



**INTERNATIONAL FEDERATION  
OF ACCOUNTANTS**

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**Agenda Item  
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**DATE:** August 10, 2009  
**MEMO TO:** Members of the IPSASB  
**FROM:** Andrew Lennard  
**SUBJECT:** Conceptual Framework—Measurement

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**OBJECTIVE OF THIS SESSION**

The objective of this session is to **consider** issues related to the measurement phase of the Conceptual Framework project along with a preliminary draft of the Consultation Paper being developed.

**ACTION REQUIRED**

Members are asked to:

- **Consider** the issues raised in this memorandum and provide direction;
- **Highlight** further issues that are not addressed in this memorandum and **provide** directions; and
- **Consider** the draft Consultation Paper *Conceptual Framework for General Purpose Financial Reporting by Public Sector Entities: Measurement*;

**AGENDA MATERIAL**

- 9.1 Preliminary draft of Consultation Paper *Conceptual Framework for General Purpose Financial Reporting by Public Sector Entities: Measurement of assets and liabilities in financial statements*

**1 BACKGROUND**

- 1.1 The IPSASB first considered this phase of the Conceptual Framework project at its May 20-09 meeting in Washington. An initial draft ('the Washington Draft') of the Consultation Paper on Measurement was discussed and as a result of comments and discussions a number of changes and additions have been made.
- 1.2 In redrafting one of the main objectives has been to provide a more balanced discussion of the issues in the draft paper. The aim is for the IPSASB to have further discussions about a number of the issues raised. For some issues it may be possible to come to a common position or preliminary view. For others that may be more difficult. At this stage the goal is to continue the discussions started in May, with a view to gaining a solid understanding of the issues and the alternatives for resolving them. As this phase of the project proceeds, members may come to positions on some of the issues.

## 2 ISSUES

2.1 The main issues addressed in this phase of the project are discussed below.

### *An objective of measurement*

- 2.2 The Washington draft proposed as an objective of measurement ‘to portray the entity’s advantage attributable to the asset being measured’. This was included to make clear that although a number of different measurement bases might be considered for use in different circumstances, they all aimed at the same target.
- 2.3 Support for the objective was mixed. Its inclusion seemed to add rather than reduce complexity, as it required measurement bases to be assessed in the context of (i) the objective of measurement; (ii) the qualitative characteristics; and (iii) the objectives of financial reporting.
- 2.4 The current draft does not specify an objective of measurement. Instead, it provides (in Section 2) a discussion of the qualitative characteristics and the objectives of financial reporting. This argues that the qualitative characteristics (in particular, relevance and faithful representation) require the use of a measurement basis that has regard to the economic constraints and opportunities of the entity. Relevance requires that the measurement basis reflects a value that the entity can derive from the asset; representational faithfulness requires that the **full** value that can be derived is reflected, although the value that is reflected is that of the asset that is currently owned and not its expected future contribution. The draft notes that its argument is consistent with the deprival value model (paragraph 2.4).
- 2.5 The discussion also highlights that the selection of a measurement basis will result in entity-specific values in the sense that different entities might value identical assets differently, because their ability to derive value from the asset differs. It distinguishes this from values that may be described as ‘entity-specific’ in the sense that they reflect management’s intentions or expectations.
- 2.7 The following summary of the section is provided paragraph 2.10:
- The appropriate measurement basis must be selected having regard to the economic opportunities that are available to the entity and any constraints on its ability to exploit the asset.
  - A relevant measurement basis must be one that represents a value that the entity can derive from the asset in question.
  - To be representationally faithful, the measurement basis should reflect the highest value that the entity can derive from the asset.
  - Because of these considerations, it follows that the measurement basis that is most appropriate in the circumstances will vary between different entities and even in the case of a single entity different measurement bases will be appropriate for different assets.

**Question for the IPSASB**

**1 What are IPSASB members views on the relationship between relevance and faithful representation and the selection of measurement bases?**

*Cost of services*

- 2.8 It was suggested in Washington that the paper might provide some discussion of the implications for the measurement basis used for the relevance of information on the cost of providing services. This has been added at paragraphs 3.8 and 3.9 in the context of historical cost and 4.11-4.13 in connection with replacement cost. This discussion includes a mention of the concepts of capital maintenance that relate to these two measurement bases.
- 2.9 Historical cost is noted as being useful for accountability purposes as it reports the actual amounts relating to transactions undertaken by the entity. It may also be useful for comparing results with budgets as the amounts can be readily recognised by the budget holder and because budgets may not allow explicitly for price changes. However, because historical cost information does not report the cost of services at current prices, it may not be as relevant as other bases for assessing likely future resource needs.
- 2.10 Replacement cost reporting avoids this drawback as the consumption of assets in providing services is measured in current value terms. It is possible to present information on actual transactions (historical cost) and on a replacement cost basis by separately reporting the amount of changes in prices that are reflected in the reported costs 'realised holding gains'.

