

**Consultation Paper**  
**April 2019**  
*Comments due: September 30, 2019*

# Measurement

**IPSASB**

International Public  
Sector Accounting  
Standards Board®

This document was developed and approved by the International Public Sector Accounting Standards Board® (IPSASB®).

The objective of the IPSASB is to serve the public interest by setting high-quality public sector accounting standards and by facilitating the adoption and implementation of these, thereby enhancing the quality and consistency of practice throughout the world and strengthening the transparency and accountability of public sector finances.

In meeting this objective the IPSASB sets IPSAS™ and Recommended Practice Guidelines (RPGs) for use by public sector entities, including national, regional, and local governments, and related governmental agencies.

IPSAS relate to the general purpose financial statements (financial statements) and are authoritative. RPGs are pronouncements that provide guidance on good practice in preparing general purpose financial reports (GPFRs) that are not financial statements. Unlike IPSAS RPGs do not establish requirements. Currently all pronouncements relating to GPFRs that are not financial statements are RPGs. RPGs do not provide guidance on the level of assurance (if any) to which information should be subjected.

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## REQUEST FOR COMMENTS

This Consultation Paper, *Measurement*, was developed and approved by the International Public Sector Accounting Standards Board® (IPSASB®).

The proposals in this Consultation Paper may be modified in light of comments received before being issued in final form. **Comments are requested by September 30, 2019.**

Respondents are asked to submit their comments electronically through the IPSASB website, using the “[Submit a Comment](#)” link. Please submit comments in both a PDF and Word file. Also, please note that first-time users must register to use this feature. All comments will be considered a matter of public record and will ultimately be posted on the website. This publication may be downloaded from the IPSASB website: [www.ipsasb.org](http://www.ipsasb.org). The approved text is published in the English language.

### Guide for Respondents

The IPSASB welcomes comments on all of the matters discussed in this Consultation Paper, including all Preliminary Views and Specific Matters for Comment. Comments are most helpful if they indicate the specific paragraph or group of paragraphs to which they relate and contain a clear rationale.

The Preliminary Views and Specific Matters for Comment in this Consultation Paper are provided below. Paragraph numbers identify the location of the Preliminary View or Specific Matter for Comment in the text.

#### Preliminary View 1—Chapter 2 (following paragraph 2.6)

The IPSASB’s Preliminary View fair value, fulfillment value, historical cost and replacement cost require additional application guidance.

Do you agree with the IPSASB’s Preliminary View?

If not, please provide your reasons, stating clearly which measurement bases should be excluded from, or added to, the list, and why.

#### Preliminary View 2—Chapter 2 (following paragraph 2.6)

The IPSASB’s Preliminary View is that the application guidance for the most commonly used measurement bases should be generic in nature in order to be applied across the IPSAS suite of standards. Transaction specific measurement guidance will be included in the individual standards providing accounting requirements and guidance for assets and liabilities.

Do you agree with the IPSASB’s Preliminary View?

If not, please provide your reasons, and state what guidance should be included, and why.

#### Preliminary View 3—Chapter 2 (following paragraph 2.10)

The IPSASB’s Preliminary View is that guidance on historical cost should be derived from existing text in IPSAS. The IPSASB has incorporated all existing text and considers [Appendix C: Historical Cost—Application Guidance for Assets](#), to be complete.

Do you agree with the IPSASB’s Preliminary View?

If not, please provide your reasons, stating clearly what you consider needs to be changed.

#### **Preliminary View 4—Chapter 2 (following paragraph 2.16)**

The IPSASB's Preliminary View is that fair value guidance should be aligned with IFRS 13, taking into account public sector financial reporting needs and the special characteristics of the public sector. The IPSASB considers [Appendix A: Fair Value—Application Guidance](#), to be complete.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons, stating clearly what you consider needs to be changed.

#### **Preliminary View 5—Chapter 2 (following paragraph 2.28)**

The IPSASB's Preliminary View is that fulfilment value guidance should be based on the concepts developed in the Conceptual Framework, expanded for application in IPSAS. The IPSASB considers [Appendix B: Fulfilment Value—Application Guidance](#), to be complete.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons, stating clearly what you consider needs to be changed.

#### **Preliminary View 6—Chapter 2 (following paragraph 2.28)**

The IPSASB's Preliminary View is that replacement cost guidance should be based on the concepts developed in the Conceptual Framework, expanded for application in IPSAS. The IPSASB considers [Appendix D: Replacement Cost—Application Guidance](#), to be complete.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons, stating clearly what you consider needs to be changed.

#### **Preliminary View 7—Chapter 3 (following paragraph 3.28)**

The IPSASB's Preliminary View is that all borrowing costs should be expensed rather than capitalized, with no exception for borrowing costs that are directly attributable to the acquisition, construction, or production of a qualifying asset.

Do you agree with the IPSASB's Preliminary View?

If not, please state which option you support and provide your reasons for supporting that option.

#### **Preliminary View 8—Chapter 3 (following paragraph 3.36)**

The IPSASB's Preliminary View is that transaction costs in the public sector should be defined as follows:

**Transaction costs** are incremental costs that are directly attributable to the acquisition, issue or disposal of an asset or liability and would not have been incurred if the entity had not acquired, issued or disposed of the asset or liability.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons, and provide an alternative definition for the IPSASB to consider.

**Preliminary View 9—Chapter 3 (following paragraph 3.42)**

The IPSASB's Preliminary View is that transaction costs should be addressed in the IPSAS, *Measurement*, standard for all IPSAS.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons and state how you would address the treatment of transaction costs in IPSAS, together with your reasons for supporting that treatment.

**Preliminary View 10—Chapter 3 (following paragraph 3.54)**

The IPSASB's Preliminary View is that transaction costs incurred when entering a transaction should be:

- Excluded in the valuation of liabilities measured at fulfillment value;
- Excluded from the valuation of assets and liabilities measured at fair value; and
- Included in the valuation of assets measured at historical cost and replacement cost.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons and state how you would treat transaction costs in the valuation of assets and liabilities, giving your rationale for your proposed treatment.

**Preliminary View 11—Chapter 3 (following paragraph 3.54)**

The IPSASB's Preliminary View is that transaction costs incurred when exiting a transaction should be:

- Included in the valuation of liabilities measured at fulfillment value;
- Excluded from the valuation of assets and liabilities measured at fair value; and
- Excluded in the valuation of assets measured at historical cost and replacement cost.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons and state how you would treat transaction costs in the valuation of assets and liabilities, giving your rationale for your proposed treatment.

**Specific Matter for Comment 1—Chapter 2 (following paragraph 2.29)**

Definitions relating to measurement have been consolidated in the core text of the Illustrative ED.

Do you agree that the list of definitions is exhaustive?

If not, please provide a listing of any other definitions that you consider should be included in the list and the reasons for your proposals.

**Specific Matter for Comment 2—Chapter 3 (following paragraph 3.5)**

Guidance in International Valuation Standards (IVS) and Government Financial Statistics (GFS) has been considered as part of the Measurement project with the aim of reducing differences where possible;

apparent similarities between IPSAS, IVS and GFS have been noted. Do you have any views on whether the IPSASB's conclusions on the apparent similarities are correct?

Do you agree that, in developing an Exposure Draft, the IPSASB should consider whether the concepts of Equitable Value and Synergistic Value should be reviewed for relevance to measuring public sector assets (see [Addendum B](#))?

**Specific Matter for Comment 3—Chapter 4 (following paragraph 4.21)**

Do you agree that the measurement flow charts ([Diagrams 4.1 and 4.2](#)) provide a helpful starting point for the IPSASB to review measurement requirements in existing IPSAS, and to develop new IPSAS, acknowledging that other matters need to be considered, including:

- The Conceptual Framework Measurement Objective;
- Reducing unnecessary differences with GFS;
- Reducing unnecessary differences with IFRS Standards; and
- Improving consistency across IPSAS.

If you do not agree, should the IPSASB consider other factors when reviewing measurement requirements in existing IPSAS and developing new IPSAS? If so, what other factors? Please provide your reasons.

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## Project Overview

### Why is this Project Being Undertaken?

1. The IPSASB completed *The Conceptual Framework for General Purpose Financial Reporting by Public Sector Entities* (the Conceptual Framework) in 2014. The Conceptual Framework establishes the concepts that underpin financial reporting, which the IPSASB applies in developing IPSAS.<sup>1</sup>
2. After completing the Conceptual Framework, the IPSASB recognized a need to address measurement requirements in IPSAS. In their responses to the IPSASB's 2014 Strategy and Work Plan consultation, constituents supported a public sector Measurement project.
3. The Measurement project began in 2017, with the rationale that measurement requirements in IPSAS should be amended to better align them with the Conceptual Framework's measurement concepts. The project's objectives are to:
  - (a) Provide more detailed guidance on the implementation of commonly used measurement bases, and the circumstances under which these measurement bases will be used;
  - (b) Address transaction costs and borrowing costs; and
  - (c) Where necessary, issue amended IPSAS with revised requirements for measurement at initial recognition, subsequent measurement, and measurement-related disclosure.

### What is the Scope of this Project?

4. In order to achieve the project's objectives, the IPSASB concluded that the project should focus primarily on developing guidance that is widely applicable and can be broadly applied throughout the IPSAS suite of standards. The IPSASB's goal was to focus on generic principles rather than on specifics of particular transactions or standards. While some of the guidance may incorporate guidance from International Financial Reporting Standards (IFRS® Standards) and apply it to transactions which are the same in the public and private sectors, the IPSASB concluded there are financial reporting needs unique to the public sector that required specific consideration. Therefore, guidance for the Measurement project would be developed primarily using existing guidance in IPSAS, while aligning with IFRS Standards where applicable, and taking into account guidance developed for International Valuation Standards<sup>2</sup> (IVS) and Government Finance Statistics<sup>3</sup> (GFS).
5. The IPSASB determined that the following areas are outside of the scope of the project:
  - Impairment – the IPSASB agreed this project would develop broad guidance that could be applied across all IPSAS. Impairment guidance is specific to certain circumstances and robust

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<sup>1</sup> The Conceptual Framework does not establish authoritative requirements for financial reporting by public sector entities that adopt IPSAS, nor does it override the requirements of IPSAS or RPGs.

<sup>2</sup> The International Valuation Standards Council is an independent, not-for-profit, private sector standards organization incorporated in the United States and with its operational headquarters in London, UK. IVSC develops international technical and ethical standards for valuations on which investors and others rely.

<sup>3</sup> The Government Finance Statistics Manual 2014 (GFSM 2014)—describes a specialized macroeconomic statistical framework—the government finance statistics (GFS) framework—designed to support fiscal analysis. The manual provides the economic and statistical reporting principles to be used in compiling the statistics; describes guidelines for presenting fiscal statistics within an analytic framework that includes appropriate balancing items; and is harmonized with other macroeconomic statistical guidelines.



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guidance currently exists in IPSAS 21, *Impairment of Non-Cash-Generating Assets*, and IPSAS 26, *Impairment of Cash-Generating Assets*; and

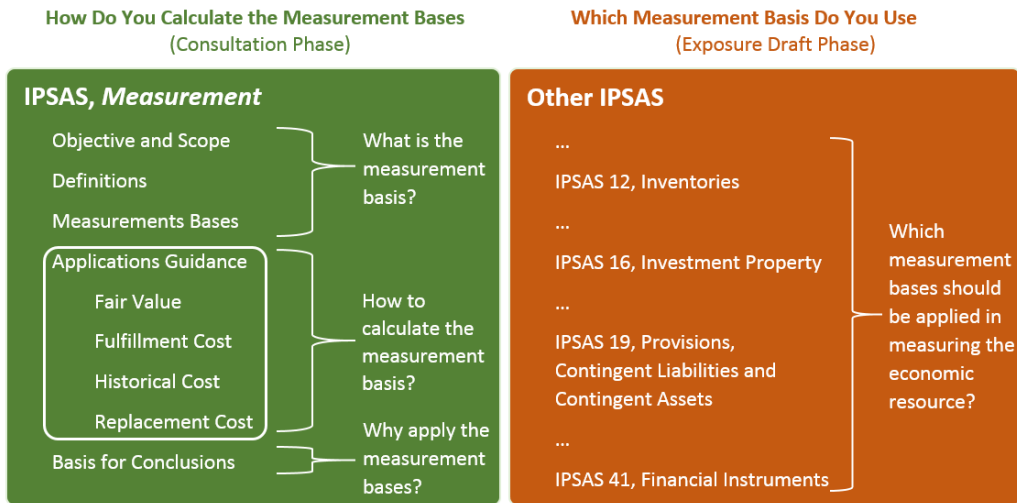
- Disclosures – the IPSASB agreed disclosures were specific to each transaction type and should be located within the applicable IPSAS.

6. The IPSASB further concluded that the Measurement project should inform discussions around any measurement proposals in the Heritage and Infrastructure projects. Equally, those discussions and any feedback from constituents might play a role in how the Measurement project progresses and the direction that it takes.

**What are the Outputs of this Project?**

7. The IPSASB intends to produce a standard - IPSAS, *Measurement* - that identifies the most commonly used measurement bases for measuring assets and liabilities for public sector entities applying IPSAS. The standard would provide definitions and explanatory text for those measurement bases, i.e., it would answer the “what?” question for each measurement basis. The appendices to IPSAS, *Measurement*, would have application guidance on how to calculate those measurement bases. The Basis for Conclusions would explain why the IPSASB decided particular issues in the way that they did, as they developed IPSAS, *Measurement*.

**Diagram 1: Relationship between IPSAS, Measurement, and Other IPSASs**



8. Other IPSAS would continue to address the choice of a measurement basis, i.e., they would address the “which measurement basis” question. For example, IPSAS 17, *Property, Plant and Equipment*, provides requirements for which measurement bases to use when accounting for property, plant and equipment, while IPSAS 41, *Financial Instruments*, identifies the appropriate measurement bases when measuring financial instruments.

**How will this Project be Developed?**

9. Below, Diagram 2 illustrates the process the IPSASB intends to follow to develop IPSAS, *Measurement*. The IPSASB is presently in the Consultation Paper Phase, represented by the orange arrow on the left.

Diagram 2: The Process from Consultation to Approved IPSAS, Measurement



*Consultation Paper Phase*

10. In the first phase of this project, the IPSASB has outlined its Preliminary Views on measurement in the public sector. This Consultation Paper (CP) includes an Illustrative Exposure Draft (ED).

Diagram 2a: The Process from Consultation to Approved IPSAS, Measurement (Consultation Paper Phase)



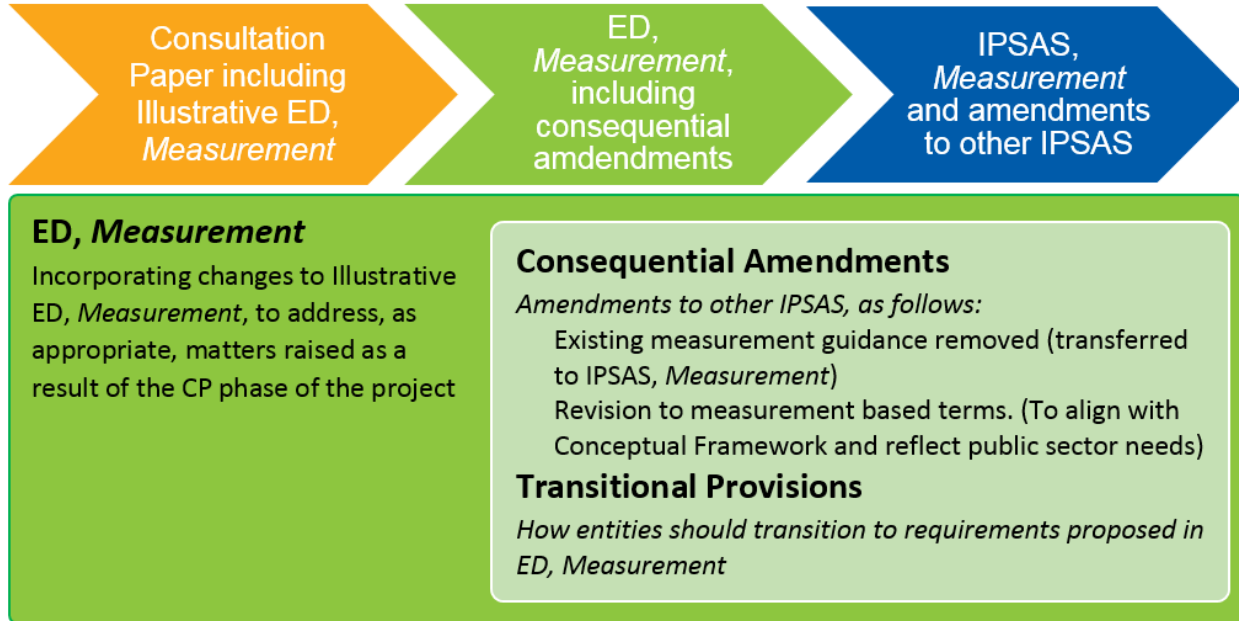
|  |   |
|--|---|
| <p><b>Consultation Paper</b></p> <p><i>What measurement bases?</i></p> <ul style="list-style-type: none"> <li>Conceptual Framework context</li> <li>Sources of proposed Application Guidance</li> </ul> <p><i>How to implement bases</i></p> <ul style="list-style-type: none"> <li>Comparison with IVS and GFS</li> <li>Borrowing costs</li> <li>Transaction costs</li> </ul> <p><i>Which bases to apply</i></p> <ul style="list-style-type: none"> <li>Applying the measurement principles in IPSAS</li> </ul> | <p><b>Illustrative ED, Measurement</b></p> <p><b>What</b>—Definitions of measurement bases</p> <p><b>How</b>—Application guidance</p> <p><b>Why</b>—Basis for conclusions</p> |
|--|---|

11. The IPSASB is pioneering the inclusion of an illustrative exposure draft in order to improve how it consults with its constituents. This approach provides both:
- A concepts-based discussion, in the **Consultation Paper**, which identifies areas where the IPSASB has reached Preliminary Views; and
  - An **Illustrative Exposure Draft in an addendum to the Consultation Paper**, which illustrates what the IPSASB thinks the final product could look like, given its Preliminary Views. This provides constituents with a clearer view of the IPSASB's direction of travel, by showing how the ideas in the CP could be reflected in a draft IPSAS.
12. The Illustrative ED, *Measurement*, defines measurement bases, and includes generic application guidance about how those measurement bases should be applied.
13. The IPSASB is asking for constituents' views on the Consultation Paper, including the Illustrative ED.

*Exposure Draft Phase*

14. After the IPSASB reviews the comments received on the CP, including the Illustrative ED the next step will be to develop and approve an ED, *Measurement*, that includes proposed consequential amendments to other IPSAS. The Exposure Draft Phase is represented by the middle, green arrow.

**Diagram 2b: The Process from Consultation to Approved IPSAS, Measurement (Exposure Draft Phase)**

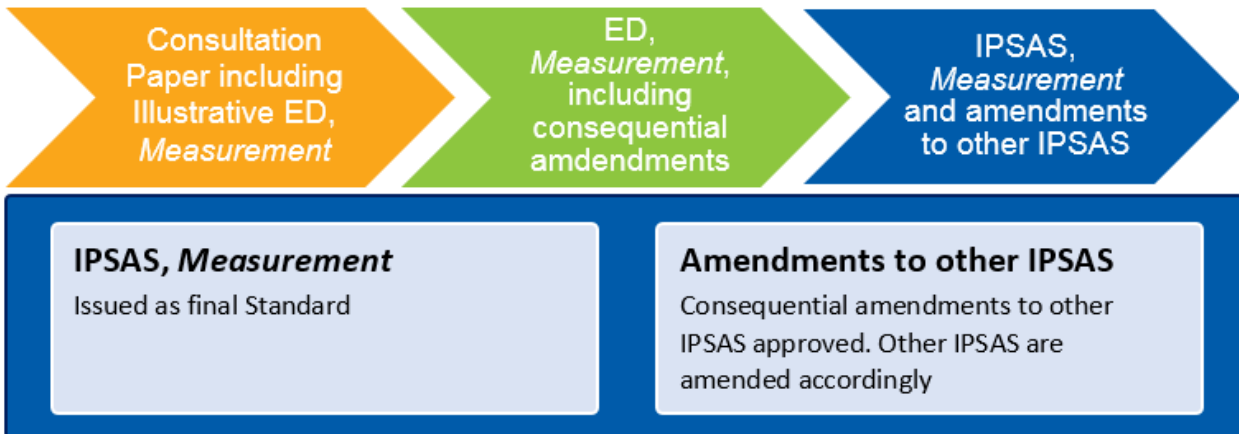


15. ED, *Measurement*, including consequential amendments—will then be published. The IPSASB will seek comments from constituents on this ED, prior to developing a final pronouncement.

*Final Pronouncement Phase*

16. The IPSASB will review the responses received from constituents ED, *Measurement*, and develop IPSAS, *Measurement*, including the amendments to other standards, for issuance as a final standard. The blue arrow on the right in Diagram 2c represents the final step in this process.

**Diagram 2c: The Process from Consultation to Approved IPSAS, Measurement (Final Pronouncements Phase)**



**Limited-Scope Review of the Conceptual Framework**

17. The IPSASB plans to undertake a Limited-Scope Review of the Conceptual Framework as a separate project.
18. This Conceptual Framework Limited-Scope Review project will consider recent developments in the IASB's Conceptual Framework following the approval of the IPSASB's Conceptual Framework and modifications warranted by application of the IPSASB's Conceptual Framework in practice. The project may consider a number of modifications related to measurement identified during this project, including, for example, differentiating between market value and fair value.
19. The IPSASB plans to begin its Conceptual Framework Limited-Scope Review in late 2019 or 2020.

## Chapter 1: What are the Principles in the Conceptual Framework?

- 1.1. In order to develop guidance on the implementation of commonly used measurement bases, the underlying principles associated with measurement in the public sector must be considered. These measurement principles are included in Chapter 7 of the Conceptual Framework, which addresses the measurement of assets and liabilities in financial statements. Chapter 7 establishes the objective of measurement, when it comes to the selection of measurement bases.

### Selection of Measurement Bases

- 1.2. The objective of measurement is:  
To select those measurement bases that most fairly reflect the cost of services, operational capacity and financial capacity of the entity in a manner that is useful in holding the entity to account, and for decision-making purposes.
- 1.3. The Conceptual Framework identifies the measurement bases from which a selection should be made. Those are:

| Measurement Bases for Assets | Measurement Bases for Liabilities |
|------------------------------|-----------------------------------|
| Historical cost              | Historical cost                   |
| Market value                 | Cost of fulfillment               |
| Replacement cost             | Market value                      |
| Net selling price            | Cost of release                   |
| Value in use                 | Assumption price                  |

- 1.4. The Conceptual Framework provides guidance on selection, by discussing each measurement basis in terms of:
- The information it provides about the cost of services, operating capacity and financial capacity (i.e., achievement of the objective of measurement); and
  - The extent to which the information provided is likely to meet the qualitative characteristics taking into account the constraints.

### Factors to Consider when Selecting a Measurement Basis

- 1.5. The Conceptual Framework identifies factors for consideration when selecting a measurement basis. The factors identified include:
- The nature of a measurement basis, and specifically whether it:
    - Provides an entry or exit value<sup>4</sup>;
    - Is observable in a market (or not)<sup>5</sup>; and

<sup>4</sup> The Conceptual Framework for General Purpose Financial Reporting by Public Sector Entities, paragraphs 7.8 and 7.9.

<sup>5</sup> The Conceptual Framework for General Purpose Financial Reporting by Public Sector Entities, paragraph 7.10.

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- (iii) Is entity-specific (or not)<sup>6</sup>.
- (b) Factors related to the nature and circumstances of the asset/liability include, for example, whether:
  - (i) Assets were acquired (or liabilities incurred) in a non-exchange transaction.
  - (ii) Assets are held to provide services (non-cash-generating assets), to generate a commercial return (cash-generating assets), and/or for trading or sale.
  - (iii) Assets are specialized, where they have been created or adapted for a particular purpose. Their specialization may relate to their design, location, specification, size or any combination of these factors. These factors are specific to the service being provided, and as a consequence there may be no commercial use against which the value of the asset can be benchmarked.
  - (iv) There are restrictions on what the entity is able to do with the asset/how it can settle the liability.

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<sup>6</sup> The Conceptual Framework for General Purpose Financial Reporting by Public Sector Entities, paragraph 7.11.

## Chapter 2: How has the Illustrative ED been developed?

- 2.1. The IPSASB reached a number of Preliminary Views as it advanced the project. In order to reflect these views, Illustrative [ED, Measurement](#), was developed to illustrate the potential final pronouncement, given the IPSASB's Preliminary Views. The idea is to provide constituents with a clearer view of the IPSASB's direction of travel, by reflecting the ideas in the CP as an illustrative ED. By being more transparent about where the IPSASB's discussions, and the ideas in the CP, are leading, the IPSASB hopes to get better feedback on those ideas.

### Bases of Measurement

- 2.2. Prior to the development of the IPSASB's Conceptual Framework, IPSAS were developed by starting from measurement bases established for private sector financial reporting, adapted for the public sector during the IPSASB's standard setting process. The IPSASB took into account public sector financial reporting needs and the special characteristics of the public sector.
- 2.3. In 2014, the IPSASB published the Conceptual Framework which identified measurement bases that are applicable in the public sector (see paragraph 1.3). The IPSASB developed guiding principles for the eight measurement bases to support the application of these bases in practice.
- 2.4. As part of the Measurement project, the IPSASB determined it was necessary to identify the measurement bases in the Conceptual Framework that are commonly used in IPSAS in order to provide more detailed guidance on the application of these bases. This further provided the IPSASB with an opportunity to better align the financial statement measurement requirements in IPSAS with the measurement concepts in the Conceptual Framework.
- 2.5. In order to determine which measurement bases require detailed application guidance, the IPSASB reviewed IPSAS to ascertain which measurement bases were applied in the standards. In deciding whether it needed to develop generic application guidance the IPSASB considered how widely a particular measurement basis was used. Figure 2.1 summarizes the IPSASB's findings.

Figure 2.1 – Measurement Bases used in existing IPSAS

| Measurement Basis <sup>7</sup>                              | Identified in Conceptual Framework | Basis is Applied in IPSAS | Standard where Measurement Basis is applied |
|---|------------------------------------|---------------------------|---|
| <b>Commonly applied measurement bases in IPSAS</b>          |                                    |                           |   |
| Fair value  | No                                 | Yes <sup>8</sup>          | IPSAS 16, IPSAS 17, IPSAS 41                |
| Fulfillment value <sup>9</sup>                              | Yes                                | Yes <sup>10</sup>         | IPSAS 19                                    |
| Historical cost <sup>11</sup>                               | Yes                                | Yes                       | IPSAS 16, IPSAS 17                          |
| Replacement cost  | Yes                                | Yes <sup>12</sup>         | IPSAS 17, IPSAS 33                          |
| <b>Infrequently applied measurement bases in IPSAS</b>      |                                    |                           |   |
| Market value<br>(see paragraph 2.19 for further discussion) | Yes                                | No                        | Not applied                                 |
| Net realizable value <sup>13</sup>                          | Yes                                | Yes                       | IPSAS 12                                    |
| Value in use  | Yes                                | Yes <sup>14</sup>         | IPSAS 21, IPSAS 26                          |
| Cost of release   | Yes                                | No                        | Not applied                                 |
| Assumption price  | Yes                                | No                        | Not applied                                 |

- 2.6. The Illustrative ED provides definitions and explanatory text for the commonly applied measurement bases, i.e., it answers the “what” question for each measurement basis that is commonly applied in IPSAS. The Illustrative ED includes appendices with application guidance on how to apply those measurement bases.

<sup>7</sup> The following measurement bases were identified throughout IPSAS. Measurement techniques such as deemed cost, amortized cost and equity method are methods to apply measurement bases and are not included in the table.

<sup>8</sup> Fair value is widely applied in IPSAS when measuring assets or liabilities at a current value. However, the definition of fair value in IPSAS is not the same as IFRS 13.

<sup>9</sup> The IPSASB agreed to update the term “cost of fulfillment” currently applied in the Conceptual Framework in order to align with the terminology applied in the IASB’s Conceptual Framework. The IPSASB concluded the concepts were consistent between both terms. The IPSASB made the decision to use the align the terminology with the IASB when the meaning was consistent.

<sup>10</sup> Fulfillment value is widely used when measuring the amount required to settle a liability. Specifically the concepts are applied in IPSAS 19, *Provisions, Contingent Liabilities and Contingent Assets*.

<sup>11</sup> Where reliable cost information is not available (e.g., on first time adoption or in respect of donated assets), preparers may elect to measure assets using a deemed cost as a surrogate for the historical cost. Deemed cost may be obtained using an appropriate alternative basis (e.g., acquisition cost or depreciated cost).

<sup>12</sup> Replacement cost, in paragraph 48 of IPSAS 17, is used to estimate fair value when there is not market-based evidence of fair value.

<sup>13</sup> Calculating net selling price is consistent with net realizable value which is applied in IPSAS 12, *Inventories*. As this measurement basis is currently specific to inventories, the development of generic guidance was not considered necessary.

<sup>14</sup> Value in use is applied in IPSAS specifically in measuring impairment of cash generating and non-cash generating assets. Specific guidance currently exists in IPSAS 21, *Impairment of Non-Cash-Generating Assets*, and IPSAS 26, *Impairment of Cash-Generating Assets*. As the IPSASB concluded the measurement project should include generic measurement guidance, as opposed to guidance that applies to specific transactions, no additional value in use measurement guidance was considered necessary as part of the Measurement project.



**Preliminary View 1—Chapter 2**

The IPSASB’s Preliminary View fair value, fulfillment value, historical cost and replacement cost require additional application guidance.

Do you agree with the IPSASB’s Preliminary View?

If not, please provide your reasons, stating clearly which measurement bases should be excluded from, or added to, the list, and why.

**Preliminary View 2—Chapter 2.2**

The IPSASB’s Preliminary View is that the application guidance for the most commonly used measurement bases should be generic in nature in order to be applied across the IPSAS suite of standards. Transaction specific measurement guidance will be included in the individual standards providing accounting requirements and guidance for assets and liabilities.

