

DISCUSSION PAPER

Measurement Bases for Financial Accounting – Measurement on Initial Recognition

Prepared by staff of the Canadian Accounting Standards Board

Comments to be submitted by 19 May 2006



International
Accounting Standards
Board®

Discussion Paper
condensed version

Measurement Bases for Financial Accounting

Measurement on Initial Recognition

Prepared by staff of the Canadian Accounting Standards Board
and published for comment by the
International Accounting Standards Board

This condensed version of the Discussion Paper attempts to distill the major points. Those seeking a fuller understanding of the issues and the basis for the proposals should study the main Discussion Paper, which is available in electronic form only, at www.iasb.org.

This condensed version focuses primarily on issues relating to the measurement of assets. The main Discussion Paper also contains more extensive discussion in the context of liabilities and reaches similar conclusions for both assets and liabilities. Additional examples, citations of the relevant literature and other supporting information and analysis are provided in the main Discussion Paper.

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The IASB is publishing this Discussion Paper to contribute to the debate on measurement bases and to seek views on the topic from interested parties.

Comments on the Discussion Paper should be submitted in writing so as to be received by **19 May 2006**.

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Comments received will be analysed by staff of the AcSB. The analysis and copies of responses will be provided to the IASB so that they may be taken into account when the IASB proceeds to debate the issues and form its preliminary views.

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Summary

This paper analyzes possible bases of measurement for assets and liabilities on initial recognition. Issues relating to re-measurement, including impairment, will be dealt with in subsequent papers. The conclusions reached are tentative and will be re-assessed when their potential implications for re-measurement are considered in subsequent papers.

The paper does not deal generally with when initial recognition of an asset or a liability should occur. The paper does, however, propose that initial measurement should be determined as at the date of initial recognition. This has important implications. For example, if prices change between the date when a fixed cash price is negotiated and the initial recognition of the asset acquired, then, in accordance with some measurement bases, the asset would be measured based on prices at the later date. Furthermore, the paper proposes that the initial recognition of a non-contractual asset that is developed over a period of time should be considered to occur, for purposes of initial measurement, when the asset becomes ready to contribute to the generation of future cash flows.

The alternative measurement bases identified from a search of the accounting literature are: historical cost, current cost (reproduction cost and replacement cost), fair value, net realizable value and value in use. The analysis also discusses deprival value, which combines replacement cost, net realizable value and value in use in a single decision model. The alternative measurement bases are evaluated using the following criteria derived from the conceptual framework: decision usefulness, understandability, relevance, reliability, comparability and the definitions of assets and liabilities. Developments in finance theory, the application of present value and statistical probability principles, measurement practices, and computer and information technology are also considered. Cost/benefit considerations are acknowledged to be important, but cannot be evaluated in a meaningful way without consideration of specific circumstances.

The first step of the analysis examines measurement in terms of market versus entity-specific measurement objectives. The market value measurement objective reflects the price in an open and active competitive market. Entity-specific measurements reflect management assumptions and expectations, which may differ from those implicit in market prices. The paper concludes that the market value measurement objective has important qualities that make it superior to entity-specific measurement objectives, at least on initial recognition.

It is necessary to agree on the asset or liability in question before it can be measured. The value-affecting properties of an asset or liability include the “unit of account”. The paper proposes that the unit of account for measurement purposes is generally the unit of account in which an entity acquires an asset or incurs a liability. For example, if an entity makes individual loans, it is the individual loan. If, however, the entity acquires portfolios of loans, then it is the portfolio. Whereas the individual items in a portfolio retain their separate identity, in some cases the process of aggregation of individual assets and liabilities converts them into a new asset or liability and the individual items lose their separate identity. Self-constructed assets and the installation of specialized equipment are examples of this type of aggregation. In such cases, the paper proposes that the unit of account for measurement purposes is the lowest level of aggregation at which an identifiable asset is ready to contribute to the generation of future cash flows.

Defining and applying the market value measurement objective requires a number of issues to be addressed. These include defining “market”, and defining and understanding:

- (a) a sufficiency of information condition;
- (b) information asymmetry;
- (c) market accessibility; and
- (d) multiple markets.

The paper discusses factors that may explain why different prices may exist for similar items in different markets at the same time. In many cases, differences in the items affect their value. The analysis covers a number of common situations, including retail versus wholesale markets and large block and volume discounts. The paper proposes that an entity should generally look to the market in which it acquired an asset or incurred a liability.

The paper discusses the treatment of transaction costs, defined as incremental costs that are directly attributable to the acquisition, issue or disposal of an asset or liability and, for purposes of measuring the fair value of the asset or liability, are not recoverable in the marketplace on the measurement date. The paper reasons that the amount to be recognized as an asset or a liability on initial recognition using the market value measurement objective should exclude transaction costs. However, under an entity-specific measurement objective, transaction costs might be added to the measure of an asset or be deducted from the measure of a liability.

There are two sources of measurement uncertainty which can affect the reliability of a measurement: estimation uncertainty and economic indeterminacy. The paper proposes that in judging the ability to make reliable estimates, consideration should be given to both:

- (a) the nature and extent of measurement uncertainty for a particular measurement basis; and
- (b) the relevance and reliability of supplemental information that can be provided regarding the measurement uncertainty.

The relevance of each measurement basis is evaluated against the identified criteria, with particular emphasis on market versus entity-specific measurements. The paper determines that fair value is more relevant than the other identified bases on initial recognition. The paper demonstrates that all of the alternative measurement bases other than fair value directly or indirectly incorporate entity-specific measurements. For this and other reasons developed in the paper, it is proposed that fair value should be used to measure assets and liabilities on initial recognition, provided it can be reliably measured.

The analysis indicates that significant measurement uncertainty in measuring fair value exists in some common situations. Some of the problems identified include determining what constitutes a market and adducing evidence concerning what data inputs market participants would likely use when a market does not exist for the item in question.

The paper considers which measurement bases are acceptable substitutes for fair value when fair value cannot be measured reliably on initial recognition. Consistent with the fundamental proposition that the market value measurement objective provides superior information, the paper proposes that the alternative measurement basis used should be the one that is most consistent with the market value measurement objective, provided it can be measured reliably and, when cost bases are used, the amount is expected to be recoverable. In evaluating cost bases as possible substitutes for fair value on initial recognition, replacement cost is considered to be more relevant than reproduction cost, and both are considered more relevant than historical cost. Net realizable value and value in use are considered and rejected as substitutes for fair value on initial recognition. However, redefined concepts of realizable value and present value, applied as consistently as possible with the fair value measurement objective, are considered as possible estimates of, or substitutes for, fair value.

The analysis indicates that replacement cost is unlikely to be capable of reliable estimation in many cases, and that reproduction cost may be reliably estimable in some situations in which replacement cost is not. There are also significant reliability limitations with historical cost measurements, notably the

indeterminacy inherent in any one-to-many cost allocations, and the failure to include costs that were incurred before the asset or liability qualified for initial recognition. Nonetheless, the paper accepts that historical cost can be an appropriate substitute in some cases. Deprival value overcomes some of the potential weaknesses of each of its component measurement bases evaluated individually and the paper proposes a refinement of the deprival value decision rule in light of the analysis of the alternative measurement bases.

On the basis of the analysis referred to above, a four-level measurement hierarchy is proposed for assets and liabilities when they are initially recognized:

Level 1 — observable market prices; any adjustments are consistent with those that market participants can be expected to make.

Level 2 — accepted valuation models or techniques; all significant inputs are consistent with those that market participants can be expected to use.

Level 3 — current cost (i.e., reproduction cost and replacement cost); with the possibility of substituting historical cost, provided a reliable estimate can be made and the amount can be expected to be recoverable.

Level 4 — models and techniques that use entity-specific inputs only; when unavoidable and when not demonstrably inconsistent with those that market participants can be expected to use.

Only Level 1 and 2 measurements should be described as “fair value”. Level 3 and 4 measurement bases have sufficient relevance and reliability to be used as substitutes for fair value, but are not sufficiently based on market expectations to be described as “fair value”.

If none of the above measurement alternatives is feasible, the item in question fails to meet the conditions for recognition as an asset or liability.

The paper identifies a number of areas in which in-depth research is needed, and it makes some recommendations for such research.

Invitation to Comment

Comments are sought on any aspect of the Discussion Paper. Answers to the following questions and the reasons for those answers would be particularly helpful.

Comments on the Discussion Paper should be submitted in writing so as to be received by **19 May 2006**.