**Question for the IPSASB**

**2 What are IPSASB members views on the advantages of historical cost and replacement cost as reporting the cost of services provided?**

*Alternative use assets*

- 2.10 A problem with replacement cost is that (at least as traditionally understood) it focuses on the service potential that will be derived by the current owner of the asset. It thus arguably understates the value of an asset that could be sold at a value higher than the replacement cost and exploited by a purchaser for an alternative use. This most commonly arises in connection with land.
- 2.11 However, in adopting an alternative use valuation it is necessary to be sure (i) that the entity can in fact derive that value (for example, there are no restrictions on the disposal of the asset); and (ii) that adequate regard is paid to the costs of relocation and disruption to operations.
- 2.12 The discussion in the draft CP (paragraphs 4.16-4.17) is open ended: it notes the problem but does not conclude with a specific conclusion. It does, however,

suggest that supplementary disclosure may sometimes be appropriate. The Consultation Paper might seek the views of respondents on this issue.

**Question for the IPSASB**

**3 What are IPSASB members views on alternative use valuations?**

*Value in use and recoverable amount*

- 2.13 In the Washington draft, value in use was discussed only as part of the discussion of recoverable amount. In the current draft a short section (Section 5) is devoted exclusively to value in use. This is followed by a discussion of impairment and recoverable amount (Section 6).
- 2.14 The Washington draft asserted that the value of services (value in use) could be estimated by reference to replacement cost. Although this seems to be consistent with IPSAS 21 ‘Impairment of Non-cash-generating Assets’ which suggests replacement cost may be used to obtain value in use, it is (in the staff’s view) not quite correct. Replacement cost reflects the cost of acquiring an asset, whilst value in use is the value what can be extracted from an asset. It can, however, be reasonably assumed that value in use is greater than replacement cost if the asset would be replaced. This is what the current draft says (paragraph 6.4).
- 2.15 Consistent with deprival value thinking, it appears that value in use cannot be a representationally faithful basis when it is higher than replacement cost, because it reflects the future contribution of the asset rather than the asset that is currently held.

**Question for the IPSASB**

**4 Do IPSASB members agree that, although replacement cost is a suitable measure for impaired asset, it is not a means of estimating value in use?**

**5 Is it agreed that value in use should not be used when it is higher than replacement cost?**

*Net realizable value*

- 2.16 Although, as noted above, the current draft includes a discussion of value in use, it does not include a discussion of net realizable value, on the basis that it is generally well understood. A discussion could be added as to whether net realizable value should always, or sometimes, reflect profits that will arise on the sale of an asset, but this is an issue mainly for inventory in the context of commercial enterprises. As such it would arguably be irrelevant to the CP, and distract attention from issues that are more relevant to public sector entities. (IPSAS 12 ‘Inventories’ sagely requires replacement cost to be used when lower than historical cost for inventories held of goods to be distributed at no charge, or for a nominal charge.)

**Question for the IPSASB**

- 6 Should the CP address net realizable value, especially in the context of assets that are held for resale?**

*Fair value*

- 2.17 The current draft provides in Section 8 a brief discussion of ‘fair value’ as set out in FAS 157 and IASB’s recent exposure draft. This summarises the main requirements (or proposed requirements).
- 2.18 The main point on the Fair Value work is that it is not intended as a contribution to the Conceptual Framework. It is therefore difficult to build on it as part of a CP intended to develop conceptual thinking.
- 2.19 An alternative (and perhaps preferable) approach would be for the CP to contain a discussion of IASB’s work on measurement, referring both to its progress in its Conceptual Framework project (on which a discussion paper may appear before the end of the year) and to its work on fair value.

**Question for the IPSASB**

- 7 Do IPSASB members agree that the CP should address ‘Fair Value’, and that it should be explained why the CP does not consider it a strong contender for the IPSASB Framework?**

*Concluding comments: different types of assets*

- 2.20 The current draft finishes with concluding comments, although these are obviously highly tentative. In particular the concluding comments contain brief references to the types of assets for which market values are appropriate: market values are most likely to be available (and therefore appropriately used) for commodities and financial instruments, whilst replacement cost may be suitable for operational assets, subject to consideration of recoverable amount and alternative uses. Although this is set at a very high level, this may be the most appropriate given the Consultation Paper’s objectives.

**Question for the IPSASB**

- 8 Do IPSASB members agree that market values are most likely to be useful for assets where market values are available, and that these are likely to be financial instruments and commodities?**
- 9 Do IPSASB members agree that replacement cost may be suitable for operational assets, subject to consideration of recoverable amount and alternative uses?**

*Measurement at initial recognition and subsequent remeasurement*

- 2.21 A brief discussion of initial and subsequent measurement has been added to the Introduction (paragraphs 1.9-1.11). This is mainly confined to cases where assets are acquired in an arm's length exchange transaction and notes that in such cases the transaction price is often consistent with the measurement basis that will subsequently be used. If this is not the case, a 'day one' gain or loss will arise, the treatment of which is outside the scope of this paper.
- 2.22 Discussion of measurement where assets are not acquired in an arm's length exchange transaction appears (as before) under historical cost. However, a paragraph has been added (paragraph 3.6) that explains that similar difficulties arise under different measurement bases. These issues are, however, particularly relevant to an assessment of the advantages of historical cost—generally simplicity and verifiability—which are not as often claimed for other measurement bases.

**Question for the IPSASB**

- 10 Do IPSASB members have any comments on the above observations on initial and subsequent measurement?**

**3 OUTSTANDING ISSUES AND NEXT STEPS**

- 3.1 This section reviews matters that need to be addressed (or at least considered) in developing the draft further for publication.

