



**INTERNATIONAL FEDERATION  
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**Agenda Item  
2C**

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**DATE:** April 29, 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** a preliminary draft of the Consultation Paper *Conceptual Framework for General Purpose Financial Reporting by Public Sector Entities: Measurement*.

**ACTION REQUIRED**

Members are asked to:

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

**AGENDA MATERIAL**

- 2C.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*
- 2C.2 Background paper: *Conceptual Framework—Measurement*

**1 BACKGROUND**

1.1 The Project Brief ‘Public Sector Conceptual Framework’ indicated that the third group of Consultation Papers will include two papers: one on Measurement and one on Presentation and Disclosure. It provided the following description of the Consultation Paper on Measurement:

*This Consultation Paper will explore measurement base(s) that may validly be adopted for the elements that are recognized in the financial statements. It is not intended that the Framework will mandate requirements about the measurement bases to be adopted in specific circumstances. This will be dealt with by individual IPSASs which deal with specific transactions and events and are themselves subject to the full due process. Rather this paper will outline the measurement base(s) that are consistent with the objectives of financial reporting, the qualitative characteristics of financial information and the recognition criteria. (Page 14)*

1.2 As stated in the Project Brief, the Conceptual Framework is being taken forward as a collaborative project with national standard-setters. Staff resource for the measurement work is being provided by the United Kingdom Accounting Standards Board ('ASB').

1.3 The draft discusses the relationship between the measurement bases and the objectives of financial reporting and the qualitative characteristics of financial information based on the September 2008 Consultation Paper. It has been necessary to make certain assumptions about how the elements of financial statements (especially that on 'an asset') will be addressed. This will require revisiting to ensure consistency with the Consultation Paper on definition and recognition of the elements. As part of that review, the addition of discussion of the relationship between the measurement bases and the recognition criteria should be considered. The draft does not address how changes in the reported amount of an asset should be presented but notes that presentation will be addressed in a separate Consultation Paper.

1.4 The draft also confines its discussion to assets. It is envisaged that principles for liabilities should be similar to those used for assets. In a future draft, liabilities will be addressed, perhaps in a separate section. An important issue for that discussion is the circumstances in which the measurement of a liability should be affected by the entity's own credit risk.

1.5 **The IPSASB is asked to note that, at this stage, the staff has not compared the measurement bases prescribed in existing IPSASs with those suggested by the draft Consultation Paper.** In part, this is deliberate as it would tend to influence the drafting of the Consultation Paper to minimise any differences. In principle, standards should follow the Conceptual Framework rather than determine its contents. Nonetheless a detailed comparison will be made as work progresses so that any differences can be drawn to the attention of the Board. One of the results of that comparison may be to suggest changes of terminology that will eliminate cases where there may appear to be a divergence although no significant difference is intended.

## **2 RELATIONSHIP TO IASB AND FASB WORK ON THE CONCEPTUAL FRAMEWORK**

2.1 The current work being undertaken by IASB and the FASB on the measurement phase of the Conceptual Framework project is summarised in paper 2C.2 at section 3. IPSASB's work on the measurement phase precedes the publication of any decisions reached on that project.

2.2 Although some might favour waiting for views to be developed by the IASB and FASB, there are the following reasons for proceeding:

- although IASB indicate that a Discussion Paper will be available in the second half of this year, it is possible that the project will be delayed beyond this;
- there is little firm indication of the likely contents of the IASB Discussion Paper;

- it is possible that the emphasis placed in the IASB work on the ability of assets to produce cash flows may require significant modification and amplification in adapting IASB proposals to the public-sector context.

2.3 Staff will continue to monitor the work of IASB and FASB on measurement—both within the Conceptual Framework project and in the context of FAS 157—with a view to minimising differences between the Consultation Paper and the IASB/FASB work where possible.

### Question for the IPSASB

**1 The IPSASB is asked to confirm that it wishes to proceed to develop its Consultation Paper without waiting for the results of the IASB/FASB Discussion Paper on the measurement phase of its Conceptual Framework.**

### **3 THE OBJECTIVE OF MEASUREMENT AND ‘ENTITY-SPECIFIC’ VALUES**

3.1 In a brief Introduction, the draft explains the purpose of the Paper and notes some factors that are important in the public sector context. The Introduction then:

- (i) explains that a single measurement basis cannot be prescribed for use in all circumstances;
- (ii) notes that the measurement basis will differ for different entities, reflecting their different economic constraints and opportunities; and
- (iii) provides an objective for the selection of measurement bases.

3.2 The Introduction explicitly supports two ideas that are sometimes disparaged—a mixed measurement model and the use of entity specific values. (There is some overlap between these notions since, if it is accepted that the value of an asset is dependent on its relationship to its owner, then it follows that an entity might use different measurement bases for different assets—surplus assets at selling price and useful assets at buying prices, for example.)

#### *The objective of measurement*

3.3 Although the draft discusses several measurement bases and suggests that the choice between them will be based on the extent to which they possess the qualitative characteristics of financial information, it attempts to provide a single measurement objective. This might be seen as unnecessary, but it seems to provide a common point that runs through the later sections of the Paper.

3.4 The objective of measurement as expressed in the draft is:

*“to portray the entity’s advantage attributable to the asset being measured”.*

3.5 The objective is intended to capture the idea that the entity is ‘better off’ by virtue of owning an asset and that measurement should attempt to quantify the extent to which the entity is “better off”. Deprivation value theorists might attempt to describe the objective

as being "the amount that would just compensate the entity for the loss of the asset" but that is not immediately plausible to many people.