Questions

References to both the condensed version and main discussion paper are provided in the following questions.

- Q1. Do you agree that the list of identified possible measurement bases (see paragraphs 33-51 of the condensed version and paragraphs 69-74 of the main discussion paper) sets out the bases that should be considered? If not, please indicate and explain any changes that you would make.
- Q2. Do you agree with the working terms and definitions, and supporting interpretations, of each of the identified measurement bases (see paragraphs 33-51 of the condensed version and paragraphs 77-96 of the main discussion paper)? If not, please explain what changes you would make. In particular, do you have any comments on the term “fair value” and its definition (in light of the discussion in paragraphs 46-48 of the condensed version and paragraphs 88-93 of the main discussion paper)?
- Q3. It is proposed that there are two fundamental sources of differences between the identified bases for measuring assets and liabilities on initial recognition:
- (a) market versus entity-specific measurement objectives, and
 - (b) differences in defining the value-affecting properties of assets and liabilities.

(See paragraph 52 of the condensed version and paragraph 97 of the main discussion paper.) This proposal and its conceptual implications are the subject of chapters 4 and 5. Do you agree that these are the fundamental sources of differences between asset and liability measurement bases on initial recognition? If not, please indicate the fundamental sources of differences you have identified, and provide the basic reasons for your views. For any different fundamental sources you have identified, please indicate how these might be examined and tested.

- Q4. The paper analyzes the market value measurement objective and the essential properties of market value.
- (a) Do you believe that the paper has reasonably defined the market value objective and the essential properties of market value for financial statement measurement purposes (see paragraphs 54-56 and 105-112 of the condensed version and paragraphs 99-110 and 236-241 of the main discussion paper)? If not, please explain why not, and what changes you would propose, or different or additional considerations that you think need to be addressed.
 - (b) Do you agree with the proposed definition of “market” (see paragraphs 55-56 of the condensed version and paragraphs 107-110 of the main discussion paper)? If not, please explain why you disagree, and indicate any changes you would make and any issues that you believe should be given additional consideration.
 - (c) Do you agree with the fair value measurement objective as proposed, and its derivation from the market value measurement objective (see paragraph 102 of the condensed version and paragraphs 111, 228 and 229 of the main discussion paper)?
- Q5. Do you agree with the definition and discussion of entity-specific measurement objectives (see paragraph 57 of the condensed version and paragraphs 112-116 of the main discussion paper) and their relationship to management intentions (see paragraph 58 of the condensed version and paragraphs 117-121 of the main discussion paper)? If not, please explain why you disagree.
- Q6. Do you agree with the comparison of market and entity-specific measurement objectives (see paragraph 59 of the condensed version and paragraph 122 of the main discussion paper) and with the proposed conclusion that the market value measurement objective has important qualities that make it more relevant than entity-specific measurement objectives for assets and liabilities on initial recognition (see paragraphs 60-61 of the condensed version and paragraphs 123-129 of the main discussion paper)? If not, please explain your views.
- Q7. (a) It is reasoned that there can be only one market (fair) value for an asset or liability on a measurement date (see paragraph 62 of the condensed version and paragraphs 131-138 of the main discussion paper). Do you agree with this conclusion? If not, please explain why you disagree.

- (b) It is proposed that differences between apparent market values for seemingly identical assets or liabilities on initial recognition may be attributable to:
- (i) differences between the value-affecting properties of assets or liabilities traded in different markets, or
 - (ii) entity-specific charges or credits.

(See paragraph 63 of the condensed version and paragraphs 131-138 of the main discussion paper.) However, the paper notes the existence of multiple markets for some assets and liabilities, and the possibility that they may be due to market access restrictions that require further investigation (see paragraphs 74-82 of the condensed version and paragraphs 95-109 of the main discussion paper).

Do you agree with these proposals, within the caveats and discussion presented? If not, please explain why you disagree.

- Q8. Do you agree that a promise to pay has the same fair value on initial recognition whether it is an asset or a liability, and that the credit risk associated with a promise to pay enters into the determination of that fair value with the same effect whether it is an asset or liability (see paragraph 65 of the condensed version and paragraphs 142-147 of the main discussion paper)? If you do not agree, please explain the basis for your disagreement.
- Q9. The paper makes the following proposals with respect to defining the unit of account of the asset or liability to be measured on initial recognition:
- (a) The appropriate individual item or portfolio unit of account on initial recognition is generally the unit of account in which the reporting entity has acquired the asset or incurred the liability (see paragraphs 67-70 of the condensed version and paragraphs 149-154 of the main discussion paper).
 - (b) The appropriate level of aggregation for non-contractual assets on initial recognition is the lowest level of aggregation at which an identifiable asset is ready to contribute to the generation of future cash flows through its sale or use (see paragraphs 71-73 of the condensed version and paragraphs 157-161 of the main discussion paper).

Do you agree with these proposals within the caveats and discussion presented? If not, please explain why, and in what respects, you disagree.

- Q10. It is suggested that, in many cases, the best market source on initial recognition is the market in which the asset or liability being measured was acquired or issued. However, some significant situations are noted in which a different source may be appropriate, and research is proposed into possible multiple markets (see paragraphs 75-82 of the condensed version and paragraphs 162-182 of the main discussion paper). Do you agree that the paper provides a reasonable analysis of market sources and their implications on initial recognition? If not, please provide reasons for disagreeing, and indicate any additional analysis or research you would think should be carried out.
- Q11. The paper concludes that transaction costs, as defined, are not part of the fair value of an asset or liability on initial recognition (see paragraphs 86-87 of the condensed version and paragraphs 193-200 of the main discussion paper). Do you agree with the proposed definition of transaction costs? Do you agree with the above conclusion? If you disagree, please explain your reasons and what you believe the implications of your different view would be for fair value measurement of assets and liabilities on initial recognition.
- Q12. Do you agree with the proposal that, when more than one measurement basis achieves an acceptable level of reliability, the most relevant of these bases should be selected (see paragraph 89 of the condensed version and paragraph 202 of the main discussion paper)? If not, please explain why you disagree, and indicate how you would settle trade-offs between the relevance and reliability of alternative measurement bases.
- Q13. Do you agree with the two proposed sources of limitations on measurement reliability — estimation uncertainty and economic indeterminacy — and supporting discussion (see paragraphs 90-100 of the condensed version and paragraphs 204-216 of the main discussion paper)? If not, please explain your view.
- Q14. Do you agree that fair value is the most relevant measure of assets and liabilities on initial recognition of assets and liabilities, and therefore should be used when it can be estimated with acceptable reliability (see analyses of fair value and alternative bases in chapter 7, and discussion of measurement date on initial recognition in paragraphs 179-180 of the condensed version and paragraphs 410-415 of the main discussion paper)? If not, please explain why.

Q15. Do you agree that fair value is not capable of reliable estimation in some common situations on initial recognition (see paragraph 104 of the condensed version and paragraphs 232-277 of the main discussion paper)? More specifically, do you agree that:

- (a) A single transaction exchange price should not be accepted to be equal to fair value unless there is persuasive evidence that it is (see paragraphs 106-114 of the condensed version and paragraphs 243-252 of the main discussion paper), and
- (b) A measurement model or technique cannot be considered to achieve a reliable estimation of the fair value of an asset or liability when the estimate depends significantly on entity-specific expectations that cannot be demonstrated to be consistent with market expectations (see paragraphs 115-118 of the condensed version and paragraphs 263-268 of the main discussion paper)?

Please provide explanations for your views on these questions if they differ significantly from the conclusions and supporting arguments presented in the paper.

Q16. Do you agree with the paper's analyses and conclusions with respect to the comparative relevance and reliability of:

- (a) historical cost (see paragraphs 120-137 of the condensed version and paragraphs 281-319 of the main discussion paper);
- (b) current cost — reproduction cost and replacement cost (see paragraphs 138-154 of the condensed version and paragraphs 320-361 of the main discussion paper);
- (c) net realizable value (see paragraphs 155-161 of the condensed version and paragraphs 362-375 of the main discussion paper);
- (d) value in use (see paragraphs 162-169 of the condensed version and paragraphs 376-392 of the main discussion paper); and
- (e) deprival value (see paragraphs 170-178 of the condensed version and paragraphs 393-409 of the main discussion paper)?

Please provide reasons for any disagreements, and any advice you may have as to additional analysis or research that you believe should be carried out.