*Liabilities*

- 3.2 It was originally the aspiration that the draft to be considered at this meeting would include a discussion of liabilities. It was noted in May that the discussion of liabilities should encompass a discussion of the appropriate discount rate. However, staff have concentrated their resources on improving the discussion of measurement in the context of assets. As a result, although the reference to liabilities has been retained in the title, the draft is silent on liabilities.
- 3.3 It may be noted that IASB have published for comment a paper on 'Credit risk in liability measurement' and are expected to publish in the next few months a revised version of IAS 37 'Provisions, contingent liabilities and contingent assets' (or possibly an exposure draft for such a revised version). It will therefore be possible to reflect these documents in the discussion on liabilities.

*Review of IPSASs*

- 3.4 Prior to publication, existing IPSASs need to be reviewed to identify any divergences between their requirements and any views expressed out in the Consultation Paper.

*Bibliography*

- 3.5 As suggested in Washington, consideration should be given to the addition of a bibliography.

*Other publications in the conceptual framework project*

- 3.6 Obviously the paper cannot be published without considering where it fits in the context of the whole conceptual framework project.

*Background material*

- 3.7 As noted above it may be helpful for the CP to contain additional background information, including a review of work on measurement by the IASB.

**Question for the IPSASB**

- 11 Do IPSASB members have any comments on the points made above? Are there other matters that need to be attended to in developing the paper?**

**Draft Consultation Paper  
Conceptual Framework for General Purpose Financial Reporting by  
Public Sector Entities:**

**MEASUREMENT OF ASSETS AND LIABILITIES IN FINANCIAL  
STATEMENTS**

**1 INTRODUCTION**

- 1.1 The IPSASB's Conceptual Framework for General Purpose Financial Reporting by Public Sector Entities (the IPSASB Framework) will establish the concepts that are to be applied in developing IPSASs and other documents that provide guidance on information included in general purpose financial reports (GPFRs). The IPSASB Framework will underpin IPSASs that apply across countries and jurisdictions with different political systems and forms of government.
- 1.2 Given (a) the relationship between the IPSASs currently in issue and the concepts and definitions in IFRSs, and (b) the IPSASB's ongoing IFRS convergence strategy, developments in the IASB Framework are being closely monitored. The IPSASB Framework will draw on the work of the IASB where it is relevant to the public sector. However, the objective of the IPSASB's project is not simply to interpret the application of the IASB Framework to the public sector, but rather to develop a public sector conceptual framework that makes explicit the concepts, definitions, and principles that underpin the development of IPSASs.
- 1.3 This Consultation Paper is the third in a series of papers being developed on the key components of the IPSASB Framework. It explores the measurement bases that may validly be adopted for the elements that are recognized in public sector financial statements.

**Objectives of this Paper**

- 1.4 Measurement is an important consideration for financial statements as the same asset (or liability) may be reported at very different amounts depending on the measurement basis that is used. The choice of measurement basis affects not only the financial position shown in the balance sheet, but also the expenses and income reported in the income statement.<sup>1</sup>
- 1.5 This Consultation Paper explores different measurement bases, their relationship to the objective of financial statements, the qualitative characteristics, and the recognition criteria. This exploration will identify factors that should be considered in choosing the measurement basis to be required in specific circumstances. Ultimately, the Conceptual Framework will not mandate requirements for the measurement basis to be adopted in specific circumstances.

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<sup>1</sup> Not all changes in the carrying amount of assets and liabilities are reflected as operating income and expenses. This is a matter that is addressed in the Consultation Paper on 'Presentation and Disclosure'.

- This is dealt with in individual IPSASs which deal with specific transactions and events and are themselves subject to the full due process.
- 1.6 This Consultation Paper only deals with the selection of measurement bases in the context of financial statements. Other measurement bases may be appropriate as supplementary disclosures or in other forms of financial reporting.

**Public sector considerations**

- 1.7 The Consultation Paper on the Objectives of Financial Reporting notes some of the differences between public sector entities and business entities. Some of these differences may affect the choice of measurement basis.
- 1.8 In the public sector, many assets are held for their service potential—that is, their ability to enable the public sector entity to fulfil its objectives—rather than for their ability to contribute to cash flows. Many assets in the public sector are also highly specialised: they would have little utility to any entity other than the current owner. Because of this, it may be difficult to establish a current market value for such assets. Furthermore, many assets in the public sector (for example public buildings and infrastructure assets) remain in use for several decades. Because of these factors, questions that may seem unimportant in the commercial sector require full consideration in the public sector context.

**Measurement at Initial Recognition and subsequent measurement**

- 1.9 Generally, the measurement basis used when an asset is first recognised (for example, on acquisition) is the same as that used when the asset is reported in later accounting periods.
- 1.10 Where an asset is acquired in an arm's length exchange transaction, it is frequently the case that the exchange price corresponds to that of the appropriate measurement basis subject to consideration of transaction costs. This is the case, for example for historical cost, replacement cost and market value measurements.
- 1.11 Where the price paid for an asset (including transaction costs, where appropriate) does not correspond to the measurement basis used, a difference will arise, which is sometimes described as a 'day one' profit or loss. The treatment of this difference is not addressed in this paper.

