	No	Pre-Tax
Indemnifications	Yes	Fact dependent	Fact dependent	No	Fact dependent	NA	Fact dependent	No	Pre-Tax
Contingent Consideration	Yes	Yes	Yes – Consider Structure	No	As Needed – Consider Structure	NA	Yes	No	Pre-Tax
Leases	Yes	Yes	Yes	No	No	Yes	NA	No	Pre-Tax



Other Complex Considerations

Fulfilment vs. Settlement

Although non-financial liabilities are typically characterised by a non-cash performance or fulfilment obligation, most standards of value require a value in exchange premise, thus requiring the valuer to estimate the cash settlement amount of the obligation. To derive the cash settlement amount of the non-financial liability, or the amount needed to pay a third party to assume the obligations associated with the liability, the Board believes that the transferee would require a profit margin on the fulfilment effort as well as compensation for any incremental risk assumed. As such, the Board believes that the estimated cash settlement amount of a non-financial liability would include an estimate of the future fulfilment cost, plus a profit margin, plus any additional risk premium which can be included in the cash flows or as a reduction to the discount rate. See IVS 220 Paragraphs 50.16 and 60.5.

Quantification of Cash Flow Risk Margins

The valuation of non-financial liabilities often relies on the development of a single forecast or multiple long term forecasts that are a function of discrete risks. Often such risks are characterised by high tail-risk or dispersion, making the development of discrete forecasts more difficult. When valuing assets, valuers often rely on increases in the discount rate as the mechanism to account for such uncertainties. However, in the liability context increases to the discount rate would have the unintended effect of decreasing the liability amount. As such, the valuation of non-financial liabilities requires the valuer to place additional emphasis on cash flow assessment, and if necessary, develop an appropriate cash flow risk margin to account for risk not otherwise included in the cash flows. The Proposed Standard outlines broad principles for consideration when developing a risk margin, including:

- (a) *The less certainty there is in the anticipated fulfilment costs and fulfilment margin, the higher the risk margin should be,*
- (b) *Given the discrete term of most non-financial liabilities, as*



opposed to indefinite for many business and asset valuations, to the extent that emerging experience reduces uncertainty, risk margins should decrease, and vice versa.

- (c) The expected distribution of outcomes, and the potential for certain non-financial liabilities to have high 'tail risk' or severity. Non-financial liabilities with wide distributions and high severity should have higher risk margins.*
- (d) The relative security of the non-financial liability and/or related asset, such as its respective rights and preferences in the event of a liquidation and its relative position within the liquidation waterfall.*

Additionally, The Board notes that the IAA provides four primary techniques for derivation of the risk margin, including:

- Quantile methods use percentile/confidence levels (VaR) or related calculations such as the conditional tail expectation (CTE), tail value at risk (TVaR), or multiples of the second and higher moments of the risk distribution.
- Cost of capital methods are based on the amount of return, in addition to the amount earned by the insurer from its investment of capital, that is required for the total return on the insurance enterprise to be adequate.
- Discount related methods discount future expected cash flows using the risk-free interest rate minus a selected risk adjustment.
- Explicit assumptions use required inputs or simpler methodologies such as the use of specified data (e.g., mortality table), a minimum loss ratio, or a fixed percentage risk margin.

The Board agrees with IFRS 17 when it describes the risk adjustment as the compensation that would be required to be indifferent between fulfilling a liability that has a range of possible outcomes, and one that will generate fixed cash outflows. The Board acknowledges the difficulty of quantifying the risk margin, but suggests the need to consider both qualitative and quantitative measures. A *valuer* need not conduct an exhaustive quantitative process, but shall take into account all the information that is reasonably available. Detailed procedures regarding methodologies and procedures to quantify the risk margin



are not consistent with principle based standards and thus outside of the scope of the Proposed Standard. See Section 100 of IVS 220.

Negative Discount Rates

Decreases to the discount rate have the same impact as including/increasing the cash flow risk margin, as both increase the amount of the liability estimate. Per discussions with the IAA, and as noted in IAA materials, one prescribed method in the actuarial industry to account for risk is to reduce the discount rate down to, but not below, zero. The Board agrees with the conceptual application of the technique, but also considered if it would be theoretically possible to utilise negative discount rates. Given the current low interest rate environment in many jurisdictions, the reduction of the discount rate down to zero may not provide sufficient leverage to account for the risks not otherwise captured in the cash flows. The Board determined that in principle, valuers may rely on negative discount rates. However, the Board notes that it has yet to see the technique used in practice and would advise caution if considering. See IVS 220 Paragraph 100.6.