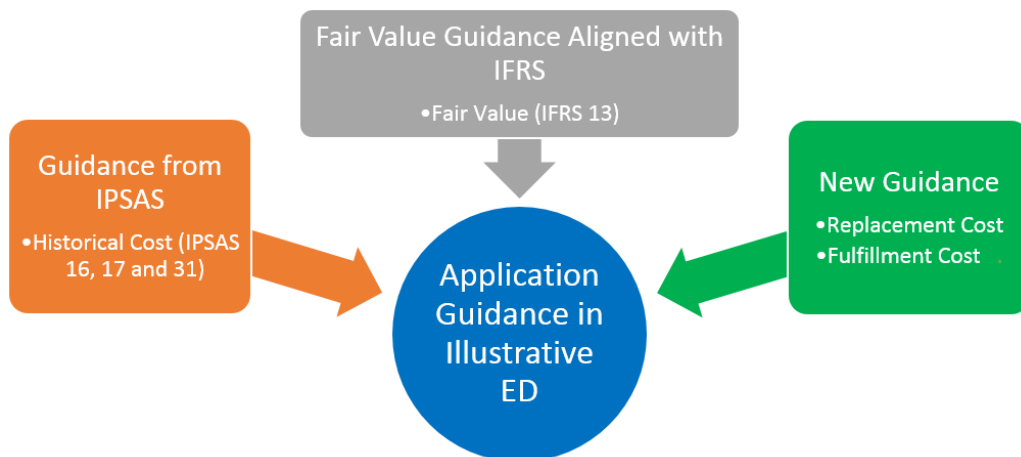
Do you agree with the IPSASB’s Preliminary View?

If not, please provide your reasons, and state what guidance should be included, and why.

**Sources of Guidance**

2.7. The guidance in the Illustrative ED for the measurement bases identified as commonly applied measurement bases in IPSAS in Figure 2.1 was derived from a number of sources. Where a measurement basis was identified in the Conceptual Framework, the IPSASB considered whether guidance existed in IPSAS for that measurement basis. Where guidance existed in IPSAS, that guidance was carried over to the Illustrative ED. However, where there was limited accompanying guidance in IPSAS, principles were developed by expanding on existing measurement concepts in the Conceptual Framework. In the case of fair value, the measurement basis was not identified in the Conceptual Framework; as such the guidance for the Illustrative ED was developed based on IFRS 13, *Fair Value Measurement*.

**Figure 2.2 – Sources of Guidance**



2.8. The guidance in the Illustrative ED also takes into account the IPSASB’s policies on alignment with IFRS Standards and reduction of differences between IPSAS and Government Finance Statistics (GFS) reporting guidelines.

*Guidance Existing in IPSAS – Historical Cost*

- 2.9. One of the core objectives of the Measurement project is to consolidate guidance on measurement into one IPSAS. Where guidance is available in existing IPSAS, as is the case for historical cost, existing text that is generic in nature was carried over directly into the Illustrative ED.<sup>15</sup>
- 2.10. As a significant portion of the historical cost guidance in the Illustrative ED is carried forward from existing IPSAS, removing that guidance from the existing standards will be assessed as part of the Exposure Draft Phase of the project and highlighted as consequential amendments.

**Preliminary View 3—Chapter 2**

The IPSASB's Preliminary View is guidance on historical cost should be derived from existing text in IPSAS. The IPSASB has incorporated all existing text and considers [Appendix C: Historical Cost—Application Guidance for Assets](#), to be complete.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons, stating clearly what you consider needs to be changed.

*IFRS 13 – Fair Value*

- 2.11. One catalyst for the Measurement project was the introduction of IFRS 13, *Fair Value Measurement*, by the IASB in 2011. Fair value is not identified in the Conceptual Framework as a measurement basis. However, fair value is a specified measurement basis in many IPSAS, and the IPSASB concluded it was appropriate to revisit existing guidance in IPSAS from the perspective of IFRS 13 and determine whether the fair value measurement basis is relevant to the public sector (see paragraphs 2.19 – 2.20 for additional information on market value and fair value).
- 2.12. Fair value measurement requirements are most commonly referred to in IPSAS that are aligned with IFRS Standards. The IPSASB agreed that, for consistency and comparability, the term 'fair value' as defined in IFRS 13 should only be used in IPSAS where references to fair value in individual standards are intended to mean the same as the IFRS 13 definition.
- 2.13. The IPSASB concluded it was appropriate to formalize fair value as a public sector measurement basis and include guidance in the Illustrative ED to support constituents in applying the measurement requirements. Aligning public sector fair value guidance with the principles developed in IFRS 13 was considered the most appropriate approach to take.
- 2.14. In reaching that decision, the IPSASB concluded that fair value as defined in IFRS 13 is relevant to some assets and liabilities held by public sector entities because measuring the current exit value of an asset or a liability is consistent with the measurement objective that exists in a number of IPSAS. However, the IPSASB recognizes that all IPSAS will need to be reviewed to determine whether references to fair value in those standards will need to be changed to another measurement basis that better reflects the unique characteristics of transactions in the public sector.
- 2.15. The fair value guidance incorporated in the Illustrative ED is therefore based on IFRS 13. The IPSASB took into account public sector financial reporting needs and the special characteristics of

<sup>15</sup> The IPSASB consolidated guidance available in the Conceptual Framework, IPSAS 16, *Investment Property*, IPSAS 17, *Property, Plant, and Equipment*, in developing measurement guidance for historical cost.

the public sector and adapted the private sector financial reporting requirements in IFRS 13 for the public sector (see [Addendum C](#)).

- 2.16. To maintain consistency within the Illustrative ED, only generic fair value guidance was included in [Addendum A](#) to the Illustrative ED. Fair value guidance in IFRS 13 specific to a particular transaction type, such as financial instruments, was excluded from the Illustrative ED as the IPSASB proposes to incorporate guidance specific to a particular IPSAS within that IPSAS. See [Addendum C](#) to this Consultation Paper which shows how the IPSASB proposes each paragraph in IFRS 13 be included in IPSAS.

#### **Preliminary View 4—Chapter 2.2**

The IPSASB's Preliminary View is fair value guidance should be aligned with IFRS 13, taking into account public sector financial reporting needs and the special characteristics of the public sector. The IPSASB considers [Appendix A: Fair Value—Application Guidance](#), to be complete.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons, stating clearly what you consider needs to be changed.

- 2.17. Incorporating fair value as defined in IFRS 13 into IPSAS presents a number of challenges. The IPSASB recognizes it must address these as part of its Conceptual Framework Limited-Scope Review project. One of these challenges is further developing the relationship between replacement cost as defined in the IPSASB's Conceptual Framework (as a measurement basis), and replacement cost as defined as a measurement technique to determine fair value (see paragraph A39 of the Illustrative ED).
- 2.18. Additional issues are identified below.

#### **Market Value Compared to Fair Value Measurement**

- 2.19. Aligning the IPSAS fair value measurement guidance with IFRS 13 would create a significant overlap in the definitions of market value and fair value. This could cause unnecessary confusion.
- 2.20. Market value is defined in the Conceptual Framework as *the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction*.<sup>16</sup> This definition is aligned with the IASB's pre-IFRS 13 definition of fair value, which is also applied in IPSAS 29, *Financial Instruments: Recognition and Measurement*, and is either an entry value or an exit value.<sup>17</sup>
- 2.21. At present, the IFRS 13 definition of fair value is explicitly exit-based, while market value continues to be a neutral definition – either entry or exit.
- 2.22. Given the similarities in the definitions of market value and pre-IFRS 13 fair value, as part of the consideration of whether the fair value measurement basis is relevant in the public sector, the IPSASB plans to consider how to reduce the overlap in the two definitions, and more specifically, clarify what differentiates the two measurement bases.

<sup>16</sup> This definition combines the definition of market value for assets and the market value for liabilities from Chapter 7 of the Conceptual framework for simplicity purposes.

<sup>17</sup> See BC12 – BC16 for additional details.

2.23. The IPSASB is of the view that a public sector entity requires both entry and exit values when measuring an asset or liability at its current value. For example:

- (a) Depending on whether an entity is holding an asset for operational capacity or financial capacity impacts whether the measurement objective is to present the current amount required to replace the asset – an entry value – or the current amount received from selling the asset – an exit value.
- (b) When calculating the fair value of a non-financial asset, the highest and best use of that asset must be taken into account. However, in the public sector there may be circumstances where it might not be appropriate to measure an asset at “highest and best use”. For example, when determining the current value of a public school in a city center, the highest and best use of the school may be to redevelop the property. A valuation based on highest and best use may not appropriately reflect the service potential relevant to the public sector entity.

As such, the IPSASB continues to support the rationale for market value. However, the IPSASB also recognizes the ability to differentiate between market value and fair value is of paramount importance.

2.24. The IPSASB proposes to address this overlap as part of the Conceptual Framework Limited-Scope Review project. The IPSASB will consider a number of options, potentially including:

- (a) Renaming “market value”;
- (b) Amending the definition of “market value” in order to focus on the entry aspects of the measure; or
- (c) Removing “market value” as a public sector measurement basis.

#### Value in Use

2.25. Although paragraph 5 of the Project Overview notes that impairment is outside the scope of the IPSASB’s Measurement project, it should be noted that fair value, net selling price and value in use of a cash generating asset all reflect a present value calculation (implicit or explicit) of estimated net future cash flows expected from an asset:

- (a) Fair value reflects the market’s expectation of the present value of the future cash flows to be derived from the asset;
- (b) Net selling price reflects the entity’s expectation of the present value of the future cash flows to be derived from the asset, less the direct incremental costs to dispose of the asset; and
- (c) Value in use of a cash-generating asset is the entity’s estimate of the present value of the future cash flows to be derived from continuing use and disposal of the asset.<sup>18</sup>

The application of these bases requires consideration of the time value of money and the risks that the amount and timing of the actual cash flows to be received from an asset might differ from

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<sup>18</sup> In the public sector, most assets are held with the primary objective of contributing to the provision of services, rather than to the generation of a commercial return: such assets are referred to as “non-cash-generating assets”. Because value in use is usually derived from expected cash flows, its operationalization in such a context can be difficult. IPSAS 21 indicates it is inappropriate to calculate value in use on the basis of expected cash flows, because such a measurement would not be faithfully representative of the value in use of such an asset to the entity. Therefore, it would be necessary to use replacement cost as a surrogate for financial reporting purposes.

estimates. Fair value and net selling price may differ from value in use because the market may not use the same assumptions as an individual entity.

- 2.26. The term value in use is not recognized as a basis of value in the IVS 2017. Valuators therefore do not regard value in use as an alternative valuation basis for fixed assets and the concept is not used by valuers when preparing valuations.

*Expanded Principles – Fulfilment Value and Replacement Cost*

- 2.27. The fulfilment value and replacement cost measurement bases are outlined in the Conceptual Framework. These measurement bases are used in a number of IPSAS (see [Figure 2.1](#) for details). However, IPSAS provide limited guidance on applying these bases.
- 2.28. In developing guidance on applying the fulfilment value and replacement cost measurement bases for the Illustrative ED, the IPSASB expanded on the principles in its Conceptual Framework. This was done by reviewing, and incorporating as appropriate, guidance developed by comparable standards setters and the practical experience gained from IPSASB constituents and those in the valuation community.

**Preliminary View 5—Chapter 2**

The IPSASB's Preliminary View is fulfilment value guidance should be based on the concepts developed in the Conceptual Framework, expanded for application in IPSAS. The IPSASB considers [Appendix B—Fulfilment Value—Application Guidance](#), to be complete.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons, stating clearly what you consider needs to be changed.

**Preliminary View 6—Chapter 2**

The IPSASB's Preliminary View is replacement cost guidance should be based on the concepts developed in the Conceptual Framework, expanded based on its application in IPSAS. The IPSASB considers [Appendix D: Replacement Cost—Application Guidance](#), to be complete.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons, stating clearly what you consider needs to be changed.

*Definitions*

- 2.29. The definitions applicable to all measurement bases are in the core Illustrative ED, with application guidance included in the appendices.

**Specific Matter for Comment 1—Chapter 2**

Definitions relating to measurement have been consolidated in the core text of the Illustrative ED.

Do you agree that the list of definitions is exhaustive?

If not, please provide a listing of any other definitions that you consider should be included in the list and the reasons for your proposals.

### Chapter 3: How the Illustrative ED will be Developed Further

- 3.1. This chapter discusses three areas relating to public sector measurement on which the IPSASB is specifically seeking input from its constituents:
- (a) Using measurement bases in practice and the relationship of IPSAS with other, non-accounting guidance – in IVS issued by the International Valuation Standards Council (IVSC), and in the GFS Manual;
  - (b) The accounting treatment of borrowing costs; and
  - (c) The accounting treatment of transaction costs.

#### Using the Bases in Practice: Relationship with IVS and GFS

- 3.2. In developing the Illustrative ED, the IPSASB reviewed definitions relating to measurement in existing IPSAS and in IFRS 13 and compared these with equivalent definitions or descriptions in IVS and GFS. In particular, the IPSASB considered whether there were concepts in IVS and GFS that may need to be incorporated into IPSAS.
- 3.3. The comparison table, included in [Addendum B](#), suggests that there is a broad equivalence between IPSAS, IVS and GFS in the discussion of Fair Value and Replacement Cost, which are two measurement bases for which Application Guidance has been drafted in the Illustrative ED. There also appears to be some equivalence between the Net Selling Price measurement basis and an IVS Liquidation Value, and between the IPSAS concept of value in use for a cash generating asset and an IVS Investment Value. The IPSASB will explore these further during the next phase of the measurement project. The IVS valuation approaches of Equitable Value<sup>19</sup> and Synergistic Value<sup>20</sup> may have some relevance to the public sector and will also be examined in the next phase of the project.

#### Using the Bases in Practice: Use of Experts

- 3.4. In determining the value of an asset, an entity may need to obtain the professional input of experts with an in-depth understanding of the type of asset for which the valuation is required. These experts are unlikely to be accountants: these may include, but not be limited to, clinicians (in respect of medical equipment); engineers (for infrastructure assets); and surveyors (for land and built property).
- 3.5. It is important that the preparers of financial statements and the valuers have a clear understanding of each other's requirements and for the preparers of financial statements to have a basic understanding of the approach the relevant expert might adopt in providing a valuation. In the case of surveyors, for example, valuations of property will be carried out in accordance with IVS (or their national equivalents); it is important that the preparers of financial statements have sufficient understanding of the principles contained in those standards in order to be able to:
- (a) Advise the valuator on the scope and objectives of any valuations for financial reporting purposes, which will include discussing the characteristics of the asset;

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<sup>19</sup> IVS 2017 defines equitable value as the estimated price for the transfer of an asset or liability between identified knowledgeable and willing parties that reflects the respective interests of those parties.

<sup>20</sup> IVS 2017 defines synergistic value as the result of a combination of two or more assets or interests where the combined value is more than the sum of the separate values.

- (b) Discuss and understand the valuation report, including any information about componentization and the useful lives of components; and
- (c) Incorporate the valuations into the records underlying the financial statements (such as a fixed asset register and/or general ledger).

### Specific Matter for Comment 2—Chapter 3

Guidance in International Valuation Standards (IVS) and Government Financial Statistics (GFS) has been considered as part of the Measurement project with the aim of reducing differences where possible; apparent similarities between IPSAS, IVS and GFS have been noted. Do you have any views on whether the IPSASB's conclusions on the apparent similarities are correct?

Do you agree that, in developing an Exposure Draft, the IPSASB should consider whether the concepts of Equitable Value and Synergistic Value should be reviewed for relevance to measuring public sector assets (see [Addendum B](#))?

### Borrowing Costs

#### *Capitalization or Expensing of Borrowing Costs*

- 3.6. IPSAS 5, *Borrowing Costs*, defines borrowing costs as interest and other expenses incurred by an entity in connection with the borrowing of funds. The benchmark treatment in IPSAS 5 requires the immediate expensing of borrowing costs. However, IPSAS 5 permits, as an alternative treatment, the capitalization of borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset. A qualifying asset is an asset that necessarily takes a substantial period of time to get ready for its intended use or sale.
- 3.7. Borrowing costs may be attributable to the initial acquisition of the asset, but are not part of the asset's purchase price or, in the case of construction or production, the prices of material and labor. They are not a characteristic of the asset being valued. They are entity-specific costs, which depend on the entity's financing choices.
- 3.8. The question of how to account for borrowing costs also applies to subsequent measurement, when an entity revalues assets applying a cost-based estimate such as replacement cost. IPSAS application guidance does not address the issue of whether, and if so, how, borrowing costs should be incorporated into the calculation of a cost-based current value.
- 3.9. This section addresses these challenges and proposes a way forward in order to address the accounting for borrowing costs in practice.

#### *Public Sector Borrowing*

- 3.10. The IPSASB considers that there are significant differences between borrowing in the public and private sectors.
- 3.11. Borrowing in the public sector is often centralized and borrowing requirements are often determined for the economic entity as a whole. For example, a national government often borrows on behalf of all of its subsidiary entities, including government departments, hospitals, schools and entities responsible for construction of buildings and infrastructure. While centralized borrowing also occurs in the private sector, the public sector approach is different: borrowing may be for investing activities or, in a situation where governments may budget for a deficit, for financing or operating activities.



- 3.12. Furthermore, governments often borrow at a level to fund their aggregate activities, so that, borrowings are not attributable to a specific expenditure. Funding allocated to specific programs and entities may be derived from a variety of sources, and consequently it is often difficult to determine whether the acquisition/construction/production of an asset has been financed through external borrowing or from other sources (e.g., taxes, grants, etc.). Thus, there is often no meaningful way to attribute borrowing costs to qualifying assets.
- 3.13. However, there are situations where public sector entities borrow specifically to finance capital projects. For example, local governments such as city and district councils may finance their construction of infrastructure (roads, bridges, etc.) through specific external borrowing. In these situations public sector entities are able to attribute borrowing costs to a qualifying asset. Similarly an international development bank such as the World Bank or the European Investment Bank may finance part or all of the construction of a particular infrastructure project undertaken by a public sector entity.

*Options for Treatment of Borrowing Costs*

- 3.14. The IPSASB has identified four options for treatment of borrowing costs for a qualifying asset during the period between the start of acquisition/construction/production and active use, as shown in Table 1 below.

**Table 1: Treatment of Borrowing Costs: Options**

| <b>Borrowing costs—<i>acquisition, construction or production of qualifying asset:</i></b>                                 | <b>Option 1<br/>(IPSAS)</b> | <b>Option 2<br/>(IFRS)</b> | <b>Option 3<br/>(Alternative Option)</b> | <b>Option 4<br/>(GFS)</b> |
|--|-----------------------------|----------------------------|--|---------------------------|
| Directly attributable and specifically incurred <sup>21</sup>  | Expense or capitalize       | Must capitalize            | Expense or capitalize                    | Expense                   |
| Directly attributable but not specifically incurred  | Expense or capitalize       | Must capitalize            | Expense                                  | Expense                   |
| <b>Borrowing costs—<i>interest and other expenses incurred by an entity in connection with the borrowing of funds.</i></b> | Expense                     | Expense                    | Expense                                  | Expense                   |

- 3.15. Option 1 is the status quo, and would mean no change to IPSAS 5. Under this option an entity continues to have the choice as to whether to capitalize or expense borrowing costs that are directly attributable to a qualifying asset during its acquisition, construction or production. Direct attribution could involve, for example, a formula to estimate the fraction of borrowing that logically applies to asset construction activities, as opposed to other operations.
- 3.16. Option 2, which reflects the requirements in IAS 23, *Borrowing Costs*, would require capitalization of directly attributable borrowing costs to qualifying assets. It would remove the current benchmark treatment in IPSAS 5. The current requirements in IPSAS 5 in relation to borrowing costs that are eligible for capitalization and when capitalization commences and ceases would remain. If the

<sup>21</sup> IPSAS 5.21 indicates the borrowing costs that are directly attributable to the acquisition, construction, or production of a qualifying asset are those borrowing costs that would have been avoided if the outlays on the qualifying asset had not been made. When an entity borrows funds specifically for the purpose of obtaining a particular qualifying asset, the borrowing costs that directly relate to that qualifying asset can be readily identified.



IPSASB were to adopt option 2, this would remove one of the current differences between IPSAS and IFRS Standards, reducing unnecessary differences between IPSAS and IFRS Standards.

- 3.17. Option 3 would require that the accounting policy choice to capitalize borrowing costs be limited to those borrowing costs that are *both* directly attributable to, *and specifically incurred* for, acquisition, construction or production of a qualifying asset. Under this option there would continue to be an accounting policy choice, although the extent of that choice would be narrower than under Option 1.
- 3.18. Option 4 would require that all borrowing costs, without exception, be expensed and would align the requirements in IPSAS 5 with GFS. One of the IPSASB's stated objectives is to reduce unnecessary differences between IPSAS and GFS.

### *Discussion of the Four Options*

#### Objective of Measurement

- 3.19. The objective of measurement is to select those measurement bases that most fairly reflect the cost of services, operational capacity and financial capacity of the entity in a manner that is useful in holding the entity to account, and for decision-making purposes.<sup>22</sup>
- 3.20. Capitalizing borrowing costs implies that the costs of financing are part of the cost of the asset being acquired, constructed or produced. In many circumstances, expenditure on an asset under construction will be financed by borrowing. Financing has a cost. Since the cost of an asset should include all costs necessarily incurred to get the asset ready for its intended use, the cost of financing (borrowing costs) should also be included. Furthermore, capitalization of borrowing costs ensures that expenses are allocated to the reporting period to which they relate, i.e., expensed as the economic benefits and/or service potential of the qualifying asset is consumed. The capitalization accounting policy will, therefore, better support assessment of the cost of services.
- 3.21. Option 1-3's approach to capitalizing borrowing costs allows an entity to link costs to the asset for which borrowing was incurred. Some argue that this provides useful information for accountability and decision making. If the amount of interest that has been capitalized is disclosed in the notes to the financial statements, then users are still able to calculate the total interest costs for the period.
- 3.22. However, capitalization of borrowing costs increases the amount recognized as an asset. Yet there appears to be no relationship between an asset's future economic benefits and/or service potential and the extent of borrowing costs incurred. Therefore, capitalization of borrowing costs appears to incorrectly convey to users of the financial statements that assets financed through borrowing have more service potential or ability to generate economic benefits compared to similar assets held by an entity that does not use debt to finance its asset acquisitions. Capitalization may lead to users of the financial statements assessing an entity's operational capacity and financial capacity as higher than would be the case if borrowing costs are expensed. With respect to the cost of services, capitalization of borrowing costs defers costs to future periods.
- 3.23. If all borrowing costs are expensed then the interest cost item in the entity's statement of financial performance allows users to see a government's total borrowing cost, with no amount "hidden" in assets. Those users of the financial statements that consider total interest costs to be an important indicator of financial performance will likely prefer Option 4, because it provides them with useful information to hold the entity to account and for decision-making purposes.

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<sup>22</sup> Paragraph 7.2 of the Conceptual Framework.

## Public Sector Differences

- 3.24. The IPSASB has a policy to align with guidance developed by the IASB when the standards can also be applied in the public sector context. However, in circumstances where a public sector difference is identified, departure is considered necessary. The IPSASB is of the view departure from IFRS Standards is further justified in light of the public sector differences identified:
- (a) In the public sector, borrowing is often centralized and is determined for the economic entity as a whole. This creates challenges in allocating borrowing costs when they are not incurred directly by the entity constructing or developing the asset. Furthermore, the borrowing rate reflects the risks associated with the group entity and not those specific to the individual entity.
  - (b) As outlined in paragraph 3.11 above, debt funding is rarely specific to the construction or development of an individual asset. Borrowings are used to fund a government's activities, one of which is the construction of the asset. As the borrowing is not specific to the asset, funding for the asset comes from a variety of sources which include tax revenues, service fees, debt, etc. Allocating a portion of the borrowings to the asset can therefore be an arbitrary exercise.
- 3.25. While it may be feasible to allocate these borrowings to qualifying assets, the IPSASB is of the view that doing so is unlikely to provide relevant and representatively faithful information as allocation would be arbitrary. Any accounting system used to track directly attributable borrowing costs and their application to qualifying assets is likely to be complex and resource intensive. The IPSASB is of the view that the complexity would mean that the costs incurred in capitalizing borrowing costs would be considerable and likely to exceed the related benefits.
- 3.26. The IPSASB noted that requiring, or allowing, entities to capitalize borrowing costs impacts the carrying amount of the asset depending on how an entity decides to finance the purchase. Capitalizing borrowing costs increases the carrying amount of the asset beyond the cost to acquire or develop the asset.
- 3.27. The IPSASB considers that requiring or permitting public sector entities to capitalize borrowing costs does not support achievement of the qualitative characteristics. In particular, capitalizing borrowing costs appears likely to diminish the comparability of information in the financial statements. Given the extent to which judgment is needed for Options 1 to 3, the IPSASB does not consider that these three options would contribute significantly towards achievement of the objectives of financial reporting. Therefore, the IPSASB is of the view expensing borrowing costs (Option 4) will provide more useful information for users' assessments of entities' operational capacity, financial capacity and cost of services. Option 4 will also align borrowing cost measurement under IPSAS with GFS reporting guidelines.
- 3.28. Therefore, the IPSASB's Preliminary View is that all borrowing costs should be expensed. The IPSASB will determine the most appropriate method to incorporate this view into IPSAS after considering responses from constituents.

**Preliminary View 7—Chapter 3**

The IPSASB's Preliminary View is all borrowing costs should be expensed rather than capitalized, with no exception for borrowing costs that are directly attributable to the acquisition, construction, or production of a qualifying asset.

Do you agree with the IPSASB's Preliminary View?

If not, please state which option you support and provide your reasons for supporting that option.

**Transaction Costs**

- 3.29. This section addresses two common challenges public sector entities encounter when accounting for transaction costs:
- (a) Whether a particular cost meets the definition of a transaction cost; and
  - (b) Whether the transaction cost should be included or excluded in the carrying value of the financial statement item.
- 3.30. Since IPSAS do not provide an explicit conceptual basis for the different accounting treatments of transaction costs, the IPSASB concluded there is an opportunity to improve consistency in how transaction costs are accounted for across IPSAS.

*Transaction Costs - Definition*

- 3.31. Although the treatment of transaction costs is addressed in a number of IPSAS (e.g., IPSAS 12, 16, 17, 27 and 31), these IPSAS refer to such costs refer to different terms with different requirements and guidance', and generally do not call them 'transaction costs'. IPSAS lack a general definition of transaction costs that would ensure a consistent meaning for transaction costs across all IPSAS, while also supporting the understandability of IPSAS.
- 3.32. The only explicit definition is in IPSAS 41, *Financial Instruments*.<sup>23</sup> IPSAS 41 defines transaction costs as:
- Incremental costs that are directly attributable to the acquisition, issue or disposal of a financial asset or financial liability. An incremental cost is one that would not have been incurred if the entity had not acquired, issued or disposed of the financial instrument.
- 3.33. In considering the applicability of this definition across all IPSAS, the IPSASB considered whether the definition was consistent with concepts developed by comparable global organizations. In doing so the IPSASB compared the definitions applied in IFRS Standards, IVS and GFS with the definition in IPSAS 41.

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<sup>23</sup> Paragraph 9, IPSAS 41

MEASUREMENT

| IFRS   | IVS   | GFS   |
|--|---|---|
| <p>The costs to sell an asset or transfer a liability in the principal (or most advantageous) market for the asset or liability that are directly attributable to the disposal of the asset or the transfer of the liability and meet both of the following criteria:</p> <p>(a) They result directly from and are essential to that transaction.</p> <p>(b) They would not have been incurred by the entity had the decision to sell the asset or transfer the liability not been made (similar to costs to sell, as defined in IFRS 5) .</p> <p>(IFRS 13, Appendix A)</p> <p>Incremental costs that are directly attributable to the acquisition, issue or disposal of a financial asset or financial liability (see paragraph B5.4.8 of IFRS 9). An incremental cost is one that would not have been incurred if the entity had not acquired, issued or disposed of the financial instrument.</p> <p>(IFRS 9, Appendix A)</p> | <p>The seller's costs of sale or the buyer's costs of purchase and any taxes payable by either party as a direct result of the transaction (IVS 2017, IVS 104, 210.1)</p> | <p>Costs of ownership transfer are the costs associated with acquiring and disposing of nonfinancial assets (other than inventories). (GFSM 2014 glossary, 8.6)</p> |

- 3.34. While the IVS and GFS definitions consider transaction costs from the perspective of an asset, they, as well as the definitions in IFRS Standards, highlight that transaction costs are a direct result of the transaction – this concept is evidenced in the GFS definition through the cost of ownership transfer.
- 3.35. As the IPSAS 41 definition incorporates the core concept put forward in the IFRS Standards, IVS and GFS definitions of transaction costs, i.e., they accommodate an entry and exit price, the IPSASB concluded it was appropriate to amend the IPSAS 41 definition of transaction costs to make it applicable to all IPSAS by replacing references to financial instruments with generic asset and liability terms.
- 3.36. Transaction costs in IPSAS could therefore be defined as:
- Incremental costs that are directly attributable to the acquisition, issue or disposal of an asset or liability and would not have been incurred if the entity had not acquired, issued or disposed of the asset or liability.

**Preliminary View 8—Chapter 3**

The IPSASB's Preliminary View is transaction costs in the public sector should be defined as follows:

**Transaction costs** are incremental costs that are directly attributable to the acquisition, issue or disposal of an asset or liability and would not have been incurred if the entity had not acquired, issued or disposed of the asset or liability.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons, and provide an alternative definition for the IPSASB to consider.

## Incremental Interpretation Guidance

3.37. To support consistent interpretation in practice, additional interpretive guidance is included in the Illustrative ED<sup>24</sup>. It clarifies the proposed definition of transaction costs by including key IFRS Standards, IVS and GFS guidance:

- (a) IFRS Standards – costs to transact in the principal, or most advantageous, market

Incremental costs are often incurred when entering into a transaction. However, in circumstances where an asset or liability is being measured and no transaction has taken place, for example when the replacement cost of an asset is being measured at a point subsequent to initial recognition, transaction costs will have to be assumed as they have not been incurred. This is also the case when incremental costs will be incurred to exit a transaction, (e.g., costs to sell an asset or costs that may be incurred to close a financing facility, such as a line of credit). When transaction costs are to be estimated, they are assumed to be incurred in the principal, or most advantageous, market – that is, the market with the greatest volume and level of activity for the asset or liability, or when a principal market does not exist, the market that maximizes the amount that would be received to sell the asset or minimizes the amount that would be paid to transfer the liability.

- (b) IVS – direct result of the transaction

Incremental costs are a direct result of the transaction. Transaction costs are an essential feature of the transaction, and they would not have been incurred had the transaction not occurred. For example, costs to operate an asset after it has been acquired could be described as incremental costs because they would not be incurred if the entity had not acquired the asset. However, by clarifying that transaction costs are an essential feature of the transaction itself, operating costs are excluded from the definition of transaction costs.