**2 THE OBJECTIVES OF FINANCIAL REPORTING AND THE QUALITATIVE CHARACTERISTICS**

- 2.1 As is explained in CP1, the objective of financial reporting by public sector entities is to provide information about the reporting entity that is useful to users of GPFs for accountability purposes and for making resource allocation, political and social decisions. CP1 also explains that, in order to fulfil these objectives, information should possess the qualitative characteristics of relevance, faithful representation, understandability, timeliness, comparability and verifiability. Constraints on information included in financial statement are materiality, cost and the need to achieve an appropriate balance between the qualitative characteristics.

- 2.2 In order for a measurement basis to be relevant, it must represent a value that can be derived from the asset. For example, if an entity holds excessive or redundant inventory, it will be able to derive value only from its sale. In such a circumstance it would not be relevant to measure the inventory at its purchase cost, but only at the lower amount that can be achieved by its sale (net realizable value).
- 2.3 However, the value that can be derived from an asset should be reflected in full if the measurement is to be representationally faithful. Net realisable value may not fully reflect the value of an asset that has continuing useful service potential if it is not planned to sell it: the measurement basis should reflect the asset's full service potential and any loss of value arising on sale should be reflected when the sale is made. Representational faithfulness also requires, however, that the service potential of an asset is not overstated. If the service potential of an asset could be obtained at a lower cost than the original cost of the asset, a carrying amount based on original cost would not be representationally faithful. A measure that is representationally faithful should also reflect the asset that is currently held by the entity, rather than the future contributions that the asset is expected to provide to the entity.
- 2.4 The above considerations are consistent with the deprival value model, which is well established in the academic literature and has been recommended for use in public sector financial reporting, for example by the Byatt Committee in the UK and the Carpenter Report in Australia. Under the deprival value model (which is sometimes referred to as the 'value to the entity' model) the measurement basis reflects the loss that the entity that would sustain if deprived of the asset. This cannot be lower than the amount that would be received on sale (net realizable value) and cannot be higher than the current cost of obtaining equivalent service potential (replacement cost). The choice of measurement base reflects the highest economic value that the entity is able to derive from the asset: replacement cost is selected where the asset is worth replacing, and net realizable value when the highest value will be obtained from immediate sale. Value in use is selected by the deprival value model when an asset is not worth replacing but the value of its service potential is greater than that which would be derived from sale.
- 2.5 It will be seen from the above that a relevant and representationally faithful measure of an asset requires consideration not only of the nature of the asset itself, but also of the economic opportunities that are available to the entity to derive value from it and any constraints that might limit its ability to derive value.
- 2.6 Sometimes measurement bases are rejected on the grounds that they are 'entity-specific': it is suggested that, in order to achieve comparability, an asset should be reported at the same amount irrespective of the entity that holds it. This, however, ignores differences in the utility of an asset to different entities: as noted above, many assets held by public sector entities would have little utility to any entity other than the current owner. If two entities own similar assets that provide different utility to them and report them at the same amount, the financial statements of at least one of the entities would be misleading.

- 2.7 'Entity-specific' values are also sometimes opposed on the grounds that they reflect the particular intentions or expectations of the entity or its management. Valuing an asset based on the state of mind of its owner would result in subjectivity of the results. However, it is possible to distinguish management's intentions and expectations from the economic constraints and opportunities to which a particular entity is subject. A measurement basis may be 'entity-specific' in the sense that it is bounded by the economic constraints that limit its possible uses by its current owner and includes consideration of economic opportunities that would not be available to another owner, without necessarily reflecting simply expectations and intentions.
- 2.8 A single measurement basis within an entity's financial statements would be desirable, as the relationship between various amounts reported in the financial statements would be clear: in particular the amounts of different assets and liabilities could be added to provide meaningful totals.
- 2.9 However, as described in the remainder of this Paper, there is no single measurement basis that can be used in all circumstances. It is possible however, to minimize the drawbacks of using different measurement bases. This requires that different measurement bases are selected only where this is justified by economic circumstances, and hence that assets are reported on the same basis where circumstances are similar. In addition, much of the most important information conveyed by financial statements relates to components rather than aggregate amounts, and good presentation and disclosure can ensure that the measurement bases used and the amounts reported on each basis is clear.
- 2.10 In summary:
- The appropriate measurement basis must be selected having regard to the economic opportunities that are available to the entity and any constraints on its ability to exploit the asset.
  - A relevant measurement basis must be one that represents a value that the entity can derive from the asset in question.
  - To be representationally faithful, the measurement basis should reflect the highest value that the entity can derive from the asset.
  - Because of these considerations, it follows that the measurement basis that is most appropriate in the circumstances will vary between different entities and even in the case of a single entity different measurement bases will be appropriate for different assets.

### **3 HISTORICAL COST**

- 3.1 Under the historical cost basis assets are reported at the cost incurred on their acquisition. Historical cost is the most widely used basis of financial reporting. It has the advantages of familiarity and, because historical cost is necessarily recorded where assets are acquired by purchase, it is often relatively objective and simple to apply.