Tax considerations

Although the Board found broad consensus to value non-financial liabilities on a pre-tax basis, there was little to no discussion on the rationale for why. To reach their conclusion the Board considered the hypothetical perspective of both the buyer (assuming liability) and seller (transferring liability) in a typical non-financial liability scenario. In simplistic terms, the buyer would recognise a cash tax liability at the time of receiving the settlement payment from the seller. However, the buyer would expect to later recognise a tax benefit upon expending costs to fulfil the obligation, albeit a potentially lower benefit than the initial tax liability as expected costs are anticipated to be lower than the initial settlement payment because of the inclusion of a profit component built into the estimate. Therefore the transaction is approximately tax neutral for the buyer. Alternatively, the seller would likely incur a tax liability upon receipt of compensation that has giving rise to the liability (e.g., cash received in advanced of performing deferred revenue and warranty obligations). Similar to the buyer, the seller would also receive a tax benefit upon expending costs to fulfil the obligation if they were not to transfer the liability. However, assuming an exchange whereby the seller pays cash to transfer the liability, the seller



would also recognise a corresponding tax benefit. From either perspective, the transaction is also approximately tax neutral for the seller.

Although the Board notes certain differences between the tax obligation and benefit due to timing and the profit component included in the estimate, the Board believes that a pre-tax basis is appropriate in most instances. However, the valuer must consider the facts and circumstances related to the subject non-financial liability when determining if the valuation should be performed on a pre or post tax basis. See Section 120 of IVS 220.

Option Pricing Methods and the Risk Neutral Framework

The Board notes that non-financial liability cash flows most often involve the modelling of multiple scenarios of possible future cash flows to derive a probability weighted expected cash flow forecast. This method is often referred to as the SBM. When the non-financial liability cash flows are a function of systematic risk factors, the Board notes certain limitations of using a SBM, and valuers may need to utilise other methods such as option pricing models (OPMs). The Board affirms that the broad principles outlined in IVS 220 apply regardless of the methodology used to value the non-financial liabilities. See IVS 220 Paragraph 100.2.

Future Considerations

The Board believes that the valuation of non-financial liabilities should continue to be an ongoing project for consideration. In particular, the Board believes that targeted additions may prove helpful. Such topics in which IVS 220 may require additional language include:

- Discount rates
- Risk margins
- Additional discussion of OPMs and the risk neutral framework

Additionally, with the pending formation of the Financial Instruments Board, the Board plans additional coordination to ensure all assets classes are covered in either IVS 200 or IVS 500. The findings from such may necessitate additions to IVS 220.



IV. Draft Standard

IVS 220 Non-Financial Liabilities

10. Overview

- 10.1. The principles contained in the General Standards apply to valuations of non-financial liabilities and valuations with a non-financial liability component. This standard contains additional requirements that apply to valuations of non-financial liabilities.

20. Introduction

- 20.1. The *valuer* should determine if the subject liability is a financial or non-financial liability. To do so, the *valuer* may assess various characteristics of the subject liability including:
- (a) Non-financial liabilities typically include an obligation to provide goods or services, rather than settled in cash like is typical for financial liabilities.
 - (b) Asset-liability symmetry typically does not exist for non-financial liabilities. For financial liabilities, sufficient liquidity provided by cash settlement typically prevents arbitrage and results in asset-liability symmetry. Asset-liability asymmetry for non-financial liabilities may exist for multiple reasons, including:
 - Non-financial liabilities often do not have a corresponding asset recognised by the counterparty (e.g., environmental liability), or can only be transferred in conjunction with another asset (e.g., an automobile and related warranty are only transferred together),
 - The corresponding asset of a non-financial liability is held by numerous parties that either do not recognise a corresponding asset or for which it is impractical to identify and reconcile the asset values, and
 - The market for the non-financial asset and liability is highly illiquid, thus resulting in asymmetric information, high bid ask spreads, and asset-liability asymmetry.
 - (c) The party assuming the non-financial liability typically requires additional compensation above the expected cost to satisfy the obligation (e.g., delivery of goods or services), such as a profit margin



on the fulfilment effort. Whereas for financial liabilities, cash settlement is the only performance obligation and no additional compensation is typically needed.