3.6 Better wording would state the objective in terms of the "the benefit of ownership" but that may cause confusion if the definition of an asset refers to "economic benefits", and it is an important point that financial statements generally measure assets, and not the future benefits that will be derived from using the assets (although the distinction becomes narrow in the case of impaired assets, which are stated at recoverable amount). The reference to "ownership" has been (reluctantly) avoided, because it is unlikely that the definition of assets will refer to that concept. Another possibility would be to frame the objective in terms of 'value to the owner'.

**Questions for the IPSASB:**

- 2 Does the IPSASB agree that it is not possible to specify a single measurement basis?**
- 3 Does the IPSASB agree that the Consultation Paper should attempt to identify an objective of measurement? If so, what should that objective be?**
- 4 Does the IPSASB agree that values may be entity-specific?**

**4 HISTORICAL COST (DRAFT CONSULTATION PAPER SECTION 2)**

4.1 Section 2 of the draft Consultation Paper starts by reviewing the advantages and disadvantages of historical cost as a basis of measurement, and then from 2.5 to 2.10 discusses the extent to which historical cost measurement possesses the qualitative characteristics.

4.2 The next three paragraphs (2.11-2.13) assess the extent to which information prepared on a historical cost basis will meet the objectives of financial reporting. It suggests that historical cost is required by the accountability objective only for assets that are acquired and used or disposed of within an accounting period. It is then noted that historical cost information is less costly to produce than some alternatives.

4.3 Section 2 concludes by stating that "financial statements prepared on an historical cost basis have a number of shortcomings if financial statements are to meet their objectives as fully as they might, and there is therefore a strong case for considering alternative measurement bases. Nevertheless, because of its advantages, particularly in relation to verifiability and cost, it is to be expected that historical cost will continue to be widely used in public sector financial reporting." It then states the 'Preliminary View' that historical cost will continue to be used widely in public sector financial reporting, and that alternative measurement bases will be considered in appropriate circumstances.

**Question for the IPSASB:**

- 5 What are the IPSASB's views on historical cost?**

## **5 MARKET VALUE (DRAFT CONSULTATION PAPER SECTION 3)**

5.1 This section addresses ‘market value’. A footnote indicates that the meaning of that term is similar, but not necessarily identical to, the concept of ‘fair value’ as that term is used in FAS 157 ‘Fair Value Measurements’.

5.2 Paragraph 3.1 suggests that where there is an active market to which the entity has access market value possesses all of the qualitative characteristics of financial information, but that this is diminished where there is no active market or if the owner of an asset has uses of the asset that would not be available to other market participants. The example is given of a prison that would require adaption to be made suitable to the uses that a private sector owner might have.

5.3 After providing a summary of its discussion on market values, the draft addresses the issue of transaction costs and the related issue of whether exit or entry prices should be used. It notes that “In the case of investments that are held for a financial return, an exit value may seem more plausible in the light of the expectation that they will be realised at some point” (paragraph 3.11). Otherwise the draft’s discussion of market values is silent on transaction costs and entry and exit values.

5.4 This section closes with a preliminary view that market values may be suitable for financial reporting, particularly where the asset is traded on an active market.

### **Question for the IPSASB:**

#### **6 What are views of the IPSASB on market values?**

## **6 REPLACEMENT COST (DRAFT CONSULTATION PAPER SECTION 4)**

6.1 Section 4 provides a discussion of replacement cost. It discusses the concept in some detail, recognising that it is probably the least familiar of the measurement bases that are discussed (paragraphs 4.1-4.7), and assesses the extent to which it possesses the qualitative characteristics of financial information and contributes to the objectives of financial information (paragraphs 4.8-4.13).

6.2 The section ends with the following Preliminary View:

*Replacement cost is capable in some circumstances of meeting the qualitative characteristics of relevance and faithful representation, although in some cases its subjectivity impairs comparability and verifiability. It seems to be most useful for assets held for use in the operations of an entity.*

### **Question for the IPSASB:**

#### **7 What are views of the IPSASB on replacement cost?**

## **7 HIGHER ALTERNATIVE USE**

7.1 An issue arises with replacement cost where an asset could be sold for a higher price than replacement cost. This is not an issue that is raised in the draft Consultation Paper. The point has recently received some attention<sup>1</sup> and is likely to be dealt with in IASB's exposure draft leading on from its Discussion Paper on Fair Value Measurements.

7.2 The issue is perhaps most easily explained by an example. Suppose a government owns an office in a city centre location. The office has a high value reflecting its location—it might profitably be redeveloped as a hotel or shopping centre. The office is used to provide services of an administrative nature. These services could equally effectively be performed in an office at a significantly cheaper location—for example a regional town.

7.3 In this case, replacement cost strictly applied is that of the cheaper office in a regional town. However, reporting the office on that basis would understate the government's asset. On the other hand, moving to the higher market value would seem to overstate the value of the assets employed in the government's activities.

7.4 One way of dealing with this situation would be to disclose the value relating to the service delivery aspect of the building at its replacement cost separately from the additional value relating to its redevelopment potential. This is likely to be suggested by IASB's exposure draft, the implications of which will need to be considered.