- 3.2 Compared to the available alternatives, historical cost information has a high degree of verifiability. Where an asset is acquired in a single transaction for cash the historical cost is almost totally verifiable. Because of the simplicity of historical cost, the information can probably be prepared more quickly than that prepared using other bases, and so its use contributes to timeliness. Information prepared on a historical cost basis is also understandable, because it generally relates to actual transactions undertaken by the entity.
- 3.3 Thus financial reporting based on historical cost will in many circumstances possess to a great extent the qualitative characteristics of understandability and verifiability, and may be expected to contribute to the timeliness of financial information. The simplicity of historical cost information also has the advantage that it is the least costly method of valuation and so minimises one of the constraints on information noted in CP1.
- 3.4 These advantages, however, do not apply without qualification in all cases. It is not clear for example, that historical cost provides a useful measure in the case of assets that are acquired by donation, or on subsidised terms, or in exchange for other non-cash assets.
- 3.5 Problems also arise when assets are not purchased in a single straightforward transaction. For example:
- Transaction costs: in addition to the purchase price of an asset, other costs may be incurred in connection with its acquisition (for example, legal fees and taxes). It is necessary to determine which costs are sufficiently directly associated with the purchase to justify their inclusion in the historical cost of the asset.
  - Assets constructed by the entity: Where an asset is constructed by the entity itself many costs (for example, labour, materials, energy) will have to be allocated. Questions arise in such cases about the calculation and treatment of borrowing costs.
  - Basket transactions: where several assets are acquired in a single transaction the price paid must be allocated to the individual assets.
  - Depreciation: in the case of an asset that will be used for several accounting periods, the historical cost needs to be allocated to accounting periods. In a simple case for an asset with a relatively short useful life, and which may plausibly be said to yield equal service over its life, a simple straight-line allocation may be satisfactory, but there are many cases where a more sophisticated approach may be required.
  - Flow assumptions: where many similar assets are held flow assumptions such as FIFO and LIFO are generally employed where historical cost is used. These essentially arbitrary conventions are necessary on practical grounds, and may improve the relevance of financial information, but are a departure from a strict adherence to historical cost.

- 3.6 Some of the drawbacks noted here also arise under other measurement bases. They are, however, relevant to an assessment of the usefulness of historical cost, in particular its claimed objectivity and simplicity.
- 3.7 Records of historical cost may not always be available, especially in the case of assets that have been owned for many years and were acquired before the introduction of accruals accounting. In these cases, if historical cost is to be used as the measurement basis, an estimate of historical cost will be required. The subjectivity and unreliability of such estimates further detracts from the objectivity of historical cost measurement.
- 3.8 CPI notes that users of financial statements require information on the amount and type of resources used in the provision of services, and whether the use of resources is consistent with approved budgets. This information is part of the accountability objective of financial reporting. Because historical cost information reports the actual amounts relating to transactions undertaken by the entity, they may be thought to be particularly useful for this purpose. Historical cost information may be particularly suitable for comparing the costs incurred against budgets because the reported amounts will be readily recognisable by the budget holder, and because budgets may not allow explicitly for changes in prices (either general or specific changes).
- 3.9 However, under historical cost reporting, the cost of services provided is reported at prices prevailing at the time when the assets used in the provision were originally acquired. Thus gains and losses that are attributable to the price changes during the period in which assets are held ('holding gains and losses') are not recorded when they arise, but affect the reported cost of services. Because information on the cost of services is not reported in current prices, it may be not as relevant as current price information to the assessment of the likely future resource needs, that is, whether same service levels are likely to require increased or decreased resource levels in the future. Historical cost information reflects a money capital maintenance perspective: a surplus is reported if the income for the period exceeds the historical cost of the assets consumed in providing services in the period, even if the same income is less than the current cost of service provision.
- 3.9 It is questionable whether historical cost information always provides relevant and representationally faithful information on the resources held by the entity. If prices have increased since an asset was acquired its value to the entity may be greater than that represented by historical cost. This is sometimes a particularly significant issue in the public sector where assets may remain in use for several decades.
- 3.10 It may also be noted that use of the historical cost basis does not secure the provision of information that is comparable. Assets that are identical (including in respect of their age and condition) may be reported at different amounts (either by two different entities or within the financial statements of a single entity) because prices prevailing at the dates of acquisition were different.

#### **4 REPLACEMENT COST**

4.1 The replacement cost of an asset may be defined as:

*“the most economic cost required for the entity to replace the future service potential of an asset at the reporting date.”*

4.2 Because the definition refers to the cost “at the reporting date”, replacement cost, as that term is used here, is a current value, that is, it reflects economic opportunities available at the reporting date.

#### **Clarification of the replacement cost concept**

4.3 Replacement cost may be distinguished from reproduction cost: the former refers to the cost of replacing service potential, whilst the latter is the cost of obtaining an identical asset. For example, the private offices of a government department may have high ceilings and ornate plasterwork: the reproduction cost of such a building might be very high, but the replacement cost would be that of office accommodation offering the same accommodation but which might lack those features as they have no economic value. It should not, however, be assumed that use of replacement cost always entails an exhaustive search for assets with equivalent service potential: in many cases the most economic replacement cost will be that of an asset that is similar in major respects to the asset that is actually owned.