- 20.2. A non-exhaustive list of non-financial liabilities that typically exhibit the characteristics above includes: deferred revenue, warranties, environmental liabilities, asset retirement obligations, contingent consideration obligations, loyalty programs, power purchase agreements, certain litigation reserves and contingencies, and certain indemnifications and guarantees.
- 20.3. Certain non-financial liabilities do, at least in some instances, require cash fulfilment. A non-exhaustive list of such non-financial liabilities includes: lease obligations, certain contingent consideration obligations, certain indemnifications and guarantees.
- 20.4. Market participants that most often transact in the subject non-financial liability may not be the company's comparable companies and competitors. Examples include insurance companies, third party warranty issuers, and more. The *valuer should* consider if a market, or market participants, exist outside the immediate industry in which the subject company operates.
- 20.5. In instances in which a corresponding asset is recognised by the counterparty, the *valuer must* assess if the values would reflect asset-liability symmetry under circumstances consistent with the basis of value. Certain bases of value issued by entities/organisations other than the IVSC, require the specific consideration and reconciliation to a corresponding asset under certain circumstances. The *valuer must* understand and follow the regulation, case law, and other interpretive guidance related to those bases of value as of the valuation date.
- 20.6. Non-financial liability valuations are performed for a variety of purposes. It is the *valuer's* responsibility to understand the purpose of a valuation and whether the non-financial liabilities *should* be valued, whether separately or grouped with other assets. A non-exhaustive list of examples of circumstances that commonly include a non-financial liability valuation component is provided below:
 - (a) For financial reporting *purposes*, *valuations* of non-financial liabilities are often required in connection with accounting



for business combinations, *asset* acquisitions and sales, and impairment analysis.

- (b) For tax reporting *purposes*, non-financial liability valuations are often needed for transfer pricing analyses, estate and gift tax planning and reporting, and ad valorem taxation analyses.
- (c) Non-financial liabilities may be the subject of litigation, requiring valuation analysis in certain circumstances.
- (d) *Valuers* are sometimes asked to value non-financial liabilities as part of general consulting, collateral lending and transactional support engagements.

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 non-financial liabilities.
- 30.2. Often, non-financial liability 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 the *valuer must* 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 and Methods

- 40.1. The three valuation approaches described in IVS 105 Valuation Approaches can all be applied to the valuation of non-financial liabilities. The methods described below simultaneously exhibit elements of the Cost Approach, Market Approach, and Income Approach. If necessary for the *valuer* to classify a method under one of the three Approaches, the *valuer should* use judgement in making the determination and not necessarily rely on the classification below.
- 40.2. When selecting an approach and method, in addition to the requirements of this standard, a *valuer must* follow the requirements of IVS 105 Valuation Approaches, including para 10.3.

50. Market Approach

- 50.1. Under the market approach, the value of a non-financial



- liability is determined by reference to market activity (for example, transactions involving identical or similar non-financial liabilities).
- 50.2. Transactions involving non-financial liabilities frequently also include other *assets*, such as a business combinations that includes tangible and intangible *assets*.
- 50.3. Transactions involving standalone non-financial liabilities are infrequent as compared to transactions for businesses and *assets*.
- 50.4. While standalone transactions of non-financial liabilities are infrequent, *valuers should* consider market-based indications of value. Although such market based indications may not provide sufficient information with which to apply the market approach, the use of market-based inputs *should* be maximised in the application of other approaches.
- 50.5. A non-exhaustive list of such market indications of value includes:
- (a) Pricing from third parties to provide identical or similar products as the subject non-financial liability (e.g., deferred revenue),
 - (b) Pricing for warranty policies issued by third parties for identical or similar obligations,
 - (c) The prescribed monetary conversion amount as published by market participants for certain loyalty reward obligations,
 - (d) The traded price for contingent value rights (CVRs) with similarities to the subject non-financial liability (e.g., contingent consideration),
 - (e) Interest rates implicit in lease terms that equates the present value of lease payments plus residual asset value, and the value of the underlying asset, and
 - (f) Observed rates of return for litigation finance investment funds.
- 50.6. *Valuers must* comply with paras 20.2 and 20.3 of IVS 105 when determining whether to apply the market approach to the valuation of non-financial liabilities. In addition, *valuers should* only apply the market approach to value non-financial liabilities if both of the following criteria are met:
- (a) Information is available on arm's length transactions involving identical or similar non-financial liabilities on or