### **Question for the IPSASB:**

**8 Should the Consultation Paper deal with the issue of higher alternative uses? If so, what should it say?**

## **8 CAPITAL MAINTENANCE CONCEPTS**

8.1 Conceptual frameworks that deal with measurement often contain material on capital maintenance concepts.<sup>2</sup> Some distinguish financial from physical capital maintenance and also note the difference between defining financial capital in nominal or constant purchasing power units.

8.2 The Canadian Public Sector Handbook, section PS 1000, states the following:

*Government financial statements are prepared on the basis that recognized economic resources used up are measured in financial terms with no adjustments made for the effect of a change in the general purchasing power of the currency*

<sup>1</sup> Van Zijl and Whittington: *Deprivation value and fair value: a reinterpretation and reconciliation*, Accounting and Business Research, Vol. 36, No.2. pp121-130, 2006

<sup>2</sup> See IASB Framework, paragraphs 102-110.; FASB Concepts Statement 5, paragraphs 45-48; Concepts Statement 6, paragraphs 71-72; and 103-106. The last reference specifically addresses not-for-profit entities.

*during the period. Although a government's performance in the management of its service potential is generally a focus more appropriate to the nature and objectives of government, it cannot entirely be measured in financial terms. (paragraph .62, footnote reference omitted).*

8.3 The draft Consultation Paper is silent on the issue of capital maintenance. Arguably, if a treatment of the subject is required it could be in the chapter on presentation. However, silence may be preferred as capital maintenance is not as widely discussed as it was in the days when current cost accounting was widely canvassed. It also seems doubtful whether the treatment in the conceptual frameworks has proved particularly useful in setting accounting standards. However, if it is wished to deal with the issue the words from the Canadian Handbook might provide a suitable starting point.

**Question for the IPSASB:**

- 9 What are IPSASB's views on capital maintenance? Should it be addressed in the Consultation Paper on measurement?**

**9 GENERAL ISSUES**

**Questions for the IPSASB:**

- 10 Are there further measurement bases that should be addressed in the Consultation Paper besides historical cost, market value, replacement cost and recoverable amount?**
- 11 What further issues should the Consultation Paper address?**

9.1 Paper 2C.2 presents some background material. Although it has not been developed with a view to publication, it may be that constituents would value similar information and find it useful in assessing the Consultation Paper. This might be presented, for example, as an Appendix or integrated into the introductory material.

**Question for the IPSASB:**

- 12 Would it be useful for the Consultation Paper to contain background information? What would be the objective of providing that information?**

**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.

### **The objective of measurement**

- 1.9 The conceptual ideal might seem to be to prescribe a single measurement basis that would be used in all circumstances. This would contribute greatly to comparability between different entities, and the meaning of 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.
- 1.10 However, as described in the remainder of this Paper, there is no single measurement basis that can be used in all circumstances in the financial statements to present useful information. 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.
- 1.11 Although a number of different measurement bases may be used, an underlying objective may be specified to guide the choice of measurement basis. Financial statements should depict the extent to which ownership of the asset improves the financial position of the entity. The objective might be stated as being **to portray the entity's advantage attributable to the asset being measured.**
- 1.12 As is explained in Chapter xxx, assets provide economic benefits in the form of services, cash and other economic resources. An asset cannot be stated at an

amount that is greater than the value of the future economic benefits that the asset will provide: in other words, the carrying value of an asset must be recoverable. However, the advantage attributable to the asset may be quantified at a lower amount where those future economic benefits can be secured at a cost which is less than the value of future economic benefits. In such a case, the advantage of the asset is not that of the future economic benefits themselves, but that of saving the cost that would need to be incurred in securing those benefits if the asset were not owned.

### **Entity-specific values**

- 1.13 Sometimes measurement bases are rejected on the grounds that they are ‘entity-specific’. The grounds of the objection may be 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.
- 1.14 ‘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.

#### ***IPSASB Preliminary View 1***

The objective of measurement is to portray the entity’s advantage attributable to the asset being measured.

To achieve this, the measurement basis selected should reflect the economic opportunities of the reporting entity and be consistent with constraints that limit its use by the reporting entity.

### **Structure of this Chapter**

- 1.14 The remainder of this Chapter consists of five sections as follows:
- historical cost
  - market value
  - replacement cost
  - recoverable amount

- liabilities.<sup>2</sup>

## 2 HISTORICAL COST

- 2.1 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.
- 2.2 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.
- 2.3 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.

Allocations are rarely free from subjectivity, and so each of the above issues detracts from the objectivity of historical cost measurement.

- 2.4 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.

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<sup>2</sup> The section on liabilities is not presented in this draft.

### **Historical cost and the qualitative characteristics**

- 2.5 Nonetheless, compared to the available alternatives, it can be argued that 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.
- 2.6 Chapter 2 of the Framework, in explaining the qualitative characteristic of ‘faithful representation’ says ‘To be useful in financial reporting, information must be a faithful representation of the economic and other phenomena that it purports to represent’ (Consultation Paper 1, paragraph 4.11). Whether financial statements prepared on an historical cost basis have the characteristic of faithful representation depends on what they purport to represent.
- If they purport to represent the historical cost of the asset, then the question is trivial: historical cost in that case is clearly representationally faithful.
  - If, on the other hand, the financial statements purport to represent the value of the asset at the reporting date, historical cost will not, except by coincidence, be representationally faithful, because changes in the value of the asset subsequent to its acquisition will not be reflected in the financial statements.
- 2.7 The position is similar as regards the qualitative characteristic of understandability. If the meaning of reporting an asset is understood to be that of reporting its historical cost, then information on a historical cost basis is understandable; but if the meaning is the value of the asset it will not be easily understandable.
- 2.8 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.
- 2.9 But perhaps the most significant failing when assessing historical cost against the qualitative characteristics is in respect of relevance. A report on the assets owned by the entity at the reporting date is of limited relevance if it is expressed in prices that prevailed at the various dates when the assets were acquired, rather than those that reflected conditions at the reporting date. (This is expanded on in the following discussion of historical cost and the objectives of financial reporting.)
- 2.10 The following table summarises the foregoing discussion by giving a concise evaluation of historical cost against each of the qualitative characteristics set out in Chapter 2.