- (c) GFS – cost of ownership transfer

Costs attributable to the acquisition of an asset relate specifically to costs of ownership transfer. Costs incurred prior to transfer (e.g., costs to negotiate the transaction), or costs incurred subsequent to the transfer, (e.g., borrowing costs), are excluded from the definition of transaction costs.<sup>25</sup>

<sup>24</sup> Illustrative ED, Measurement, paragraphs 24 to 28.

<sup>25</sup> Whether the examples provided are included in the measurement of the asset or liability is outside the scope of this section.

*Location of Guidance on Transaction Costs*

- 3.38. During its review of transaction costs, the IPSASB concluded that, whatever its final view on the treatment of transaction costs, the application guidance in IPSAS, Measurement, and requirements in other IPSAS will need to be coordinated to ensure consistency in accounting for transaction costs.
- 3.39. In determining the most appropriate method and location to address transaction costs, the IPSASB considered four options:
- (a) Option 1 – transaction costs are addressed in the measurement IPSAS (i.e., principles for accounting for transaction costs would be outlined for each measurement basis);  
  
Applying Option 1 results in the removal of all requirements and guidance in IPSAS used in determining the approach in accounting for transaction costs. For example, guidance in IPSAS 17, paragraphs 31 and 32, on directly attributable costs, would be deleted and replaced with generic guidance in IPSAS, *Measurement*.
  - (b) Option 2 – accounting for transaction costs is addressed in individual IPSAS;
  - (c) Option 3 – IPSAS would be silent on the accounting for transaction costs;
- 3.40. The IPSASB noted there are benefits associated with pursuing each option. However, the IPSASB noted a significant challenge existed in developing a universal principle for all IPSAS; the measurement objective differs in each standard, and in some cases even within the standard. For example, if the measurement objective is to present the amount paid to acquire an asset, a universal principle to exclude all transaction costs is inconsistent with that measurement objective. Conversely, a principle to include all transaction costs in the amount paid to acquire an asset is inconsistent with the measurement objective of measuring the amount to sell an asset. While a universal principle has the benefit of providing a clear, simple accounting treatment, which can be consistently applied to all transaction costs, regardless of the applicable measurement basis and the circumstances of measurement, and preparers will find this approach straightforward to apply, multiple measurement objectives make this a challenging option to pursue.
- 3.41. Similarly, the IPSASB identified challenges in pursuing options 2 or 3. The IPSASB considers the Measurement project provides an opportunity to address the measurement of assets and liabilities in one standard. Option 2 and option 3 are inconsistent with the stated objective.
- 3.42. Option 1 presents the IPSASB with an ambitious goal; to address transaction costs for all IPSAS in one standard. However, developing holistic measurement guidance located in one IPSAS was an objective of the IPSASB in pursuing this project. The development of a universal definition of transaction costs that applies equally to all IPSAS, as noted in paragraph 3.36, supports the view that if transaction costs are the same regardless of the nature of the transaction and that guidance should be consistent.<sup>26</sup>

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<sup>26</sup> Consequential amendments associated with developing holistic transaction costs guidance will be addressed in conjunction with the review of constituent feedback on the measurement proposals in this CP, including those illustrated in ED, *Measurement*.

**Preliminary View 9—Chapter 3**

The IPSASB's Preliminary View is that transaction costs should be addressed in the IPSAS, *Measurement*, standard for all IPSAS.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons and state how you would address the treatment of transaction costs in IPSAS, together with your reasons for supporting that treatment.

*Accounting for Transaction Costs*

- 3.43. As noted in paragraph 3.37(a), transaction costs can arise both when:
- (a) An asset is acquired or a liability is incurred; and
  - (b) An asset is sold or disposed of or a liability is settled or transferred.
- 3.44. Financial reporting standards emphasize transaction costs incurred when entering the transaction, often requiring that transaction costs be capitalized when initially measuring an asset, and thus reflected in the amount at which an asset is carried in the financial statements.
- 3.45. This suggests that transaction costs contribute to the value of the asset to the entity. By contrast, economists and investors view transaction costs as expenses that do not add value<sup>27</sup>. They result from market imperfections and are sometimes called “frictional costs”. A market improves if transaction costs reduce.<sup>28</sup>
- 3.46. When accounting for transaction costs, again with an emphasis on costs incurred at entry, IPSAS generally require an entity to capitalize transaction costs for an entry value (see, for example, IPSAS 17, *Property, Plant and Equipment*, and IPSAS 31, *Intangible Assets*), and deduct transaction costs to derive an exit value (see, for example, IPSAS 27, *Agriculture*). However, some ambiguity exists. For example:
- (a) IPSAS provide minimal guidance on accounting for transaction costs that will be incurred when an asset is sold or disposed of or a liability is settled or transferred.
  - (b) IPSAS do not state whether the ‘fair value’ (as currently defined in IPSAS) of an asset acquired through a non-exchange transaction includes an estimate of transaction costs.
  - (c) When replacement cost is used as an appropriate measure for deemed cost or ‘fair value’/current value, IPSAS do not explain whether an estimate of transaction costs should be included in the replacement cost.
  - (d) IPSAS do not explain how to account for future estimates of transaction costs necessary to fulfill the obligations, when measuring non-financial liabilities.

<sup>27</sup> Economics definition: “The cost associated with exchange of goods or services and incurred in overcoming market imperfections. Transaction costs cover a wide range: communication charges, legal fees, informational cost of finding the price, quality, and durability, etc., and may also include transportation costs.”

<http://www.businessdictionary.com/definition/transaction-cost.html>

<sup>28</sup> See <http://www.investopedia.com/terms/t/transactioncosts.asp>

MEASUREMENT

- 3.47. Other globally comparable standards, IFRS Standards, IVS and GFS, generally support the principle that transaction costs be included in the measurement of non-financial assets.

| IVS  | GFS  |
|--|--|
| <p>IVS explain that most bases of value represent the estimated exchange price of an asset without regard to the seller's costs of sale or the buyer's costs of purchase and without adjustment for any taxes payable by either party as a direct result of the transaction. (IVS 2017, 210.1)</p> <p>IVS state that the cost approach should capture all of the costs that would be incurred by a typical participant and so transaction costs may be included when valuing assets. (IVS 2017, 70.10)</p> | <p>Transactions costs are called "costs of ownership transfer" in GFS. They are:</p> <p>(a) Included in the cost of acquisition for non-financial assets; and</p> <p>(b) Expensed for financial assets and liabilities (GFSM 2014 glossary, 8.6)</p> |

- 3.48. In evaluating how transaction costs should be accounted for, IPSAS, GFS and IVS all consider the purpose of the measurement – whether it is a measurement to determine an entry value or an exit value. The IPSASB agreed to continue to evaluate the purpose of measurement when accounting for transaction costs as this purpose is driven by the information a financial statement user requires to make informed decisions.

- 3.49. When an economic resource is measured at an entry value, a financial statement user expects to understand:

- (a) The amount incurred to acquire an asset;

The purpose of this amount is to provide users with information about the value of the asset to the entity. This is the amount required to support the provision of services and is specific to the entity. Transaction costs are relevant in this valuation.

or

- (b) The amount received in order to incur a liability.

The purpose of this amount is to provide users with information about the consideration received by the entity that created the liability. This is the amount incurred to support the provision of services and is specific to the entity. Transaction costs are relevant in this valuation.

- 3.50. When an economic resource is measured at an exit value, a financial statement user expects to understand:

- (a) The amount that could be received to sell an asset;

The purpose of this amount is to provide users with information about how much the entity would receive to sell the asset. The price indicates the amount available to fund services. The costs to enter into the transaction are irrelevant.

or



## MEASUREMENT

- (b) The amount that will be paid to settle a liability.

The purpose of this amount is to provide users with information about how much the entity would have to pay to settle the liability. The costs to enter into the transaction are irrelevant, but the costs to exit the transaction impact user's decisions when the measurement is specific to the entity.

- 3.51. The IPSASB noted whether the measurement was entry or exit-based was only one factor in determining whether including transaction costs in the measurement of an economic resource was relevant to the user of the financial statements. The timing of when the transaction costs is incurred also has an impact.
- 3.52. Transaction costs for acquiring an asset or incurring a liability are a feature of the transaction which resulted in the asset or the liability. Therefore:
  - (a) The fulfillment value of a liability or the fair value of an asset or liability are exit values and costs incurred to enter the transaction do not impact the price received to sell an asset or required to be paid to settle a liability (see paragraph 3.50); and
  - (b) The historical cost of an asset or liability and the replacement cost of an asset are entry values where costs to enter into the transaction are relevant (see paragraph 3.49). Although the transaction costs are not part of the transaction price, the entity could not have acquired the asset or incurred the liability without incurring the transaction costs.
- 3.53. Transaction costs that would be incurred in selling or disposing of an asset or in settling or transferring a liability are a feature of a possible future transaction. Therefore, in conjunction with whether the measurement basis is an exit or entry measurement:
  - (a) Fair value of an asset or liability is an exit value for a market participant where costs incurred to exit the transaction are not relevant to the measurement (see paragraph 3.50);
  - (b) The fulfillment value of a liability is an exit value specific to the entity where costs incurred to exit the transaction are relevant (see paragraph 3.50(b)); and
  - (c) Historical cost of an asset or liability and replacement cost of an asset do not reflect costs that would be incurred in settling or disposing of the asset or in settling or transferring a liability because they are entry values. As they reflect the costs of acquiring the asset or incurring the liability, costs incurred to exit the transaction are not relevant to the measurement (see paragraph 3.50).

**Figure 3.1 – Accounting for Transaction Costs**

| Measurement Basis                                    | Measurement Objective | Timing of Transaction Costs |                     |
|--|-----------------------|-----------------------------|---------------------|
|  |                       | Entering Transaction        | Exiting Transaction |
| Fair Value<br>(Appendix A of Illustrative ED)        | Exit price            | Exclude                     |                     |
| Fulfillment value<br>(Appendix B of Illustrative ED) | Exit price            | Exclude                     | Include             |
| Historical Cost<br>(Appendix C of Illustrative ED)   | Entry price           | Include                     | Exclude             |
| Replacement Cost<br>(Appendix D of Illustrative ED)  | Entry price           | Include                     | Exclude             |

3.54. The IPSASB agreed it was appropriate for exit based transaction costs to be included in a fulfillment value measurement, while being excluded from a fair value measurement – both exit prices. This is because an entity specific measurement, such as fulfillment value, measures how much an entity is required to pay in order to settle its obligation, while a market-based measurement, such as fair value, measures how much a market participant is required to pay to settle the obligation.

### Preliminary View 10—Chapter 3

The IPSASB's Preliminary View is that transaction costs incurred when entering a transaction should be:

- Excluded in the valuation of liabilities measured at fulfillment value;
- Excluded from the valuation of assets and liabilities measured at fair value; and
- Included in the valuation of assets measured at historical cost and replacement cost.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons and state how you would treat transaction costs in the valuation of assets and liabilities, giving your rationale for your proposed treatment.

### Preliminary View 11—Chapter 3

The IPSASB's Preliminary View is that transaction costs incurred when exiting a transaction should be:

- Included in the valuation of liabilities measured at fulfillment value;
- Excluded from the valuation of assets and liabilities measured at fair value; and
- Excluded in the valuation of assets measured at historical cost and replacement cost.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons and state how you would treat transaction costs in the valuation of assets and liabilities, giving your rationale for your proposed treatment.

## Chapter 4: Applying the Measurement Principles in the Conceptual Framework to Individual IPSAS

- 4.1. This chapter addresses the issue of how the measurement principles in the Conceptual Framework should be interpreted at standards level. It sets out the methodology the IPSASB proposes to adopt in reviewing measurement requirements in existing IPSAS and developing measurement requirements for new IPSAS.
- 4.2. When discussing the Project Brief, the IPSASB's primary considerations included ensuring the measurement bases:
- (a) Generate information that achieves the Conceptual Framework's measurement objective, see paragraph 4.8, and qualitative characteristics while taking account of the constraints on information in general purpose financial statements;
  - (b) Improve consistency across IPSAS to enhance the comparability of financial statements;
  - (c) Bring the definition of fair value in IFRS 13, *Fair Value Measurement*, into the IPSASB's literature to the extent it is applicable to specific transactions and balances<sup>29</sup> in line with the IPSASB's approach to achieving alignment with IFRS Standards; and
  - (d) Reduce unnecessary differences between IPSAS and IFRS Standards and/or GFS when these sources of guidance can also be applied in the public sector context.

### Measurement Methodology

- 4.3. The methodology, as outlined in the Subsequent Measurement: Assets Flow Chart, [Diagram 4.1](#), and the Subsequent Measurement: Liabilities Flow Chart, [Diagram 4.2](#), is based on the measurement principles in Chapter 7 of the IPSASB's Conceptual Framework.<sup>30</sup> The methodology takes a broad approach when identifying the appropriate measurement basis for the subsequent measurement of assets and liabilities.
- 4.4. The methodology is developed to assist the IPSASB when reviewing existing IPSAS and developing new IPSAS by providing a bridge between the principles in the Conceptual Framework and how they should be applied throughout IPSAS. Furthermore, the flow charts will act as a tool in linking the Measurement project to the IPSASB's committed project, Conceptual Framework Limited-Scope Review.
- 4.5. The IPSASB expects to use these flow charts flexibly. Any 'answer' that the flow chart suggests in relation to a measurement basis for a particular type of asset or liability will be tested to ensure the economic substance of the transaction is fairly presented. For example:

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<sup>29</sup> The Board believes it is important that global standard setters use the same term with the same meaning. The IPSAS definition of "fair value" pre-dates the IFRS 13 definition. The IPSASB's work since developing the Conceptual Framework has demonstrated that "fair value" as defined in IFRS 13 is appropriate for many public sector transactions (particularly financial instruments), but there are other transactions where this is not the case. The IPSASB will therefore evaluate all references to 'fair value' in its literature and determine whether the IFRS 13-based definition is appropriate or whether an alternative measurement basis should be adopted.

<sup>30</sup> In addition to applying the principles in the Conceptual Framework, the flow charts also incorporate the IPSASB's decision to integrate fair value measurement to the extent it is applicable to specific public sector transactions and balances.

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- (a) Existing IPSAS – applying the Subsequent Measurement: Assets flow chart, [Diagram 4.1](#), to inventories would suggest that inventories be measured at replacement cost if the inventory is held for operational capacity and the entity is assessing the cost of service in current value terms. However, the flow chart would also require the IPSASB consider whether replacement cost faithfully presents the item or whether an alternative measurement basis more accurately reflects the value of inventory in practice, in this case net realizable value. Additional information on the IPSASB’s review process is included in paragraphs 4.6 to 4.7; or
- (b) Future projects – applying the methodology to future projects requires the measurement basis to be assessed applying the flow charts. Unless the economic substance is better represented by another measurement basis, it is presumed the measurement basis outlined in the flow charts will be applied. For example, application of the flow charts to develop measurement guidance for the IPSASB’s Heritage project would suggest that heritage assets would be measured at historical cost, replacement cost or fair value. However, the flow charts do not preclude the IPSASB from deciding that a different measurement basis is appropriate. If the IPSASB were to conclude that the economic substance of the transaction is more faithfully presented by a measurement basis other than that suggested by application of the flow charts, the IPSASB would outline its reasons.

The IPSASB considers that applying the flow charts will assist in facilitating a structured approach when reviewing measurement requirements in existing IPSAS and developing new IPSAS. The flow charts will also provide constituents with a better understanding of the IPSASB’s deliberations when developing future requirements and guidance on the selection of different measurement approaches.

### **Application of the Measurement Methodology**

- 4.6. The IPSASB will review the measurement requirements in each IPSAS using the flow charts. Where the measurement requirements in existing IPSAS are consistent with the measurement bases indicated through application of the flow charts, as is the case for financial instruments measured at fair value in IPSAS 41, *Financial Instruments*, no further analysis is necessary. Where the measurement requirements in existing IPSAS are inconsistent with the measurement bases indicated through application of the flow charts, as is the case for financial instruments measured at amortized cost in IPSAS 41, the IPSASB will perform additional analysis to determine whether the currently prescribed measurement basis, in this case amortized cost, more fairly represents the economic substance of the transaction, or whether a change in the measurement basis is necessary to align with the flow chart.
- 4.7. Any changes to IPSAS measurement requirements, or the development of new IPSAS measurement requirements, resulting from the application of this methodology, will be exposed to constituents for comment, in accordance with IPSASB’s due process.

### **Measurement Methodology – Flow Charts**

- 4.8. As noted in paragraph 4.3, these flowcharts are based on the measurement principles outlined in Chapter 7 of the IPSASB’s Conceptual Framework. The Conceptual Framework indicates a measurement basis should provide information that enables users to assess:
  - (a) The cost of services provided in the period in historical or current terms;

## MEASUREMENT

- (b) Operational Capacity – the capacity of the entity to support the provision of the services in future periods through physical and other resources; and
- (c) Financial Capacity – the capacity of the entity to fund its activities.

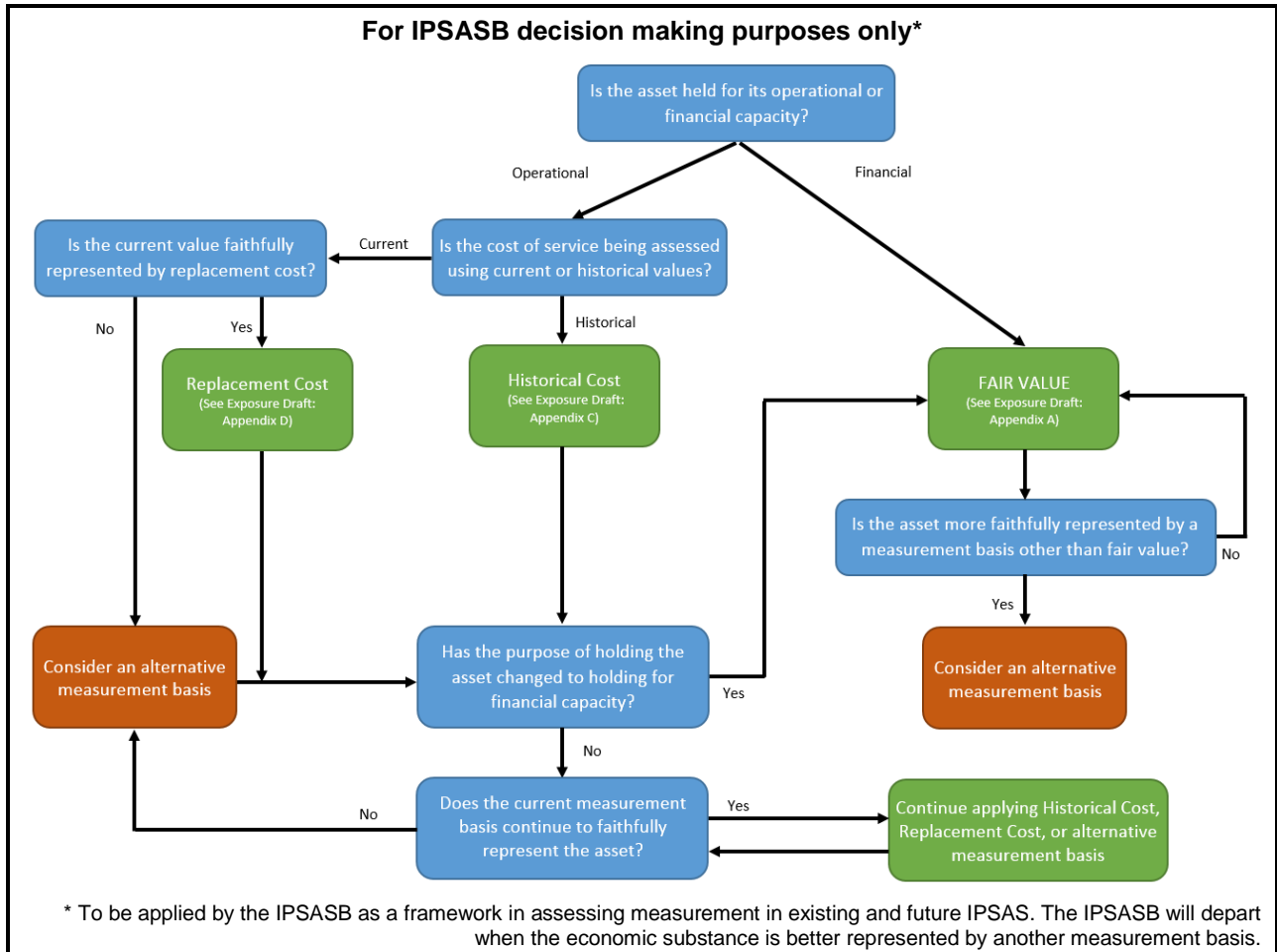
4.9. In order to achieve this measurement objective, the appropriate measurement basis is selected by considering the following factors:

- (a) Characteristics of the asset or liability; and
- (b) Contribution to, or subtraction from, future cash flows.

Some assets or liabilities produce cash flows directly, others are used in the provision of services, and still others produce cash flows and are used in the provision in services. The way in which an asset or liability contributes to cash flows depends, in part, on the nature of the entity's activities. For example, the same asset could be operated to provide medical service, leased to another entity or sold to a third party.

*Subsequent Measurement of Assets*

**Diagram 4.1–Subsequent Measurement: Assets Flow Chart**



*Explanation of Subsequent Measurement: Assets Flow Chart Decision Points*

4.10. To support the application of the Subsequent Measurement: Assets Flow Chart, paragraphs 4.11 to 4.16 provide additional information explaining the key decision points.

Is the asset for its financial or operating capacity?

4.11. In applying the concepts outlined in paragraph 4.8, the opening question in evaluating the appropriate measurement basis is whether the asset is held for financial or operational capacity.

- (a) Assets held for their financial capacity are primarily held to generate cash inflows to fund the future activities of the entity.
- (b) Assets held for their operational capacity are held to support the provision of services in current and future periods.

Measurement of Assets Held for Their Financial Capacity

4.12. When the asset is held for its financial capacity, it is presumed the asset is held for revenue generation to support the funding of future service delivery (e.g., revenue is generated through sale of an asset). When this is the case, the most relevant information to users of the financial statements is presumed to be the amount that could be received to sell the asset – its fair value.

Is the Asset More Faithfully Represented by a Measurement Basis Other than Fair Value?

- 4.13. When the economic substance of the asset is more fairly represented by another measurement basis, the flow chart provides the flexibility to depart from fair value. For example, a historical cost measure, such as amortized cost, which provides relevant and useful information about the asset's likely cash flows, may better present the economic substance of a transaction. This is because fair value assumes the financial instrument will be sold or transferred at the measurement date which is inconsistent with the characteristics of an instrument intended to be held to maturity with its contractual cash flows being collected.

Alternative Measurement Bases

- 4.14. When the economic substance of the asset is more faithfully represented by another measurement basis, that other measurement basis is applied. For assets held for their financial capacity, alternative measurement bases could include:
- (a) Historical cost – historical cost is the consideration given to acquire or develop an asset at the time of its acquisition or development. Historical cost measures provide monetary information about assets, using information derived at least in part, from the price of the transaction when the event that gave rise to them occurred. One way to apply a historical cost measurement basis to financial assets is to measure them at amortized cost.<sup>31</sup> The amortized cost of a financial asset reflects estimates of future cash flows, discounted at a rate determined at initial recognition.<sup>32</sup> The amortized cost of a financial asset is updated over time to reflect subsequent changes, such as the accrual of interest, the impairment of a financial asset or payments.
  - (b) Net selling price – net selling price is the amount the entity can obtain from the sale of the asset, after deducting the costs of sale.

Measurement of Assets Held for Their Operational CapacityIs the Cost of Service Being Assessed using Current or Historical Values?

- 4.15. Where the asset is held for operational capacity, the most relevant information to users of the financial statements is presumed to be the cost to provide services. In order to best reflect the cost of providing these services, the Conceptual Framework acknowledges the cost of services provided in the period can be measured in either historical or current terms. Whether measurement is in historical or current terms fundamentally impacts the information presented:
- (a) Historical terms - If an asset is measured in historical terms, consumption of the asset gives rise to an expense measured at the historical cost of the asset consumed. As a result, historical cost is a measure of the amount the entity has incurred to provide the services. Information about the amount incurred to provide services is useful in holding entities to account for past decisions. For example, when the cost of property, plant and equipment, such as a roadway, is amortized over its useful life, a historical cost measurement provides

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<sup>31</sup> The amortized cost of a financial asset or financial liability reflects estimates of future cash flows discounted at a rate that is not updated after initial recognition, unless the asset or liability bears interest at a variable rate. For loans given or received, if interest is receivable or payable regularly, the amortized cost of the loan typically approximates the amount originally paid or received. Therefore, the amortized cost of a financial asset or liability is considered to be a form of historical cost.

<sup>32</sup> For variable rate instruments, the discount rate is updated to reflect changes in the variable rate.

## MEASUREMENT

users with information as to how much the entity paid for the roadway services to be provided over the useful life of the asset.

Furthermore, assets measured at historical cost provide information that indicates the entity expects the asset has the ability to generate sufficient economic benefits and service potential at least to recover the cost of the asset.

- (b) Current terms – Measuring an asset in current terms provides monetary information reflecting the cost at which an equivalent asset could be acquired or created at the measurement date. Measuring in current terms reflects prices prevailing at a point in time. As a result, measurement in current terms represents the amount the entity would have to pay at the measurement date to continue to provide the services. Replacement cost is useful in understanding the amount required to maintain the provision of the service on an ongoing basis.

When replacement cost does not faithfully represent the economic substance of the transaction, the current value of the asset is derived using another measurement basis. Alternative current value measurement bases may be market-based or entity specific. Determining the current value depends on individual circumstances, and therefore which valuation technique is used will depend on the information that is available. Other measurement bases for determining the current value of an asset could include:

- i. Fair value – Fair value is the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date.
- ii. Value in use – The present value to the entity of the asset's remaining service potential or ability to generate economic benefits if it continues to be used, and of the net amount that the entity will receive from its disposal at the end of its useful life.
- iii. Net selling price (net realizable value)<sup>33</sup> – net selling price is the amount the entity can obtain from the sale of the asset, after deducting the costs of sale.

### Has the purpose of holding the asset changed?

- 4.16. Where circumstances change and the asset is no longer held for its original purpose, the assessment of the appropriate measurement basis would be reassessed using the flow chart. For example, if the asset was initially held for its operational capacity, and a change in circumstances meant that it was now held for its financial capacity, the measurement would be re-assessed from the perspective of financial capacity.

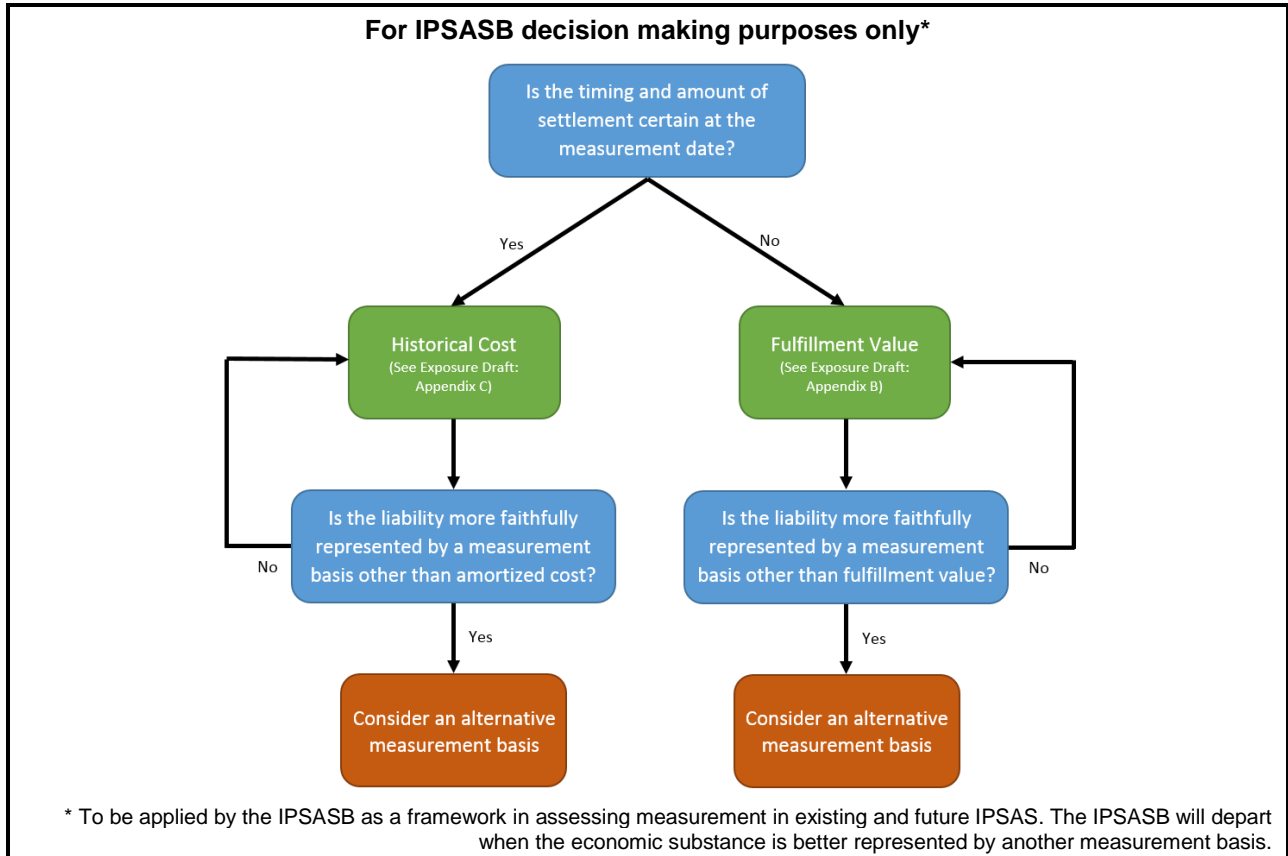
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<sup>33</sup> Based on the definition in IPSAS 12, *Inventories*, the Board concluded the terms net realizable value and net selling price measurement bases are used inter-changeably.