4.4 Because entities usually acquire their assets by the most economic means that is available, replacement cost reflects the usual procurement process that an entity follows. The concept of replacement cost is that of replacement in the ordinary course of operations, and not the extraordinary costs that might be incurred if an urgent necessity arose as a result of some unforeseeable event (such as a fire). Also, because replacement cost reflects the cost required of the entity it reflects the entity’s economic circumstances. For example, the replacement cost of a particular vehicle may be less for an entity that usually acquires large quantities of vehicles in a single transaction and thus is regularly able to negotiate discounts than it would be for an entity that purchases its vehicles individually. Where the entity is a public sector entity and the replacement cost differs from that of a private sector entity, it is the public sector price that represents replacement cost.

4.5 The definition refers to ‘future service potential’, which includes both the ability to enable the entity to fulfil its objectives and to yield sales proceeds on the ultimate disposal of the asset. Because it is only future service potential that is relevant, replacement cost is the cost of an asset that is of the same age as that which is being valued. Thus where replacement cost of a used asset is ascertained by reference to the cost of a new asset, an adjustment is necessary to reflect the reduced service potential of the asset that is owned. Similarly an estimate of replacement cost may be reduced to reflect the cost required to repair a damaged asset.

4.6 Some object to the use of replacement cost on the grounds that it reflects not the cost of the asset that is owned, but rather the hypothetical cost of an asset that is not owned. They suggest that replacement cost is not appropriate as it is not an

- attribute of the asset that is actually owned. However, it is not the physical asset that is being valued, but rather the services that the existing asset is capable of providing.
- 4.7 Sometimes replacement cost is advocated on the grounds that the asset will in due course be replaced. On this view, current cost depreciation is necessary in order to ensure that the financial statements report the extent to which sufficient funds for replacement are retained within the entity to provide for replacement. This justification, however, seems to rely on a mistake. The purpose of depreciation is to make a fair charge for the cost of an asset's services that are consumed within an accounting period, not to set aside funds for replacement of the asset. Replacement cost is particularly relevant where assets have to be continually replaced, when it is clear that the cost incurred in consumption of an asset is the cost of its replacement.
- 4.8 It flows from the definition of replacement cost that it includes all the costs that would necessarily be incurred in replacement of the service potential of an asset. This would include transaction costs as well as the consideration that would be paid for a replacement asset.

#### **Replacement cost and the qualitative characteristics**

- 4.9 The major advantage of replacement cost compared to other measurement bases is its relevance. Unlike historical cost replacement cost reflects economic circumstances prevailing at the reporting date. It also reflects the economic position of the owner of the asset since all (and only) the service potential that the asset affords will be reflected in its carrying amount, and does not vary according to the value—or, in the case of specialised assets, lack of value—that the asset will have to another owner. Replacement cost is consistent with the going concern assumption<sup>2</sup> that the entity will continue in operation and will not reduce or terminate its activities. (Conversely, where the going concern assumption is inappropriate, replacement cost is unlikely to be relevant.)
- 4.10 Views may differ as to the understandability of information presented on a replacement cost basis, but it would be expected that with adequate explanation, it will be reasonably understandable.
- 4.11 In the case of assets that are held in order to provide services, replacement cost provides information that is relevant, because it reflects the cost of future service potential that is attributable to the asset. In such circumstances, replacement cost is also representationally faithful of the value of the asset.
- 4.12 It was noted above that historical cost information has some advantages in reporting on the costs of service provision but that, because the cost of assets consumed is reported at prices prevailing at the time of their acquisition they may not be relevant to an assessment of future resource needs. Use of replacement cost avoids this drawback. Use of replacement cost is consistent with the use of

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<sup>2</sup> Cross reference to discussion of going concern elsewhere in the Framework to be considered.

- an operating capacity concept of capital maintenance: a surplus indicates the extent to which the income for the period exceeds the current cost of the assets consumed in providing services in the period, which will need to be replaced if the same level of services are to provided in future periods.
- 4.13 It is possible to combine historical cost and replacement cost information by reporting separately the extent to which changes in prices are reflected in the costs reported in the year. These amounts are sometimes referred to as ‘realised holding gains’. This permits the financial statements both to report the costs based on actual transactions, which may be useful for an assessment of accountability as well as the costs based on current prices which is useful to an assessment of future resource needs. The quantification of realised holding gains requires a flow assumption to be used, because it requires quantification of the historical cost of assets consumed: as noted above, flow assumptions are inevitably arbitrary.
- 4.14 In case of fixed assets, it is important to distinguish changes that are the cost of the consumption of service potential (i.e. depreciation) from changes that are the result of changing prices.
- 4.15 It is apparent that in some cases calculation of replacement cost will be complex and subjective judgements will be required. This will prejudice the timeliness, comparability and verifiability of information prepared on a replacement cost basis, and will also make it more costly than some alternatives.

**Alternative use assets**

- 4.16 Replacement cost reflects the cost of the service potential that the entity is able to use. It thus may understate the value of an asset if it has alternative uses that could be exploited by others. For example, if manufacturing facilities are located in a building in a prime central business district but could equally well be carried out from a less valuable remote location then replacement cost is the cost of a building in the remote location. Reporting the asset at replacement cost would, in such a case, not provide a faithful representation of the value of the asset that is held.
- 4.17 Such circumstances may, however, arise comparatively rarely as it would appear that the most rational course of action would be to relocate the operation to a less valuable site. An alternative use valuation should have regard to the feasibility of relocation: there may, for example, be restrictions that would prevent the disposal of the building that is currently used. It would also be necessary to consider the impact of the costs of relocation that would be incurred and the disruption to activities that would be cause by a move to alternative premises. It may be appropriate in some cases to disclose values for alternative uses in the notes to the financial statements (with an explanation of any assumptions and uncertainties) rather than adjust the replacement cost of the asset.