<b>Qualitative characteristic</b>	<b>Assessment</b>	<b>See paragraph</b>
Relevance	Low	2.9
Faithful representation	Questionable	2.6
Understandability	Questionable	2.7
Timeliness	High	2.5
Comparability	Low	2.8
Verifiability	High	2.5

### **Historical cost and the objectives of financial reporting**

- 2.11 As is explained in Chapter 1 of this Framework, 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.
- 2.12 It is sometimes suggested that in order to provide information for accountability purposes, financial statements need to be prepared on a historical cost basis. This is because historical cost financial statements show the resources received and the way in which those assets have been used to discharge the entity's obligations to provide services. This argument, however, seems to apply only in the case of assets that are acquired and used or disposed of within an accounting period. It is not clear that, in the case of assets that are held in more than one accounting period, the accountability objective is better served by reporting the gain or loss made on an asset in each period in which it is held, or as a single amount in the results for the year in which it is disposed of. Indeed if an asset has previously been reported at a current value, accountability may be better assessed by reporting only the subsequent change in value (or gain or loss arising from disposal) in the year in which it takes place.
- 2.13 Nor is it clear that a historical cost measurement basis provides the best information for resource allocation and other decisions. A judgement as to the efficiency with which an entity has used its resources is difficult unless those resources are stated in current terms, that is, on a basis that reflects their value when they were used or disposed of.

### **Constraints on information included in GPFs**

- 2.14 Chapter 2 notes that the information that is contained in financial statements is constrained by materiality; cost; and the need to achieve a balance between the qualitative characteristics.
- 2.15 As noted above, historical cost is, in many respects, simple to implement. Thus the costs of preparation of financial statements will be smaller where historical cost is used than under many alternatives. In addition, historical cost is widely used in current practice and an alternative measurement basis should not be required by a new accounting standard unless the benefits of improved financial reporting will outweigh the costs required by change.

## Conclusions on historical cost

- 2.16 In summary, financial statements prepared on an historical cost basis have a number of shortcomings if financial statements are to meet their objectives as fully as they might, and there is therefore a strong case for considering alternative measurement bases. Nevertheless, because of its advantages, particularly in relation to verifiability and cost, it is to be expected that historical cost will continue to be widely used in public sector financial reporting.

### *IPSASB Preliminary View 2*

Historical cost will continue to be widely used in public sector financial reporting.

Alternative measurement bases will be considered in appropriate circumstances.

## 3 MARKET VALUE

### Market value and the qualitative characteristics

- 3.1 Where an asset is traded on an active market to which the entity has access, it can be reasoned that market value<sup>3</sup> 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.
- 3.2 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.
- 3.3 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

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<sup>3</sup> 'Market value' as used in this Paper is similar, but not necessarily identical to, the concept of 'fair value' that is addressed in FAS 157 'Fair Value Measurements'.

- 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 for an equity investment its value 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.
- 3.4 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 where 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.
- 3.5 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.
- 3.6 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 3.2 and 3.3 above, but there are for the prison discussed in paragraphs 3.4 and 3.5. 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. This is not the view taken in this paper, because it may fail (as in the prison example) to reflect the full advantage accruing to the entity that is attributable to the asset in a public sector context.
- 3.7 If an accounting standard requires the use of prices derived from market values it needs to restrict their use to markets to which the entity has access, or the measurement will not be relevant. Other aspects that may need to be specified are the selection of the market in cases where the entity has access to more than one market and whether markets are sufficiently active that prices quoted on such markets are suitable for financial reporting purposes.

- 3.8 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.

### Conclusions on market value

- 3.9 The above discussion has highlighted that market values will in some circumstances possess in a high degree all of the qualitative characteristics. In these circumstances, they will also contribute to the objective of financial reporting: that is, they will ensure that the information that is presented is useful for assessing accountability and making resource allocation and other decisions.
- 3.10 But where assets are not traded on markets to which the entity has access, or where the entity has economic opportunities that are not available to other market participants, the extent to which a market value measurement will possess the qualitative characteristics, and hence contribute to the objective of financial statements is impaired. For this reason, it is most likely that market values will be most useful for assets held for investment purposes rather than for assets held for use in an entity's operations.
- 3.11 Markets do not generally provide the ability to transact without cost. The cost of transactions may be explicit (for example, a dealer's commission) or implicit in the difference between bid and ask prices. It is therefore necessary to determine, if market values are used, whether an entry or an exit perspective is to be used. In the case of investments that are held for a financial return, an exit value may seem more plausible in the light of the expectation that they will be realised at some point, and hence a measurement that reflects realisable value is more appropriate.

#### *IPSASB Preliminary View 3*

Market value is an appropriate basis for financial reporting, and is likely to be used mainly where the asset is traded on an active market to which the entity has access, and where the reporting entity has the same economic opportunities as those that are available to other entities.