*Subsequent Measurement of Liabilities*

**Diagram 4.2–Subsequent Measurement: Liabilities**



*Explanation of Subsequent Measurement: Liabilities Flow Chart Decision Points*

- 4.17. The primary measurement objective when measuring a liability is to provide the user of the public sector financial statements with information to allow them to determine the amount required for the entity to satisfy the obligation.
- 4.18. To support the application of the Measurement: Liabilities Flow Chart, paragraphs 4.19 to 4.21 provide additional information explaining the key decision points.

Is the Timing and Amount of Settlement Certain at the Measurement Date?

4.19. In order to best reflect the amount required to satisfy the obligation, the Conceptual Framework principles outlined in paragraph 4.8 acknowledge the liability can be measured in either historical or current terms. Whether a historical or current measurement is used will depend on whether the settlement amount is certain and the timing is known.

- (a) Liabilities where the settlement amounts are certain and the timing is known, generally result from transactions where a decision has been made to settle the obligation with cash (e.g., financial instruments, as they are a contract to deliver cash) or a variable number of an entity’s own equity instruments making up a fixed amount.

When the settlement amounts are certain and the timing is known, the settlement amount can be reliably estimated at the measurement date. When this is the case, the most relevant information to users of the financial statements is presumed to be the price of the transaction

## MEASUREMENT

derived at the date of the event that gave rise to the liability – historical cost. Measuring a liability in historical terms informs the user that the entity expects that the value of the obligation will not be more than the value of the consideration received. As such the value of the liability is no more than the carrying amount of the liability measured on a historical cost basis. Applying a historical cost measurement basis to liabilities when the expected cash outflows are known is best represented by applying amortized cost as it reflects estimates of future cash flows discounted at a rate that is not updated after initial recognition, unless the asset or liability bears interest at a variable rate.

If the IPSASB's view is that the economic substance of the transaction is more faithfully represented by another measurement basis, the flow chart allows an alternative basis to be considered (see paragraph 4.20).

- (b) For liabilities where the settlement amounts are uncertain and the timing is unknown, but arise from the operations of the entity, the Flow Chart requires a fulfillment value<sup>34</sup> approach. The approach is appropriate when the liability and method of settlement has yet to be determined (e.g., decommissioning liabilities as the liability will be settled in a future period and how it will be settled has not been determined).

When this is the case, the settlement amount is unknown at the measurement date. Measuring the liability in current terms, or the fulfillment value, reflects this uncertainty to the users of the financial statements.

### Historical Cost – Alternative Measurement Bases

- 4.20. When the economic substance of the liability is more fairly represented by another measurement basis, the flow chart allows an alternative basis to be considered. For example, when the value of a financial liability changes in response to an underlying foreign exchange rate (e.g., a contract to purchase a foreign currency at a future date), fair value<sup>35</sup>, which provides relevant and useful information about the current amount required to extinguish a liability, may better present the economic substance of the transaction. This is because amortized cost assumes the financial instrument will be held to collect the instrument's cash flows which may be inconsistent with the characteristics of an instrument held to acquire a foreign currency at a specified rate.

### Fulfillment value – Alternative Measurement Bases

- 4.21. In developing guidance on fulfillment value, the IPSASB considered whether circumstances existed where another measurement basis better represented the economic substance of the transaction. No circumstances were identified.

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<sup>34</sup> Fulfillment value is the costs that the entity will incur in fulfilling the obligations represented by the liability, assuming that it does so in the least costly manner.

<sup>35</sup> Fair value is the price that would be received to transfer a liability in an orderly transaction between market participants at the measurement date.

**Specific Matter for Comment 3—Chapter 4.1**

Do you agree that the measurement flow charts ([Diagrams 4.1 and 4.2](#)) provide a helpful starting point for the IPSASB to review measurement requirements in existing IPSAS, and develop new IPSAS, acknowledging that other matters need to be considered, including:

- The Conceptual Framework Measurement Objective;
- Reducing unnecessary differences with GFS;
- Reducing unnecessary differences with IFRS Standards; and
- Improving consistency across IPSAS.

If not, should the IPSASB consider other factors when reviewing measurement requirements in existing IPSAS and developing new IPSAS? If so, what other factors? Please provide your reasons.

# ADDENDUM A – ILLUSTRATIVE EXPOSURE DRAFT XX, MEASUREMENT

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## Objective

1. The objective of this Standard is to define measurement bases that assist in reflecting fairly the cost of services, operational capacity, and financial capacity of assets and liabilities and how to identify approaches under those measurement bases to be applied through individual IPSAS to achieve the objectives of financial reporting.

## Scope

2. An entity that prepares and presents financial statements under the accrual basis of accounting shall apply this [draft] IPSAS [X] (Illustrative ED) in measuring items.
3. Except as specified in paragraph 4, this IPSAS applies when another IPSAS requires or permits:
  - (a) One or more of the measurement bases defined herein or disclosures about one or more of these measurement bases; and
  - (b) Measurements that are based on one or more of the measurement bases (e.g., market value less costs to sell) or disclosures about those measurements.
4. [Include exceptions here, once identified.]
5. The measurement application guidance described in this IPSAS applies to both initial and subsequent measurement.

## Definitions

6. **The following terms are used in this Standard with the meanings specified:**

**Active market** is a market in which transactions for the asset or liability take place with sufficient frequency and volume to provide pricing information on an ongoing basis.

**Cost approach** is a valuation technique that reflects the amount that would be required currently to replace the service capacity of an asset (often referred to as current replacement cost).

**Entry price** is the price paid to acquire an asset or received to assume a liability in an exchange transaction.

**Exit price** is the price received to sell an asset or paid to transfer a liability.

**Expected cash flow** is the probability-weighted average (i.e., mean of the distribution) of possible future cash flows.

**Fair value** is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

**Fulfillment value** is the costs that the entity will incur in fulfilling the obligations represented by the liability, assuming that it does so in the least costly manner.

**Highest and best use** is the use of a non-financial asset by market participants that would maximize the value of the asset or the group of assets and liabilities (e.g., an operation) within which the asset would be used.

**Historical cost for an asset** is the consideration given to acquire or develop an asset, which is the cash or cash equivalents or the value of the other consideration given, at the time of its acquisition or development.

**Historical cost for a liability** is the consideration received to assume an obligation, which is the cash or cash equivalents, or the value of the other consideration received at the time the liability is incurred.

**Income approach** is a valuation technique that convert future amounts (e.g., cash flows or income and expenses) to a single current (i.e., discounted) amount. The fair value measurement is determined on the basis of the value indicated by current market expectations about those future amounts.

**Inputs** are the assumptions that market participants would use when pricing the asset or liability, including assumptions about risk, such as the following:

- (a) The risk inherent in a particular valuation technique used to measure fair value (such as a pricing model); and
- (b) The risk inherent in the inputs to the valuation technique.

Inputs may be observable or unobservable.

**Level 1 inputs** are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date.

**Level 2 inputs** are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.

**Level 3 inputs** are unobservable inputs for the asset or liability.

**Market approach** is a valuation technique that uses prices and other relevant information generated by market transactions involving identical or comparable (i.e., similar) assets, liabilities or a group of assets and liabilities, such as an operation.

**Market participants** are buyers and sellers in the principal (or most advantageous) market for the asset or liability that have all of the following characteristics:

- (a) They are independent of each other, i.e., they are not related parties as defined in IPSAS 20, *Related Party Disclosures*, although the price in a related party transaction may be used as an input to a fair value measurement if the entity has evidence that the transaction was entered into at market terms.
- (b) They are knowledgeable, having a reasonable understanding about the asset or liability and the transaction using all available information, including information that might be obtained through due diligence efforts that are usual and customary.
- (c) They are able to enter into a transaction for the asset or liability.
- (d) They are willing to enter into a transaction for the asset or liability, i.e., they are motivated but not forced or otherwise compelled to do so.

**Market value for assets** is the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction.

**Market value for liabilities** is the amount for which a liability could be settled between knowledgeable, willing parties in an arm's length transaction.

**Market-corroborated inputs** are inputs that are derived principally from or corroborated by observable market data by correlation or other means.

**Most advantageous market** is the market that maximizes the amount that would be received to sell the asset or minimizes the amount that would be paid to transfer the liability, after taking into account transaction costs and transport costs.

**Non-performance risk** is the risk that an entity will not fulfil an obligation. Non-performance risk includes, but may not be limited to, the entity's own credit risk.

**Observable inputs** are inputs that are developed using market data, such as publicly available information about actual events or transactions, and that reflect the assumptions that market participants would use when pricing the asset or liability.

**Orderly transaction** is a transaction that assumes exposure to the market for a period before the measurement date to allow for marketing activities that are usual and customary for transactions involving such assets or liabilities; it is not a forced transaction (e.g., a forced liquidation or distress sale).

**Principal market** is the market with the greatest volume and level of activity for the asset or liability.

**Replacement cost** is the most economic cost required for the entity to replace the service potential of an asset (including the amount that the entity will receive from its disposal at the end of its useful life) at the reporting date.

**Risk premium** is the compensation sought by risk-averse market participants for bearing the uncertainty inherent in the cash flows of an asset or a liability. Also referred to as a 'risk adjustment'.

**Transaction costs** are incremental costs that are directly attributable to the acquisition, issue or disposal of an asset or liability and would not have been incurred if the entity had not acquired, issued or disposed of the asset or liability.

**Transport costs** are the costs that would be incurred to transport an asset from its current location to its principal (or most advantageous) market.

**Unit of account** is the level at which an asset or a liability is aggregated or disaggregated in an IPSAS for recognition purposes.

**Unobservable inputs** are inputs for which market data are not available and that are developed using the best information available about the assumptions that market participants would use when pricing the asset or liability.

Terms defined in other IPSASs are used in this Standard with the same meaning as in those Standards, and are reproduced in the *Glossary of Defined Terms* published separately.

## Measurement

7. **When another IPSAS establishes measurement requirements with reference to one or more of the measurement bases below an entity shall apply the application guidance in the relevant appendix:**
- (a) **Fair value (Appendix A: Fair value–application guidance);**
  - (b) **Fulfillment value (Appendix B: Fulfillment value–application guidance);;**
  - (c) **Historical cost (Appendix C: Historical cost–application guidance);; and**
  - (d) **Replacement cost (Appendix D: Replacement cost –application guidance);.**

### *Fair Value*

Paragraphs 8, 9 and 10 are based on the IASB's Conceptual Framework paragraphs 6.10, 6.13 and 6.14

8. Fair value measurement is an exit, market-based measurement that provides monetary information about assets, liabilities and related revenues and expenses, using information updated to reflect conditions at the measurement date. Fair value therefore reflects changes in the values of assets and liabilities since the previous measurement date. Unlike historical cost, the current value of an asset or liability is not derived, even in part, from the transaction or event that gave rise to the asset or liability.
9. Fair value reflects the perspective of market participants. The asset or liability is measured using the same assumptions that a market participant would use when pricing the asset or liability if those market participants act in their economic best interest.
10. In some cases, fair value can be determined directly by observing prices in an active market. In other cases, it is determined indirectly using measurement techniques.

### *Fulfillment Value*

Paragraph 11 is based on the IASB's Conceptual Framework paragraph 6.17

11. Fulfillment value is an exit, entity-specific cost that the entity will incur in fulfilling the obligations represented by the liability, assuming that it does so in the least costly manner. Fulfillment value is the present value of the cash, or other economic resources, that the entity expects to be obliged to transfer as it fulfils a liability. Those amounts of cash or other economic resources include not only the amounts to be explicitly transferred, but also the amounts that the entity expects to be obliged to transfer to other parties to enable it to fulfil the liability.

Paragraph 12 is based on the IASB's Conceptual Framework paragraph 6.19 and 6.20

12. Fulfillment value cannot be observed directly and is determined using cash-flow-based measurement techniques. The fulfillment value reflects entity-specific assumptions rather than assumptions used by market participants. In practice, there may be little difference between the assumptions that a market participant would apply and those an entity uses itself.

Paragraph 13 is based on the IASB's Conceptual Framework paragraph 6.20



13. The fulfillment value reflects the same factors as those reflected in fair value measurement, but from an entity-specific perspective, rather than from a market-participant perspective.

*Historical cost*

Paragraph 14 is based on the IASB's Conceptual Framework paragraph 6.4 and IPSASB's Conceptual Framework paragraph 7.14

14. Historical cost is an entry, entity-specific value. (The term "historical cost" may also be referred to as the "cost model" or generically as "cost-based measures"). Historical cost measures provide monetary information about assets, liabilities and related revenue and expenses, using information derived, at least in part, from the price of the transaction or event that gave rise to them.

Paragraphs 15 and 16 are based on the IPSASB's Conceptual Framework paragraphs 7.14 and 7.15

15. Subsequent to initial recognition, this cost may be allocated as an expense to reporting periods in the form of depreciation or amortization for certain assets, as the service potential or ability to generate economic benefits provided by such assets are consumed over their useful lives. Following initial recognition, the measurement of an asset is not changed to reflect changes in prices or increases in the value of the asset.
16. Under the historical cost measurement basis the amount of an asset may be reduced by recognizing impairments. Impairment is the extent to which the service potential or ability to generate economic benefits provided by an asset have diminished due to changes in economic or other conditions, as distinct to their consumption. This involves assessments of recoverability. Conversely, the amount of an asset may be increased to reflect the cost of additions and enhancements (excluding price increases for unimproved assets) or other events, such as the accrual of interest on a financial asset.

Paragraphs 17 and 18 are based on the IPSASB's Conceptual Framework paragraphs 7.71 and 7.72

17. When measuring liabilities under the historical cost model, initial measures may be adjusted to reflect factors such as the accrual of interest, the accretion of discount or amortization of a premium.
18. Where the time value of a liability is material—for example, where the length of time before settlement falls due is significant—the amount of the future payment is discounted so that, at the time a liability is first recognized, it represents the value of the amount received. The difference between the amount of the future payment and the present value of the liability is amortized over the life of the liability, so that the liability is stated at the amount of the required payment when it falls due.

Paragraph 19 is based on the IASB's Conceptual Framework paragraph 6.9

19. One way to apply a historical cost measurement basis to a financial asset or financial liability is to measure them at amortized cost. The amortized cost of a financial asset or financial liability reflects estimates of future cash flows, discounted at a rate determined at initial recognition. For variable rate instruments, the discount rate is updated to reflect changes in the variable rate.

*Replacement cost*

Paragraphs 20, 21 and 23 are based on the IASB's Conceptual Framework paragraphs 6.21 and 6.22

20. Replacement cost is the most economic cost required for the entity to replace the service potential of an asset (including the amount that the entity will receive from its disposal at the end of its useful life) at the reporting date. The replacement cost of an asset is the cost of an equivalent asset at the measurement date, comprising the consideration that would be paid at the measurement date, plus the costs that would be incurred at that date.
21. Replacement cost, like historical cost, is an entry value. It reflects prices in the market in which the entity would acquire the asset. However, unlike historical cost, replacement cost reflects conditions at the measurement date.

Paragraph 22 is based on the IPSASB's Conceptual Framework paragraph 7.38

22. Replacement cost differs from fair value because it:
- (a) Is explicitly an entry value that reflects the cost of replacing the service potential of an asset;
  - (b) Includes all the costs that would necessarily be incurred in the replacement of the service potential of an asset; and
  - (c) Is entity specific and therefore reflects the economic position of the entity, rather than the position prevailing in a hypothetical market (e.g., the replacement cost of a vehicle is less for an entity that usually acquires a large number of vehicles in a single transaction and is regularly able to negotiate discounts than for an entity that purchases vehicles individually.)
23. In some cases, replacement cost cannot be determined directly by observing prices in an active market and must be determined indirectly by other means. For example, if prices are available for a new asset, the current cost of a used asset might need to be estimated by adjusting the current price of a new asset to reflect the current age and condition of the asset held by the entity.

## Transaction Costs

24. **Transaction costs are costs that would not have been incurred if the entity had not acquired, issued or disposed of the asset or liability.**
25. Incremental costs are a direct result of the transaction. Transaction costs are an essential feature of the transaction, and they would not have been incurred had the transaction not occurred. For example, while costs to operate an asset after it has been acquired are incremental costs because they would not be incurred if the entity had not acquired the asset, these costs are not transaction costs as they are not a direct result of the transaction.
26. Costs attributable to the acquisition of an asset relate specifically to costs of ownership transfer. Costs incurred prior to transfer (e.g., costs to negotiate the transaction), or costs incurred subsequent to the transfer, (e.g., borrowing costs), are excluded from the definition of transaction costs.
27. Including transaction costs in the measurement of an asset or liability is dependent on the objective of measurement. Whether an entity is presenting an entry based measurement basis or an exit based measurement basis impacts whether those transaction costs are included or excluded from measurement.
28. Transaction costs can arise both, when an asset is acquired or a liability is incurred, and when an asset is sold or disposed of or a liability is settled or transferred. As transaction costs incurred in acquiring an asset or incurring a liability are a feature of the transaction in which the asset was

acquired or the liability was incurred, such transaction costs incurred in entering into a transaction are included in entry-based measurement bases. Transaction costs that would be incurred in selling or disposing of an asset or in settling or transferring a liability are a future or a possible future transaction. As such, transaction costs that would be incurred in exiting a transaction are included in exit-based measurement bases when the measurement base is entity-specific.

**Effective Date**

29. [Include effective date, once identified.]

Illustrative

## Appendix A: Fair value–application guidance

*This Appendix is an integral part of [draft] IPSAS [X] (ED XX).*

### Measurement

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| Paragraph A1 is IFRS 13.B2 |
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- A1. The objective of a fair value measurement is to estimate the price at which an orderly transaction to sell the asset or to transfer the liability would take place between market participants at the measurement date under current market conditions. A fair value measurement requires an entity to determine all the following:
- The particular asset or liability that is the subject of the measurement (consistently with its unit of account).
  - For a non-financial asset, the valuation premise that is appropriate for the measurement (consistently with its highest and best use).
  - The principal (or most advantageous) market for the asset or liability.
  - The valuation technique(s) appropriate for the measurement, considering the availability of data with which to develop inputs that represent the assumptions that market participants would use when pricing the asset or liability and the level of the fair value hierarchy within which the inputs are categorized.

### The Asset or Liability

- A2. A fair value measurement is for a particular asset or liability. Therefore, when measuring fair value an entity shall take into account the characteristics of the asset or liability if market participants would take those characteristics into account when pricing the asset or liability at the measurement date. Such characteristics include, for example, the following:
- The condition and location of the asset; and
  - Restrictions, if any, on the sale or use of the asset.
- A3. The effect on the measurement arising from a particular characteristic will differ depending on how that characteristic would be taken into account by market participants.
- A4. The asset or liability measured at fair value might be either of the following:
- A stand-alone asset or liability (e.g., a financial instrument or a non-financial asset); or
  - A group of assets, a group of liabilities or a group of assets and liabilities (e.g., a cash-generating unit or an operation).
- A5. Whether the asset or liability is a stand-alone asset or liability, a group of assets, a group of liabilities or a group of assets and liabilities for recognition or disclosure purposes depends on its *unit of account*. The unit of account for the asset or liability shall be determined in accordance with the IPSAS that requires or permits the fair value measurement, except as provided in this Application Guidance.

**The Transaction**

- A6. **A fair value measurement assumes that the asset or liability is exchanged in an orderly transaction between market participants to sell the asset or transfer the liability at the measurement date under current market conditions.**
- A7. **A fair value measurement assumes that the transaction to sell the asset or transfer the liability takes place either:**
- (a) In the principal market for the asset or liability; or**
  - (b) In the absence of a principal market, in the most advantageous market for the asset or liability.**
- A8. An entity need not undertake an exhaustive search of all possible markets to identify the principal market or, in the absence of a principal market, the most advantageous market, but it shall take into account all information that is reasonably available. In the absence of evidence to the contrary, the market in which the entity would normally enter into a transaction to sell the asset or to transfer the liability is presumed to be the principal market or, in the absence of a principal market, the most advantageous market.
- A9. If there is a principal market for the asset or liability, the fair value measurement shall represent the price in that market (whether that price is directly observable or estimated using another valuation technique), even if the price in a different market is potentially more advantageous at the measurement date.
- A10. The entity must have access to the principal (or most advantageous) market at the measurement date. Because different entities (and operations within those entities) with different activities may have access to different markets, the principal (or most advantageous) market for the same asset or liability might be different for different entities (and operations within those entities). Therefore, the principal (or most advantageous) market (and thus, market participants) shall be considered from the perspective of the entity, thereby allowing for differences between and among entities with different activities.
- A11. Although an entity must be able to access the market, the entity does not need to be able to sell the particular asset or transfer the particular liability on the measurement date to be able to measure fair value on the basis of the price in that market.
- A12. Even when there is no observable market to provide pricing information about the sale of an asset or the transfer of a liability at the measurement date, a fair value measurement shall assume that a transaction takes place at that date, considered from the perspective of a market participant that holds the asset or owes the liability. That assumed transaction establishes a basis for estimating the price to sell the asset or to transfer the liability.

**Market Participants**

- A13. **An entity shall measure the fair value of an asset or a liability using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.**
- A14. In developing those assumptions, an entity need not identify specific market participants. Rather, the entity shall identify characteristics that distinguish market participants generally, considering factors specific to all the following:

- (a) The asset or liability;
- (b) The principal (or most advantageous) market for the asset or liability; and
- (c) Market participants with whom the entity would enter into a transaction in that market.

### The Price

- A15. **Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction in the principal (or most advantageous) market at the measurement date under current market conditions (i.e., an exit price) regardless of whether that price is directly observable or estimated using another valuation technique.**
- A16. The price in the principal (or most advantageous) market used to measure the fair value of the asset or liability shall not be adjusted for *transaction costs*. Transaction costs shall be accounted for in accordance with other IPSASs. Transaction costs are not a characteristic of an asset or a liability; rather, they are specific to a transaction and will differ depending on how an entity enters into a transaction for the asset or liability.
- A17. Transaction costs do not include *transport costs*. If location is a characteristic of the asset (as might be the case, e.g., for a commodity), the price in the principal (or most advantageous) market shall be adjusted for the costs, if any, that would be incurred to transport the asset from its current location to that market.

### Application to non-financial assets

#### *Highest and best use for non-financial assets*

- A18. **A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its *highest and best use* or by selling it to another market participant that would use the asset in its highest and best use.**
- A19. The highest and best use of a non-financial asset takes into account the use of the asset that is physically possible, legally permissible and financially feasible, as follows:
- (a) A use that is physically possible takes into account the physical characteristics of the asset that market participants would take into account when pricing the asset (e.g., the location or size of a property).
  - (b) A use that is legally permissible takes into account any legal restrictions on the use of the asset that market participants would take into account when pricing the asset (e.g., the zoning regulations applicable to a property).
  - (c) A use that is financially feasible takes into account whether a use of the asset that is physically possible and legally permissible generates adequate income or cash flows (taking into account the costs of converting the asset to that use) to produce an investment return that market participants would require from an investment in that asset put to that use.
- A20. Highest and best use is determined from the perspective of market participants, even if the entity intends a different use. However, an entity's current use of a non-financial asset is presumed to be its highest and best use unless market or other factors suggest that a different use by market participants would maximize the value of the asset.

A21. To protect the public interest, or for other reasons, an entity may intend not to use an acquired non-financial asset actively or it may intend not to use the asset according to its highest and best use. For example, that might be the case for an acquired intangible asset, such as a drug patent, that the entity plans to use to manufacture vaccines for its citizens. Nevertheless, the entity shall measure the fair value of a non-financial asset assuming its highest and best use by market participants.

*Valuation premise for non-financial assets*

A22. The highest and best use of a non-financial asset establishes the valuation premise used to measure the fair value of the asset, as follows:

- (a) The highest and best use of a non-financial asset might provide maximum value to market participants through its use in combination with other assets as a group (as installed or otherwise configured for use) or in combination with other assets and liabilities (e.g., an operation).
  - (i) If the highest and best use of the asset is to use the asset in combination with other assets or with other assets and liabilities, the fair value of the asset is the price that would be received in a current transaction to sell the asset assuming that the asset would be used with other assets or with other assets and liabilities and that those assets and liabilities (i.e., its complementary assets and the associated liabilities) would be available to market participants.
  - (ii) Liabilities associated with the asset and with the complementary assets include liabilities that fund working capital, but do not include liabilities used to fund assets other than those within the group of assets.
  - (iii) Assumptions about the highest and best use of a non-financial asset shall be consistent for all the assets (for which highest and best use is relevant) of the group of assets or the group of assets and liabilities within which the asset would be used.
- (b) The highest and best use of a non-financial asset might provide maximum value to market participants on a stand-alone basis. If the highest and best use of the asset is to use it on a stand-alone basis, the fair value of the asset is the price that would be received in a current transaction to sell the asset to market participants that would use the asset on a stand-alone basis.

A23. The fair value measurement of a non-financial asset assumes that the asset is sold consistently with the unit of account specified in other IPSAS (which may be an individual asset). That is the case even when that fair value measurement assumes that the highest and best use of the asset is to use it in combination with other assets or with other assets and liabilities because a fair value measurement assumes that the market participant already holds the complementary assets and the associated liabilities.

A24. When measuring the fair value of a non-financial asset used in combination with other assets as a group (as installed or otherwise configured for use) or in combination with other assets and liabilities (e.g., an operation), the effect of the valuation premise depends on the circumstances. For example:

- (a) The fair value of the asset might be the same whether the asset is used on a stand-alone basis or in combination with other assets or with other assets and liabilities. That might be the case if the asset is an operation that market participants would continue to operate. In that case, the transaction would involve valuing the operation in its entirety. The use of the

assets as a group in an ongoing operation would generate synergies that would be available to market participants (i.e., market participant synergies that, therefore, should affect the fair value of the asset on either a stand-alone basis or in combination with other assets or with other assets and liabilities).

- (b) An asset's use in combination with other assets or with other assets and liabilities might be incorporated into the fair value measurement through adjustments to the value of the asset used on a stand-alone basis. That might be the case if the asset is a machine and the fair value measurement is determined using an observed price for a similar machine (not installed or otherwise configured for use), adjusted for transport and installation costs so that the fair value measurement reflects the current condition and location of the machine (installed and configured for use).
- (c) An asset's use in combination with other assets or with other assets and liabilities might be incorporated into the fair value measurement through the market participant assumptions used to measure the fair value of the asset. For example, if the asset is work in progress inventory that is unique and market participants would convert the inventory into finished goods, the fair value of the inventory would assume that market participants have acquired or would acquire any specialized machinery necessary to convert the inventory into finished goods.
- (d) An asset's use in combination with other assets or with other assets and liabilities might be incorporated into the valuation technique used to measure the fair value of the asset. That might be the case when using the multi-period excess earnings method to measure the fair value of an intangible asset because that valuation technique specifically takes into account the contribution of any complementary assets and the associated liabilities in the group in which such an intangible asset would be used.
- (e) In more limited situations, when an entity uses an asset within a group of assets, the entity might measure the asset at an amount that approximates its fair value when allocating the fair value of the asset group to the individual assets of the group. That might be the case if the valuation involves real property and the fair value of improved property (i.e., an asset group) is allocated to its component assets (such as land and improvements).

### **Fair Value at Initial Recognition**

- A25. When an asset is acquired or a liability is assumed in an exchange transaction for that asset or liability, the transaction price is the price paid to acquire the asset or received to assume the liability (an *entry price*). In contrast, the fair value of the asset or liability is the price that would be received to sell the asset or paid to transfer the liability (an *exit price*). Entities do not necessarily sell assets at the prices paid to acquire them. Similarly, entities do not necessarily transfer liabilities at the prices received to assume them.
- A26. In many cases the transaction price will equal the fair value (e.g., that might be the case when on the transaction date the transaction to buy an asset takes place in the market in which the asset would be sold).
- A27. When determining whether fair value at initial recognition equals the transaction price, an entity shall take into account factors specific to the transaction and to the asset or liability. Paragraph A29 describes situations in which the transaction price might not represent the fair value of an asset or a liability at initial recognition.



- A28. If another IPSAS requires or permits an entity to measure an asset or a liability initially at fair value and the transaction price differs from fair value, the entity shall recognize the resulting gain or loss in surplus or deficit unless that IPSAS specifies otherwise.

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| Paragraph A29 is IFRS 13.B4 |
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- A29. When determining whether fair value at initial recognition equals the transaction price, an entity shall take into account factors specific to the transaction and to the asset or liability. For example, the transaction price might not represent the fair value of an asset or a liability at initial recognition if any of the following conditions exist:
- (a) The transaction is between related parties, although the price in a related party transaction may be used as an input into a fair value measurement if the entity has evidence that the transaction was entered into at market terms.
  - (b) The transaction takes place under duress or the seller is forced to accept the price in the transaction. For example, that might be the case if the seller is experiencing financial difficulty.
  - (c) The unit of account represented by the transaction price is different from the unit of account for the asset or liability measured at fair value. For example, that might be the case if the asset or liability measured at fair value is only one of the elements in the transaction (e.g., in a public sector combination), the transaction includes unstated rights and privileges that are measured separately in accordance with another IPSAS, or the transaction price includes transaction costs.
  - (d) The market in which the transaction takes place is different from the principal market (or most advantageous market). For example, those markets might be different if the entity is a dealer that enters into transactions with customers in the retail market, but the principal (or most advantageous) market for the exit transaction is with other dealers in the dealer market.

### Valuation Techniques

- A30. **An entity shall use valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximizing the use of relevant observable inputs and minimizing the use of unobservable inputs.**
- A31. The objective of using a valuation technique is to estimate the price at which an orderly transaction to sell the asset or to transfer the liability would take place between market participants at the measurement date under current market conditions. Three widely used valuation techniques are the market approach, the cost approach and the income approach. The main aspects of those approaches are summarized in paragraphs A41–A42. An entity shall use valuation techniques consistent with one or more of those approaches to measure fair value.
- A32. In some cases a single valuation technique will be appropriate (e.g., when valuing an asset or a liability using quoted prices in an active market for identical assets or liabilities). In other cases, multiple valuation techniques will be appropriate (e.g., that might be the case when valuing a cash-generating unit). If multiple valuation techniques are used to measure fair value, the results (i.e., respective indications of fair value) shall be evaluated considering the reasonableness of the range of values indicated by those results. A fair value measurement is the point within that range that is most representative of fair value in the circumstances.
- A33. If the transaction price is fair value at initial recognition and a valuation technique that uses unobservable inputs will be used to measure fair value in subsequent periods, the valuation technique

shall be calibrated so that at initial recognition the result of the valuation technique equals the transaction price. Calibration ensures that the valuation technique reflects current market conditions, and it helps an entity to determine whether an adjustment to the valuation technique is necessary (e.g., there might be a characteristic of the asset or liability that is not captured by the valuation technique). After initial recognition, when measuring fair value using a valuation technique or techniques that use unobservable inputs, an entity shall ensure that those valuation techniques reflect observable market data (e.g., the price for a similar asset or liability) at the measurement date.