- Q17. The paper discusses substitutes for fair value when the fair value of an asset or liability cannot be reliably estimated on initial recognition. Do you agree that, when other measurement bases are used as substitutes for fair value on initial recognition, they should be applied on bases as consistent as possible with the fair value measurement objective (see paragraph 186 of the condensed version and paragraph 417 of the main discussion paper)? If not, please explain why.
- Q18. Do you agree with the proposed hierarchy for the measurement of assets and liabilities on initial recognition (see chapter 8)? If not, please explain your reasons for disagreeing and what alternatives you might propose.
- Q19. Do you have comments on any other issues or proposals, including the proposals for further research (see paragraph 189 of the condensed version and paragraph 441 of the main discussion paper)? If so, please provide them.

Chapter 1 — Purpose of Project and Scope

Purpose

1. This project undertakes a preliminary investigation of measurement bases for assets and liabilities that are recognized in financial statements. The project will proceed in stages. This paper analyzes possible bases for measurement on initial recognition. The analyses and proposed principles for measurement on initial recognition lay the foundation for subsequent stages which will deal with re-measurement and impairment.
2. Existing measurement standards and practices are inconsistent and a number of significant measurement issues remain unsettled or have been dealt with unsatisfactorily. In addition, the measurement provisions in existing conceptual frameworks are limited and out of date. The project seeks to provide a basis for rectifying these problems.

Scope

3. The focus of this preliminary investigation is on essential primary issues, with deferral of what are considered to be second order issues to later stages of analysis or for consideration in other projects. With this in mind, this preliminary investigation does not deal with:
 - (a) changes in the purchasing power of the monetary unit, i.e., inflation/deflation effects (although consideration is given to the relative abilities of different measurement bases to reflect the effects of specific price changes);
 - (b) the implications of different measurement bases for reporting financial performance — this is the subject of a separate joint project of the IASB and FASB (although the implications of asset and liability measurement for reporting income are considered, recognizing that some measurement bases are premised in part on certain income recognition and capital maintenance concepts);
 - (c) foreign currency translation issues;
 - (d) income tax issues (in other words, to simplify the analysis, it is assumed that there are no income taxes);

- (e) issues unique to particular industries; and
- (f) assets and liabilities arising from non-arm's length transactions.

Recognition and Measurement Interdependencies

4. The IASB *Framework* states:

“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.” (paragraph 99)

“Recognition” is defined in the IASB *Framework* as:

“... the process of incorporating in the balance sheet or income statement an item that meets the definition of an element and satisfies the criteria for recognition ...” (paragraph 82).

5. This paper addresses measurement when accounting standards require initial recognition *in financial statements*. It does not deal with when assets or liabilities should be recognized initially or when re-measurement should take place. Neither does it deal with measuring amounts required in supplementary financial statement disclosures.
6. There are significant interdependencies between recognition and measurement. One criterion for recognition is that “the item has a cost or value that can be measured with reliability” (IASB *Framework*, paragraph 83(b)). Although measurement reliability is important in assessing the timing of initial recognition it is also an essential consideration in assessing possible measurement bases. It is in the latter manner that measurement reliability is assessed in this paper.

Relationship to Re-measurement

7. There is not a clean division between initial measurement and re-measurement. The adoption of particular measurement bases on initial recognition may limit or preclude some alternatives on re-measurement. Therefore, any conclusions reached regarding measurement on initial recognition are necessarily tentative and will be re-assessed when their potential implications for re-measurement are considered.

Analytical Approach

8. The approach in developing conceptual theories and hypotheses concerning the various possible measurement bases is primarily a deductive (top down) approach. An inductive (bottom up) approach serves primarily as a “reality check” on the conceptual analysis and tentative working conclusions derived from it.

Other Items Covered in the Main Paper

- Significance of the measurement issues on initial recognition
- Glossary of significant terms used (Appendix A)

Chapter 2 — Criteria for Evaluation

9. An evaluation of possible measurement bases requires an agreed set of criteria that can be applied to each possibility. The paper evaluates possible measurement bases against existing conceptual frameworks, interpreted in light of external changes and developments.

Key Aspects of Conceptual Frameworks

Objectives of Financial Reporting

10. The IASB *Framework*, in common with those of several other national standard setters, identifies decision usefulness as the primary objective of financial reporting. The basic objective of decision usefulness is generally defined to give prominence to usefulness for predictive purposes, and to feedback value in relation to predictive purposes (see following discussion on relevance).
11. All frameworks also mention a stewardship objective. Stewardship has come to be defined in broad terms. For example, FASB Statement of Financial Accounting Concepts No. 1, Objectives of Financial Reporting by Business Enterprises (CON 1), observes:

“Management of an enterprise is periodically accountable to the owners not only for the custody and safekeeping of enterprise resources but also for their efficient and profitable use and for protecting them to the extent possible from unfavorable economic impacts of factors in the economy such as inflation or deflation and technological and social changes.” (paragraph 50)

Qualitative Characteristics

Relevance

12. Financial information is considered to be relevant “... when it influences the economic decisions of users ...” (IASB *Framework*, paragraph 26). Paragraphs 46-57 of the FASB’s Statement of Financial Accounting Concepts No. 2, “Qualitative Characteristics of Accounting Information,” (CON 2) elaborate on this characteristic. In particular, paragraph 47 of CON 2 describes relevance in the following terms:

“To be relevant to investors, creditors, and others for investment, credit, and similar decisions, accounting information must be capable of making a difference in a decision by helping users to form predictions about the outcomes of past, present, and future events or to confirm or correct expectations.”

Thus, relevance is generally considered to encompass two fundamental dimensions – predictive value and feedback value. The frameworks of some national standard setters also consider timeliness to be an important attribute of relevance.

Predictive Value

13. The IASB *Framework* states in part:

“The economic decisions that are taken by users of financial statements require an evaluation of the ability of an entity to generate cash and cash equivalents and of the timing and certainty of their generation.” (paragraph 15)

“Information about the economic resources controlled by the entity and its capacity in the past to modify these resources is useful in predicting the ability of the entity to generate cash and cash equivalents in the future.” (paragraph 16)

Feedback Value

14. Paragraph 27 of the IASB *Framework*, and corresponding material in other frameworks, discuss the confirmatory role of financial information. For example, CON 2 states:

“Information that was not known previously about a past activity clearly reduces uncertainty about its outcome, and information about past activities is usually an indispensable point of departure for attempts to foresee the consequences of related future activities.” (paragraph 52)

Reliability

15. The IASB *Framework* states that:

“Information has the quality of reliability when it is free from material error and bias and can be depended upon by users to represent faithfully that which it either purports to represent or could reasonably be expected to represent.” (paragraph 31)

16. Reliability may be considered to have three interrelated aspects:
- (a) Representational faithfulness – the correspondence of a measure with the economic phenomenon that it purports to represent.
 - (b) Neutrality – freedom from bias.
 - (c) Verifiability – knowledgeable and independent observers (including auditors) would concur as to, for example, the amount resulting from applying a particular measurement basis, within a reasonable degree of precision.

Comparability

17. Comparability is: “The quality of information that enables users to identify similarities in and differences between two sets of economic phenomena” (CON 2, Glossary of terms). The IASB *Framework* states that users must be able to compare financial information of an entity through time and between different entities (paragraph 39).

Understandability

18. It is considered essential that financial statement information be understandable by users. However, it is emphasized that:

“For this purpose, users are assumed to have a reasonable knowledge of business and economic activities and accounting and a willingness to study the information with reasonable diligence.” (IASB *Framework*, paragraph 25)

Economic Purposes and Their Embodiment in “Assets” and “Liabilities”

19. Information on the amounts (value), timing and uncertainty of cash-equivalent flows is considered to be the primary focus of financial accounting. A consequence of this is that “assets” (economic resources ultimately reflecting expected direct or indirect cash flows or cash-equivalent benefits) and “liabilities” (present obligations reflecting expected outflows of economic resources, ultimately cash or cash-equivalent outflows) are the basic subject matter of financial accounting measurement. Since it is the cash-equivalent expectations attribute of assets and liabilities that is the primary focus of business activities, it seems appropriate to conclude that this attribute should be the primary focus of accounting measurement.
20. A focus on cash-equivalent expectations is not intended to imply that the appropriate basis for measuring individual assets and liabilities is necessarily an exit value such as net realizable value. The relationship between the expected cash-equivalent flows of an entity as a whole, or of business segments, and the contribution of individual assets and liabilities to those flows is a complex issue that is discussed in subsequent chapters of this paper.