- near the valuation date, and
- (b) Sufficient information is available to allow the *valuer* to adjust for all *significant* differences between the subject non-financial liability and those involved in the transactions.
- 50.7. The heterogeneous nature of many non-financial liabilities and the fact that non-financial liabilities seldom transact separately from other assets means that it is rarely possible to find market evidence of transactions involving identical *non-financial liabilities*. If there is market evidence at all, it is usually in respect to *non-financial liabilities* that are similar, but not identical.
- 50.8. Where evidence of market prices is available, *valuers should* make adjustments to these to reflect differences between the subject non-financial liability and those involved in the transactions. These adjustments are necessary to reflect the differentiating characteristics of the subject non-financial liability and those involved in the transactions. Such adjustments may only be determinable at a qualitative, rather than quantitative, level. However, the need for *significant* qualitative adjustments could indicate that another approach would be more appropriate for the valuation.
- 50.9. In certain instances a *valuer may* rely on market prices or evidence for an *asset* corresponding to the subject non-financial liability. In such instances, the *valuer should* consider an entity's ability to transfer the subject non-financial liability, whether the *asset* and related price of the *asset* reflect those same restrictions, and whether adjustments to reflect the restrictions *should* be included. The *valuer should* take care to determine if the transfer restrictions are characteristics of the subject non-financial liability or restrictions that are characteristics of the entity.
- 50.10. The guideline transactions method is generally the only market approach method that can be applied to non-financial liabilities.
- 50.11. In rare circumstances, a security sufficiently similar to a subject non-financial liability could be publicly traded, allowing the use of the guideline public company method. One example of such securities is contingent value rights (CVRs) that are tied to the performance of a particular product or technology.



Market Approach Methods

50.12. A method to value non-financial liabilities under the Market Approach is often referred to as the Top-Down Method.

Top-Down Method

50.13. Under the Top-Down Method, valuing non-financial liabilities is based on the premise that reliable market-based indications of pricing are available for the performance obligation.

50.14. A market participant fulfilling the obligation to deliver the product or services associated with the non-financial liability could theoretically price the liability by deducting costs unnecessary to the fulfilment obligation, plus a mark-up on those costs, from the market price of services.

50.15. When market information is used to determine the fair value of the subject non-financial liability, discounting is typically not necessary because the effects of discounting are incorporated into observed market prices.

50.16. The key steps in applying a Top-Down Method are to:

- (a) Determine the market price of the non-cash fulfilment.
- (b) Determine the costs already incurred by the transferor. The nature of such costs will differ depending on the subject non-financial liability. For example, for deferred revenue the costs will primarily consist of sales and marketing costs that have already been incurred in generating the non-financial liability.
- (c) Determine a reasonable profit margin on the costs already incurred.
- (d) Subtract costs incurred and profit from the market price.

60. Income Approach

60.1. Under the income approach, the value of a non-financial liability is often determined by reference to the present value of the costs to fulfil the obligation plus a profit margin that would be required by an investor to assume the liability.

60.2. *Valuers must* comply with paras 40.2 and 40.3 of IVS 105 *Valuation Approaches and Methods* when determining whether to apply the income approach to the valuation of non-financial liabilities.



Income Approach Methods

60.3. The primary method to value non-financial liabilities under the Income Approach is often referred to as the Bottom-Up Method.

Bottom-Up Method

60.4. Under the Bottom-Up Method, the non-financial liability is measured as the costs (which *may* or *may* not include certain overhead items) required to fulfil the performance obligation, plus a reasonable mark-up on those costs, discounted to present value.