- A34. Valuation techniques used to measure fair value shall be applied consistently. However, a change in a valuation technique or its application (e.g., a change in its weighting when multiple valuation techniques are used or a change in an adjustment applied to a valuation technique) is appropriate if the change results in a measurement that is equally or more representative of fair value in the circumstances. That might be the case if, for example, any of the following events take place:
- (a) New markets develop;
  - (b) New information becomes available;
  - (c) Information previously used is no longer available;
  - (d) Valuation techniques improve; or
  - (e) Market conditions change.
- A35. Revisions resulting from a change in the valuation technique or its application shall be accounted for as a change in accounting estimate in accordance with IPSAS 3, *Accounting Policies, Changes in Accounting Estimates and Errors*. However, the disclosures in IPSAS 3 for a change in accounting estimate are not required for revisions resulting from a change in a valuation technique or its application.

#### *Market Approach*

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| Paragraphs A36–A38 are IFRS 13.B5-B7 |
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- A36. The market approach uses prices and other relevant information generated by market transactions involving identical or comparable (i.e., similar) assets, liabilities or a group of assets and liabilities, such as an operation.
- A37. For example, valuation techniques consistent with the market approach often use market multiples derived from a set of comparables. Multiples might be in ranges with a different multiple for each comparable. The selection of the appropriate multiple within the range requires judgement, considering qualitative and quantitative factors specific to the measurement.
- A38. Valuation techniques consistent with the market approach include matrix pricing. Matrix pricing is a mathematical technique used principally to value some types of financial instruments, such as debt securities, without relying exclusively on quoted prices for the specific securities, but rather relying on the securities' relationship to other benchmark quoted securities.

#### *Cost Approach*

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| Paragraphs A39 and A40 are IFRS 13.B8 and B9 |
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- A39. The cost approach reflects the amount that would be required currently to replace the service capacity of an asset (often referred to as current replacement cost).

A40. From the perspective of a market participant seller, the price that would be received for the asset is based on the cost to a market participant buyer to acquire or construct a substitute asset of comparable utility, adjusted for obsolescence. That is because a market participant buyer would not pay more for an asset than the amount for which it could replace the service capacity of that asset. Obsolescence encompasses physical deterioration, functional (technological) obsolescence and economic (external) obsolescence and is broader than depreciation for financial reporting purposes (an allocation of historical cost) or tax purposes (using specified service lives). In many cases the current replacement cost method is used to measure the fair value of tangible assets that are used in combination with other assets or with other assets and liabilities.

#### *Income Approach*

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| Paragraphs A41 and A42 are IFRS 13.B10 and B11 |
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A41. The income approach converts future amounts (e.g., cash flows or income and expenses) to a single current (i.e., discounted) amount. When the income approach is used, the fair value measurement reflects current market expectations about those future amounts.

A42. Those valuation techniques include, for example, the following:

- (a) Present value techniques (see paragraphs A43–A61);
- (b) Option pricing models, such as the Black-Scholes-Merton formula or a binomial model (i.e., a lattice model), that incorporate present value techniques and reflect both the time value and the intrinsic value of an option; and
- (c) The multi-period excess earnings method, which is used to measure the fair value of some intangible assets.

#### *Present Value Techniques*

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| Paragraphs A43 and A44 are IFRS 13.B12 and B13 |
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A43. Paragraphs A44–A61 describe the use of present value techniques to measure fair value. Those paragraphs focus on a discount rate adjustment technique and an expected cash flow (expected present value) technique. Those paragraphs neither prescribe the use of a single specific present value technique nor limit the use of present value techniques to measure fair value to the techniques discussed. The present value technique used to measure fair value will depend on facts and circumstances specific to the asset or liability being measured (e.g., whether prices for comparable assets or liabilities can be observed in the market) and the availability of sufficient data.

#### The Components of a Present Value Measurement

A44. Present value (i.e., an application of the income approach) is a tool used to link future amounts (e.g., cash flows or values) to a present amount using a discount rate. A fair value measurement of an asset or a liability using a present value technique captures all the following elements from the perspective of market participants at the measurement date:

- (a) An estimate of future cash flows for the asset or liability being measured.
- (b) Expectations about possible variations in the amount and timing of the cash flows representing the uncertainty inherent in the cash flows.

- (c) The time value of money, represented by the rate on risk-free monetary assets that have maturity dates or durations that coincide with the period covered by the cash flows and pose neither uncertainty in timing nor risk of default to the holder (i.e., a risk-free interest rate).
- (d) The price for bearing the uncertainty inherent in the cash flows (i.e., a risk premium).
- (e) Other factors that market participants would take into account in the circumstances.
- (f) For a liability, the non-performance risk relating to that liability, including the entity's (i.e., the obligor's) own credit risk.

### *General Principles*

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| Paragraph A45 is IFRS 13.B14 |
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A45. Present value techniques differ in how they capture the elements in paragraph A44. However, all the following general principles govern the application of any present value technique used to measure fair value:

- (a) Cash flows and discount rates should reflect assumptions that market participants would use when pricing the asset or liability.
- (b) Cash flows and discount rates should take into account only the factors attributable to the asset or liability being measured.
- (c) To avoid double-counting or omitting the effects of risk factors, discount rates should reflect assumptions that are consistent with those inherent in the cash flows. For example, a discount rate that reflects the uncertainty in expectations about future defaults is appropriate if using contractual cash flows of a loan (i.e., a discount rate adjustment technique). That same rate should not be used if using expected (i.e., probability-weighted) cash flows (i.e., an expected present value technique) because the expected cash flows already reflect assumptions about the uncertainty in future defaults; instead, a discount rate that is commensurate with the risk inherent in the expected cash flows should be used.
- (d) Assumptions about cash flows and discount rates should be internally consistent. For example, nominal cash flows, which include the effect of inflation, should be discounted at a rate that includes the effect of inflation. The nominal risk-free interest rate includes the effect of inflation. Real cash flows, which exclude the effect of inflation, should be discounted at a rate that excludes the effect of inflation. Similarly, after-tax cash flows should be discounted using an after-tax discount rate. Pre-tax cash flows should be discounted at a rate consistent with those cash flows.
- (e) Discount rates should be consistent with the underlying economic factors of the currency in which the cash flows are denominated.

### *Risk and Uncertainty*

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| Paragraphs A46–A48 are IFRS 13.B15-B17 |
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A46. A fair value measurement using present value techniques is made under conditions of uncertainty because the cash flows used are estimates rather than known amounts. In many cases both the amount and timing of the cash flows are uncertain. Even contractually fixed amounts, such as the payments on a loan, are uncertain if there is risk of default.

- A47. Market participants generally seek compensation (i.e., a risk premium) for bearing the uncertainty inherent in the cash flows of an asset or a liability. A fair value measurement should include a risk premium reflecting the amount that market participants would demand as compensation for the uncertainty inherent in the cash flows. Otherwise, the measurement would not faithfully represent fair value. In some cases determining the appropriate risk premium might be difficult. However, the degree of difficulty alone is not a sufficient reason to exclude a risk premium.
- A48. Present value techniques differ in how they adjust for risk and in the type of cash flows they use. For example:
- (a) The discount rate adjustment technique (see paragraphs A49–A53) uses a risk-adjusted discount rate and contractual, promised or most likely cash flows.
  - (b) Method 1 of the expected present value technique (see paragraph A56) uses risk-adjusted expected cash flows and a risk-free rate.
  - (c) Method 2 of the expected present value technique (see paragraph A57) uses expected cash flows that are not risk-adjusted and a discount rate adjusted to include the risk premium that market participants require. That rate is different from the rate used in the discount rate adjustment technique.

*Discount Rate Adjustment Technique*

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| Paragraphs A49–A53 are IFRS 13.B18-B22 |
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- A49. The discount rate adjustment technique uses a single set of cash flows from the range of possible estimated amounts, whether contractual or promised (as is the case for a bond) or most likely cash flows. In all cases, those cash flows are conditional upon the occurrence of specified events (e.g., contractual or promised cash flows for a bond are conditional on the event of no default by the debtor). The discount rate used in the discount rate adjustment technique is derived from observed rates of return for comparable assets or liabilities that are traded in the market. Accordingly, the contractual, promised or most likely cash flows are discounted at an observed or estimated market rate for such conditional cash flows (i.e., a market rate of return).
- A50. The discount rate adjustment technique requires an analysis of market data for comparable assets or liabilities. Comparability is established by considering the nature of the cash flows (e.g., whether the cash flows are contractual or non-contractual and are likely to respond similarly to changes in economic conditions), as well as other factors (e.g., credit standing, collateral, duration, restrictive covenants and liquidity). Alternatively, if a single comparable asset or liability does not fairly reflect the risk inherent in the cash flows of the asset or liability being measured, it may be possible to derive a discount rate using data for several comparable assets or liabilities in conjunction with the risk-free yield curve (i.e., using a 'build-up' approach).
- A51. To illustrate a build-up approach, assume that Asset A is a contractual right to receive CU800 in one year (i.e., there is no timing uncertainty). There is an established market for comparable assets, and information about those assets, including price information, is available. Of those comparable assets:
- (a) Asset B is a contractual right to receive CU1,200 in one year and has a market price of CU1,083. Thus, the implied annual rate of return (i.e., a one-year market rate of return) is 10.8 per cent  $[(CU1,200/CU1,083) - 1]$ .

- (b) Asset C is a contractual right to receive CU700 in two years and has a market price of CU566. Thus, the implied annual rate of return (i.e., a two-year market rate of return) is 11.2 per cent  $[(CU700/CU566)^{0.5} - 1]$ .
- (c) All three assets are comparable with respect to risk (i.e., dispersion of possible pay-offs and credit).
- A52. On the basis of the timing of the contractual payments to be received for Asset A relative to the timing for Asset B and Asset C (i.e., one year for Asset B versus two years for Asset C), Asset B is deemed more comparable to Asset A. Using the contractual payment to be received for Asset A (CU800) and the one-year market rate derived from Asset B (10.8 per cent), the fair value of Asset A is CU722  $(CU800/1.108)$ . Alternatively, in the absence of available market information for Asset B, the one-year market rate could be derived from Asset C using the build-up approach. In that case the two-year market rate indicated by Asset C (11.2 per cent) would be adjusted to a one-year market rate using the term structure of the risk-free yield curve. Additional information and analysis might be required to determine whether the risk premiums for one-year and two-year assets are the same. If it is determined that the risk premiums for one-year and two-year assets are not the same, the two-year market rate of return would be further adjusted for that effect.
- A53. When the discount rate adjustment technique is applied to fixed receipts or payments, the adjustment for risk inherent in the cash flows of the asset or liability being measured is included in the discount rate. In some applications of the discount rate adjustment technique to cash flows that are not fixed receipts or payments, an adjustment to the cash flows may be necessary to achieve comparability with the observed asset or liability from which the discount rate is derived.

#### *Expected Present Value Technique*

Paragraphs A54–A61 are IFRS 13.B23–B30

- A54. The expected present value technique uses as a starting point a set of cash flows that represents the probability-weighted average of all possible future cash flows (i.e., the expected cash flows). The resulting estimate is identical to expected value, which, in statistical terms, is the weighted average of a discrete random variable's possible values with the respective probabilities as the weights. Because all possible cash flows are probability-weighted, the resulting expected cash flow is not conditional upon the occurrence of any specified event (unlike the cash flows used in the discount rate adjustment technique).
- A55. In making an investment decision, risk-averse market participants would take into account the risk that the actual cash flows may differ from the expected cash flows. Portfolio theory distinguishes between two types of risk:
- (a) Unsystematic (diversifiable) risk, which is the risk specific to a particular asset or liability.
- (b) Systematic (non-diversifiable) risk, which is the common risk shared by an asset or a liability with the other items in a diversified portfolio.

Portfolio theory holds that in a market in equilibrium, market participants will be compensated only for bearing the systematic risk inherent in the cash flows. (In markets that are inefficient or out of equilibrium, other forms of return or compensation might be available.)

- A56. Method 1 of the expected present value technique adjusts the expected cash flows of an asset for systematic (i.e., market) risk by subtracting a cash risk premium (i.e., risk-adjusted expected cash flows). Those risk-adjusted expected cash flows represent a certainty-equivalent cash flow, which is

discounted at a risk-free interest rate. A certainty-equivalent cash flow refers to an expected cash flow (as defined), adjusted for risk so that a market participant is indifferent to trading a certain cash flow for an expected cash flow. For example, if a market participant was willing to trade an expected cash flow of CU1,200 for a certain cash flow of CU1,000, the CU1,000 is the certainty equivalent of the CU1,200 (i.e., the CU200 would represent the cash risk premium). In that case the market participant would be indifferent as to the asset held.

- A57. In contrast, Method 2 of the expected present value technique adjusts for systematic (i.e., market) risk by applying a risk premium to the risk-free interest rate. Accordingly, the expected cash flows are discounted at a rate that corresponds to an expected rate associated with probability-weighted cash flows (i.e., an expected rate of return). Models used for pricing risky assets, such as the capital asset pricing model, can be used to estimate the expected rate of return. Because the discount rate used in the discount rate adjustment technique is a rate of return relating to conditional cash flows, it is likely to be higher than the discount rate used in Method 2 of the expected present value technique, which is an expected rate of return relating to expected or probability-weighted cash flows.
- A58. To illustrate Methods 1 and 2, assume that an asset has expected cash flows of CU780 in one year determined on the basis of the possible cash flows and probabilities shown below. The applicable risk-free interest rate for cash flows with a one-year horizon is 5 per cent, and the systematic risk premium for an asset with the same risk profile is 3 per cent.

| Possible cash flows | Probability | Probability-weighted cash flows |
|---------------------|-------------|---------------------------------|
| CU500               | 15%         | CU75                            |
| CU800               | 60%         | CU480                           |
| CU900               | 25%         | CU225                           |
| Expected cash flows |             | CU780                           |

- A59. In this simple illustration, the expected cash flows (CU780) represent the probability-weighted average of the three possible outcomes. In more realistic situations, there could be many possible outcomes. However, to apply the expected present value technique, it is not always necessary to take into account distributions of all possible cash flows using complex models and techniques. Rather, it might be possible to develop a limited number of discrete scenarios and probabilities that capture the array of possible cash flows. For example, an entity might use realized cash flows for some relevant past period, adjusted for changes in circumstances occurring subsequently (e.g., changes in external factors, including economic or market conditions, industry trends and competition as well as changes in internal factors affecting the entity more specifically), taking into account the assumptions of market participants.
- A60. In theory, the present value (i.e., the fair value) of the asset's cash flows is the same whether determined using Method 1 or Method 2, as follows:
- (a) Using Method 1, the expected cash flows are adjusted for systematic (i.e., market) risk. In the absence of market data directly indicating the amount of the risk adjustment, such adjustment could be derived from an asset pricing model using the concept of certainty equivalents. For example, the risk adjustment (i.e., the cash risk premium of CU22) could be determined using the systematic risk premium of 3 per cent ( $CU780 - [CU780 \times (1.05/1.08)]$ ), which results in

risk-adjusted expected cash flows of CU758 (CU780 – CU22). The CU758 is the certainty equivalent of CU780 and is discounted at the risk-free interest rate (5 per cent). The present value (i.e., the fair value) of the asset is CU722 (CU758/1.05).

- (b) Using Method 2, the expected cash flows are not adjusted for systematic (i.e., market) risk. Rather, the adjustment for that risk is included in the discount rate. Thus, the expected cash flows are discounted at an expected rate of return of 8 per cent (i.e., the 5 per cent risk-free interest rate plus the 3 per cent systematic risk premium). The present value (i.e., the fair value) of the asset is CU722 (CU780/1.08).

A61. When using an expected present value technique to measure fair value, either Method 1 or Method 2 could be used. The selection of Method 1 or Method 2 will depend on facts and circumstances specific to the asset or liability being measured, the extent to which sufficient data are available and the judgements applied.

### Inputs to Valuation Techniques

#### *General Principles*

A62. **Valuation techniques used to measure fair value shall maximize the use of relevant observable inputs and minimize the use of unobservable inputs.**

A63. Examples of markets in which inputs might be observable for some assets and liabilities (e.g., financial instruments) include exchange markets, dealer markets, brokered markets and principal-to-principal markets (see paragraph A64).

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| Paragraph A64 is IFRS 13.B34 |
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A64. Examples of markets in which inputs might be observable for some assets and liabilities (e.g., financial instruments) include the following:

- (a) Exchange markets. In an exchange market, closing prices are both readily available and generally representative of fair value. An example of such a market is the London Stock Exchange.
- (b) Dealer markets. In a dealer market, dealers stand ready to trade (either buy or sell for their own account), thereby providing liquidity by using their capital to hold an inventory of the items for which they make a market. Typically bid and ask prices (representing the price at which the dealer is willing to buy and the price at which the dealer is willing to sell, respectively) are more readily available than closing prices. Over-the-counter markets (for which prices are publicly reported) are dealer markets. Dealer markets also exist for some other assets and liabilities, including some financial instruments, commodities and physical assets (e.g., used equipment).
- (c) Brokered markets. In a brokered market, brokers attempt to match buyers with sellers but do not stand ready to trade for their own account. In other words, brokers do not use their own capital to hold an inventory of the items for which they make a market. The broker knows the prices bid and asked by the respective parties, but each party is typically unaware of another party's price requirements. Prices of completed transactions are sometimes available. Brokered markets include electronic communication networks, in which buy and sell orders are matched, and commercial and residential real estate markets.



- (d) Principal-to-principal markets. In a principal-to-principal market, transactions, both originations and resales, are negotiated independently with no intermediary. Little information about those transactions may be made available publicly.
- A65. An entity shall select inputs that are consistent with the characteristics of the asset or liability that market participants would take into account in a transaction for the asset or liability (see paragraphs A2 and A3). In some cases those characteristics result in the application of an adjustment, such as a premium or discount (e.g., a control premium or non-controlling interest discount). However, a fair value measurement shall not incorporate a premium or discount that is inconsistent with the unit of account in the IPSAS that requires or permits the fair value measurement (see paragraphs A4 and A5). Premiums or discounts that reflect size as a characteristic of the entity's holding (specifically, a blockage factor that adjusts the quoted price of an asset or a liability because the market's normal daily trading volume is not sufficient to absorb the quantity held by the entity, as described in paragraph A74) rather than as a characteristic of the asset or liability (e.g., a control premium when measuring the fair value of a controlling interest) are not permitted in a fair value measurement. In all cases, if there is a quoted price in an active market (i.e., a Level 1 input) for an asset or a liability, an entity shall use that price without adjustment when measuring fair value, except as specified in paragraph A73.

### **Fair Value Hierarchy**

- A66. To increase consistency and comparability in fair value measurements and related disclosures, this Application Guidance establishes a fair value hierarchy that categorizes into three levels (see paragraphs A70–A97) the inputs to valuation techniques used to measure fair value. The fair value hierarchy gives the highest priority to quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1 inputs) and the lowest priority to unobservable inputs (Level 3 inputs).
- A67. In some cases, the inputs used to measure the fair value of an asset or a liability might be categorized within different levels of the fair value hierarchy. In those cases, the fair value measurement is categorized in its entirety in the same level of the fair value hierarchy as the lowest level input that is significant to the entire measurement. Assessing the significance of a particular input to the entire measurement requires judgement, taking into account factors specific to the asset or liability. Adjustments to arrive at measurements based on fair value, such as costs to sell when measuring fair value less costs to sell, shall not be taken into account when determining the level of the fair value hierarchy within which a fair value measurement is categorized.
- A68. The availability of relevant inputs and their relative subjectivity might affect the selection of appropriate valuation techniques (see paragraph A30). However, the fair value hierarchy prioritizes the inputs to valuation techniques, not the valuation techniques used to measure fair value. For example, a fair value measurement developed using a present value technique might be categorized within Level 2 or Level 3, depending on the inputs that are significant to the entire measurement and the level of the fair value hierarchy within which those inputs are categorized.
- A69. If an observable input requires an adjustment using an unobservable input and that adjustment results in a significantly higher or lower fair value measurement, the resulting measurement would be categorized within Level 3 of the fair value hierarchy. For example, if a market participant would take into account the effect of a restriction on the sale of an asset when estimating the price for the asset, an entity would adjust the quoted price to reflect the effect of that restriction. If that quoted price is a Level 2 input and the adjustment is an unobservable input that is significant to the entire measurement, the measurement would be categorized within Level 3 of the fair value hierarchy.

*Level 1 Inputs*

- A70. Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date.
- A71. A quoted price in an active market provides the most faithfully representative evidence of fair value and shall be used without adjustment to measure fair value whenever available, except as specified in paragraph A73.
- A72. A Level 1 input will be available for many financial assets and financial liabilities, some of which might be exchanged in multiple active markets (e.g., on different exchanges). Therefore, the emphasis within Level 1 is on determining both of the following:
- (a) The principal market for the asset or liability or, in the absence of a principal market, the most advantageous market for the asset or liability; and
  - (b) Whether the entity can enter into a transaction for the asset or liability at the price in that market at the measurement date.
- A73. An entity shall not make an adjustment to a Level 1 input except in the following circumstances:
- (a) When an entity holds a large number of similar (but not identical) assets or liabilities (e.g., debt securities) that are measured at fair value and a quoted price in an active market is available but not readily accessible for each of those assets or liabilities individually (i.e., given the large number of similar assets or liabilities held by the entity, it would be difficult to obtain pricing information for each individual asset or liability at the measurement date). In that case, as a practical expedient, an entity may measure fair value using an alternative pricing method that does not rely exclusively on quoted prices (e.g., matrix pricing). However, the use of an alternative pricing method results in a fair value measurement categorized within a lower level of the fair value hierarchy.
  - (b) When a quoted price in an active market does not represent fair value at the measurement date. That might be the case if, for example, significant events (such as transactions in a principal-to-principal market, trades in a brokered market or announcements) take place after the close of a market but before the measurement date. An entity shall establish and consistently apply a policy for identifying those events that might affect fair value measurements. However, if the quoted price is adjusted for new information, the adjustment results in a fair value measurement categorized within a lower level of the fair value hierarchy.
  - (c) When measuring the fair value of a liability or an entity's own equity instrument using the quoted price for the identical item traded as an asset in an active market and that price needs to be adjusted for factors specific to the item or the asset (see paragraph [to be developed]<sup>36</sup> of IPSAS 41). If no adjustment to the quoted price of the asset is required, the result is a fair value measurement categorized within Level 1 of the fair value hierarchy. However, any adjustment to the quoted price of the asset results in a fair value measurement categorized within a lower level of the fair value hierarchy.
- A74. If an entity holds a position in a single asset or liability (including a position comprising a large number of identical assets or liabilities, such as a holding of financial instruments) and the asset or liability is traded in an active market, the fair value of the asset or liability shall be measured within Level 1 as the product of the quoted price for the individual asset or liability and the quantity held by the entity.

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<sup>36</sup> Paragraph in IPSAS 41 will be developed as a consequential amendment during the Exposure Draft Phase of the project.

That is the case even if a market's normal daily trading volume is not sufficient to absorb the quantity held and placing orders to sell the position in a single transaction might affect the quoted price.

### *Level 2 Inputs*

- A75. Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.
- A76. If the asset or liability has a specified (contractual) term, a Level 2 input must be observable for substantially the full term of the asset or liability. Level 2 inputs include the following:
- (a) Quoted prices for similar assets or liabilities in active markets.
  - (b) Quoted prices for identical or similar assets or liabilities in markets that are not active.
  - (c) inputs other than quoted prices that are observable for the asset or liability, for example:
    - (i) Interest rates and yield curves observable at commonly quoted intervals;
    - (ii) Implied volatilities; and
    - (iii) Credit spreads.
  - (d) Market-corroborated inputs.
- A77. Adjustments to Level 2 inputs will vary depending on factors specific to the asset or liability. Those factors include the following:
- (a) The condition or location of the asset;
  - (b) The extent to which inputs relate to items that are comparable to the asset or liability (including those factors described in paragraph [to be developed]<sup>37</sup> of IPSAS 41; and
  - (c) The volume or level of activity in the markets within which the inputs are observed.
- A78. An adjustment to a Level 2 input that is significant to the entire measurement might result in a fair value measurement categorized within Level 3 of the fair value hierarchy if the adjustment uses significant unobservable inputs.
- A79. Paragraph A80 describes the use of Level 2 inputs for particular assets and liabilities.

Paragraph A80 is IFRS 13.B35

- A80. Examples of Level 2 inputs for particular assets and liabilities include the following:
- (a) Licensing arrangement. For a licensing arrangement that is acquired in a public sector combination and was recently negotiated with an unrelated party by the acquired entity (the party to the licensing arrangement), a Level 2 input would be the royalty rate in the contract with the unrelated party at inception of the arrangement.
  - (b) Finished goods inventory at a retail outlet. For finished goods inventory that is acquired in a public sector combination, a Level 2 input would be either a price to customers in a retail market or a price to retailers in a wholesale market, adjusted for differences between the condition and location of the inventory item and the comparable (i.e., similar) inventory items so that the fair value measurement reflects the price that would be received in a transaction to sell the inventory to another retailer that would complete the requisite selling efforts. Conceptually, the

<sup>37</sup> Paragraph in IPSAS 41 will be developed as a consequential amendment during the Exposure Draft Phase of the project.

fair value measurement will be the same, whether adjustments are made to a retail price (downward) or to a wholesale price (upward). Generally, the price that requires the least amount of subjective adjustments should be used for the fair value measurement.

- (c) Building held and used. A Level 2 input would be the price per square meter for the building (a valuation multiple) derived from observable market data, e.g., multiples derived from prices in observed transactions involving comparable (i.e., similar) buildings in similar locations.
- (d) Cash-generating unit. A Level 2 input would be a valuation multiple (e.g., a multiple of earnings or revenue or a similar performance measure) derived from observable market data, e.g., multiples derived from prices in observed transactions involving comparable (i.e., similar) operations, taking into account operational, market, financial and non-financial factors.

### *Level 3 Inputs*

- A81. Level 3 inputs are unobservable inputs for the asset or liability.
- A82. Unobservable inputs shall be used to measure fair value to the extent that relevant observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at the measurement date. However, the fair value measurement objective remains the same, i.e., an exit price at the measurement date from the perspective of a market participant that holds the asset or owes the liability. Therefore, unobservable inputs shall reflect the assumptions that market participants would use when pricing the asset or liability, including assumptions about risk.
- A83. Assumptions about risk include the risk inherent in a particular valuation technique used to measure fair value (such as a pricing model) and the risk inherent in the inputs to the valuation technique. A measurement that does not include an adjustment for risk would not represent a fair value measurement if market participants would include one when pricing the asset or liability. For example, it might be necessary to include a risk adjustment when there is significant measurement uncertainty (e.g., when there has been a significant decrease in the volume or level of activity when compared with normal market activity for the asset or liability, or similar assets or liabilities, and the entity has determined that the transaction price or quoted price does not represent fair value, as described in paragraphs A84–A94).

### *Measuring fair value when the volume or level of activity for an asset or a liability has significantly decreased*

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| Paragraphs A84–A94 are IFRS 13.B37-B47 |
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- A84. The fair value of an asset or a liability might be affected when there has been a significant decrease in the volume or level of activity for that asset or liability in relation to normal market activity for the asset or liability (or similar assets or liabilities). To determine whether, on the basis of the evidence available, there has been a significant decrease in the volume or level of activity for the asset or liability, an entity shall evaluate the significance and relevance of factors such as the following:
- (a) There are few recent transactions.
  - (b) Price quotations are not developed using current information.
  - (c) Price quotations vary substantially either over time or among market-makers (e.g., some brokered markets).

- (d) Indices that previously were highly correlated with the fair values of the asset or liability are demonstrably uncorrelated with recent indications of fair value for that asset or liability.
  - (e) There is a significant increase in implied liquidity risk premiums, yields or performance indicators (such as delinquency rates or loss severities) for observed transactions or quoted prices when compared with the entity's estimate of expected cash flows, taking into account all available market data about credit and other non-performance risk for the asset or liability.
  - (f) There is a wide bid-ask spread or significant increase in the bid-ask spread.
  - (g) There is a significant decline in the activity of, or there is an absence of, a market for new issues (i.e., a primary market) for the asset or liability or similar assets or liabilities.
  - (h) Little information is publicly available (e.g., for transactions that take place in a principal-to-principal market).
- A85. If an entity concludes that there has been a significant decrease in the volume or level of activity for the asset or liability in relation to normal market activity for the asset or liability (or similar assets or liabilities), further analysis of the transactions or quoted prices is needed. A decrease in the volume or level of activity on its own may not indicate that a transaction price or quoted price does not represent fair value or that a transaction in that market is not orderly. However, if an entity determines that a transaction or quoted price does not represent fair value (e.g., there may be transactions that are not orderly), an adjustment to the transactions or quoted prices will be necessary if the entity uses those prices as a basis for measuring fair value and that adjustment may be significant to the fair value measurement in its entirety. Adjustments also may be necessary in other circumstances (e.g., when a price for a similar asset requires significant adjustment to make it comparable to the asset being measured or when the price is stale).
- A86. This Application Guidance does not prescribe a methodology for making significant adjustments to transactions or quoted prices. See paragraphs A30–A35 and A36–A42 for a discussion of the use of valuation techniques when measuring fair value. Regardless of the valuation technique used, an entity shall include appropriate risk adjustments, including a risk premium reflecting the amount that market participants would demand as compensation for the uncertainty inherent in the cash flows of an asset or a liability (see paragraph A55). Otherwise, the measurement does not faithfully represent fair value. In some cases determining the appropriate risk adjustment might be difficult. However, the degree of difficulty alone is not a sufficient basis on which to exclude a risk adjustment. The risk adjustment shall be reflective of an orderly transaction between market participants at the measurement date under current market conditions.
- A87. If there has been a significant decrease in the volume or level of activity for the asset or liability, a change in valuation technique or the use of multiple valuation techniques may be appropriate (e.g., the use of a market approach and a present value technique). When weighting indications of fair value resulting from the use of multiple valuation techniques, an entity shall consider the reasonableness of the range of fair value measurements. The objective is to determine the point within the range that is most representative of fair value under current market conditions. A wide range of fair value measurements may be an indication that further analysis is needed.
- A88. Even when there has been a significant decrease in the volume or level of activity for the asset or liability, the objective of a fair value measurement remains the same. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction (i.e., not a forced liquidation or distress sale) between market participants at the measurement date under current market conditions.