## 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.”*

### Clarification of the replacement cost concept

- 4.2 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.
- 4.3 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.
- 4.4 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 is ascertained by reference to the cost of a new asset, an adjustment is necessary to reduce the value to that of the service potential of the asset that is owned. Similarly an estimate of replacement cost may be reduced to reflect the cost required to restore an asset that has suffered damage.
- 4.5 Because its definition refers to the cost "at the reporting date", replacement cost, as that term is used in this Chapter is a current value, that is, it reflects economic opportunities available at the reporting date.
- 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 and the qualitative characteristics**

- 4.8 The major advantage of replacement cost compared to other measurement bases is its relevance. Like market values (and 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 utility—or, in the case of specialised assets, lack of utility—that the asset will have to another owner, which is irrelevant if disposal is not contemplated. Replacement cost is consistent with the going concern assumption<sup>4</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.)
- 4.9 Because it reflects the cost of future service potential, replacement cost meets the measurement objective of portraying the entity's advantage attributable to the asset. As that objective is implicit in what is purported to be represented in financial statements, replacement cost can also be reasoned to provide information that is representationally faithful.
- 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 However, 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 also make it more costly than some alternatives.
- 4.12 It is clear that financial statements prepared on a replacement cost basis will contribute to the objectives of financial reporting by providing information that is useful for making resource allocation and other decisions. This is because, where assets are stated at replacement cost, the cost of services consumed are reported at amounts that reflect prices prevailing at the time the transactions are carried out. This may also be useful for accountability purposes.
- 4.13 The usefulness of information prepared on a replacement cost basis can be enhanced by careful consideration of presentation of the changes in amounts reported on a replacement cost basis. In particular, some would argue that 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. This is a matter that is discussed in Chapter X, 'Presentation and disclosure'.

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<sup>4</sup> Cross reference to discussion of going concern elsewhere in the Framework to be considered.

*IPSASB Preliminary View 4*

Replacement cost is capable in some circumstances of meeting the qualitative characteristics of relevance and faithful representation, although in some cases its subjectivity impairs timeliness, comparability and verifiability. It seems to be most useful for assets held for use in the operations of an entity.

**5 RECOVERABLE AMOUNT**

- 5.1 As noted in paragraph 1.11 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. To state the asset at a higher amount would not faithfully represent the advantage attributable to the asset. In this Chapter, the value of the future economic benefits that an asset will provide to its owner is referred to as the asset's 'recoverable amount'.
- 5.2 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.
- 5.3 At the time an asset is acquired, its recoverable amount will generally exceed its historical cost, as the entity would not rationally acquire an asset if its cost exceeded its recoverable amount. (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.) However, recoverable amount may change, for example, if the asset suffers damage or proves unsuitable for the purpose for which it was originally intended, or if the entity's requirement for the services the asset provides decreases. Similarly, at dates subsequent to the acquisition of an asset, replacement cost may not always be recoverable.
- 5.4 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.
- 5.5 An alternative approach is to estimate the value of service potential by reference to the replacement cost of the future services that the entity will derive. In particular, if an estimated replacement cost is irrecoverable because it reflects the cost of an asset that has a greater capacity than that which will be required by the entity, having regard to the entity's needs to hold standby or surplus capacity for safety reasons, then a lower estimate of replacement cost is required reflecting only the amount of service capacity that will actually be required.
- 5.6 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.

***IPSASB Preliminary View 5***

Assets should not be reported at an amount greater than its recoverable amount, which is the higher of the value of the services that can be derived from the asset and the net amount that can be obtained from sale.

Recoverable amount may, depending on the circumstances, be assessed by reference to the cash flows that will be derived from the asset; the replacement cost of the asset's remaining service potential; and the net proceeds likely to be received from sale.

**6 LIABILITIES**

[Section to be completed.]

## BACKGROUND PAPER: CONCEPTUAL FRAMEWORK—MEASUREMENT

### 1 Introduction

1.1 This paper provides a brief overview of the treatment of measurement in the FASB Concepts Statements, the IASB Framework and certain other documents, (section 2) and reviews (in section 3) the work being carried out by IASB and FASB in the measurement phase of its conceptual framework project, and considers the implications of that work for the IPSASB conceptual framework. This background is relevant for the IPSASB's decision making on measurement.

### 2 Existing conceptual frameworks, accounting standards and selected other authoritative sources

#### *FASB Concepts Statements 5 and IASB's Framework*

2.1 FASB Statements of Financial Accounting Concepts 5 discusses the following five measurement attributes:

- a. Historical cost (historical proceeds).
- b. Current cost (replacement cost).
- c. Current market value.
- d. Net realizable (settlement) value.
- e. Present (or discounted) value of future cash flows.

2.2 The parallel passage in IASB's Framework for the Preparation and Presentation of Financial Statements identifies the following:

- (a) Historical cost.
- (b) Current cost (replacement cost).
- (c) Realisable (settlement) value.
- (d) Present value.

The IASB Framework also notes that 'marketable securities may be carried at market value'.

2.3 The relevant extracts from these documents are set out in Appendix 1 to this paper. It is clear that the IASB *Framework* is closely based on the FASB Concepts Statement.

2.4 Critics have observed that both the FASB's Concepts Statement and the IASB *Framework* do little more than provide a list of certain measurement bases that were used in practice when the documents were developed. They do not provide a single measurement objective nor do they specify criteria by which the choice may be made between different measurement bases.