60.5. The key steps in applying a Bottom-Up Method are to:

- (a) Determine the costs required to fulfil the performance obligation. Such costs will include the direct costs to fulfil the performance obligation, but *may* also include indirect costs such as charges for the use of contributory assets. In limited instances where direct and indirect costs do not accurately capture the full nature of the liability, it *may* be appropriate to consider opportunity costs. Fulfilment costs represent those costs that are related to fulfilling the performance obligation that generates the non-financial liability. Costs incurred as part of the selling activities before the acquisition date *should* be excluded from the fulfilment effort.
- (b) Determine a reasonable mark-up on the fulfilment effort. In most cases it *may* be appropriate to include an assumed profit margin on certain costs which can be expressed as a target profit, either a lump sum or a percentage return on cost or value. An initial starting point may be to utilise the operating profit of the company. However, this methodology assumes the profit margin would be proportional to the costs incurred. In many circumstances there is rationale to assume profit margins which are not proportional to costs. In such cases the risks assumed, value added, or intangibles contributed to the fulfilment effort are not the same as those contributed pre-measurement date. When costs are derived from actual, quoted or estimated prices by third party suppliers or contractors, these costs will already include a third parties' desired level of profit
- (c) Determine timing of fulfilment and discount to present



value. The discount rate *should* account for the time value of money and non-performance risk. Typically it is preferable to reflect the impact of uncertainty such as changes in anticipated fulfilment costs and fulfilment margin through the cash flows, rather than in the discount rate.

70. Cost Approach

- 70.1. The cost approach has limited application for non-financial liabilities.
- 70.2. *Valuers must* comply with paras 60.2 and 60.3 of IVS 105 *Valuation Approaches and Methods* when determining whether to apply the cost approach to the valuation of non-financial liabilities.

80. Special Considerations for Non-Financial Liabilities

- 80.1. The following sections address a non-exhaustive list of topics relevant to the valuation of non-financial liabilities.
 - (a) Discount Rates for Non-Financial Liabilities (section 90)
 - (b) Estimating Cash Flows and Risk Margins (section 100)
 - (c) Restrictions on Transfer (section 110)
 - (d) Taxes (section 120)

90. Discount Rates for Non-Financial Liabilities

- 90.1. The principles contained IVS 105 apply to valuations of non-financial liabilities and valuations with a non-financial liability component. This standard contains additional requirements that apply to valuations of non-financial liabilities.
- 90.2. A fundamental basis for the income approach is that investors expect to receive a return on their investments and that such a return *should* reflect the perceived level of risk in the investment.
- 90.3. The discount rate *should* account for the time value of money and non-performance risk. Non-performance risk may be a function of counterparty risk (i.e., credit risk of the entity obligated to fulfil the liability) and/or liability specific risks. Certain bases of value issued by entities/organisations other than the IVSC, may require the discount rate to specifically account for counterparty risk or liability specific risks. The *valuer must* understand and follow the regulation, case law, and other interpretive guidance related to those bases of



value as of the valuation date.

- 90.4. *Valuers should* consider the term of the subject non-financial liability when determining the appropriate inputs for the time value of money and non-performance risk.
- 90.5. In certain circumstances, the *valuer may* explicitly adjust the cash flows for non-performance risk (e.g., probability of the counterparty firm defaulting).
- 90.6. What an investor would have to pay to borrow the funds necessary to satisfy the obligation *may* provide insights to help quantify the non-performance risk.
- 90.7. Given the long term nature of certain non-financial liabilities, the *valuer should* consider if inflation has been incorporated into the estimated cash flows, and *must* ensure that the discount rate and cash flow estimates are prepared on a consistent basis.

100. **Estimating Cash Flows and Risk Margins**

- 100.1. The principles contained in IVS 105 apply to valuations of non-financial liabilities and valuations with a non-financial liability component. This standard contains additional requirements that apply to valuations of non-financial liabilities.
- 100.2. Non-financial liability cash flow forecasts often involve the explicit modelling of multiple scenarios of possible future cash flow to derive a probability weighted expected cash flow forecast. This method is often referred to as the Scenario-Based Method (SBM). The SBM also includes certain simulation techniques such as Monte Carlo simulation. The SBM is commonly used when future payments are not contractually defined but rather vary depending upon future events. When the non-financial liability cash flows are a function of systematic risk factors, the *valuer should* consider the appropriateness of the SBM, and *may* need to utilise other methods such as option pricing models (OPMs).
- 100.3. Considerations in estimating cash flows include developing and incorporating explicit assumptions, to the extent possible. A non-exhaustive list of such assumptions *may* include:
 - (a) The costs that a third party would incur in performing the tasks necessary to fulfil the obligation,
 - (b) Other amounts that a third party would include in