Cost/Benefit Constraints

21. All frameworks note the difficulties of balancing costs and benefits, and acknowledge that this is substantially a judgmental process. In considering cost/benefit constraints, it is important to identify the various types of costs and who bears them, and the various types of benefits and who enjoys them. Most of the costs of providing financial information fall initially on the entity, while the benefits are received by both the entity and external users of the information. In particular, the users of financial statements derive a primary benefit of financial information in making and confirming predictions. The costs to entities are generally more directly observable and quantifiable than benefits, but this does not mean that these benefits are less important. For example, improved financial information for users that reduces information uncertainty and increases decision usefulness can have a substantial economic benefit in reducing the cost of capital of business entities, and perhaps in contributing to improving the credibility of capital markets. As well, consideration should be given to possible effects of alternative accounting measurements on the costs of analysis and interpretation of financial information.

Limitations of Framework Concepts

22. The frameworks establish the agreed fundamental qualities of useful financial information and narrow the rationally acceptable possibilities, but are not sufficient for achieving agreement on a single measurement basis or on how to choose between different measurement bases in different circumstances.

External Changes and Developments

23. The criteria for evaluating alternative measurement bases are interpreted and applied in light of developments in finance theory and capital market pricing literature and practice, the application of present value and statistical probability techniques, measurement practices, and computers and information technology. The following paragraphs summarize some of these developments.
24. Present value theory has been extended and applied more widely in measuring assets and liabilities. FASB Statement of Financial Accounting Concepts No. 7, "Using Cash Flow Information and Present Value in Accounting Measurements," (CON 7) has made a particularly important

- contribution in this area, as have studies of some other standard setters. There are now many examples of the application of present value concepts in accounting standards. However, such standards vary in their application of present value concepts (in the basis for the estimation of cash flows and the determination of interest rates). With the exception of CON 7 in the United States and, to a limited extent, the UK Accounting Standards Board's *Statement of Principles for Financial Reporting*, the relationship of present value principles to possible measurement bases has not been addressed in conceptual frameworks.
25. Global capital markets have emerged and contributed to advances in finance theory and practice relating to pricing assets and liabilities, and attendant risks (for example, option pricing and its applications to employee stock options, and the concept of real options). In addition, developments in capital markets have featured the creation of increasingly sophisticated derivatives and other instruments, as well as financing and business arrangements, to isolate and parcel out particular risks. This has forced accounting standard setters to try to adapt or redevelop traditional accounting recognition and measurement approaches, which have proven to be inadequate in dealing with these phenomena. These efforts, in turn, have highlighted the need to understand better and define the logical connections between accounting and the finance and capital market pricing and risk management concepts, and the economic objectives that have led to the creation of these instruments and arrangements.
 26. More specifically, extensive work has been undertaken on the fair value measurement of financial instruments, with particular reference to underlying principles and models derived from capital markets and finance theory. Also, there has been a growing body of empirical research into the information value of fair value measurements relative to cost and other measurements.
 27. Increasingly, statistical probability theory has been integrated into accounting measurement (for example, in the use of "expected value" probability-weighted estimates in accounting for liability provisions).
 28. Advances in computer and information technology have enabled rapid and cost efficient processing of masses of data and complex calculations. These advances have in turn enabled, for example, measurement modeling that could not have been contemplated in practice a few years ago.

29. These developments do not seem to be inconsistent with the above-noted conceptual framework objectives and qualitative characteristics, or the essence of framework definitions of “assets” and “liabilities”. Rather, they should help enlighten and focus the application of these basic conceptual framework criteria to the evaluation of alternative measurement bases. In so doing, these broader dimensions in respect of present value, finance, capital markets, and statistical probability may help to overcome the limitations of existing conceptual framework objectives and supporting concepts.

Other Items Covered in the Main Paper

- Concepts of capital and capital maintenance
- Differences between conceptual frameworks (Appendix B)

Chapter 3 — Possible Bases for Measurement on Initial Recognition

Defining Initial Recognition

30. It is beyond the scope of the paper to address criteria for recognition. Rather, its purpose is to consider the measurement of assets and liabilities when accounting standards determine that they should be initially recognized. The paper does, however, set out important presumptions with respect to what constitutes initial recognition for measurement purposes. In particular, presumptions are necessary with respect to:
- (a) the relevant measurement date for assets that are acquired on the basis of earlier contracts, and
 - (b) the distinction of measurement on initial recognition from re-measurement in respect of assets that take time to construct.
31. The paper presumes that the initial measurement of an item should be determined as at the date of initial recognition. This has important implications. For example, if prices change between the date when a fixed cash price is negotiated and the initial recognition of the asset acquired, then, in accordance with some measurement bases, the asset would be measured based on prices at the later date. This is dealt with in some more detail in paragraphs 179-180 of this paper.
32. Furthermore, the paper presumes that the initial recognition of a non-contractual asset that takes time to construct is considered to occur, for purposes of initial measurement, when the asset becomes ready to contribute to the generation of future cash flows.

Possible Bases of Measurement on Initial Recognition

33. The paper proposes that the following are the possible bases for measurement on initial recognition, and proposes working definitions, based as a starting reference point on those currently being used in International Financial Reporting Standards.
34. *Historical cost:* Assets are recorded at the fair value of the consideration given to acquire them at the time of their acquisition. Liabilities are recorded at the fair value of the consideration received in exchange for incurring the obligations at the time they were incurred.

35. This is based on the definition of “historical cost” in the IASB Glossary and paragraph 100(a) of the IASB *Framework*, with the following changes:
- (a) The IASB definition states: “Assets are recorded at the amount of cash or cash equivalents paid or the fair value of the consideration given” It is proposed that the words “cash or cash equivalents paid” are redundant because the amount of cash or cash equivalents paid should always equal the fair value of consideration given.
 - (b) The IASB definition states: “Liabilities are recorded at the amount of proceeds received in exchange for the obligation”. The words “amount of proceeds” are replaced by “fair value of the consideration” in order to be more precise and consistent with the definition of historical cost for assets.
 - (c) The IASB definition goes on to add: “... 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.” This phrase has been omitted from the above definition because it seems to be describing an expected value measurement rather than one that is consistent with the historical cost objective.
36. This definition is similar to definitions currently used by national standard setters. However, some aspects of it appear to be open to different interpretations. For the purposes of the paper, the definition adopted is based on the following interpretative comments:
- (a) “*the fair value of the consideration given*”. Most definitions reviewed contain words to this effect. However, some standard setters’ definitions (for example, New Zealand’s) indicate that the historical cost of an asset is the accumulation of costs that can be attributed to the asset, which can include allocations of costs (for example, fixed asset overheads) that were incurred some time in the past. A number of accounting standards and practices are consistent with this latter interpretation, which seems difficult to reconcile fully with the view that the historical cost of an asset should be the fair value of the consideration given at the date that the asset was acquired. This, and certain other differences in views as to how the historical cost measurement basis should be interpreted, are examined in chapter 7.

- (b) “to acquire”. It is assumed that this should be interpreted to encompass all possible means of asset acquisition, including by cash or cash-equivalent exchange transactions, installation, construction, or development.
 - (c) *Amortization and impairment adjustments*. The term “historical cost” is assumed to be the amount before any adjustments for impairment or amortization of interest or depreciation. If an amount is intended to include such adjustments, its description will be appropriately modified, such as “historical cost less accumulated depreciation”.
37. The term “historical cost basis” has sometimes been used to encompass measurement methods that do not meet the definition provided above; for example, writing assets down below cost (or amortized cost) to reflect impairments. Depending on the nature of the differences from historical cost, the resulting bases are often described in such terms as “modified historical cost”, “lower of cost and market”, or as a “mixed measurement basis”. Various modifications of the historical cost basis are considered in analyzing the comparative attributes of alternative measurement bases in chapter 7 of the main paper (see paragraphs 282-286 of the main paper).
38. *Current cost*: The most economic cost of an asset or of its equivalent productive capacity or service potential. This definition embodies reproduction cost and replacement cost, defined as follows:
- Reproduction cost* (of an asset): The most economic current cost of replacing an existing asset with an identical one.
- Replacement cost* (of an asset): The most economic current cost of replacing an existing asset with an asset of equivalent productive capacity or service potential.
39. IASB standards had defined replacement cost as “... the current acquisition cost of a similar asset, new or used, or of an equivalent productive capacity or service potential” (see IAS 15.13 — now withdrawn). This is commonly known as “current cost”.
40. The above working definition adds the words “most economic” to the common definition of reproduction cost. This is proposed to make it consistent with the accepted definition of “replacement cost”, and to distinguish it from the historical cost measurement objective on initial