#### *UK ASB (including SopBE)*

2.5 The UK ASB's *Statement of Principles for Financial Reporting* (1999) specifically envisages a mixed measurement system being used, with a choice between

historical and current values being made in particular circumstances. Where a current value is selected the specific type of current value will be chosen according to the 'deprival value' or 'value to the owner' approach. This was repeated in the ASB's *Statement of Principles for Financial Reporting: Interpretation for Public Benefit Entities* (2007).

2.6 Under the deprival value approach, the value of an asset is taken to be the lower of replacement cost and recoverable amount, and recoverable amount is the higher of value in use and net realisable value. An overview of the deprival value model is given in Appendix 2.

*Canada: Public Sector Accounting Handbook Section PS 1000 'Financial Statement Concepts'*

2.7 Section PS 1000 of the Public Sector Accounting Handbook describes the concepts underlying the development and use of accounting principles in government financial statements.

2.8 Section PS 1000 notes that government financial statements are prepared primarily using the historical cost basis of measurement and other bases are used 'only in limited circumstances' (paragraph .60). Examples of other bases given are:

- (a) replacement cost, which may be used where inventories are stated at the lower of historical cost and replacement cost; and
- (b) realizable value which may be used to value temporary and portfolio investments. Market value may be used to estimate realizable value when a market for an asset exists.

2.9 PS 1000 notes that present value is a valuation technique rather than a basis of measurement, and gives examples of its use in government financial reporting (paragraph .61).

*FAS 157 'Fair Value Measurements'*

2.10 Much of the current debate on accounting measurement focuses on the use of 'fair value'. Indeed it is sometimes suggested that the only issue requiring debate is when fair value or historical cost is to be used. Although fair value has been specified as a measurement basis in several recent accounting standards (both IFRSs and IPSASs) the debate received considerable impetus from the publication, in September 2006, of FAS 157 'Fair Value Measurements'. Further attention has been focussed on fair value accounting by recent developments in financial markets.

2.11 FAS 157 was published as a Discussion Paper by the IASB in November 2006. It is expected that an Exposure Draft based on it will be published shortly—possibly before this paper is distributed.

2.12 FAS 157 and its IASB counterpart are not part of a conceptual framework. They seek to specify how fair value is to be determined in the circumstances in which that measurement basis is required by another accounting standard.

2.13 Notable features of FAS 157 include:

- Fair value is defined as an exit value—that is the price that would be received to sell an asset or paid to transfer a liability.
- The price reflects an orderly transaction between market participants.
- The price does not reflect transaction costs, but where appropriate the price should be adjusted to reflect transportation costs.
- Fair value shall be measured using valuation techniques consistent with the market approach, income approach and/or cost approach.
- Valuation techniques used to measure fair value are required to maximise the use of observable inputs and minimize the use of unobservable inputs. This requires application of the following hierarchy:
  - *Level 1*: quoted prices in active markets for identical assets or liabilities;
  - *Level 2*: other observable inputs, for example quoted prices in active markets for similar assets or liabilities, with appropriate adjustments;
  - *Level 3*: unobservable inputs, based on the best information available including the reporting entity’s own data.

*Canadian Institute of Chartered Accountants Public Sector Accounting Group tangible assets guide*

2.14 The PSAB published the *Guide to Accounting for and reporting tangible capital assets* in April 2007. This is a practical guide to the application of a new accounting standard (PS 3150). As is suggested by its title, the *Guide* covers many subjects in addition to measurement, and only addresses one type of asset. However, capital assets give rise to many of the most difficult measurement issues in the public sector context, and so the *Guide’s* observations on measurement are relevant.

2.15 The *Guide* identifies (in Chapter 2, section 3.2) three measurement options that may be used for valuing tangible capital assets:

1. historical cost;
2. replacement cost (i.e. current cost); and
3. fair value(i.e. market value).

The *Guide* provides a discussion of the pros and cons of measurement bases, and concludes that ‘the continued use of historical cost accounting is appropriate’.

2.16 A later section of the *Guide* (Chapter 7, Section 1.0) addresses how to establish values for capital assets where historical cost records are not available. It suggests that the value could be based on reproduction cost, replacement cost, market value or fair value. The *Guide* compares reproduction cost and replacement cost and suggests, with some supporting reasons, that reproduction cost is to be preferred. The current value, however derived, should, the *Guide* suggests, be adjusted by a deflation factor to estimate the original historical cost. It is observed that such deflation is distinct from, and

additional to, the need to provide depreciation on the resulting value to recognise the extent to which the useful life of the asset has expired.

### **3 IASB and FASB revisions to the Conceptual Framework**

3.1 The IASB and the FASB are collaborating in a project to revise and complete their conceptual frameworks. That work is divided into phases, of which measurement falls into Phase C. No official documents on this phase have yet been published: the latest IASB work plan (dated 25 January 2009) envisages that a Discussion Paper will be published in the second half of this year.

3.2 At IASB's March meeting, staff presented a paper<sup>1</sup> which aimed to draw a distinction between:

- (i) those assets whose value is realised directly; and
- (ii) those assets whose value is realised indirectly.