- A89. Estimating the price at which market participants would be willing to enter into a transaction at the measurement date under current market conditions if there has been a significant decrease in the volume or level of activity for the asset or liability depends on the facts and circumstances at the measurement date and requires judgement. An entity's intention to hold the asset or to settle or otherwise fulfil the liability is not relevant when measuring fair value because fair value is a market-based measurement, not an entity-specific measurement.

*Identifying Transactions that are not Orderly*

- A90. The determination of whether a transaction is orderly (or is not orderly) is more difficult if there has been a significant decrease in the volume or level of activity for the asset or liability in relation to normal market activity for the asset or liability (or similar assets or liabilities). In such circumstances it is not appropriate to conclude that all transactions in that market are not orderly (i.e., forced liquidations or distress sales). Circumstances that may indicate that a transaction is not orderly include the following:

- (a) There was not adequate exposure to the market for a period before the measurement date to allow for marketing activities that are usual and customary for transactions involving such assets or liabilities under current market conditions.
- (b) There was a usual and customary marketing period, but the seller marketed the asset or liability to a single market participant.
- (c) The seller is in or near bankruptcy or receivership (i.e., the seller is distressed).
- (d) The seller was required to sell to meet regulatory or legal requirements (i.e., the seller was forced).
- (e) The transaction price is an outlier when compared with other recent transactions for the same or a similar asset or liability.

An entity shall evaluate the circumstances to determine whether, on the weight of the evidence available, the transaction is orderly.

- A91. An entity shall consider all the following when measuring fair value or estimating market risk premiums:

- (a) If the evidence indicates that a transaction is not orderly, an entity shall place little, if any, weight (compared with other indications of fair value) on that transaction price.
- (b) If the evidence indicates that a transaction is orderly, an entity shall take into account that transaction price. The amount of weight placed on that transaction price when compared with other indications of fair value will depend on the facts and circumstances, such as the following:
  - (i) The volume of the transaction.
  - (ii) The comparability of the transaction to the asset or liability being measured.
  - (iii) The proximity of the transaction to the measurement date.
- (c) If an entity does not have sufficient information to conclude whether a transaction is orderly, it shall take into account the transaction price. However, that transaction price may not represent fair value (i.e., the transaction price is not necessarily the sole or primary basis for measuring fair value or estimating market risk premiums). When an entity does not have sufficient information to conclude whether particular transactions are orderly, the entity shall place less

weight on those transactions when compared with other transactions that are known to be orderly.

An entity need not undertake exhaustive efforts to determine whether a transaction is orderly, but it shall not ignore information that is reasonably available. When an entity is a party to a transaction, it is presumed to have sufficient information to conclude whether the transaction is orderly.

*Using Quoted Prices Provided by Third Parties*

- A92. This Application Guidance does not preclude the use of quoted prices provided by third parties, such as pricing services or brokers, if an entity has determined that the quoted prices provided by those parties are developed in accordance with this Application Guidance.
- A93. If there has been a significant decrease in the volume or level of activity for the asset or liability, an entity shall evaluate whether the quoted prices provided by third parties are developed using current information that reflects orderly transactions or a valuation technique that reflects market participant assumptions (including assumptions about risk). In weighting a quoted price as an input to a fair value measurement, an entity places less weight (when compared with other indications of fair value that reflect the results of transactions) on quotes that do not reflect the result of transactions.
- A94. Furthermore, the nature of a quote (e.g., whether the quote is an indicative price or a binding offer) shall be taken into account when weighting the available evidence, with more weight given to quotes provided by third parties that represent binding offers.
- A95. An entity shall develop unobservable inputs using the best information available in the circumstances, which might include the entity's own data. In developing unobservable inputs, an entity may begin with its own data, but it shall adjust those data if reasonably available information indicates that other market participants would use different data or there is something particular to the entity that is not available to other market participants (e.g., an entity-specific synergy). An entity need not undertake exhaustive efforts to obtain information about market participant assumptions. However, an entity shall take into account all information about market participant assumptions that is reasonably available. Unobservable inputs developed in the manner described above are considered market participant assumptions and meet the objective of a fair value measurement.
- A96. Paragraph A97 describes the use of Level 3 inputs for particular assets and liabilities.

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| Paragraph A97 is IFRS 13.B36 |
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- A97. Examples of Level 3 inputs for particular assets and liabilities include the following:
- (a) Long-dated currency swap. A Level 3 input would be an interest rate in a specified currency that is not observable and cannot be corroborated by observable market data at commonly quoted intervals or otherwise for substantially the full term of the currency swap. The interest rates in a currency swap are the swap rates calculated from the respective countries' yield curves.
  - (b) Three-year option on exchange-traded shares. A Level 3 input would be historical volatility, i.e., the volatility for the shares derived from the shares' historical prices. Historical volatility typically does not represent current market participants' expectations about future volatility, even if it is the only information available to price an option.

- (c) Interest rate swap. A Level 3 input would be an adjustment to a mid-market consensus (non-binding) price for the swap developed using data that are not directly observable and cannot otherwise be corroborated by observable market data.
- (d) Decommissioning liability assumed in a public sector combination. A Level 3 input would be a current estimate using the entity's own data about the future cash outflows to be paid to fulfill the obligation (including market participants' expectations about the costs of fulfilling the obligation and the compensation that a market participant would require for taking on the obligation to dismantle the asset) if there is no reasonably available information that indicates that market participants would use different assumptions. That Level 3 input would be used in a present value technique together with other inputs, e.g., a current risk-free interest rate or a credit-adjusted risk-free rate if the effect of the entity's credit standing on the fair value of the liability is reflected in the discount rate rather than in the estimate of future cash outflows.
- (e) Cash-generating unit. A Level 3 input would be a financial forecast (e.g., of cash) developed using the entity's own data if there is no reasonably available information that indicates that market participants would use different assumptions.



## Appendix B: Fulfillment value—application guidance

*This Appendix is an integral part of [draft] IPSAS [X] (ED XX).*

### Measurement

- B1. The objective of fulfillment value measurement is to estimate the value of a liability assuming the entity will fulfill its obligation in the least costly manner. A fulfillment value measurement requires an entity to determine all the following:
- (a) The particular liability that is the subject of the measurement (consistently with its unit of account).
  - (b) The manner in which the liability will be settled.
  - (c) The liability's expected timing of settlement.
  - (d) The valuation technique(s) appropriate for the measurement, considering the availability of data with which to develop inputs that represent the assumptions that market participants would use when pricing the liability.

### The Liability

- B2. **A fulfillment value measurement is for a particular liability. Therefore, when measuring the fulfillment value, an entity takes into account characteristics of the particular liability relevant in determining the fulfillment value at the measurement date. Such characteristics include, for example, the following:**
- (a) **The entity's expectations about the amount and timing of the future outflow of resources; and**
  - (b) **The risk that the actual future outflow of resources may ultimately differ from those expected (i.e., a risk premium).**
- B3. The effect on the measurement arising from a particular characteristic will differ depending on how that characteristic would be taken into account by the specific entity.
- B4. The liability measured at its fulfillment value might be either of the following:
- (a) A stand-alone liability (e.g., a legal claim against the entity); or
  - (b) A group of liabilities (e.g., decommissioning liabilities associated with a particular asset).
- B5. Whether the liability is a stand-alone liability or a group liabilities for recognition or disclosure purposes depends on the liability's unit of account. The unit of account for the liability shall be determined in accordance with the IPSAS that requires or permits the fulfillment value measurement, except as provided in this Application Guidance.

### The Least Costly Manner

- B6. **The fulfillment value measurement assumes that the liability is settled by the entity in the least costly manner.**
- B7. The fulfillment value represents the amount the entity is obligated to incur to settle the liability. This obligation represents the minimum amount an entity will incur assuming the entity completely satisfies its obligation. For example, an entity may have an obligation to restore a parcel of land to its original

condition when a temporary road is no longer in use. Even when the entity intends to enhance the parcel of land, the costs of enhancements are beyond the cost to fulfill the minimum obligation of restoring the land to its original condition and therefore are not representative of the cost to fulfill the liability. In cases where an entity intends to fulfill the liability beyond its commitment, guidance in IPSAS 19, *Provisions, Contingent Liabilities and Contingent Assets*, should be applied when accounting for amount in excess of the cost to fulfill.

- B8. The entity must have the ability to access the settlement method that results in the obligation being settled in the least costly manner at the expected settlement date. Because different entities (and operations within those entities) with different activities may have access to a variety of settlement methods, the least costly manner for the same liability might be different for different entities (and operations within those entities). Therefore, the least costly manner shall be considered from the perspective of the entity, thereby allowing for differences between and among entities with different activities.
- B9. An entity need not undertake an exhaustive search of all settlement methods to identify the least costly manner of settlement, but it shall take into account all information that is reasonably available. In the absence of evidence to the contrary, the least costly manner of settlement is presumed to be the manner in which the entity has currently selected to release itself from the obligation. For example, if an entity elects to fulfill its decommissioning liability using its own employees, it is presumed this is the least costly manner of settlement, regardless of the entity's ability to contract the decommissioning to third parties.

Paragraph B10 is based on the Conceptual Framework 7.76

- B10. Where fulfillment requires work to be done—for example, where the liability is to rectify environmental damage—the relevant costs are those that the entity will incur. This may be the cost to the entity of doing the remedial work itself, or of contracting with an external party to carry out the work. However, the costs of contracting with an external party are only relevant where employing a contractor is the least costly means of fulfilling the obligation.

Paragraph B11 is based on the Conceptual Framework 7.77

- B11. Where fulfillment will be made by the entity itself, the fulfillment cost does not include any surplus, because any such surplus does not represent a use of the entity's resources. Where the fulfillment value amount is based on the cost of employing a contractor, the amount will implicitly include the profit required by the contractor, as the total amount charged by the contractor will be a claim on the entity's resources.

### Entity-Specific Value

- B12. **The fulfillment value is an entity specific value. An entity shall measure the fulfillment value of a liability using the assumptions from the entity's perspective, assuming the entity acts in its own economic best interest.**
- B13. In developing those entity-specific assumptions, an entity shall identify characteristics specific to the entity and the liability, considering factors specific to all the following:
- (a) The liability;
  - (b) The entity's expectations about the amount and timing of future outflows of resources;

- (c) The time value of money; and
  - (d) The risk that the actual outflow of resources may ultimately differ from those expected (i.e., a risk premium).
- B14. When measuring an entity specific value, the estimate of risk premium and the time value of money should be market based. This does not require an entity to use the same assumptions as a market participant, however there may be little difference between the assumptions that a market participant would applied and those and entity uses itself. For example, when discounting future cash flows, a market based discount rate should be applied where appropriate.
- B15. Accordingly, the risk premium and time value of money in an entity specific measure of a liability should be the amount market participants would apply if their estimates of the amount and timing of the future outflow of resources were the same as the entity's estimates.

### **The Cost that the Entity Will Incur**

- B16. **The fulfillment value estimates the cost assuming the entity fulfills its obligation.**
- B17. A fulfillment value measurement, both at initial and subsequent measurement, should only incorporate the future outflows of resources the entity expects to incur to satisfy the obligation.
- B18. The price used to measure the cost of fulfilling the liability shall not be adjusted for *transaction costs* incurred to enter into the transaction. Entry-based transaction costs have no impact on the future outflows of resources the entity expects to incur. In contrast, transaction costs that are expected to be incurred, or exit-based, in settling the liability are a future outflow of resources that is relevant in measuring the cost to fulfill the liability and are included in measuring the fulfillment value.

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| Paragraph B19 is based on the Conceptual Framework 7.75 |
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- B19. Where the fulfillment value depends on uncertain future events, all possible outcomes are taken into account in the estimated fulfillment value, which aims to reflect all those possible outcomes in an unbiased manner.

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| Paragraph B20 is based on the Conceptual Framework 7.78 |
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- B20. Where settlement of the obligation will not take place for an extended period, the cash flows need to be discounted to reflect the value of the liability at the measurement date using a valuation technique. As a practical expedient, an entity need not discount the value of the future outflow of resources if the entity expects the obligation to be settled within one year.

### **Fulfilling its Obligations**

- B21. **The fulfillment value is the cost that the entity expects to incur to settle its obligation in the normal course of operations.**
- B22. **In estimating the cost to settle its obligation in the normal course of operations, the entity assumes the obligation will be fulfilled under the existing terms of the arrangement, with the current counterparty and that the liability will not be transferred to a third party.**
- B23. In estimating the fulfillment value the entity takes into account all readily available information at the measurement date under current market conditions in estimating the outflow of resources required to settle the liability at the expected settlement date.

B24. The fulfillment value shall not include the non-performance risk of the entity to settle its obligation. A fulfillment value measurement is a measure of the value of a liability assuming the entity will fulfil its obligations. As non-performance risk takes into account the effect on the value of a liability of the entity potentially not meeting its obligations, it is inconsistent to include in the measure of a liability the possibility that it may not meet its obligations when the fulfillment value measurement assumes the liability will be fulfilled in the normal course of operations.

### Valuation Techniques

B25. **An entity shall use valuation techniques that are appropriate in the circumstances and for which sufficient data is available to measure the fulfillment value. The fulfillment value reflects entity-specific assumptions rather than assumptions used by market participants. In practice, there may be little difference between the assumptions that a market participant would apply and those and entity uses itself.**

B26. The objective of using a valuation technique is to estimate the cost that the entity will incur in fulfilling the obligations represented by the liability at the measurement date under current market conditions. The most commonly used valuation approach when measuring the fulfillment value is an income approach. The main aspects of that approach as it relates to the fulfillment value are summarized in paragraphs B27–B60.

#### *Income Approach*

B27. The income approach converts future outflows of resources (e.g., cash flows) to a single current (i.e., discounted) amount. When the income approach is used, the fulfillment value measurement reflects current market expectations about those future amounts.

B28. The most commonly used valuation techniques when measuring the fulfillment value are present value techniques. (see paragraphs B29–B60);

#### *Present Value Techniques*

B29. Paragraphs B30–B60 describe the use of present value techniques to measure the fulfillment value. Those paragraphs neither prescribe the use of a single specific present value technique nor limit the use of present value techniques to measure the fulfillment value to the techniques discussed. The present value technique used to measure the fulfillment value will depend on facts and circumstances specific to the liability being measured and the availability of sufficient data.

#### The Components of a Present Value Measurement

B30. Present value (i.e., an application of the income approach) is a tool used to link future amounts (e.g., cash flows) to a present amount using a discount rate. A fulfillment value measurement of a liability using a present value technique captures all the following elements from the entity's perspective at the measurement date:

- (a) An estimate of future outflows of resources for the liability being measured.
- (b) Expectations about possible variations in the amount and timing of the outflows of resources representing the uncertainty inherent in the outflows of resources.
- (c) The time value of money, represented by the rate on risk-free monetary liabilities that have maturity dates or durations that coincide with the period covered by the outflows of resources

and pose neither uncertainty in timing nor risk of default to the holder (i.e., a risk-free interest rate).

- (d) The price for bearing the uncertainty inherent in the outflows of resources (i.e., a risk adjustment).
- (e) Other factors that the entity would take into account in the circumstances.

### *General Principles*

B31. Present value techniques differ in how they capture the elements in paragraph B30. However, all the following general principles govern the application of any present value technique used to measure the fulfillment value:

- (a) Outflows of resources and discount rates should reflect entity specific assumptions that market participants would use when pricing the liability that is expected to be settled through fulfillment of the arrangement.
- (b) Outflows of resources and discount rates should take into account only the factors attributable to the liability being measured.
- (c) To avoid double-counting or omitting the effects of risk factors, discount rates should reflect assumptions that are consistent with those inherent in the outflows of resources. For example, a discount rate that reflects the uncertainty in expectations about future defaults is appropriate if using contractual cash flows of a loan (i.e., a discount rate adjustment technique). That same rate should not be used if using expected (i.e., probability-weighted) cash flows (i.e., an expected present value technique) because the expected cash flows already reflect assumptions about the uncertainty in future defaults; instead, a discount rate that is commensurate with the risk inherent in the expected cash flows should be used.
- (d) Assumptions about outflows of resources and discount rates should be internally consistent. For example, nominal cash flows, which include the effect of inflation, should be discounted at a rate that includes the effect of inflation. The nominal risk-free interest rate includes the effect of inflation. Real cash flows, which exclude the effect of inflation, should be discounted at a rate that excludes the effect of inflation. Similarly, after-tax cash flows should be discounted using an after-tax discount rate. Pre-tax cash flows should be discounted at a rate consistent with those cash flows.
- (e) Discount rates should be consistent with the underlying economic factors of the currency in which the outflows of resources are denominated.

### *Risk Adjustment*

B32. A fulfillment value measurement using present value techniques is made under conditions of uncertainty because the actual resource flows may ultimately differ from those expected. In many cases both the amount and timing of the outflows of resources are uncertain.

B33. A fulfillment value measurement should include a risk based on the entity's estimates of future outflows of resources. The estimated risk premium for a fulfillment value measurement is an entity specific assumption. This risk premium does not represent the market risk premium reflecting the amount market participants would demand for bearing the risk that the actual outflows of resources maybe different from their expectations, however, it does reflect the entity's expectation of the

variability in timing and amounts related to the flows of resources. The risk adjustment measures the compensation that the entity would require to make the entity indifferent between:

- (a) Fulfilling a liability that has a range of possible outcomes; and
- (b) Fulfilling a liability that will generate fixed outflows of resources with the same expected present value as the liability being measured.

For example, the risk adjustment would measure the compensation that the entity would require to make it indifferent between fulfilling a liability that has a 50 per cent probability of being CU90 and a 50 per cent probability of being CU110 and fulfilling a liability that is fixed at CU100. As a result, the risk adjustment conveys information to users of financial statements about the entity's perception of the effects of uncertainty about the amount and timing of cash flows that arise from a liability.

- B34. The risk adjustment shall reflect all risks associated with the liability. It shall not reflect the risks that do not arise from the liability, such as general operational risk that relates to future transactions.
- B35. The risk adjustment shall be included in the measurement in an explicit way. Thus, in principle, the risk adjustment is separate from the estimates of future outflow of resources and the discount rates that adjust those outflows of resources for the time value of money. The entity shall not double-count the risk adjustments by, for example, including the risk adjustment implicitly when determining the estimates of future outflow of resources or the discount rates.
- B36. This Appendix does not specify the technique that is used to determine the risk adjustment. However, to meet the objective in paragraph B33, the risk adjustment shall have the following characteristics:
  - (a) Risks with low frequency and high severity will result in higher risk adjustments than risks with high frequency and low severity;
  - (b) For similar risks, contracts with a longer duration will result in higher risk adjustments than contracts with a shorter duration;
  - (c) Risks with a wide probability distribution will result in higher risk adjustments than risks with a narrower distribution;
  - (d) The less that is known about the current estimate and its trend, the higher the risk adjustment; and
  - (e) To the extent that emerging experience reduces uncertainty, risk adjustments will decrease and vice versa.

- B37. An entity shall apply judgement when determining an appropriate risk adjustment technique to use. If a risk premium were not included, the measurement would not faithfully represent the cost to fulfill the liability. In some cases determining the appropriate risk premium might be difficult. However, the degree of difficulty alone is not a sufficient reason to exclude a risk premium.

#### *Future Outflows of Resources*

- B38. The estimates of outflows of resources used to determine the fulfillment value shall include all inflows of resources and outflows of resources that relate directly to the fulfillment of the liability. Those estimates shall:
  - (a) Be explicit (i.e., the entity shall estimate those outflows of resources separately from the estimates of discount rates that adjust those future outflows of resources for the time value of

money and the risk adjustment that adjusts those future outflows of resources for the effects of uncertainty about the amount and timing of those outflows of resources);

- (b) Reflect the perspective of the entity, provided that the estimates of any relevant market variables do not contradict the observable market prices for those variables (see paragraphs B42–B46);
- (c) Incorporate, in an unbiased way, all of the available information about the amount, timing and uncertainty of all of the inflows of resources and outflows of resources that are expected to arise as the entity fulfils the liability (see paragraph B47); and
- (d) Be current (i.e., the estimates shall reflect all of the available information at the measurement date) (see paragraphs B48–B52).

#### Uncertainty and the Expected Value Approach

B39. The expected present value technique uses as a starting point a set of outflows of resources that represents the probability-weighted average of all possible future outflows of resources (i.e., the expected outflows of resources). The resulting estimate is identical to expected value, which, in statistical terms, is the weighted average of a discrete random variable's possible values with the respective probabilities as the weights. Because all possible outflows of resources are probability-weighted, the resulting expected outflows of resources is not conditional upon the occurrence of any specified event (unlike the outflows of resources used in the discount rate adjustment technique).

B40. In determining the expected outflows of resources an entity must:

- (a) Identify each possible outcome;
- (b) Make an unbiased estimate of the amount and timing of the future outflows of resources for each outcome;
- (c) Make an unbiased estimate of the probability of each outcome.

B41. Paragraph B40 requires the estimate of expected values reflect an unbiased and probability-weighted amount that is determined by evaluating a range of possible outcomes. In practice, this may not need to be a complex analysis. In some cases, relatively simple modelling may be sufficient, without the need for a large number of detailed simulations of scenarios. For example, the identification of scenarios that specify the amount and timing of the outflows of resources for particular outcomes and the estimated probability of those outcomes will probably be needed. In those situations, the expected outflows of resources shall reflect at least two outcomes.

#### Market Variables and Non-Market Variables (Paragraph B38(b))

B42. This application guidance identifies two types of variables:

- (a) Market variables—variables that can be observed in, or derived directly from, markets (e.g., interest rates); and
- (b) Non-market variables—all other variables (e.g., the frequency and severity of natural disasters impacting decommissioning liabilities).

#### Market Variables

B43. Estimates of market variables shall be consistent with observable market prices at the end of the reporting period. An entity shall not substitute its own estimates for observed market prices except as described in paragraph A66. In accordance with Appendix A, if market variables need to be

estimated (e.g., because no observable market variables exist), they shall be as consistent as possible with observable market variables.

#### Non-Market Variables

- B44. Estimates of non-market variables shall reflect all of the available evidence, both external and internal.
- B45. Non-market external data (e.g., national statistics for decommissioning of a nuclear power facility) may have more or less relevance than internal data (e.g., internally developed statistics for decommissioning of a nuclear power facility), depending on the circumstances.
- B46. Estimated probabilities for non-market variables shall not contradict observable market variables. For example, estimated probabilities for future inflation rate scenarios shall be as consistent as possible with probabilities implied by market interest rates.

#### Estimating Probabilities of Future Payments (Paragraph B38(c))

- B47. An entity estimates the probabilities associated with future payments on the basis of:
- (a) Information about the known or estimated characteristics of the liability;
  - (b) Historical data about the entity's own experience, supplemented when necessary with historical data from other sources. Historical data is adjusted if, for example:
    - (i) The characteristics of the liability differ (or will differ, for example because of adverse selection) from those of the population that has been used as a basis for the historical data;
    - (ii) There is evidence that historical trends will not continue, that new trends will emerge or that economic or other changes may affect the outflow of resources that arise from the existing liability; or
    - (iii) There have been changes in the entity's practices or procedures that may affect the relevance of historical data to the liability.

#### Under Current Estimates (Paragraph B38(d))

- B48. In estimating the probability of each outflow of resources scenario, an entity shall use all of the available current information at the end of the reporting period. An entity shall review the estimates of the probabilities that it made at the end of the previous reporting period and update them for any changes. In doing so, an entity shall consider whether:
- (a) The updated estimates faithfully represent the conditions at the end of the reporting period; and
  - (b) The changes in estimates faithfully represent the changes in conditions during the period. For example, suppose that estimates were at one end of a reasonable range at the beginning of the period. If the conditions have not changed, changing the estimates to the other end of the range at the end of the period would not faithfully represent what has happened during the whole period. If an entity's most recent estimates are different from its previous estimates, but conditions have not changed, it shall assess whether the new probabilities that are assigned to each scenario are justified. In updating its estimates of those probabilities, the entity shall consider both the evidence that supported its previous estimates and all of the new available evidence, giving more weight to the more persuasive evidence.



B49. The probability assigned to each scenario shall reflect the conditions at the end of the reporting period. Consequently, in accordance with IPSAS 14, *Events after the Reporting Date*, an event that occurs after the end of the reporting period and resolves a condition that existed at the reporting date does not provide evidence of a condition that existed at the end of the reporting period. For example, there may be a 20 per cent probability at the end of the reporting period that a major storm will strike prior to a facility being decommissioned that would increase the cost of decommission. After the end of the reporting period and before the financial statements are authorized for issue, a storm strikes. The outflow of resources under that contract shall not reflect the storm that, with hindsight, is known to have occurred. Instead, the outflow of resources that were included in the measurement are multiplied by the 20 per cent probability that was apparent at the end of the reporting period (with appropriate disclosure, in accordance with IPSAS 14, that a non-adjusting event occurred after the end of the reporting period).

#### Future Events (Paragraph B38(d))

- B50. Estimates of non-market variables shall consider not just current information about the liabilities but also information about trends. For example, technology has consistently improved over long periods decreasing decommissioning costs. The determination of the outflow of resources reflects the probabilities that would be assigned to each possible trend scenario in the light of all of the available evidence.
- B51. Similarly, if the outflow of resources associated with fulfilling the liability are sensitive to inflation, the determination of the outflow of resources shall reflect possible future inflation rates. Because inflation rates are likely to be correlated with interest rates, the measurement of the outflow of resources reflects the probabilities for each inflation scenario in a way that is consistent with the probabilities that are implied by market interest rates.
- B52. When estimating the outflow of resources associated with fulfilling the liability, an entity shall take into account future events that might affect the outflow of resources. The entity shall develop scenarios that reflect those future events, as well as unbiased estimates of the probability weights for each scenario. However, an entity shall not take into account future events, such as a change in legislation, that would change or discharge the present obligation or create new obligations under the existing liability.

#### *Time Value of Money*

- B53. Entities are not indifferent to the timing of an outflow of resources. Accordingly, the timing of the future outflows of resources is a characteristic of a liability and needs to be encompassed in any measurement of a liability's current value. Failure to reflect the time value of money would mean that the resulting measurement would not be a faithful representation of the economic burden the liability represents.
- B54. An entity shall determine the estimated outflows of resources by adjusting the estimates of future outflows of resources for the time value of money, using discount rates that reflect the characteristics of the liability. Such rates shall:
- (a) Be consistent with observable current market prices for instruments with outflows of resources whose characteristics are consistent with those of the liability's outflows of resources, in terms of, for example, timing, currency and liquidity.
  - (b) Exclude the effect of any factors that influence the observable market prices but that are not relevant to the outflows of resources of the liability.

- B55. When using a risk-free rate, the logical sources of reference rates are high quality bonds, for example, bonds issued by a financially sound government. These instruments should include no or insignificant default risk. They will also typically have a range of maturity dates or durations to match the liability durations. In the event that long-dated bonds are unavailable for liabilities with long durations, such as some decommissioning liabilities, it would be necessary to use extrapolation techniques to estimate the rates.
- B56. Although rates on high quality government bonds will not need to be adjusted for default risk in determining the risk free discount rate, they may need to be adjusted for liquidity risk. Some government bonds are traded in deep and liquid markets enabling bond holders to readily sell them at minimal cost. The rate payable on such bonds is lower than the rate payable on an equivalent illiquid bond. Accordingly, it might be necessary to include a 'premium for illiquidity' in the observed rate for government bonds that are not traded in deep and liquid markets.

### Inputs to Valuation Techniques

#### *General Principles*

- B57. **Valuation techniques used in a fulfillment value measurement reflects entity-specific assumptions rather than assumptions used by market participants.**
- B58. The fulfillment value measurement is an entity specific valuation. When a valuation technique is applied, an entity shall select inputs that are consistent with the characteristics of the liability (see paragraph B14). The technique should maximize the use of observable inputs that are available to a market participant that is making the same valuation as the entity, from the entity's perspective. For example, when measuring the cost to fulfill a decommissioning liability where payments are due in 50 years, an observable market input when discounting the outflow of resources is the government bond rate applicable to the entity.
- B59. In some cases the characteristics of a liability may result in the application of an adjustment (e.g., there is no corresponding bond rate to discount an outflow of resources due in 3.5 years). However, a fulfillment value measurement shall not incorporate an adjustment that is inconsistent with the unit of account in the IPSAS that requires or permits the fulfillment value measurement.
- B60. When a liability will settle at a future date, the assumptions applied in developing and identifying inputs are based on current market conditions. For example, a decommissioning liability may be expected to settle in 50 years. The payment due on settlement and the associated discount rate are both based on information available at the measurement date.

## Appendix C: Historical cost—application guidance for assets<sup>38</sup>

*This Appendix is an integral part of [draft] IPSAS [X] (ED XX).*

### Measurement

#### Historical Cost and Consideration

Paragraph C1 is based on the IPSASB's Conceptual Framework 7.13

- C1. Historical cost is the consideration given to acquire or develop an asset, which is the cash or cash equivalents or the value of the other consideration given, at the time of its acquisition or development. The objective of an historical cost measurement of an asset is to identify the consideration given to acquire and/or develop the asset.
- C2. An historical cost measurement requires an entity to determine all the following:
- (a) The particular asset that is the subject of the measurement (consistently with its unit of account).
  - (b) The consideration the entity gave to acquire and/or develop the asset. in terms of:
    - (i) Cash;
    - (ii) Cash equivalents; and
    - (iii) The value of other consideration.
  - (c) Factors used to identify what consideration should be included in (or excluded from) the asset's historical cost, including (for example) costs that are directly attributable to its acquisition and/or development and should be included (or not directly attributable and should be excluded).

#### *Deferred Payment—Cash Price Equivalent*

Paragraph C3 is based on IPSAS 16.31

- C3. If payment for an asset is deferred, then the consideration to include in its historical cost is the cash price equivalent of the payment. The difference between this amount and the total payments is recognized as interest expense over the period of credit.

#### *The Value of Other Consideration: Exchange for Non-Monetary Asset(s)*

Paragraph C4 is based on IPSAS 17.38

- C4. The consideration for an asset acquired in exchange for a nonmonetary asset or assets, or a combination of monetary and non-monetary assets, is the appropriate current value of the asset(s) given up<sup>39</sup>, unless (a) the transaction is non-exchange or otherwise lacks commercial substance or

<sup>38</sup> *For Basis for Conclusions:* This application guidance focuses on historical cost for assets, because the consultation paper's flow chart for liability measurement indicates that historical cost is not applicable to the measurement of liabilities. It does not address depreciation, amortization and impairment, because previous IPSASB decisions have indicated that these should be addressed in other IPSAS, rather than IPSAS, *Measurement*.