- recognition. The fair value of consideration given for an asset (its historical cost) will not necessarily equal the most economic cost to reproduce it on initial recognition.
41. Some sources refer to “depreciated replacement cost/reproduction cost”. This is not considered a separate measurement basis, and the term is not used in the paper. Rather, the concepts of “replacement cost” and “reproduction cost” are presumed to factor in any diminution in amount that would result from wear and tear and obsolescence.
 42. *Net realizable value* (of an asset): The estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.
 43. This is the definition in the IASB Glossary, from IAS 2.6 and IAS 2.7. It is defined in similar terms by other standard setters and in other authoritative literature. While not explicit in the above definition, it is presumed to be a current value, that is, the value on the measurement date.
 44. *Value in use (of an asset)*: The present value of estimated future cash flows expected to arise from the continuing use of an asset and from its disposal at the end of its useful life.
 45. This is the definition in the IASB Glossary, from IAS 36.5. Other standard setters and accounting literature generally use this term and define it essentially as above. This definition does not state whose expectations should be the basis for determining value in use. Based on its use in standards and practice, it seems generally to be presumed that the objective is to reflect the reporting entity management’s best estimates of future cash flows. However, the value in use measurement basis seems often to be interpreted in terms of discounting these management estimates using rates that reflect current market assessments of the time value of money and risks commensurate with those of the asset.
 46. *Fair value*: The amount for which an asset or liability could be exchanged between knowledgeable, willing parties in an arm’s length transaction.
 47. This is the existing IASB definition that is consistently used in its standards (see the IASB Glossary), with one change. The IASB definition states “or a liability settled”, whereas the definition above defines fair value in terms of the amount for which either an asset or a liability could be exchanged. This change avoids the implication that the fair value of a liability is necessarily the amount for which it could be settled, that is, its

exit value. In other words, a working definition of the fair value measurement basis is adopted, expressed in neutral terms as the amount that could be exchanged for an asset or liability, without seeming to be limited to an exit, as opposed to an entry, market price.

48. There seems to be general acceptance among accounting standard setters that the objective of fair value measurement is to represent the market value of an asset or liability at the measurement date. If there is no observable market price, the fair value objective is to estimate what the market price would be if there were a market. It is notable, however, that traditional definitions of fair value make no mention of the market value measurement objective. Some have suggested that this should be made explicit by using more descriptive terminology (e.g., “fair market value”) or by incorporating a statement of the market value measurement objective within the definition of fair value. These suggestions have not been adopted on the presumption that the term “fair value” and its above definition can and should be interpreted to embody the market value measurement objective.
49. *Deprivation value* (or “value to the business”). The loss that an entity would suffer if it were deprived of an asset. The upper boundary is its replacement cost. The lower boundary is recoverable amount (which is the higher of its net realizable value and value in use).
50. The term is not defined or used in IASB standards. The above definition is essentially that set out and explained in the UK ASB’s *Statement of Principles for Financial Reporting*, chapter 6, and is also known as “value to the business”.
51. *Present value* is not a measurement basis, but is rather a technique that can be applied to estimate a number of the above measurements in certain circumstances.

Chapter 4 — General Conceptual Analysis — Market Versus Entity-Specific Measurement Objectives

Approach to Conceptual Analysis

52. Chapters 4 and 5 provide a general conceptual analysis of the proposed underpinnings of measurement objectives. It is suggested that there are two fundamental sources of differences between measurement bases on initial recognition:

- (a) market versus entity-specific measurement objectives; and
- (b) differences in defining the value-affecting properties of assets and liabilities.

The analyses of chapters 3 and 4 proceed on the assumption that reliable measurement on initial recognition is possible in all cases. Reliability of measurement is addressed in chapter 6.

Market Versus Entity-Specific Measurement Objectives

53. In accordance with the market value measurement objective, an entity looks to market prices of assets and liabilities, which reflect market risk preferences and market expectations with respect to the amounts, timing and uncertainty of future cash flows. An entity-specific measurement objective looks to the expectations and risk preferences of management of the reporting entity. These expectations and risk preferences may differ in some significant respects from those of the market. The paper concludes that any measure of an item that differs from its market value must be based, explicitly or implicitly, on entity-specific expectations.

Market Value Measurement Objective

54. The market value measurement objective is reasoned from finance literature on market prices and efficient markets. The objective is to reflect the price that would result from an open and active competitive market process. Competitive market forces in an open and active market serve to resolve the diverse expectations and risk preferences of individual market participants in respect of an asset or liability to a single price that can be expected to earn the current rate of return available in the marketplace for commensurate risk on the measurement

date. It is reasoned that such a market will comprise a number of willing, arm's length participants who are knowledgeable, at least in the sense of having access to all publicly available information, and that sufficient public information is available.

55. *The following definition of "market" is proposed for the purpose of defining and applying the market value measurement objective:*

A body of knowledgeable, willing, arm's length parties carrying out sufficiently extensive exchange transactions in an asset or liability to achieve its equilibrium price, reflecting the market expectation of earning or paying the market rate of return for commensurate risk on the measurement date.

(See paragraphs 101-111 of the main paper for further analysis of the basis for this proposal.) The objective is to reflect the price that would "clear the market", that is, the price that would equate supply and demand for the asset or liability on the measurement date.

56. Willing arm's length parties comprise those whose abilities and motivations are determined by competitive market conditions and their individual profit-maximization goals, risk preferences, and expectations. Market participants are not under any compulsion to transact with other parties at disadvantaged prices.

Entity-Specific Measurement Objectives

57. FASB Statement of Financial Accounting Concepts No. 7, "Using Cash Flow Information and Present Value in Accounting Measurements" (CON 7) observes that an entity-specific alternative to a market-based measurement:

"... (a) adds factors that are not contemplated in the price of a market transaction for the asset or liability in question, (b) inserts assumptions made by the entity's management in the place of those that the market would make, and/or (c) excludes factors that would be contemplated in the price of a market transaction. Stated differently, each alternative either adds characteristics to the asset or liability for which marketplace participants will not pay or excludes characteristics for which marketplace participants demand and receive payment." (paragraph 31)

For example, the entity might hold information, trade secrets, or processes that management expects will enable it to realize, or pay, cash flows that differ from those implicit in the market price.

58. An entity-specific measurement objective reflects management's expectations based on its intentions. Some believe that such measurements are more useful to investors and creditors than market values, expressing the view that management knows more about its business than does the market generally and that management would be held accountable relative to its own plans and expectations. However, others note that market value represents the results of an open and active competitive market process involving knowledgeable and willing arm's length participants on the basis of all publicly available information, and that management would be held accountable relative to impartial market values that are comparable between entities and over time.

Comparing Market and Entity-Specific Objectives

59. The main paper analyzes the advantages and disadvantages of market measurement objectives and entity-specific measurement objectives. The key points of difference are summarized below:

Criteria	Market objectives	Entity-specific objectives
<u>Stewardship:</u>		
(a) Basis of management accountability:	Market value. Gains or losses will be recognized to the extent that the market value on initial recognition differs from the amount paid to acquire an asset or received in exchange for a liability.	Management's own expectations, assumptions, and intentions are reflected in the measurement of assets and liabilities.
(b) The effects of any entity-specific advantages or disadvantages:	Appear as a gain or loss only when they are realized or reflected in market value.	Are reflected in the initial measurement of the asset or liability.
<u>Understandability:</u>	Depends on efficient markets concepts and related capital markets finance literature.	Depends on information provided about management's intentions, assumptions, and expectations, and on how measurements are derived therefrom.
<i>continued...</i>		

Continued from previous page

Criteria	Market objectives	Entity-specific objectives
<u>Relevance:</u>	Reflects the results of open market forces involving knowledgeable and willing arm's length participants who have access to all publicly available information at the measurement date.	Impounds information known to management at the measurement date, including management's perception of advantages or disadvantages accruing to the entity that may not be known publicly.
<u>Predictive value:</u>	Founded on expectations of the rate of return available in the marketplace for commensurate risk on the measurement date, subject to the volatility arising from the risks inherent in the asset or liability.	Founded on the expectations and assumptions of management on the measurement date.
<u>Feedback value:</u>	Comparison of previously expected market rates of return with either actual market outcomes or revised market expectations.	Comparison of management's previous expectations with either actual market outcomes or revised management expectations.
<u>Comparability:</u>	<p>(a) Measurements consistently represent the market's equilibrium price reflecting the market's expectations on the measurement date.</p> <p>(b) Measurements are unaffected by how an asset or liability is acquired or incurred, or by the nature of the entity or its intended use of the item.</p>	Measurements are based on individual entity expectations, assumptions, and intentions that are variable over time and between entities (see "predictive value" above).