3.3 Assets whose value is realised directly are those assets that convert directly to cash flows by being exchanged for economically valuable items or by receipt of such items under the terms of a contract. They are thus likely to include many financial instruments. The IASB staff suggests that all liabilities involve direct realisation. Assets whose value is realised indirectly are realised in more than one step: they include inventories of raw materials, machinery, land and equipment and assets that are used to provide services. Indirectly realised assets are often jointly realised—that is they produce value flows only when used with other assets (including unrecognised intangibles).

3.4 Although IASB staff suggests that current measures are always relevant, they suggest that current measures are more relevant to assets (and liabilities) the value of which is directly realised: non-current measures “would generally seem to be the best choice for indirectly realised assets”.

3.5 IASB staff do not propose that the distinction should be seen as binary. The paper notes that “Holders of most (if not all) types of assets may choose to realize their values directly or indirectly. For example, productive assets may be used temporarily and then sold.” The paper also notes some exceptions when a current measure may be as useful as a non-current measure for indirect realization assets. Other factors to be weighed in making the choice include: confidence level; the measurement of similar items; the measurement of items that generate cash flows together; and cost-benefit.

3.6 A report of the IASB meeting<sup>2</sup> suggests that the paper received a mixed reception with a number of suggestions being made for further development of its ideas.

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<sup>1</sup> Conceptual Framework: Measurement (Phase C): Choosing between a Current and a Non-Current Measure (Agenda paper 2) available at:  
<http://www.iasb.org/Meetings/IASB+Board+Meeting+20+March+2009.htm>

<sup>2</sup> International Standard-setting Report ('IStaR')

3.7 It is difficult to discern what the IASB Discussion Paper is likely to propose at this time. It appears that staff believe it must allow for more than one measurement basis, but which and how many has not been discussed in the most recent IASB discussions. Although the staff paper refers extensively to relevance, the relationship of the material to the other qualitative characteristics has not yet been explored in detail. It may also be noted that the emphasis placed on ability of assets to produce cash flows may require significant modification and amplification in adapting IASB proposals to the public-sector context.

3.8 Staff will continue to monitor the work of IASB and FASB on measurement—both within the Conceptual Framework project and in the context of FAS 157—with a view to minimising unjustifiable differences between the Consultation Paper and the IASB/FASB work.

Appendix 1

Extracts from FASB and IASB conceptual documents

FASB Concepts Statements 5

66. Items currently reported in financial statements are measured by different attributes, depending on the nature of the item and the relevance and reliability of the attribute measured. The Board expects the use of different attributes to continue.
67. Five different attributes of assets (and liabilities) are used in present practice:
  - a. **Historical cost (historical proceeds).** Property, plant, and equipment and most inventories are reported at their historical cost, which is the amount of cash, or its equivalent, paid to acquire an asset, commonly adjusted after acquisition for amortization or other allocations. Liabilities that involve obligations to provide goods or services to customers are generally reported at historical proceeds, which is the amount of cash, or its equivalent, received when the obligation was incurred and may be adjusted after acquisition for amortization or other allocations.
  - b. **Current cost.** Some inventories are reported at their current (replacement) cost, which is the amount of cash, or its equivalent, that would have to be paid if the same or an equivalent asset were acquired currently.
  - c. **Current market value.** Some investments in marketable securities are reported at their current market value, which is the amount of cash, or its equivalent, that could be obtained by selling an asset in orderly liquidation. Current market value is also generally used for assets expected to be sold at prices lower than previous carrying amounts. Some liabilities that involve marketable commodities and securities, for example, the obligations of writers of options or sellers of common shares who do not own the underlying commodities or securities, are reported at current market value.
  - d. **Net realizable (settlement) value.** Short-term receivables and some inventories are reported at their net realizable value, which is the nondiscounted amount of cash, or its equivalent, into which an asset is expected to be converted in due course of business less direct costs, if any, necessary to make that conversion. Liabilities that involve known or estimated amounts of money payable at unknown future dates, for example, trade payables or warranty obligations, generally are reported at their net settlement value, which is the nondiscounted amounts of cash, or its equivalent, expected to be paid to liquidate an obligation in the due course of business, including direct costs, if any, necessary to make that payment.
  - e. **Present (or discounted) value of future cash flows.** Long-term receivables are reported at their present value (discounted at the implicit or historical rate), which is the present or discounted value of future cash inflows into which an asset is expected to be converted in due course of

business less present values of cash outflows necessary to obtain those inflows. Long-term payables are similarly reported at their present value (discounted at the implicit or historical rate), which is the present or discounted value of future cash outflows expected to be required to satisfy the liability in due course of business.

### IASB Framework for the Preparation and Presentation of Financial Statements

- 99 Measurement is the process of determining the monetary amounts at which the elements of the financial statements are to be recognised and carried in the balance sheet and income statement. This involves the selection of the particular basis of measurement
- 100 A number of different measurement bases are employed to different degrees and in varying combinations in financial statements. They include the following:
- (a) **Historical cost.** Assets are recorded at the amount of cash or cash equivalents paid or the fair value of the consideration given to acquire them at the time of their acquisition. Liabilities are recorded at the amount of proceeds received in exchange for the obligation, or in some circumstances (for example, income taxes), at the amounts of cash or cash equivalents expected to be paid to satisfy the liability in the normal course of business.
  - (b) **Current cost.** Assets are carried at the amount of cash or cash equivalents that would have to be paid if the same or an equivalent asset was acquired currently. Liabilities are carried at the undiscounted amount of cash or cash equivalents that would be required to settle the obligation currently.
  - (c) **Realisable (settlement) value.** Assets are carried at the amount of cash or cash equivalents that could currently be obtained by selling the asset in an orderly disposal. Liabilities are carried at their settlement values; that is, the undiscounted amounts of cash or cash equivalents expected to be paid to satisfy the liabilities in the normal course of business.
  - (d) **Present value.** Assets are carried at the present discounted value of the future net cash inflows that the item is expected to generate in the normal course of business. Liabilities are carried at the present discounted value of the future net cash outflows that are expected to be required to settle the liabilities in the normal course of business.
- 101 The measurement basis most commonly adopted by entities in preparing their financial statements is historical cost. This is usually combined with other measurement bases. For example, inventories are usually carried at the lower of cost and net realisable value, marketable securities may be carried at market value and pension liabilities are carried at their present value. Furthermore, some entities use the current cost basis as a response to the inability of the historical cost accounting model to deal with the effects of changing prices of non-monetary assets.