<sup>39</sup> Refer to the consultation paper's flow chart as guidance for choice of an appropriate current value. IPSAS 16 and 17 presently require that the cost of such an asset is measured at fair value, using the "old" definition of fair value, which is equivalent to the Conceptual Framework's definition of market value, and allows for either an entry value or an exit value.

(b) the current value of the asset given up cannot be measured to achieve the qualitative characteristics, taking into account the constraints. In those circumstances, the consideration for the acquired asset is the carrying amount of the asset given up.

### The Asset Measured at Historical Cost

- C5. The asset measured at historical cost might be one of the following:
- (a) A stand-alone asset; or
  - (b) A group of assets:
  - (c) Assets that form part of a group of assets and liabilities (e.g., a cash-generating unit or an operation).
- C6. Whether the asset is a stand-alone asset, a group of assets, or assets that form part of a group of assets and liabilities for recognition or disclosure purposes depends on its *unit of account*. The unit of account for the asset shall be determined in accordance with the IPSAS that requires or permits the historical cost measurement.

### Historical Cost is Entity Specific and Asset specific

- C7. Historical cost is an entity-specific measurement basis. Identification of the consideration given to acquire and/or develop the asset requires an understanding of the entity-specific:
- (a) Processes to acquire and/or develop the asset; and
  - (b) Procedures and timing for asset use (i.e., its use to provide services and/or generate cash flows).
- C8. The entity's (a) acquisition and development processes and (b) asset usage timing and procedures are also asset-specific, so that an historical cost measurement depends on collecting information about how the entity acquired and/or developed the particular asset that and is either readying for use or has put into use.

### The Asset's Acquisition and/or Development

- C9. When measuring historical cost an entity shall identify the consideration applicable to the asset's acquisition and/or development, by taking into account:**
- (a) The entity's process to acquire and/or develop the asset;**
  - (b) The period during which the entity incurred acquisition costs and/or development costs for the asset; and**
  - (c) When the entity began to use the asset to provide services and/or generate future economic benefits.**

#### *Process to Acquire, Construct, and/or Develop an Asset*

- C10. The process to acquire an asset may be relatively simple (e.g., purchase of a car or a bond) or complex (e.g., development of new software or construction of a subway line).
- C11. The purchase of an asset may be followed by further expenditures to adapt the asset for the entity's own use and, until the asset is able to be used by the entity for its intended purpose, expenditures necessary to bring the asset into use will be included in the consideration identified as part of the asset's historical cost.

*Acquisition of an Asset through Purchase: The Consideration Given*

Paragraph C12 is based on IPSAS 16.28

**C12. The consideration of a purchased asset is the price paid to acquire the asset and any directly attributable expenditure. Directly attributable expenditure includes:**

- (a) **Transaction costs arising when acquiring an asset;**
- (b) **Transport costs incurred to transport the asset from the location where it was purchased to the place where it is used by the entity; and**
- (c) **Expenditures necessary to adapt the asset for the entity's own use.**

Paragraph C13 is based on the IASB's Conceptual Framework BC6.32 and BC6.33

C13. Transaction costs incurred in acquiring an asset are a feature of the transaction in which the asset was acquired. The historical cost of the asset reflects those transaction costs as the entity could not have acquire the asset without incurring those costs. Transaction costs that could be incurred in selling or disposing of the asset are feature of a possible future transaction. Historical cost does not include these possible transaction costs because, as an entry value, historical cost reflects the costs of acquiring the asset.

*Construction and Development of an Asset: The Consideration Given*

**C14. The consideration of an asset that the entity has constructed or developed itself comprises:**

- (a) **The consideration of purchased assets used in the construction or development of the asset; and**
- (b) **Other consideration directly attributable to the asset's construction or development.**

*Purchase, Construction and Development of an Asset: Examples of Consideration to Include*

Paragraph C15 is based on IPSAS 17.30 and IPSAS 17.31

**C15. Consideration includes costs that are directly attributable to the asset's acquisition and/or development, and these should be included in the asset's historical cost. Examples include:**

- (a) The asset's purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates.
- (b) Any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Examples of such costs include:
  - (i) Costs of employee benefits (as defined in IPSAS 25, *Employee Benefits*) arising directly from the construction or acquisition of the asset;
  - (ii) Costs of site preparation;
  - (iii) Initial delivery and handling costs;
  - (iv) Installation and assembly costs;
  - (v) Costs of testing whether the asset is functioning properly, after deducting the net proceeds from selling any items produced while bringing the asset to that location and condition (such as samples produced when testing equipment); and

- (vi) Professional fees arising directly from bringing the asset to its working condition.
- (c) Estimated costs to discharge an entity's obligations to dispose of the asset or restore the location/situation prior to acquiring and/or developing the asset, where those obligations are incurred either when the item is acquired, or as a consequence of having used the item during the asset acquisition and/or development period.

*Purchase, Construction and Development of an Asset: Examples of Consideration to Exclude*

C16. Costs related to an asset's acquisition and/or development are excluded from the consideration that forms part of an asset's historical cost, if they either:

- (a) Are not directly attributable to the asset's acquisition and/or development; or
- (b) Do not contribute to the asset's service potential and/or ability to generate future economic benefits.

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| Paragraph C17 is based on IPSAS 12.25 and IPSAS 17.36 |
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C17. Examples of such costs include:

- (a) Administration and other general overhead costs.
- (b) Start-up costs that are not necessary to bring the asset to the condition necessary for it to be capable of operating in the manner intended by management. For example,
  - (i) Costs of opening a new facility or introducing a new product or service (including costs of advertising and promotional activities); and
  - (ii) Costs of conducting business in a new location or with a new class of customers (including costs of staff training).
- (c) Costs of operations that are unnecessary and incidental to the asset, even though the costs may occur before or during the asset's acquisition, construction or development activities. For example, a building site may be operated as a car park until construction starts. The car park operations are not necessary to construction of the building (i.e., bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management), and the related revenue and expenses are recognized in surplus or deficit, rather than included in the building's historical cost.
- (d) Operating losses incurred before the asset achieves its intended level of use; or
- (e) Abnormal amounts of wasted material, labor or other resources incurred in constructing or developing the asset.

Excluded: Costs Incurred Prior to Recognition of an Asset

C18. Costs are excluded from an asset's historical cost where those costs occur before the point at which another IPSAS allows that an asset should be recognized. IPSAS 31, *Intangible Assets*, specifies that expenditure incurred before the date when an internally generated intangible asset first meets the recognition criteria in IPSAS 31 shall be expensed. IPSAS 31 prohibits reinstatement of expenditure previously recognized as an expense.

Excluded: Costs Incurred After the Acquisition and/or Development of the Asset

Paragraph C19 is based on IPSAS 31.37

C19. Once the entity has acquired and/or completed the adaptation or development of an asset, further costs are not included in the asset's historical cost. For example, once an asset is in the location and condition necessary for it to be capable of being used in the manner intended by management further costs are excluded from the asset's historical cost. Examples of costs to exclude include:

- (a) Costs incurred while an asset is capable of operating in the manner intended by management and has not yet been brought into use or is operated at less than full capacity;
- (b) Initial operating losses, such as those incurred while demand for the asset's output builds up; and
- (c) Costs of relocating or reorganizing part or all of the entity's operations.

#### **Amortized Cost**

Paragraph C20 is based on the IASB's Conceptual Framework 6.9

C20. The historical cost measurement basis is applied to financial instruments by measuring the instruments at amortized cost. Amortized cost reflects estimates of future cash flows, discounted at a rate determined at initial recognition. The amortized cost of a financial asset or financial liability is updated over time to depict subsequent changes, such as the accrual of interest, the impairment of a financial asset or payments.

C21. For variable rate instruments, where the asset or liability bears interest at a variable rate, the discount rate is updated to reflect changes in the variable rate.

## Appendix D: Replacement cost–application guidance

*This Appendix is an integral part of [draft] IPSAS [X] (ED XX).*

### Measurement

- D1. The objective of replacement cost measurement is to estimate the most economic cost required for the entity to replace the service potential of an asset (including the amount that the entity will receive from its disposal at the end of its useful life) at the reporting date. Replacement cost measurement requires an entity to determine all of the following:
- (a) The particular asset that needs to be measured.
  - (b) The most economic manner to replace the service potential of the asset.
  - (c) The appropriate valuation technique(s), considering the availability of data with which to develop inputs that represent the economic position of the entity.

### The Asset

- D2. A replacement cost measurement is for a particular asset. Therefore, when measuring the replacement cost, an entity takes into account the characteristics of the particular asset relevant in determining the replacement cost at the measurement date.

#### *Characteristics of the Asset*

- D3. It is often difficult to separate the factors impacting the replacement cost of an asset into characteristics of the asset itself and the asset's intended use, which relate more to the asset's service potential (see paragraph D11). The following characteristics of an asset will often impact the determination of its replacement cost:
- (a) The location of the asset; and
  - (b) The condition of the asset

#### The Location of the Asset

- D4. If there is no locational requirement for the asset, the asset's replacement cost may assume that the notional replacement will be situated on an alternative site which can provide the same service potential in a more cost effective way. However, the location of an asset may impact its replacement cost in situations where a social policy decision has been made requiring the asset to be located in a specific location.
- D5. For example, schools and hospitals will ideally be located within the communities they serve; and local authority offices will be easily accessible to all citizens. The land on which these schools, hospitals or offices are built might be in expensive inner-city sites or in town and city centers. Where a social policy decision has been made requiring the asset be located in a specific location, the replacement cost of the land is based on the current value of the existing site, rather than on cheaper land located further away from the communities they serve.

#### The Condition of the Asset

- D6. The replacement cost presented in the Statement of Financial Position and Notes to the Financial Statements should reflect the cost of replacing the service capacity of the asset at the reporting date.



Thus the current gross replacement cost of a modern equivalent asset is adjusted by making deductions for physical obsolescence, functional obsolescence, and economic obsolescence (see paragraphs D30–D32), which are also used to assist in determining the useful economic life of the asset.

### *Componentization*

- D7. An entity is required to allocate the amount initially recognized in respect of an item of property, plant, and equipment to its significant parts and depreciate separately each such part. For example, an office building might comprise its external structure (foundations, walls, floors and roof—all of which have different design lives); its internal fit-out (offices, reception area, kitchen and canteen—which might have different lives; and plant (elevators, for example). The replacement cost of the building as a whole will normally have a separate useful life and replacement cost when compared to each component. The assessment of the remaining life of the external structure and the plant may be based on a consideration of the physical obsolescence as noted in paragraph D30.
- D8. It is therefore important that the entity identifies the ‘significant parts’ or components before the assessment of the replacement cost of the service capacity of the asset can begin. This is because the extent of componentization adopted by the entity could affect the scope of work in terms of the information collected during the assessment. In identifying components, an entity should have regard to the materiality of the asset(s) in relation to the statement of financial position and also think carefully about what is ‘significant’ so as not to make the accounting process overly burdensome but at the same to ensure that the information presented in the financial statements is of relevance to users.

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| Paragraph D9 is based on IPSAS 17.61 |
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- D9. There may be circumstances where an asset does not have any individually significant components, or the components of the asset all have similar useful lives and depreciation methods. Such components may be grouped in determining the replacement cost (and subsequent depreciation charge) of the asset as a whole.
- D10. Similarly, groups of assets which all have a similar useful life and depreciation method may be grouped in determining the replacement cost and subsequent depreciation charge for the entire group of assets. Such circumstances may exist where multiple assets are interdependent and have similar useful lives. For example, different types of infrastructure, including dams, waterways, clean water supply, and grey and dirt water treatment facilities; roads and road-related structures; rail networks; as well as electricity and gas supply networks may have assets that are all depreciated over similar time periods and on the same basis. However, in other cases, even though these assets work together to perform a single related function, each asset within the group may consist of significant components with different useful lives and replacement costs, so an entity will need to apply judgement to determine the appropriate level of componentization.

### **The Service Potential of the Asset**

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| Paragraphs D11 and D12 are based on 7.41 of the IPSASB's Conceptual Framework. |
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- D11. **The appropriate service potential is that which the entity is capable of using or expects to use, having regard to the need to hold sufficient service capacity to deal with contingencies. Therefore, the replacement cost of an asset reflects expected changes in required service capacity.**

- D12. For example, if an entity owns a school that accommodates 500 pupils but, because of demographic changes since its construction, a school for 100 pupils would be adequate for the current and reasonably foreseeable requirements, the replacement cost of the asset is that of a school for 100 pupils.
- D13. **When estimating the service potential of an asset, an entity shall take into account the characteristics of the asset, which include:**
- (a) **The intended use of the asset;**
  - (b) **The specifications of the asset; and**
  - (c) **Restrictions, if any, on the sale or use of the asset.**

*The Intended Use of the Asset*

- D14. In carrying out an assessment of the replacement cost of land and built property, it is the use to which the asset has been put that will be the basis of the calculation of the replacement cost. For example, the replacement cost of an aircraft hangar that is being used as a storage warehouse will be that of a warehouse. Another example might be where city center land has been designated by the local authority as parkland.

*The Specifications of the Asset*

- D15. There are several examples in the public sector of assets whose specifications are such that there are few (if any) similar assets whose replacement cost can be assessed in an active and liquid market.

**Buildings of Conventional Appearance that have Specialized Features**

- D16. Some buildings have a conventional basic design that is superficially similar to other buildings that are regularly bought and sold in the market, but on closer inspection have specialized features designed to meet the requirements of the actual occupier. A typical example is a purpose-built embassy, which, although built to perform an office function, is situated on a site that includes extra stand-off land and includes designed-in security features such as thickened walls and toughened glazing. This type of building will often cost considerably more to develop and build than a normal office building, but provide extra service potential (in the form of security for its occupants) which cannot be replicated through the purchase of a normal office building. In this instance, provided that the occupying entity continues to require the extra service potential, the building should be treated as specialized and its replacement cost should take into account the extra cost of the specialized internal features and requirement for stand-off land.

**Buildings that Include Specialized Adaptations**

- D17. As another example, some buildings will comprise conventional structures that have been adapted to the requirement of the occupier. For example, a commercial office building may have been purchased by a government department and adapted by provision of enhanced security features such as perimeter barriers or toughened glazing. An entity might opt to treat the cost of such specialized adaptations as a separate item in its financial statements;<sup>40</sup> in these cases, the entity will

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<sup>40</sup> As a guide, whilst specialized features designed-in to purpose-built buildings should normally be accounted for as part of the whole building, adaptations to existing buildings should normally be accounted for separately.

value the conventional building. Where the entity has not accounted for the costs of adaptation separately, the entity will need to consider whether the adaptations would impact the building's replacement cost.

- D18. Where an entity opts to include the adaptation costs within the property interest, the entity will need to ensure that those performing the valuation understand the general nature of the adaptations. It will not be appropriate, for example, for an entity to value an embassy's additional stand-off land (see paragraph D16) as surplus land: it is a necessary part of the property. Nor will it be appropriate for an entity to value a newly built embassy building as a conventional office block.

#### Historic Buildings

- D19. It is rarely appropriate to value historic buildings on the basis of costing a modern reproduction by use of an identical replacement or modified reconstruction approach. Where an entity is considering doing so, it must be able to demonstrate that it is not valuing a mere facsimile of the existing asset and that the historic property itself is intrinsically part of the service potential.
- D20. Where the historic nature of the property itself contributes to the service provided, it would be appropriate to reflect the cost of reproducing the existing asset in the cost of the modern equivalent. For example, in the event of loss, a parliament building may be reproduced rather than replaced with alternative accommodation, because of its significance to the community. However, where it would be impossible for a modern reproduction to recreate the original's historic significance, entities should not cost such a reproduction.
- D21. Buildings of iconic status (which might or might not be historic or listed) that would be replaced by similarly iconic buildings should be valued on the basis of a modern equivalent asset but including the costs of achieving that iconic status. For example, the replacement cost of an historic court house might be that of a modern court house with the addition of either a façade in keeping with the surrounding buildings, or even a reproduction facade (a replica of the façade of the existing court house.)

#### *Restrictions on the Sale or Use of the Asset*

- D22. The entity should also consider any factors that might affect the cost of replacing the service capacity of the existing asset. The existing use of the asset will be considered in the light of environmental issues such as the present and future characteristics of the location in terms of, for example, forecast demographic changes; local planning policies; national planning policies; existing restrictions on the use of the land and/or buildings; any restrictions on the sale or use of the land and/or buildings. An example of the latter might be where property was donated to a local authority 100 years ago, with restrictive clauses in the Deed of Gift so that the local authority can only use the property for the provision of named services (such as recreational or health).

#### **The Most Economic Cost**

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| Paragraphs D24 and D26 are based on 7.39 and 7.40 of the IPSASB's Conceptual Framework. |
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- D23. **A replacement cost measure assumes the service potential of the asset is replaced in the least costly manner.**
- D24. Replacement cost adopts an optimized approach and may differ from reproduction cost, which is the cost of acquiring an identical asset. Although in many cases the most economic replacement of the service potential will be by purchasing an asset that is similar to that which is controlled, replacement

cost may be based on an alternative asset if that alternative would provide the same service potential more cheaply.

### Entity-Specific Value

- D25. **Replacement cost is an entity specific value. An entity shall measure the cost of replacing an asset's service potential using the assumptions from the entity's perspective, assuming the entity acts in its own economic best interest.**
- D26. An entity need not undertake an exhaustive search of all acquisition methods to identify the least costly manner of replacing an asset's service potential, but it shall take into account all information that is reasonably available. In the absence of evidence to the contrary, because entities usually acquire their assets by the most economic means available, replacement cost reflects the procurement or construction process that an entity generally follows. Replacement cost reflect the replacement of service potential in the ordinary course of operations, and not the costs that might be incurred if an urgent necessity arose as a result of some unforeseeable event, such as a fire.

### Transaction Costs

- D27. As an asset's replacement cost represents an entity-specific entry price to replace the service potential of the asset, transaction costs incurred in acquiring, or that would be incurred in replacing, the asset are included in its determination.

### Valuation Techniques

- D28. **An entity shall use valuation techniques that are appropriate in the circumstances and for which sufficient data is available to measure the cost of replacing an asset's service potential, maximizing the use of relevant observable inputs and minimizing the use of unobservable inputs.**

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| Paragraphs D29 and D35 are taken from IPSAS 17.47 and 17.48 (and amended). |
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### *Market Price or Current Replacement Cost of a Modern Equivalent Asset*

- D29. In many cases, the replacement cost of an asset can be established by reference to the buying price of a similar asset with similar remaining service potential in an active and liquid market. The replacement cost of an item of plant or equipment may be established by reference to the market buying price of components used to produce the asset or the indexed price for the same or a similar asset based on a price for a previous period. In the case of specialized buildings, other man-made structures and some equipment, values may be estimated using replacement cost, which may involve determining the asset's reproduction cost or use of the service units approach.

### *Depreciated Replacement Cost*

- D30. Replacement cost is sometimes described as depreciated (or optimized depreciated) replacement cost. This valuation method measures value by calculating the current replacement cost of a modern equivalent asset—that is, a notional asset providing an equivalent service potential as the existing asset while using the latest technology available—and then making deductions (the 'depreciation' of depreciated replacement cost) for the following forms of obsolescence and optimization:

### Physical Obsolescence

D31. Physical obsolescence relates to any loss of service capacity due to the physical deterioration of the asset or its components resulting from its age and use. In assessing physical obsolescence, an entity should also consider any probable future routine, regular maintenance, as such maintenance may provide insight into the asset or its components' useful life and their rate of deterioration.

### Functional Obsolescence

D32. Functional obsolescence relates to any loss of service capacity resulting from inefficiencies in the asset that is being valued compared to its modern equivalent – is the asset suitable for its current function? Functional obsolescence might occur because of advances or changes in the design and/or specification of the asset, or because of technological advances. For example, advances in health care technology might mean that the asset in use is outdated, or technological advances in military materiel could mean that hardened aircraft hangers would be replaced by different types of structures. Such advances will need to be incorporated into the assessment of functional obsolescence.

### Economic Obsolescence

D33. Economic obsolescence relates to any loss of utility caused by economic or other factors outside the control of the entity. The loss of service capacity might be temporary or permanent. For example, a school might have been built in a residential area and designed to take 500 pupils but demographic changes have resulted in the need for only 300 school places. The determination of replacement cost will need to reflect this reduction in required service capacity.

### *Reproduction Cost*

D34. An entity should consider very carefully whether or not to use a reproduction cost (or restoration cost) as a technique to determine replacement cost. Such considerations should include whether there is a statutory or other requirement to replace an asset with what is essentially a replica and whether an exact reproduction is possible; if not, then a technique that assesses the replacement of a modern equivalent asset is likely to be more appropriate for financial reporting purposes. The guidance in later paragraphs assumes that the replacement cost is that of a modern equivalent asset.

### *Service Units Approach*

D35. Under the service units approach, the present value of the remaining service potential of the asset is determined by reducing the current cost of the remaining service potential of the asset before impairment to conform with the reduced number of service units expected from the asset in its impaired state. As in the reproduction cost approach, the current cost of replacing the remaining service potential of the asset is usually determined as the depreciated reproduction or replacement cost of the asset before impairment, whichever is lower.

### **Other Valuation Considerations**

D36. The cost of a modern equivalent asset will reflect the cost that would be incurred if the works were commissioned on the date of valuation. However, there are factors that may result in the cost of a notional replacement being different from that of creating the actual asset:

D37. *Site preparation* – Work that may have been undertaken to prepare the actual site for occupation might not need to be carried out on an assumed equivalent site. An entity might therefore assume that the site being valued is level and serviced and ready for development.

- D38. *Phasing of work* – A large site may have been developed in phases. The cost of a modern equivalent asset would normally be based on a single phase development, and this should be measured at the building cost at the date of valuation. To reflect the assumption that a public entity cannot identify borrowing costs (the cost of capital) that relate to the construction of a specific asset, an entity should assume that the construction has happened ‘instantly’. As a consequence, it follows that there will be no phasing of payments, and there will be no reflection of the cost of capital in the valuation.
- D39. *Optimal working conditions* – In situations where there is no locational requirement for the asset (see paragraph D4), abnormal working conditions at the actual site are ignored if an alternative site is being valued.
- D40. *Additional costs arising from extending an existing property* – These costs should be ignored, since the norm is that the valuation will be of a modern equivalent asset.
- D41. *Contract variations* – Additional construction costs because of design or specification changes should be ignored. The modern equivalent asset being valued will have the same service potential as the existing asset.
- D42. *Planning changes* – Entities should consider whether planning consent would need to be obtained were the modern equivalent asset to be constructed on the actual site.

## Basis for Conclusions

*This Basis for Conclusions accompanies, but is not part of, [draft] IPSAS [X] (ED XX)*

### Introduction

*The Purpose of Measurement in Public Sector Financial Statements*

- BC1. The purpose of measurement in public sector financial statements is to provide information about assets and liabilities that users need for accountability and decision-making. Measurement that fairly reflects the cost of services, operational capacity and financial capacity of a public sector entity supports users' assessments of such matters as:
- (a) Whether the entity provided its services to constituents in an efficient and effective manner;
  - (b) The resources currently available for future expenditures, and to what extent there are restrictions or conditions attached to their use;
  - (c) To what extent the burden on future-year taxpayers of paying for current services has changed; and
  - (d) Whether the entity's ability to provide services has improved or deteriorated compared with the previous year.

*Service Delivery Objective and Public Sector Assets and Liabilities*

- BC2. Public sector measurement should take into account both the primary objective of most public entities and the type of assets and liabilities that such entities hold. The primary objective of most public sector entities is to deliver services to the public, rather than to make profits and generate a return on equity to investors. The type of assets and liabilities that a public sector entity holds is likely to reflect this objective. For example, in the public sector the primary reason for holding property, plant, and equipment and other assets is for their service potential rather than their ability to generate cash flows. Because of the types of services provided, a significant proportion of assets used by public sector entities is specialized—for example, roads and military assets. There may be a limited market for specialized assets and, even then, they may need considerable adaptation in order to be used by other operators. These factors have implications for the measurement of such assets.
- BC3. Another common feature of public sector assets is that they have restrictions on their use, which need to be taken into account when measurement aims to derive a value that reflects existing use. Measurement issues arise even where there are no restrictions and the aim is to reflect an asset's highest and best use.
- BC4. Governments and other public sector entities may hold items that contribute to the historical and cultural character of a nation or region—for example, art treasures, historical buildings, and other artifacts. They may also be responsible for national parks and other areas of natural significance with native flora and fauna. Such items and areas are not generally held for sale, even if markets exist. Rather, governments and public sector entities have a responsibility to preserve and maintain them for current and future generations.
- BC5. Governments and other public sector entities incur liabilities related to their service delivery objectives. Many liabilities arise from non-exchange transactions and include those related to programs that operate to deliver social benefits. Liabilities may also arise from governments' role

as a lender of last resort and from any obligations to transfer resources to those affected by disasters. In addition many governments have obligations that arise from monetary activities such as currency in circulation.

*Measurement of Assets and Liabilities for Financial Reporting by Public Sector Entities*

- BC6. Chapter 7 of *The Conceptual Framework for General Purpose Financial Reporting by Public Sector Entities* (the Conceptual Framework) addresses measurement of assets and liabilities in the financial statements. In developing Chapter 7 the IPSASB took into account the special characteristics of the public sector, the needs of users, public sector entities' objectives, different types of assets and liabilities, and the importance of service potential.
- BC7. Where an asset is held primarily for its service potential, rather than its ability to generate future economic benefits, its measurement should provide information on the value of the asset's service potential to the entity. This was an important consideration for the IPSASB, as it developed concepts for public sector measurement and identified appropriate measurement bases for use in the public sector.
- BC8. The objective of measurement and the measurement bases in Chapter 7 of the Conceptual Framework address public sector financial reporting needs. They differ from objectives and measurement bases developed for private sector entities that operate to make a profit and value assets and liabilities in terms of their ability to generate future economic benefits, which focuses on future cash flows. The objective of measurement is:
- To select those measurement bases that most fairly reflect the cost of services, operational capacity and financial capacity of the entity in a manner that is useful in holding the entity to account, and for decision-making purposes.
- BC9. The measurement bases identified in Chapter 7 are: historical cost, market value, replacement cost, net selling price, and value in use, for assets; and, historical cost, cost of fulfillment, market value, cost of release, and assumption price, for liabilities.

*Relationship Between ED, Measurement and Other IPSASs*

- BC10. During development of this ED the IPSASB considered including all requirements with respect to measurement of assets and liabilities in one Standard, in order to provide a comprehensive "one stop shop". However, the IPSASB concluded that other IPSAS should address impairment, depreciation, amortization, and any specific measurement requirements relating to the assets or liabilities covered by the IPSAS, for example the measurement of intangible assets or of employee benefit liabilities. IPSAS, *Measurement*, should provide the definitions and generic application guidance for the measurement bases identified in the Conceptual Framework and fair value. The aim is to support consistent application of measurement bases referred to in other IPSAS.
- BC11. The IPSASB decided to develop application guidance for the following four measurement bases: fulfillment value, fair value, historical cost, and replacement cost, because the greater need for application guidance relates to these four measurement bases. Appendices with application guidance on other measurement bases may be added in the future.

*Application Guidance on Fair Value*

- BC12. This ED has application guidance for the fair value measurement basis. During development of this ED the IPSASB considered whether the fair value measurement basis was relevant to measuring assets and liabilities held by public sector entities. The IPSASB concluded that: there are assets



and liabilities held by public sector entities, which should be measured at fair value; and, the term “fair value” should have the same meaning as that established by IFRS 13, *Fair Value Measurement*.

- BC13. In reaching these two conclusions the IPSASB noted that there are references to fair value throughout IPSAS, however the IPSAS definition of fair value is derived from a pre-IFRS 13 definition. IFRS 13 defines fair value as an exit value, as follows:

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

- BC14. The IPSASB’s Conceptual Framework does not include fair value in its list of measurement bases, because the IPSASB considered that the IFRS 13 meaning of fair value would not be appropriate for many public sector assets and liabilities, because it is an exit value. However, during development of this ED the IPSASB’s work on financial instruments has demonstrated that an exit-based definition of fair value is relevant for many financial instruments and more generally assets held for financial rather than operational capacity.
- BC15. The IPSASB decided, with support from members of its Consultative Advisory Group (CAG), that if the term “fair value” continues to be used in IPSAS, the same meaning as that in IFRS 13 should apply. This avoids confusion and supports good quality measurement, when using this measurement basis.
- BC16. In June 2018 the IPSASB approved IPSAS 41, *Financial Instruments*, which is an IFRS-aligned IPSAS. IPSAS 41 identifies fair value as a measurement basis applicable to financial instruments. The IPSASB had already decided, in September 2017, that the Measurement project should allow for measurement at fair value, with the issue being one of how to integrate the IFRS 13 definition of fair value into IPSAS. The IPSASB decided that IPSAS, *Measurement*, should include the majority of IFRS 13 text to ensure that its definition of fair value would be consistent with that in IFRS 13, and adequately support IPSAS 41’s requirements with respect to measurement of financial instruments at fair value. On that basis the ED’s appendix with fair value application guidance has reproduced the majority of IFRS 13 text and aims to ensure that the ED’s definition of fair value is the same as that established in IFRS 13.

### **Objective (paragraph 1)**

- BC17. ED XX’s objective explains that it focuses on the definition of appropriate measurement bases and their derivation. It does not establish requirements for which measurement bases should be used in IPSASs. The ED’s objective refers to the objective of measurement in the Conceptual Framework because this underpins its approach to measurement bases and their selection.

### **Scope and definitions (paragraphs 2–3)**

- BC18. ED XX’s scope conveys that the Standard’s definitions of measurement bases and related application guidance applies when another IPSAS requires measurement using one of the defined measurement bases. As part of its scoping decision, the IPSASB considered whether the ED should include guidance on the measurement of assets held for sale, as envisioned in IFRS 5, *Non-Current Assets Held for Sale and Discontinued Operations*. The IPSASB noted that the issues relating to the measurement of assets held for sale are similar to those relating to the measurement of impaired assets, which is outside the scope of the project. Therefore, it was decided that the measurement of assets held for sale should also be excluded.