60. *It is proposed that the market measurement objective has important qualities that make it superior to entity-specific measurement objectives, at least on initial recognition. In particular, it is proposed that the more relevant financial statement measurement objective on initial recognition for investors and other external users is that entities be measured against market values and subject to the discipline of the marketplace, rather than to entities' individual expectations (see paragraphs 122-130 of the main paper for further analysis of the basis for this proposal).*
61. There may be significant information value to investors and other external users of financial statements in knowing the intentions, expectations and assumptions of management when they differ from those implicit in market value on initial recognition. However, such entity-specific information seems more appropriately the subject of separate forecasts or supplementary disclosures.

Other Items Covered in the Main Paper

- Market prices and efficient markets
- Management's intentions

Chapter 5 — General Conceptual Analysis — Value-Affecting Properties and Market Sources

62. *It is proposed that the a priori expectation reasoned from the market value measurement objective is that there can be only one market (fair) value for an item on any measurement date (see paragraphs 131-138 of the main paper for further analysis of the basis for this proposal).*
63. Differences in market prices for seemingly identical items may be attributable to either:
- (a) differences, sometimes, subtle, in the value-affecting properties of items traded in different markets; or
 - (b) entity-specific charges or credits, such as transaction costs.

However, these factors do not explain all differences. It may be that certain market inefficiencies result in different market prices for some identical assets and liabilities on a measurement date.

Defining the Asset or Liability to be Measured on Initial Recognition

Value-Affecting Properties

64. The first step in measuring the market or entity-specific value of an asset or liability is to identify precisely the value-affecting properties of that asset or liability on the measurement date. Assets and liabilities may be broadly classified as either contractual or non-contractual in nature. The value-affecting properties of contractual assets and liabilities ultimately flow from the contract, which provides the basis for deriving expected cash flows and defining and pricing the related risks. The value-affecting properties of non-contractual assets include their tangible or intangible characteristics, the nature of the ownership rights, and their location and condition on the measurement date.
65. The main paper also considers whether there are additional considerations associated with liabilities — particularly regarding the treatment of credit risk in measuring liabilities. The paper reasons that a promise to pay has the same fair value on initial recognition whether it is an asset or liability. The credit risk associated with a promise to pay is

taken into account in the market's determination of the fair value of a promise to pay as an asset or a liability (see paragraphs 142-147 of the main paper for further analysis of the basis for this conclusion).

The Unit of Account

66. A vital pre-condition for determining the value-affecting properties of assets or liabilities is to define their units of account. Whether an asset or liability is defined as its lowest identifiable unit, or on the basis of some grouping or aggregation with other items, may alter its value-affecting properties and, consequently, affect the measure of its market value or entity-specific value. Two types of unit of account issues relate to:
- (a) portfolio creation; and
 - (b) the level of aggregation.

Portfolio Creation

67. A portfolio is a group of similar assets or liabilities in which the individual items retain their identities. An example is a portfolio of loans. The paper accepts that a portfolio could have a different market value than the sum of the market values of the individual items in it.
68. *It is proposed that the appropriate individual item or portfolio unit of account on initial recognition is generally the unit of account in which an entity acquires an asset or incurs a liability. That unit of account can generally be expected to reflect the value-affecting properties of that asset or liability on its initial recognition (see paragraphs 149-154 of the main paper for further analysis of the basis for this proposal).*
69. For example, if an entity makes individual loans, the individual loan would presumably be the appropriate unit of account. Any enhancement, or diminution, of market value resulting from the entity's activities to assemble loans into a diversified portfolio is a matter for re-measurement consideration. However, if an entity acquires portfolios of loans, the portfolio would presumably be the appropriate unit of account because it reflects the value-affecting properties of the acquired loans on initial recognition.
70. The acquisition of a portfolio may also include other assets or liabilities. For example, the acquisition of a credit card receivables portfolio or a demand deposit liability portfolio may also include an intangible asset representing future cash flow benefits expected to result from future

business with card holders or depositors. The expected benefits of the customer relationships should be evaluated separately as an intangible benefit and considered for recognition and measurement as such.

Level of Aggregation

71. Aggregation is the combining of individual assets or liabilities to create a different asset or liability. Individual items lose their separate identities and are transformed into a different asset or liability. For contractual items, the basis for assessing the appropriate level of aggregation seems to depend on standards governing what assets or liabilities are to be recognized.
72. Difficult issues can arise in determining the appropriate level of aggregation for non-contractual assets that are inputs to cash-generating processes. The fair value of an aggregated asset may differ significantly from the sum of the fair values of the individual inputs, depending on the market's valuation of possible synergistic effects resulting from their combination. A problematic example is the acquisition of equipment that is moved to a particular factory location and configured for a specialized use within an assembly line. Is the appropriate level of aggregation the reconfigured equipment or the assembly line within which it has been incorporated?
73. *It is proposed that the appropriate unit of account for non-contractual assets on initial recognition is the lowest level of aggregation at which an identifiable asset is ready to contribute to the generation of future cash flows. This proposal is consistent with the earlier presumption (see paragraph 32) that initial recognition of a non-contractual asset is considered to occur, for purposes of initial measurement, at the point of readiness to contribute to the generation of future cash flows (see paragraphs 157-161 of the main paper for further analysis of the basis for this proposal).*

Determining the Appropriate Market(s)

74. The paper discusses possible sources of market prices, assuming the asset or liability to be measured has been defined, including its unit of account and essential value-affecting properties. This discussion considers which market may establish the market value of an asset or liability on initial recognition when more than one market source exists.

Entry and Exit Markets and Related Issues

75. *It is proposed that, in measuring an asset or liability on initial recognition, an entity should generally look to the market in which it acquired the asset or incurred the liability (see paragraphs 164-166 of the main paper for further analysis of the basis for this proposal).*
76. The items traded in the markets in which the entity acquired the asset or incurred the liability will generally have the same value-affecting properties as the item being measured at the date of its initial recognition. The validity and usefulness of this proposition is tested against various conceivable entry-exit market situations.

Markets in Which an Entity Buys Wholesale and Sells Retail

77. Consider the following example: a hardware retailer that acquires nails in bulk in the wholesale market and then sells them in smaller quantities at a higher price in the retail market. The physical properties of the nails do not change. However, the retailing function adds a fair value enhancing property to the nails for retail customers. It is suggested that the appropriate market for the retailer in measuring the market value of nails on initial recognition is its entry (wholesale) market. Any excess of the retail price over the wholesale price is a result of retailing activities subsequent to initial recognition — that is, it is a matter for re-measurement.

Large Blocks and Volume Effects

78. The market price will often differ depending on the quantity or volume of an asset acquired. For example, there may be a fleet discount on trucks, or different market prices for large and small blocks of securities. It is reasoned that measurement on initial recognition would be based on the market in which the asset was acquired. However, there is one caveat. An entity should generally be expected to acquire assets in the most advantageous market open to it. For example, an entity qualifying for fleet discounts would generally determine fair value using prices in the fleet market, even if it did not take advantage of that market.

Warranty Liabilities and Similar Performance Obligations

79. Consider the example of a television retailer that also sells warranty contracts extending beyond the manufacturer's warranty. The retailer's entry market is that in which it incurs the warranty liabilities, that is, the market with its customers. Its exit market is the market in which it could pay a third party insurer to assume the warranty service obligations.

80. Third party insurers would likely accept a lower price to assume the obligation under this warranty contract because they will not have to bear the costs of the marketing effort. This difference in market prices between the entry and exit markets does not relate to the value-affecting properties of the warranty contracts per se. However, there may also be value-affecting differences between the warranties traded in the two markets, for example, differences in the credit and performance risks of the retailer and insurer.
81. In summary, differences in market values between entry and exit markets for warranties and similar performance obligations may not be fully explained by differences in the value-affecting properties of the liabilities on initial recognition. There are a number of potential difficulties in identifying and measuring all the factors affecting entry and exit market price differences and, in some cases, the exit market price itself. It is suggested that, given these difficulties, the appropriate market for the television retailer in this example may be the (entry) market with retail customers, not the (exit) market with third party insurers, except when specified conditions justifying immediate re-measurement at a reliably estimable exit market value are met.
82. It is acknowledged, however, that there appear to be significant situations in which multiple markets for identical items do exist and further in-depth study is necessary to assess the nature and causes of those price differences. When different markets with different prices do exist for identical assets or liabilities, then there would have to be some defensible rule for choosing between the prices in these markets. One proposal is that the most advantageous market price available to the entity should be selected. Such a rule would require significant supporting guidance. In particular, the market that provides the most advantageous price is not necessarily determined by the lowest market price available to the buyer or the highest market price available to the seller when transaction costs are taken into account.