- determining the price of the transfer, including, for example, inflation, overhead, equipment charges, profit margin, opportunity costs, and advances in technology,
- (c) The extent to which the amount of a third party's costs or the timing of its costs would vary under different future scenarios and the relative probabilities of those scenarios, and
 - (d) The price that a third party would demand and could expect to receive for bearing the uncertainties and unforeseeable circumstances inherent in the obligation.
- 100.4. The discount rate for non-financial liabilities is typically the risk free rate plus non-performance risk. While expected cash flows (i.e., the probability-weighted average of possible future cash flows) incorporate the uncertainty in the *asset's* cash flows, they do not incorporate the compensation that market participants demand for bearing that uncertainty. The compensation for bearing such risk should be incorporated into the expected payoff through a cash flow risk margin or the discount rate.
- 100.5. Given the inverse relationship between the discount rate and value, in most cases the discount rate *should* not be increased to reflect the impact of forecast risk (i.e., the compensation for bearing risk due to uncertainty about the amount and timing of cash flows). However, accounting or regulatory requirements may prescribe the consideration of certain risks and a resulting increase in the discount rate. For non-financial liabilities, forecast risk *may* include uncertainty such as changes in anticipated fulfilment costs and fulfilment margin. Such uncertainties are typically estimated in the cash flows through a probability weighted cash flow forecast or through the addition of a cash flow risk margin.
- 100.6. There is some diversity in practice of how to incorporate a risk margin. Rather than incorporate into the cash flow estimates, it could be possible to reduce the discount rate to account for the risk margin.
- 100.7. In developing a cash flow risk margin, a *valuer should* consider:
- (a) The less certainty there is in the anticipated fulfilment costs and fulfilment margin, the higher the risk margin *should* be,
 - (b) Given the finite term of most non-financial liabilities, as



opposed to indefinite for many business and asset valuations, to the extent that emerging experience reduces uncertainty, risk margins *should* decrease, and vice versa.

- (c) The expected distribution of outcomes, and the potential for certain non-financial liabilities to have high ‘tail risk’ or severity. Non-financial liabilities with wide distributions and high severity *should* have higher risk margins.
 - (d) The relative security of the non-financial liability and/or related asset, such as its respective rights and preferences in the event of a liquidation and its relative position within the liquidation waterfall.
- 100.8. The cash flow risk margin should be the compensation that would be required for a party to be indifferent between fulfilling a liability that has a range of possible outcomes, and one that will generate fixed cash outflows.
- 100.9. A *valuer* need not conduct an exhaustive quantitative process, but *should* take into account all the information that is reasonably available.

110. Restrictions on Transfer

- 110.1. Non-financial liabilities often have restrictions on the ability to transfer. Such restrictions can be either contractual in nature, or a function of an illiquid market for the subject non-financial liability.
- 110.2. When relying on market evidence, a *valuer should* consider an entity’s ability to transfer such non-financial liabilities and whether adjustments to reflect the restrictions *should* be included. The *valuer may* need to determine if the transfer restrictions are characteristics of the non-financial liability or restrictions that are characteristics of an entity, as certain basis of value may specify one or the other be considered.
- 110.3. When relying on an income approach in which the non-financial liability value is estimated through a fulfilment principal, the *valuer should* determine if an investor would require an additional risk margin to account for the limitations on transfer.

120. Taxes

- 120.1. The valuation of non-financial liabilities are typically performed on a pre-tax basis using pre-tax cash flows and



discount rates. *Valuers* should consider their basis of value when determining whether the *valuer* should use pre-tax or post-tax inputs.

- 120.2. In certain circumstances, it *may* be appropriate to perform the analysis with after tax cash flows and discount rates. Depending on the purpose of a valuation and the valuation method used, it *may* be appropriate to include the tax benefit created by the projected cash outflow associated with the non-financial liability.