**Subsequent Measurement***Depreciation and Amortization*

BC19. Depreciation is a charge for the consumption of an asset over its useful life. ED XX does not address depreciation. Requirements and guidance on depreciation are provided at standards-level. For example, IPSAS 17, *Property, Plant and Equipment*, addresses:

- (a) The unit of account for depreciation,
- (b) The recognition of depreciation,
- (c) The point at which depreciation of an asset begins,
- (d) The relationship between economic and useful lives,
- (e) The circumstances under which land may be depreciated,
- (f) Depreciation methods, and
- (g) The relationship between the revenue generated by an asset and depreciation.

BC20. Amortization is the term applied to the consumption of an intangible asset that does not have a physical substance. As for depreciation, requirements and guidance are provided at standards-level, and ED XX does not address amortization. IPSAS 31, *Intangible Assets*, distinguishes intangible assets with definite and indefinite useful lives, and for the former provides requirements and guidance on amortization periods and methods and their review and residual value.

BC21. The selection of an accounting policy for measurement subsequent to initial recognition may have an impact on whether an asset is depreciated or amortized. This is determined at standards level. For example IPSAS 17 requires that assets on the revaluation model with useful lives are depreciated. IPSAS 16, *Investment Property*, does not require depreciation of an investment property that is measured in accordance with the fair value model subsequent to initial recognition. IPSAS 31 does not permit amortization of an asset that is classified as held for sale.

*Use of the Historical Cost Model or Revaluation Model*

BC22. The IPSASB accepts that the existence of accounting policy options reduces comparability between reporting entities. The IPSASB discussed whether ED, *Measurement*, should consider the options for measurement subsequent to initial recognition in existing IPSAS with a view to eliminating or reducing those options.

BC23. The IPSASB noted that Chapter 7 of the Conceptual Framework sets out the measurement objective (see paragraph BC8).

BC24. The Conceptual Framework goes on to state that it is not possible to identify a single measurement basis that best meets the measurement objective and acknowledges both historical cost and current value measurements.

BC25. The IPSASB concluded that:

- (a) It would be inconsistent with the Conceptual Framework to eliminate existing accounting policy options for subsequent measurement; and that
- (b) Such a step would be outside the scope of this ED, which is to provide requirements and guidance on the definitions and application of measurement bases (i.e., what is meant by each

measurement basis and how to derive measurement bases), rather than to specify where they should be used. The latter is a decision for individual standards.

- BC26. A decision on whether to use historical cost or current value for measurement subsequent to initial recognition is likely to be made by regulator(s) in a particular jurisdiction. The Basis for Conclusions of the Conceptual Framework notes that many respondents to the Conceptual Framework Consultation Paper and ED on Measurement advocated the continued widespread use of historical cost, mostly in combination with other measurement bases. Supporters of historical cost referenced the accountability objective of financial reporting, the verifiability of historical cost and its suitability for budget reporting purposes where budgets are prepared on a historical cost basis.
- BC27. Conversely those who supported current values, and adopted a view that historical cost should be used as a proxy for current value, linked this view to both decision making and accountability, arguing that the cost of service provision should reflect the value of assets used in service provision at the time they are consumed, rather than their transaction price. Some of these views may inform the decisions of regulators.

#### Financial Instruments Measured at Historical Cost

- BC28. The amortized cost of a financial asset or financial liability reflects estimates of future cash flows discounted at a rate that is not updated after initial recognition. For loans given or received, if interest is receivable or payable regularly, the amortized cost of the loan typically approximates the amount originally paid or received. Therefore, the amortized cost of a financial asset or liability is considered to be a form of historical cost.

#### **Application guidance**

[Text in the Basis for Conclusions to be determined.]

## Addendum B – Comparison Table

**Table 3.1 - International Public Sector Accounting Standards Board Conceptual Framework: The Measurement Models**

|                                | IPSAS | IVS 2017 | GFS 2014 |
|--------------------------------|-------|----------|----------|
| Historical cost model allowed? | Yes   | No       | No       |
| Revaluation model allowed?     | Yes   | Yes      | Yes      |

**Table 3.2 - International Public Sector Accounting Standards Measurement Bases and Associated Terms and their Equivalents in International Valuation Statistics 2017 and the Government Finance Statistics Manual 2014**

|                          | IPSAS   | IVS 2017  | GFS 2014  | Comment   |
|--------------------------|---|---|---|---|
| <b>Fair value</b>        | <b>The price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. (IFRS 13)</b>   | <b>Fair Value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.</b>   | <b>Fair value is a market-equivalent value defined as the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's-length transaction.</b>  | The three sources appear to be generally aligned.<br><br>There do not appear to be any terms in IVS or GFS that need to be imported into IPSAS. |
| Active market (IFRS 13)  | A market in which transactions for the asset or liability take place with sufficient frequency and volume to provide pricing information on an ongoing basis.   | See, for example, IVS 105, para. 10.8 "Although no one approach or method is applicable in all circumstances, price information from an active market is generally considered to be the strongest evidence of value. Some bases of value may prohibit a valuer from making subjective adjustments to price information from an active market. Price information from an inactive market may still be good evidence of value, but subjective adjustments may be needed." | See, for example, para. 1.29 "While current market prices are readily available for assets and liabilities that are traded in active markets, valuation according to market- value equivalents is used for valuing assets and liabilities that are not traded in markets, or are traded only infrequently." |   |
| Active market (IPSAS 21) | An active market is a market in which all the following conditions exist: (a) The items traded within the market are homogeneous; (b) Willing buyers and sellers can normally be found at any time; and (c) Prices are available to the public. |   |   |   |
| Entry price (IFRS 13)    | The price paid to acquire an asset or received to assume a liability in an exchange transaction.  | Description of <a href="#">cost approach</a> and <a href="#">market value</a> use similar ideas.  | No equivalent, however, the concept of transaction price includes features of both an entry and exit price. Transactions that involve dumping and discounting represent market  |   |

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|  | IPSAS  | IVS 2017   | GFS 2014   | Comment |
|--|--|--|--|---------|
|  |  |  | prices. Transaction prices for goods and services are inclusive of appropriate taxes and subsidies. A market price is the price payable by the buyer after taking into account any rebates, refunds, adjustments, etc., from the seller (Paragraph 3.110). |         |
| Entry value (Conceptual Framework, para 7.8 to 7.9)  | An entry value reflects the cost of purchase for assets and, for liabilities, relates to the transaction under which an obligation is received or the amount that an entity would accept to assume a liability.  | Description of <a href="#">cost approach</a> and <a href="#">market value</a> use similar ideas.   | No equivalent.   |         |
| Exit price (IFRS 13)                                 | The price that would be received to sell an asset or paid to transfer a liability.   | Reference to “market approach/exit value” in para. 50.22 IVS 105. Para. 50.24 states that “The market approach/exit value method can be performed in a number of ways, but the ultimate goal is to calculate the value of the asset at the end of the explicit cash flow forecast.”                                | There are references to “sale price” (e.g., para. 5.88) with respect to assets, but no references to transfer costs or price with respect to liabilities. (Transfer payments related to social benefits has a different meaning.)                          |         |
| Exit values (Conceptual Framework, para 7.8 to 7.9): | Exit values reflect the economic benefits from sale of an asset and also the amount that will be derived from use of the asset, and, for liabilities, the amount required to fulfil an obligation or the amount required to release the entity from an obligation. | Similar to “market approach/exit value” in IVS 105 para. 50.22.  | No equivalent.   |         |
| Highest and best use (IFRS 13)                       | The use of a non-financial asset by market participants that would maximise the value of the asset or the group of assets and liabilities (e.g., a business) within which the asset would be used.   | See IVS 104, 140.1-140.5. “Highest and best use is the use, from a participant perspective, that would produce the highest value for an asset. Although the concept is most frequently applied to non-financial assets as many financial assets do not have alternative uses, there may be circumstances where the | No equivalent.   |         |

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|                           | IPSAS  | IVS 2017   | GFS 2014  | Comment |
|---------------------------|--|--|---|---------|
|                           |  | <p>highest and best use of financial assets needs to be considered.”</p> <p>The highest and best use must be physically possible, financially feasible, legally allowed and result in the highest value.</p> <p>If different from the current use, the costs to convert an asset to its highest and best use would impact the value.</p>   |   |         |
| Income approach (IFRS 13) | Valuation techniques that convert future amounts (e.g., cash flows or income and expenses) to a single current (i.e., discounted) amount. The fair value measurement is determined on the basis of the value indicated by current market expectations about those future amounts.  | IVS 105, 40.1: The income approach provides an indication of value by converting future cash flow to a single current value. Under the income approach, the value of an asset is determined by reference to the value of income, cash flow or cost savings generated by the asset. <i>income approach methods</i> (IVS 2017, IVS 105, 50.1.) Income approach methods are ways to implement the income approach, and are [all] effectively based on discounting future amounts of cash flow to present value. They are variations of the Discounted Cash Flow (DCF) method. | The “present value of future returns” are defined as: “In some cases, current market prices may be approximated by the present value of the future economic benefits expected from a given asset. Current prices can also be approximated by net present value when there are costs of bringing assets to the market. The economic benefit and costs can be discounted to estimate the net present value of the asset. (Paragraph 7.33) |         |
| Inputs (IFRS 13)          | The assumptions that market participants would use when pricing the asset or liability, including assumptions about risk, such as the following: (a) the risk inherent in a particular valuation technique used to measure fair value (such as a pricing model); and (b) the risk inherent in the inputs to the valuation technique. Inputs may be observable or unobservable. | See, for example, IVS 300 para. 20.3, where the reference to “assumptions” appears to have a similar meaning to that of “inputs.”  | No equivalent.  |         |
| <i>Level 1 inputs</i>     | Quoted prices (unadjusted) in active markets for identical assets or liabilities   | See, for example, IVS 105, para. 10.8 for reference to <a href="#">active markets</a> .  | No equivalent.  |         |

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|                                   | IPSAS  | IVS 2017  | GFS 2014   | Comment |
|-----------------------------------|--|---|--|---------|
|                                   | that the entity can access at the measurement date.  |   |  |         |
| <i>Level 2 inputs</i>             | Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.   | No equivalent.  | No equivalent.   |         |
| <i>Level 3 inputs</i>             | Unobservable inputs for the asset or liability.  | No equivalent.  | No equivalent.   |         |
| <i>Market-corroborated inputs</i> | Inputs that are derived principally from or corroborated by observable market data by correlation or other means.  | See, for example, IVS 105, para. 10.8 for reference to <a href="#">active markets</a> .   | See, for example, para. 1.29 “While current market prices are readily available for assets and liabilities that are traded in active markets, valuation according to market- value equivalents is used for valuing assets and liabilities that are not traded in markets, or are traded only infrequently.”  |         |
| <i>Observable inputs</i>          | Inputs that are developed using market data, such as publicly available information about actual events or transactions, and that reflect the assumptions that market participants would use when pricing the asset or liability.      | No equivalent.  | The idea of observable market prices is in para. 7.24, which states that “Ideally, observable market prices should be used to value all assets and liabilities in a balance sheet. However, in estimating the current market price for balance sheet valuation, a price averaged over all transactions in a market can be used if the market is one on which the items in question are regularly, actively, and freely traded. |         |
| Market approach (IFRS 13)         | A valuation technique that uses prices and other relevant information generated by market transactions involving identical or comparable (i.e., similar) assets, liabilities or a group of assets and liabilities, such as a business. | See IVS 105, 20.1. The market approach provides an indication of value by comparing the asset with identical or comparable (that is similar) assets for which price information is available. | “Stock positions should be valued at market value—that is, as if they were acquired in market transactions on the balance sheet reporting date (reference date). Market prices are readily available for assets and liabilities that are traded in active markets, most  |         |

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|                                 | IPSAS  | IVS 2017   | GFS 2014  | Comment |
|---------------------------------|--|--|---|---------|
|                                 |  |  | commonly certain financial assets and their corresponding liabilities. (Paragraph 3.113)  |         |
| Market participant (IFRS 13)    | Buyers and sellers in the principal (or most advantageous) market for the asset or liability that have all of the following characteristics: (a) They are independent of each other, i.e., they are not related parties as defined in IAS 24, although the price in a related party transaction may be used as an input to a fair value measurement if the entity has evidence that the transaction was entered into at market terms. (b) They are knowledgeable, having a reasonable understanding about the asset or liability and the transaction using all available information, including information that might be obtained through due diligence efforts that are usual and customary. (c) They are able to enter into a transaction for the asset or liability. (d) They are willing to enter into a transaction for the asset or liability, i.e., they are motivated but not forced or otherwise compelled to do so. | There are references to market participants in several IVS (see, for example, IVS 104, 30.5 and elsewhere in IVS 104.  | No equivalence, although there are references to willing buyers and sellers that facilitate market prices for transactions (see for example para. 3.108). |         |
| <i>Most advantageous market</i> | The market that maximises the amount that would be received to sell the asset or minimises the amount that would be paid to transfer the liability, after taking into account transaction costs and transport costs.   | No equivalent.   | No equivalent.  |         |
| Orderly transaction (IFRS 13)   | A transaction that assumes exposure to the market for a period before the measurement date to allow for marketing activities that are usual and customary for transactions involving such assets or liabilities; it is not a   | See IVS 104, 160.1: an orderly liquidation describes the value of a group of assets that could be realised in a liquidation sale, given a reasonable period of time to find a purchaser (or purchasers), with the seller being | Reference to the idea of relevant market "Generally, market prices should be taken from the markets where the same or similar items are                   |         |



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|                                     | IPSAS   | IVS 2017  | GFS 2014  | Comment  |
|-------------------------------------|---|---|---|--|
|                                     | forced transaction (e.g., a forced liquidation or distress sale).   | compelled to sell on an as-is, where-is basis.  | currently traded in sufficient numbers and in similar circumstances.” (Paragraph 3.111)   |  |
| Principal market (IFRS 13)          | The market with the greatest volume and level of activity for the asset or liability.   | No equivalent.  |   |  |
| <b>Market value</b>                 | <b>Market value for assets is the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm’s length transaction. Market value for liabilities is the amount for which a liability could be settled between knowledgeable, willing parties in an arm’s length transaction. (CF, para 7.24 and 7.80)</b> | <b>IVS 104, 30.1: “Market Value is the estimated amount for which an asset or liability should exchange on the valuation date between a willing buyer and a willing seller in an arm’s length transaction, after proper marketing and where the parties had each acted knowledgeably, prudently and without compulsion.”</b>  | <b>Market prices refer to current exchange value—that is, the value at which goods, services, labor, or assets are exchanged or else could be exchanged for cash (currency or transferable deposits). (Paragraph 3.107)</b> | The three sources appear to be aligned. The definitions are similar to the definition of fair value.                               |
| <b>Replacement cost</b>             | <b>Replacement cost is the optimized depreciated replacement cost of an asset (CF, 7.40, 7.47 and footnote 14).</b>   | <b>Generally, replacement cost is the cost that is relevant to determining the price that a participant would pay as it is based on replicating the utility of the asset, not the exact physical properties of the asset. (IVS 105, 70.2)</b>   | <b>Written-down replacement cost is the current acquisition price of an equivalent new asset minus the accumulated consumption of fixed capital, amortization, or depletion. (para 3.115)</b>                               | The definitions of replacement cost (or optimized depreciated replacement cost) and written-down replacement cost appear to align. |
| Cost approach (IFRS 13)             | A valuation technique that reflects the amount that would be required currently to replace the service capacity of an asset (often referred to as current replacement cost).  | See IVS 105, 60.1. The cost approach provides an indication of value using the economic principle that a buyer will pay no more for an asset than the cost to obtain an asset of equal utility, whether by purchase or by construction, unless undue time, inconvenience, risk or other factors are involved. The approach provides an indication of value by calculating the current replacement or reproduction cost of an asset and making deductions for physical deterioration and all other relevant forms of obsolescence. See also cost approach method (IVS 2017, IVS 105, 70.1) | “Written-down replacement cost” is “the current acquisition price of an equivalent new asset minus the accumulated consumption of fixed capital, amortization, or depletion.”   |  |
| Current replacement cost (IPSAS 12) | The cost the entity would incur to acquire the asset on the reporting date.   |   |   |  |

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|   | IPSAS  | IVS 2017  | GFS 2014   | Comment   |
|---|--|---|--|---|
| <b>Net selling price</b>  | <b>The amount that the entity can obtain from sale of the asset, after deducting the costs of sale. (CF, para 7.49)</b>  | See <a href="#">Liquidation Value</a> below   | <b>No equivalent.</b>  | IVS measurement basis 'Liquidation Value' appears to equate to IPSAS 'Net Selling Price'.<br><br>Need to consider further during Exposure Draft Phase of the Measurement Project, including the link with fair value. |
| Costs of disposal (IPSAS 21)  | The incremental costs directly attributable to the disposal of an asset, excluding finance costs and income tax expense.   | Reference to "transaction costs" in para 210.1 includes the phrase: "...the seller's costs of sale...." | See, for example, para 6.60: "Cost of ownership transfer on the disposal of an asset". |   |
| Costs to sell (IPSAS 27)  | Costs to sell are the incremental costs directly attributable to the disposal of an asset, excluding finance costs and income taxes. Disposal may occur through sale or through distribution at no charge or for a nominal charge. |   |  |   |
| Fair value less costs to sell (IPSAS 21)                              | The amount obtainable from the sale of an asset in an arm's length transaction between knowledgeable, willing parties, less the costs of disposal.   | See <a href="#">Liquidation Value</a> below.  | No equivalent.   |   |
| Net realizable value (IPSAS 12)                                       | The estimated selling price in the ordinary course of operations, less the estimated costs of completion and the estimated costs necessary to make the sale, exchange or distribution.   | No equivalent.  | No equivalent.   |   |
| Recoverable amount (IPSAS 17)   | The higher of a cash-generating asset's fair value less costs to sell and its value in use.  | No equivalent.  | No equivalent.   |   |
| Recoverable amount (of an asset or a cash-generating unit) (IPSAS 26) | The higher of an asset's or a cash-generating unit's fair value less costs to sell and its value in use.   | No equivalent.  | No equivalent.   |   |
| Recoverable service amount (IPSAS 21)                                 | The higher of a non-cash-generating asset's fair value less costs to sell and its value in use.  | No equivalent.  | No equivalent.   |   |

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|   | IPSAS   | IVS 2017   | GFS 2014   | Comment   |
|---|---|--|--|---|
| Value in Use  | The present value to the entity of the asset's remaining service potential or ability to generate economic benefits if it continues to be used, and of the net amount that the entity will receive from its disposal at the end of its useful life. (CF, para 7.58) | See <a href="#">Investment Value</a> .   | No equivalent.   | IVS measurement basis 'Investment Value' appears to equate to IPSAS 'Value in Use'.<br><br>Need to consider during Exposure Draft Phase of the Measurement Project. |
| Entity-specific value (IPSAS 17)                        | An entity-specific value is the present value of the cash flows an entity expects to arise from the continuing use of an asset and from its disposal at the end of its useful life or expects to incur when settling a liability.                                   | See definition of 'entity-specific factors' in IVS 104 and 180.1-180.3.  | No equivalent.   |   |
| Value in use of a cash-generating asset (IPSAS 26)      | Flows expected to be derived from the continuing use of an asset and from its disposal at the end of its useful life  | No equivalent.   | "Assets can be valued at the discounted present value of their expected future returns." (Paragraph 3.125) |   |
| Value in use of a non-cash-generating asset (IPSAS 21)  | The present value of the asset's remaining service potential.   | No equivalent.   | No equivalent.   |   |
| Service potential (Conceptual Framework, para 5.8-5.9): | Service potential is the capacity to provide services that contribute to achieving the entity's objectives. Service potential enables an entity to achieve its objectives without necessarily generating net cash inflows.  | IVS 300, para. 20.5, refers to functional potential, which may have a similar meaning. ("A valuation of plant and equipment will normally require consideration of a range of factors relating to the asset itself, its environment and physical, functional and economic potential.") | No equivalent.   |   |

**Table 3.3 - International Valuation Standards 2017: Measurement Bases and their Equivalents in International Public Sector Accounting Standards and the Government Finance Statistics Manual 2014**

|                          | <b>IPSAS</b>                         | <b>IVS 2017</b>  | <b>GFS 2014</b>       | <b>Comment</b>  |
|--------------------------|--------------------------------------|--|-----------------------|---|
| <b>Market rent</b>       | No equivalent in IPSAS.              | The estimated amount for which an interest in real property should be leased on the valuation date between a willing lessor and a willing lessee on appropriate lease terms in an arm's length transaction, after proper marketing and where the parties had each acted knowledgeably, prudently and without compulsion. | No equivalent in GFS. | The IVS 'Market Rent' basis is specific to Leases and could usefully be considered by the Leases Project.                                     |
| <b>Equitable value</b>   | No equivalent in IPSAS.              | The estimated price for the transfer of an asset or liability between identified knowledgeable and willing parties that reflects the respective interests of those parties.  | No equivalent in GFS. | This may be relevant for some public sector transactions and should be considered further in Exposure Draft Phase of the Measurement Project. |
| <b>Investment value</b>  | See IPSAS definition of Value in Use | The value of an asset to a particular owner or prospective owner for individual investment or operational objectives.  | No equivalent in GFS. | See comments against IPSAS basis ' <a href="#">Value in Use</a> '.  |
| <b>Synergistic value</b> | No equivalent in IPSAS.              | The result of a combination of two or more assets or interests where the combined value is more than the sum of the separate values.   | No equivalent in GFS. | This may be relevant for some public sector transactions and should be considered further in Exposure Draft Phase of the Measurement Project. |

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|                          | <b>IPSAS</b>                                     | <b>IVS 2017</b>  | <b>GFS 2014</b>              | <b>Comment</b>  |
|--------------------------|--|--|------------------------------|---|
| <b>Liquidation value</b> | <b>See IPSAS definition of Net Selling Price</b> | <b>The amount that would be realised when an asset or group of assets are sold on a piecemeal basis. Liquidation Value should take into account the costs of getting the assets into saleable condition as well as those of the disposal activity.</b> | <b>No equivalent in GFS.</b> | See comments against IPSAS basis 'Net Selling Price'. |

**Addendum C – IFRS 13, Fair Value Measurement, Mapped to IPSAS**

| Topic  | IFRS 13 Reference | ED Measurement Reference | Potentially to be incorporated into the following IPSAS                  |
|--|-------------------|--------------------------|--|
| <b>Objective</b>                                     | 1                 | 1                        |  |
|  | 2                 | N/A                      | N/A, as IFRS 13.2 to 4 only provide a high level summary of the standard |
|  | 3                 | N/A                      |  |
|  | 4                 | N/A                      |  |
| <b>Scope</b>   | 5                 | 3                        |  |
|  | 6                 | 4                        |  |
|  | 7                 | N/A                      | N/A, as related to disclosures   |
|  | 8                 | 5                        |  |
| <b>Definition of fair value</b>                      | 9                 | 6                        |  |
|  | 10                | N/A                      | N/A, as IFRS 13.10 only cross-references to application guidance         |
| <b>The asset or liability</b>                        | 11                | A2                       |  |
|  | 12                | A3                       |  |
|  | 13                | A4                       |  |
|  | 14                | A5                       |  |
| <b>The transaction</b>                               | 15                | A6                       |  |
|  | 16                | A7                       |  |
|  | 17                | A8                       |  |
|  | 18                | A9                       |  |
|  | 19                | A10                      |  |
|  | 20                | A11                      |  |
|  | 21                | A12                      |  |
| <b>Market participants</b>                           | 22                | A13                      |  |
|  | 23                | A14                      |  |
| <b>The price</b>                                     | 24                | A15                      |  |
|  | 25                | A16                      |  |
|  | 26                | A17                      |  |
| <b>Highest and best use for non-financial assets</b> | 27                | A18                      |  |
|  | 28                | A19                      |  |
|  | 29                | A20                      |  |
|  | 30                | A20                      |  |
| <b>Valuation premise for non-financial assets</b>    | 31                | A22                      |  |
|  | 32                | A23                      |  |
|  | 33                | N/A                      | N/A, as IFRS 13.33 only cross-references to application guidance         |

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|  |    |     |          |
|--|----|-----|----------|
| <b>Application to liabilities and an entity's own equity - General principles</b>  | 34 | N/A | IPSAS 41 |
|  | 35 | N/A | IPSAS 41 |
|  | 36 | N/A | IPSAS 41 |
| <b>Liabilities and equity instruments held by other parties as assets</b>  | 37 | N/A | IPSAS 41 |
|  | 38 | N/A | IPSAS 41 |
|  | 39 | N/A | IPSAS 41 |
| <b>Liabilities and equity instruments not held by other parties as assets</b>  | 40 | N/A | IPSAS 41 |
|  | 41 | N/A | IPSAS 41 |
| <b>Non-performance risk</b>  | 42 | N/A | IPSAS 41 |
|  | 43 | N/A | IPSAS 41 |
|  | 44 | N/A | IPSAS 41 |
| <b>Restriction preventing the transfer of a liability or own equity</b>  | 45 | N/A | IPSAS 41 |
|  | 46 | N/A | IPSAS 41 |
| <b>Financial liability with a demand feature</b>   | 47 | N/A | IPSAS 41 |
| <b>Application to financial assets and financial liabilities with offsetting positions in market risks or counterparty credit risk</b> | 48 | N/A | IPSAS 41 |
|  | 49 | N/A | IPSAS 41 |
|  | 50 | N/A | IPSAS 41 |
|  | 51 | N/A | IPSAS 41 |
|  | 52 | N/A | IPSAS 41 |
| <b>Exposure to market rates</b>  | 53 | N/A | IPSAS 41 |
|  | 54 | N/A | IPSAS 41 |
|  | 55 | N/A | IPSAS 41 |
| <b>Exposure to the credit risk of a particular counterparty</b>  | 56 | N/A | IPSAS 41 |
| <b>Fair value at initial recognition</b>   | 57 | A25 |          |
|  | 58 | A26 |          |
|  | 59 | A27 |          |
|  | 60 | A28 |          |
| <b>Valuation techniques</b>  | 61 | A30 |          |
|  | 62 | A31 |          |
|  | 63 | A32 |          |
|  | 64 | A33 |          |
|  | 65 | A34 |          |
|  | 66 | A35 |          |
| <b>Inputs to valuation techniques - General principles</b>   | 67 | A62 |          |
|  | 68 | A63 |          |
|  | 69 | A65 |          |
| <b>Inputs based on bid and ask prices</b>  | 70 | N/A | IPSAS 41 |
|  | 71 | N/A | IPSAS 41 |
| <b>Fair value hierarchy</b>  | 72 | A66 |          |
|  | 73 | A67 |          |

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|   |            |     |   |
|---|------------|-----|---|
|   | 74         | A68 |   |
|   | 75         | A69 |   |
| <b>Level 1 inputs</b>                             | 76         | A70 |   |
|   | 77         | A71 |   |
|   | 78         | A72 |   |
|   | 79         | A73 |   |
|   | 80         | A74 |   |
| <b>Level 2 inputs</b>                             | 81         | A75 |   |
|   | 82         | A76 |   |
|   | 83         | A77 |   |
|   | 84         | A78 |   |
|   | 85         | A79 |   |
| <b>Level 3 inputs</b>                             | 86         | A81 |   |
|   | 87         | A82 |   |
|   | 88         | A83 |   |
|   | 89         | A95 |   |
|   | 90         | A96 |   |
| <b>Disclosure</b>                                 | 91         | N/A | Disclosure will be addressed on an IPSAS by IPSAS basis |
|   | 92         | N/A |   |
|   | 93         | N/A |   |
|   | 94         | N/A |   |
|   | 95         | N/A |   |
|   | 96         | N/A |   |
|   | 97         | N/A |   |
|   | 98         | N/A |   |
|   | 99         | N/A |   |
| <b>Defined terms</b>                              | Appendix A | 6   |   |
| <b>Application guidance (introduction)</b>        | B1         | N/A | Introductory paragraph only                             |
| <b>The fair value measurement approach</b>        | B2         | A1  |   |
| <b>Valuation premise for non-financial assets</b> | B3         | A24 |   |
| <b>Fair value at initial recognition</b>          | B4         | A29 |   |
| <b>Valuation techniques - Market approach</b>     | B5         | A36 |   |
|   | B6         | A37 |   |
|   | B7         | A38 |   |
| <b>Cost approach</b>                              | B8         | A39 |   |
|   | B9         | A40 |   |
| <b>Income approach</b>                            | B10        | A41 |   |
|   | B11        | A42 |   |
| <b>Present value techniques</b>                   | B12        | A43 |   |



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|  |     |     |          |
|--|-----|-----|----------|
| <b>The components of a present value measurement</b>   | B13 | A44 |          |
| <b>The components of a present value measurement - General principles</b>  | B14 | A45 |          |
| <b>Risk and uncertainty</b>  | B15 | A46 |          |
|  | B16 | A47 |          |
|  | B17 | A48 |          |
| <b>Discount rate adjustment technique</b>  | B18 | A49 |          |
|  | B19 | A50 |          |
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|  | B21 | A52 |          |
|  | B22 | A53 |          |
| <b>Expected present value technique</b>  | B23 | A54 |          |
|  | B24 | A55 |          |
|  | B25 | A56 |          |
|  | B26 | A57 |          |
|  | B27 | A58 |          |
|  | B28 | A59 |          |
|  | B29 | A60 |          |
|  | B30 | A61 |          |
| <b>Applying present value techniques to liabilities and an entity's own equity instruments not held by other parties as assets</b> | B31 | N/A | IPSAS 41 |
|  | B32 | N/A | IPSAS 41 |
|  | B33 | N/A | IPSAS 41 |
| <b>Inputs to valuation techniques</b>  | B34 | A64 |          |
| <b>Fair value hierarchy - Level 2 inputs</b>   | B35 | A80 |          |
| <b>Level 3 inputs</b>  | B36 | A97 |          |
| <b>Measuring fair value when the volume of level of activity for an asset or a liability has significantly decreased</b>           | B37 | A84 |          |
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|  | B40 | A87 |          |
|  | B41 | A88 |          |
|  | B42 | A89 |          |
| <b>Identifying transactions that are not orderly</b>   | B43 | A90 |          |
|  | B44 | A91 |          |
| <b>Using quoted prices provided by third parties</b>   | B45 | A92 |          |
|  | B46 | A93 |          |
|  | B47 | A94 |          |
| <b>Effective date and transition</b>   | C1  | 31  |          |
|  | C2  | N/A |          |

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|                                  |            |     |   |
|----------------------------------|------------|-----|---|
|                                  | C3         | N/A | N/A, as IFRS 13.C2 to C5 deal with transitional provisions and consequential amendments |
|                                  | C4         | N/A |   |
|                                  | C5         | N/A |   |
| <b>Amendments to other IFRSs</b> | Appendix D | N/A |   |

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