## Appendix 2

### The deprival value model

*The following gives a conventional brief account of the deprival value (or 'value to the owner') model, and is given for ease of reference. It has been adapted from 'Liabilities and how to account for them: an exploratory essay' (ASB, 2002). It has been drafted from the perspective of the commercial sector, but its main points could be re-expressed to be equally valid for the public sector.*

In most cases, a business acquires an asset because the return that it will secure on its investment exceeds its cost. Thus a retailer buys a box of chocolate bars wholesale because it can sell the bars at a higher price in the retail market: a haulage contractor buys a fleet of lorries because its charges to customers will more than reimburse its costs. An assessment of the extent to which a business is better off as a result of ownership of an asset may be made by considering what the asset brings to the business, i.e. what would be the economic consequences of losing the asset or, in the jargon of accounting theorists, its 'deprival value'.

Because the returns the asset will yield are greater than its cost, typically the rational response to the loss of the asset would be to replace it: rather than lose the returns, the business would lose the cost of replacing the asset. Hence the typical measure of an asset is its replacement cost. It should be emphasised that, in principle, replacement cost is a *current* value concept: it looks not to the historic cost of the asset, but to what it would cost to replace it in the economic circumstances at the balance sheet date, including the prices prevailing at that date. Implementing replacement cost in practice gives rise to a number of practical considerations such as whether it is relevant to look to the cost of new or second-hand assets, and how to handle assets that are subject to technological change; however these need not be discussed here.

An important consequence of the points made above is that the returns the asset is expected to provide are not directly reflected in the balance sheet measurement of the asset. They justify the use of replacement cost, because they are higher, but they are not directly taken account of because they lie in the future and would not be lost if the asset were lost. The excess of future returns over replacement cost may be seen either as the goodwill of the business as a whole or as 'unrealised' future profits, both of which accounting has traditionally been reluctant to recognise.

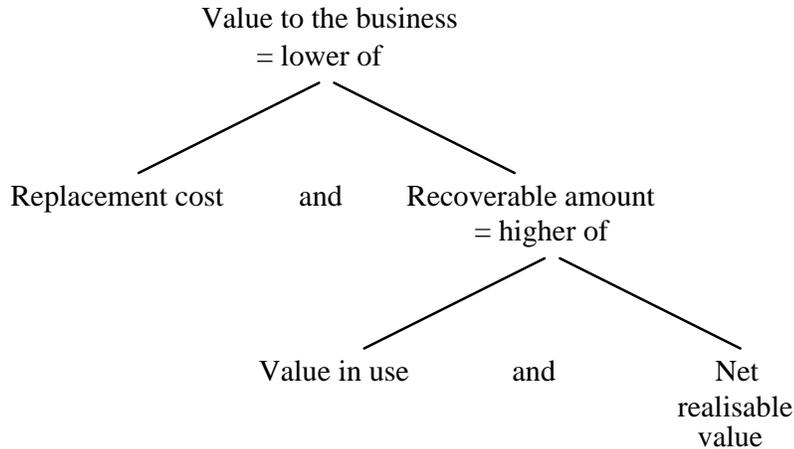
Although replacement cost will typically be the most relevant measurement basis, there are cases where it will not be. If the returns from an asset are insufficient to warrant its replacement (either the returns have fallen from that originally expected or replacement cost has risen, or some combination of the two) then another basis must be used. Here the optimal decision for the business will be to recover it what it can from the asset. There are two ways in which such recovery can be made:

- continue to use the asset and reap the returns it offers (the current value of which is referred to as 'value in use'); or
- sell the asset and receive the sale proceeds (net realisable value).

Typically the business should adopt whichever of these courses gives it the optimal outcome. Hence if value in use is greater than net realisable value it should continue to operate the asset; conversely if net realisable value is greater it should sell the asset.

Thus where the returns from an asset do not justify its replacement it should be stated at recoverable amount, being the higher of value in use and net realisable value.

These conclusions may be portrayed diagrammatically as follows:



An important implication of the value to the business model is that, even in a current value system, assets should not usually be stated at exit values, such as net realisable value. Many assets—particularly fixed assets—are more or less specialised: they are selected for the business's purposes and would not necessarily be as suitable for another business. A purchaser of an asset would not therefore typically pay as much as the existing business for those assets. A purchaser would also reduce the amount of his offer to reflect uncertainties concerning the condition and history of the asset, about which he will have less information than the seller. For these reasons businesses are unlikely in a typical case to be able to sell assets for an amount that would fairly compensate them for their loss.