Other Market-Related Considerations

Information Asymmetry

83. Information asymmetry exists when some market participants have, or are thought to have, information about certain value-affecting properties of an item that are not available to other market participants. It is reasoned that information asymmetry is an information uncertainty risk and the values that different market participants may place on this risk seem to be indistinguishable from entity-specific expectations generally.

Bid-Asked Spreads

84. In a dealer market for actively traded assets, quoted bid and asked prices on a given date are likely to represent the prices that dealers were paying and receiving on that date, in which case the spread may be considered to represent transaction costs to the buyers and sellers. However, in other cases a bid-asked spread, which may be wide, is likely to represent in large part some significant uncertainties, and may only indicate the range in which fair value may lie. Thus, when there is a wide bid-asked spread the paper takes the position that one may need to look for other sources to estimate fair value within that range. There is no conceptual justification for assuming that the mid-point value in a bid-asked spread is a better estimate than any other point in the range.

Market Accessibility and Related Issues

85. A commonly expressed view is that it is inappropriate to measure the fair value of an item on the basis of a market that is not accessible to the entity owning the asset or owing the liability. Market accessibility restrictions may explain some situations in which there appears to be more than one market with different prices for the same asset or liability. Further research is necessary to define carefully what is meant by “market inaccessibility” and whether it may take different forms, with different implications for fair value measurement. For example, a market for a particular asset may not be accessible by an entity in its own right, but the entity may be able to contract with someone who can trade in it to acquire an asset in that market and then sell it to the entity. In other situations, a market may be inaccessible to an entity as a result of legal or other restrictions on who can own or operate particular assets.

Transaction Costs

86. Transaction costs are defined as incremental costs that are directly attributable to the acquisition, issue or disposal of an asset or liability and, for the purposes of measuring the fair value of the asset or liability, are not recoverable in the marketplace on the measurement date. *It is proposed that transaction costs, as defined, are not part of the fair value of an asset or liability on initial recognition* (see paragraphs 193-200 of the main paper for further analysis of the basis for this proposal).
87. It is reasoned that costs incurred by an entity to acquire an asset, or to issue a liability, that can be recovered in the market for that asset or liability should not be considered to be transaction costs, but rather should be included in determining the fair value of the asset or liability on initial recognition. As an example, suppose that a particular commodity must be imported and attracts an import duty that is paid by the importer. The duty is not a transaction cost as defined above if the importer could recover it in reselling the commodity in the domestic market because buyers in the domestic market would have had to pay the duty themselves if they had imported the commodity. It is not necessary that the importer intend to resell the commodity, because the market value of an asset or liability on initial recognition is unaffected by an entity's marketing intentions.

Other Items Covered in the Main Paper

- Determining the appropriate market(s), additional situations considered
 - Loan assets
 - Demand deposit liabilities
 - Finished and partly finished goods
 - Business acquisitions
- Other market-related considerations
 - The distinction between market values and amounts that could be immediately realized or settled

Chapter 6 — General Conceptual Analysis — Reliability

Defining Reliability

88. The paper reasons that the basic underpinning of reliability is “faithful representation” and that the appropriate starting point for the analysis of reliability of a measurement basis is to examine what it purports to measure. The reliability of a measurement basis on initial recognition is then addressed in terms of whether it is able to reasonably represent what it purports to measure. For example, the reliability of an attempt to measure fair value is judged in terms of whether it faithfully represents the essential properties of market value.
89. Most conceptual frameworks indicate that a trade-off must be made between relevance and reliability. However, some have advocated that, when more than one alternative measurement basis achieves an acceptable level of reliability, the most relevant of these measurement bases should be selected. It does not also have to be the most reliable measurement basis. This paper adopts this position.
90. Limitations on the reliability of a measurement basis result from some form of measurement uncertainty, which exists when there is a variety or range of different reasonably possible or justifiable amounts. Two sources of measurement uncertainty are identified:
- (a) estimation uncertainty; and
 - (b) economic indeterminacy.

These are used in chapter 7 in the analysis of alternative measurement bases.

Estimation Uncertainty

91. An estimate involves a judgment about an uncertain existing condition or future outcome. Examples include measurements based on an estimate of the quantity of gold in a gold mine (an uncertain existing condition) and an estimate of the future timing and amounts of cash flows to be received from a loan receivable (an uncertain future outcome). In both examples, the actual amount of the item in question will ultimately be capable of observation.

92. Actual outcomes may be affected by information on events or circumstances that did not exist at the measurement date. Thus, the reliability of a measurement estimation should be judged on the basis of the facts and the validity of assumptions at the measurement date, and not necessarily by the subsequent outcome. An entity can enhance the reliability of uncertain measurements by putting in place, and documenting, a rigorous system of measurement policies, procedures and controls.
93. The distinction between estimation uncertainty and volatility is important. An item may be capable of precise determination (i.e., be reliably measurable), for example, spot foreign exchange rates. However, the measure of the item may be highly volatile, that is, susceptible to significant fluctuations over time as market conditions change. The volatility over time simply reflects changing market conditions and does not indicate that the measurements at various points in time are unreliable.

Economic Indeterminacy

94. Indeterminacy arises when a phenomenon cannot be defined in sufficiently concrete terms to enable it to be validly quantified, at least without making significant limiting assumptions. That is, some value-affecting quality or property of an asset or liability may be unknown and unknowable.
95. A basic economic indeterminacy in accounting involves arbitrary allocations or attributions when the cost or value of an item must be allocated among two or more assets or liabilities. Examples include basket purchase transactions and self-constructed assets that involve the use of other assets or overheads of the entity.
96. The reliability of measurements involving economic indeterminacy must be interpreted carefully, recognizing their inherent limitations.

Disclosure

97. A valid depiction of the measurement of an uncertain phenomenon or state requires more information than reporting a single amount selected from within the range of possibilities. Information is also required about the nature, size and shape of the range of uncertainty.

98. Information about measurement uncertainty is an essential element of measurement reporting in financial accounting. The evaluation of reliability of measurement should encompass information that can be provided about that measurement basis and any measurement uncertainty. Specifically, financial statement users are presumed to be interested in how an uncertain measurement has been derived from the range of reasonably possible amounts, and the nature and extent of the measurement uncertainty.
99. A measurement basis should not be considered unreliable solely because it has a wide range of measurement uncertainty, if valid and useful information can be provided that enables users to understand and evaluate the uncertainty.
100. *In summary, it is proposed that, in evaluating the reliability of a measurement basis, consideration should be given to both:*
- (a) the nature and extent of measurement uncertainty inherent in that measurement basis, and*
 - (b) the relevance and reliability of supporting information on the nature and extent of measurement uncertainty that can be provided in respect of that measurement basis.*

(See paragraphs 201-223 of the main paper for further analysis of the basis for this proposal.)

Other Items Covered in the Main Paper

- Tolerance for estimation uncertainty

Chapter 7 — Analysis of Alternative Measurement Bases

101. This chapter examines each alternative measurement basis in the context of the general conceptual analysis. The ultimate purpose of this analysis is to assess whether one basis, or some reasoned combination of bases, is most appropriate on initial recognition.

Fair Value

Relevance

102. The tentative conclusion developed in chapter 4 is that the market value measurement objective has important qualities that make it superior to an entity-specific measurement, at least on initial recognition. Also, it has been reasoned that the fundamental objective of fair value is to reflect the market value of an item on the measurement date. Hence, fair value must be considered more relevant than measurement bases that depend on entity-specific expectations, as long as it can be reliably measured.

Reliability Limitations

103. The reliability of estimates of fair value is evaluated in relation to the faithfulness with which such estimates represent the properties of market value. Fair value is then compared with the properties of other measurement bases on initial recognition.
104. The estimation of fair value is subject to reliability limitations when there is no directly observable market price for an item on a measurement date. The paper considers whether there are circumstances in which a sufficiently reliable estimate of fair value is not possible with reasonable cost and effort and, if a reliable estimate is not considered possible, what can be done. It concludes that fair value is not capable of reliable estimation in some common situations on initial recognition.