## **5 VALUE IN USE**

- 5.1 The value in use of an asset is the value that will be derived from the continuing use of an asset and from its disposal at the end of its useful life. It is most relevant to assets that are held for use, rather than, for example, as an investment.
- 5.2 In some cases the value of an asset's remaining service potential can be quantified by calculating the present value of the future cash flows that the entity expects to derive from the asset. This should take account of the risk of variations in the amount and timing of cash flows, and the time value of money.
- 5.3 In practice, the calculation of value in use is often difficult. Assets that are employed in cash generating activities often provide cash flows jointly with other assets, and so value in use can be estimated only by calculating the present value of the cash flows of a group of assets to individual assets. In the public sector, many assets contribute to the provision of services rather than generating cash flows.
- 5.4 Generally, the value of the service potential (and the amount to be obtained on disposal at the end of the asset's useful life) will be greater than the cost of the asset because public sector entities are generally managed on a financially prudent basis. (An exception may arise in the case of a cost overrun, that is, where the eventual cost of an asset is greater than that expected when its acquisition was approved.) As explained in paragraph 2.3 above, the amount at which an asset is stated should reflect the asset that is currently held by the entity, rather than the future contributions that the asset is expected to provide to the entity, and should therefore not exceed the cost of obtaining equivalent service potential—that is, replacement cost—rather than value in use.
- 5.5 Value in use, is however, an appropriate basis where an asset is to continue in use and it is lower than replacement cost.

## **6 IMPAIRMENT OF ASSETS AND RECOVERABLE AMOUNT**

- 6.1 As noted in paragraph 2.2 above, an asset cannot be stated at an amount greater than the value of the future economic benefits that it is capable of providing to its owner. In this Paper, the value of the future economic benefits that an asset will provide to its owner is referred to as the asset's 'recoverable amount'.
- 6.2 Where the carrying amount exceeds recoverable amount, the asset is impaired and it is necessary to reduce the carrying amount. However, as noted in paragraph 2.3 above, the revised amount should be no lower than recoverable amount.
- 6.3 The recoverable amount of an asset is the higher of the value of the asset's remaining service potential and the amount that can be obtained from sale, irrespective of whether the entity intends to continue to use or sell the asset. If an entity chooses to deploy an asset in a way that does not recover the maximum amount, the consequence of that decision is reflected in the periods in which it is implemented and not anticipated by stating the asset at an amount that is lower than the amount that can be recovered.

- 6.4 As noted above, the calculation of value in use is often difficult or impossible, especially for assets that are not employed in cash-generating activities. Where the asset is employed in providing essential services, it may be reasoned that value in use is at least as great as replacement cost, because ownership of the asset avoids the necessity of incurring the cost of replacement. Replacement cost for an impaired asset should reflect only the amount of service capacity that will actually be required (having regard to the entity's needs to hold standby or surplus capacity), which may be less than the capacity of the existing asset.
- 6.5 The recoverable amount of an asset cannot be lower than the amount that could be obtained from sale of the asset. (This is sometimes referred to as 'net realizable value'). In estimating that amount it is necessary to take account of the costs that would be incurred on the disposal of the asset, including legal costs, taxes and commissions that relate directly to the sale and the costs of bringing the asset into a location and condition suitable for sale.

## **7 MARKET VALUE**

### **Market value and the qualitative characteristics**

- 7.1 Where an asset is traded on an active market to which the entity has access, it can be reasoned that market value possesses all of the qualitative characteristics of financial information, as is discussed below.
- Relevance: market values reflect the value of the asset at the reporting date;
  - Faithful representation: market values provide a faithful representation of the value of the asset;
  - Understandability: market values are easy to understand;
  - Timeliness: where market values are readily available, the financial statements can be prepared quickly and with only simple calculations;
  - Comparability: different entities owning similar assets should report them at the same market value, so the information is highly comparable;
  - Verifiability: if market values are readily available the information can be easily verified.
- 7.2 The relevance of market values may be questioned where assets are held for the long-term. In such a case it might be argued that the short-term changes in value that are reported where a market value basis is used are not relevant to the entity's financial position and performance. An example is an equity investment that is held to finance pension obligations: it might be suggested that it is primarily held with a view to the receipt of dividends, and that a fall (or indeed a rise) in market values is of no relevance if expectations of future dividends are unchanged.
- 7.3 However, provided the entity is able to purchase a similar investment at the market price, that price represents the advantage attributable to the asset. The entity could secure the same prospective future dividend receipts at the market

- price, so it would not be representationally faithful to report the value of the asset at a higher amount. Another way of making the point is to observe that the value of an equity investment is the same to all market participants since it offers all of them the potential of future dividends and capital appreciation. Thus, where an asset is widely traded on a market its value will be the same to all holders who have access to that market, and the objection that market values are not relevant to long-term holdings cannot be sustained.
- 7.4 However, if there is no active market for an asset, or if the needs and possible uses of the asset differ for different entities, the asset may be worth more to the entity (its current owner) than its market value. This may arise for assets that are held for their service potential in order to fulfil the objectives of their public sector owner: it may be that any potential purchaser would pay only a reduced amount reflecting the cost of adapting the asset for an alternative use. In these cases, the extent to which market value provides relevant and representationally faithful information may be questioned.
- 7.5 A prison, for example, might be constructed at a cost that is much higher than the price that would be paid by a private sector owner who would have to adapt it for a private sector use. Reporting that asset at a low market value would not be relevant, as the entity is unlikely to dispose of an asset that it requires in order to fulfil its service objectives. Nor would a low market value be representationally faithful of the advantage of ownership accruing to the public sector owner, who can obtain the services provided by the asset only by incurring a cost that is greater than that market value. Nor would the reported decrease in value from cost to market value faithfully represent the financial performance of the entity.
- 7.6 This discussion reflects the view that the measurement basis used for financial reporting purposes may properly reflect economic opportunities that are available only to its current owner and would not be available to another. Part of the argument is that there are no such opportunities for the equity investment discussed in paragraphs 7.2 and 7.3 above, but there are for the prison discussed in paragraphs 7.4 and 7.5. Some would disagree. They would contend that if an entity owns an asset it should be reported at market value because this should result in the same asset being reported at similar amounts by different entities. On this view the benefit of superior economic opportunities that are available to an owner are reflected in financial reporting at the time that the owner exploits and benefits from those opportunities. However, this approach may fail in a public sector context (as in the prison example) to reflect the full value of the asset simply because other entities could not utilise it in the same way as the public sector owner.
- 7.7 In some cases active markets for identical assets do not exist, but market prices may be estimated, for example from prices quoted for similar assets, or by inference from data that reflect the inputs (interest rates, currency rates etc.) that would be used if the asset were to be purchased or sold. For example, an unquoted equity investment might be valued by reference to prices for similar quoted investments, adjusted to reflect the lower liquidity associated with an

unquoted investment. This would have the advantage of promoting consistency with the valuation of other similar assets, and this may outweigh the disadvantages of the complexity and subjectivity which will impair comparability and verifiability. Estimated market values may not always be understandable, because there is a risk that the user will conclude that assets can always be readily realised at the market value at which they are stated.

- 7.8 If prices derived from market values are to be used for financial reporting it may be necessary to specify the means of choosing the market from which prices may be taken and whether an entry (buying) price or an exit (selling) price is to be used. It may also be necessary to consider the treatment of transaction costs.

## **8 FAIR VALUE**

- 8.1 The IASB has recently published an Exposure Draft ‘Fair Value Measurements’ which is based on Statement of Financial Accounting Standards No 157 (FAS 157), issued by the Financial Accounting Standards Board of the United States.

- 8.2 The exposure draft is not intended as a contribution to the conceptual framework, but proposes guidance for the application of ‘fair value’ in those circumstances where that is the measurement basis required by other accounting standards.

- 8.3 ‘Fair value’ as set out in the exposure draft is intended to be a market value, where adequate market evidence exists. It therefore addresses many of the issues that arise in the implementation of a market value measurement basis, and also proposes to extend its application to cases where assets are not traded on an active market. Where market evidence is lacking, the exposure draft proposes alternative approaches, but the objective—an exit price from the perspective of a market participant—remains the same (ED paragraph 53).

- 8.4 The exposure draft defines fair value as:

*‘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.’*

The exposure draft therefore defines fair value as an exit value amount.

- 8.5 The Exposure Draft suggests that, for assets that do not have observable market values and do not generate cash flows, replacement cost may form an acceptable basis of measuring fair value. In such case, consistent with the market participant objective, replacement cost should reflect the assumptions that a market participant, rather than the entity, would use. The market participant is deemed to have or can obtain any complementary assets necessary to use in its own operations.

## **9 CONCLUDING COMMENTS**

- 9.1 No single basis of measurement is likely to be appropriate in all cases: judgement will be required in setting and applying accounting standards to select the measurement basis that is most appropriate to the circumstances of the case,

- which will be that which strikes the most appropriate between the qualitative characteristics.
- 9.2 Although historical cost has many advantages, the superior relevance of current measures may suggest their use in some cases. In particular, it may be thought that price changes are a major issue mainly for fixed assets, and that current measures will not provide a significant improvement over historical cost for current assets, as they are typically consumed within a short period of their acquisition (especially where inventory is of specialised assets, rather than commodities). But although the impact of general inflation in a short period may be small, specific price changes may nonetheless be significant.
- 9.3 Market value is the most straightforward current measure, where assets are traded on active markets. They may therefore be particularly suitable for assets such as commodities and financial instruments. However, in the case of operational assets, assets are diverse and specialised: the economic constraints and opportunities differ significantly for different market participants.
- 9.4 Replacement cost often provides a relevant current measure for operational assets and may be used where it is not unduly costly. Care needs to be taken in the application of replacement cost to ensure that assets are not stated above their recoverable amount, and that assets with alternative uses are treated appropriately.
- 9.5 The IASB Exposure Draft 'Fair Value Measurements' seeks to extend a market value approach to many kinds of operational assets. However, the recourse to a market participant that has the same opportunities as the existing owner seems to be excessively hypothetical in the public sector context. IPSASB will continue to monitor IASB's work on the Fair Value Measurement project and its separate work on the measurement phase of the Conceptual Framework.