Market Prices

105. The most reliable source of the fair value of an asset or liability is the observable market price for identical assets or liabilities on the measurement date. Supporting guidance is needed to achieve a clear and consistent understanding of what is meant by a market. Certain issues that would seem to need to be addressed in this regard are discussed in the main paper (see paragraphs 240-242 of the main paper). These include:
- (a) The knowledge condition: whether a minimum level of public information is required to enable a market and, if so, what the minimum level should be.
 - (b) Wide bid-ask price spreads: these may represent ranges of indeterminacy.
106. The paper reasons that one observable transaction or a few infrequent transactions does not necessarily constitute a market. It is suggested that a transaction price paid or received for an asset or liability should not be described as its fair value on initial recognition unless there is persuasive evidence that it does have the essential properties of market value. Such evidence will not exist in respect of certain unique assets and liabilities.
107. It seems to be commonly believed that the transaction price of an asset or liability arrived at between a buyer and a seller dealing at arm's length should be presumed to be its market price at the date of the transaction, unless there is convincing evidence to the contrary. This is a pragmatic position based on practice, rather than a statement of principle. It implicitly presumes that individual buyers and sellers are generally rational, willing and knowledgeable parties dealing at arm's length, and that any exceptions from market value will be clearly evident. The question is whether these presumptions are necessarily justified.
108. In principle, a transaction price exchanged by an entity for an asset or liability is the basis of the historical cost of that asset or liability — that is, ignoring any transaction costs, it is the fair value of the consideration given to acquire the asset or received for incurring the liability. However, the fair value of the asset or liability on initial recognition could differ from its transaction price. Every day people get bargains or pay more than fair value for goods and services. Individual transaction prices may exceed or be less than fair value because of ignorance, inadequate research, convenience, or disadvantageous bargaining positions, among other reasons.

109. In many situations it will be reasonable to assume that the transaction price exchanged for an asset or liability reasonably reflects its market value on the transaction date. For example, amounts paid for common, publicly traded goods and services would normally be readily seen to be consistent with observable prices in the marketplace.
110. The concern is with respect to an asset or liability for which there is no market and no observable basis for supporting or rebutting the presumption that the transaction price equals its fair (market) value on initial recognition. This concern may be illustrated by an example. Suppose that entity A is bargaining to acquire a unique asset, say a private operating subsidiary of entity B. A's estimate of the maximum amount that it would be prepared to pay will presumably be based on its private, entity-specific information and expectations. It might expect certain synergies with its present operations or believe that it has superior expertise to others in that business. Suppose that the maximum amount that A is prepared to pay is 1.5 million. B, on the other hand, may have a much lower estimate of the value of the subsidiary based on its knowledge and expectations. It might not be as optimistic as A, and it might have lower expectations as to the synergies that it can extract from the asset. Suppose B estimates a value of 0.5 million and would be prepared to sell for any price in excess of that amount. A and B will not be privy to each other's expectations, information bases and expertise, although they may try to learn as much as possible about them to improve their respective bargaining positions. What is the fair value of this asset? Suppose A acquires the subsidiary for 1.35 million in cash. Should this be considered to be the fair value of the operating subsidiary on its initial recognition by A?
111. What characterizes the unique asset illustrated by the business acquisition example above is that there may be no real possibility of obtaining persuasive evidence with respect to whether the exchange price is, or is not, its fair value. Entity A may have made a bargain purchase. Alternatively, its entity-specific expectations for synergies may have had no basis in reality but may have been unrealistically optimistic. The exchange price of 1.35 million is the asset's historical cost to A, and this may be all that can be reliably observed on initial recognition in this case.

112. This is not to say that the exchange price may not be the most appropriate basis for measuring the asset on initial recognition in this situation. The essential question is whether the transaction price in situations like this should be purported to be the fair value of the asset or liability on the measurement date, or whether all that can be asserted is that it is the price paid (historical cost).
113. Some argue that, if it is agreed that the most relevant measurement basis on initial recognition is fair value, the closest proxy or substitute available should be described as “fair value”, no matter how far short of the fair value (market) objective the actual measurement may be. Others reject this view. They believe that a measurement should be described in terms of what was actually achieved, and not purport to be more than that.
114. The above example illustrates that accounting measurement on initial recognition has sometimes fallen back on an assumption that fair value is reliably represented by another accounting basis (in this case, historical cost) in order to resolve an indeterminacy. The problem with describing the exchange price (historical cost) as fair value on initial recognition of unique assets or liabilities for which there is no market or alternative source for estimating fair value is that it creates an expectation that the amounts faithfully represent the properties of market value when there is insufficient evidence to support this expectation and there are potentially large, but indeterminate, ranges of fair value measurement uncertainty.

Valuation Models and Techniques

115. When there is no observable market price, fair value may be capable of estimation using valuation models or techniques. Such valuation models or techniques should be consistent with the objective of estimating fair value and incorporate assumptions that marketplace participants would use whenever market-based information is available without undue cost and effort. When market-based information is not available without undue cost and effort, an entity may use as inputs its own assumptions as a practical expedient, but the paper takes the view that the result may not be a fair value measure, but rather a substitute for fair value.

116. *It is proposed that a measurement model or technique cannot be considered to achieve a reliable estimation of fair value if it depends significantly on entity-specific expectations that cannot be demonstrated to reliably represent market expectations (see paragraphs 232-267 of the main paper for further analysis of the basis for this proposal).*
117. It should be noted that, when fair value cannot be estimated reliably, measurements based on entity-specific expectations or transaction prices may be the best measurement available on initial recognition. But the paper views these as substitutes for fair value suggesting that the objective should be to select the best substitute that can be measured with adequate reliability, using methodologies that are as consistent as possible with the fair value measurement objective. Measurement substitutes for fair value should be clearly described in terms of what they are, not as “fair value”.
118. Non-contractual assets that do not generate cash flows in and of themselves, but contribute along with other inputs to a cash-generating process, can present significant fair value measurement problems when there are no observable market prices for identical or similar assets. The reliability of fair value estimates may be enhanced by using multiple valuation techniques. However, the present value of future cash flows cannot be independently estimated for non-contractual assets that are used with other inputs in a cash-generating process without significant attribution assumptions. Such attribution is subject to a fundamental indeterminacy, because it requires a one-to-many allocation. Thus, it seems that a present value model cannot be expected to produce reliable estimates of the fair value of a non-contractual asset that is one of many inputs to a cash-generating process.

Evaluation of Other Possible Measurement Bases on Initial Recognition

119. The paper evaluates each of the other alternative measurement bases in terms of their relevance and reliability. The objective is to assess:
- (a) whether there are factors that might overturn the tentative conclusion noted above that fair value is the preferred measurement basis when it can be estimated reliably; and
 - (b) their potential as a substitute when fair value cannot be estimated with an adequate level of reliability.

Historical Cost

120. Often there will be persuasive evidence that the fair value of the consideration given or received for an item also represents the fair value of the item at the date of initial recognition. There are many cases, however, where significant differences between fair value and historical cost can arise, even on initial recognition. The paper considers historical cost as a possible measurement basis only when it cannot be justified to equal the fair value of the item received and therefore must be judged by its historical cost properties.

Relevance

Nature of Historical Cost

121. Historical cost does not purport to measure the value received. It must be supplemented by some additional measure of recoverable value. It cannot be presumed that the price paid is recoverable in the market place without independent substantiation. In this important regard, historical cost is less relevant than fair value as a measurement basis on initial recognition.

An Entity-Specific Measurement

122. Because the paper proposes that the measurement basis be described as “historical cost” only in cases where it differs from fair value, it is necessarily an entity-specific measurement. For example, if the recorded historical cost of an asset is higher than its fair value, the entity must have a higher expectation of its recoverable amount than does the market.

The Cost-Revenue Matching Objective

123. The relevance of historical cost-based accounting has traditionally been premised on a cost-revenue matching objective. Matching has its roots in the economic premise that sacrifices must generally be made (costs must generally be incurred) to achieve benefits (revenues). Historical cost represents the investment or sacrifice made to achieve revenue benefits. The traditional accounting objective has been to expense the cost of an asset when the revenues to which the asset is considered to contribute are recognized. Defining and measuring the historical cost of assets on initial recognition has been considered to be the first essential step in this matching process.

124. It is now well accepted in principle that an input must meet the definition of an asset to warrant capitalization of its cost, and that its cost should be carried forward only to the extent that it is recoverable. The measurement of an asset on its initial acquisition at its market (fair) value provides an initial matching point between the marketplace's value of the asset and its historical cost. To carry forward the historical cost of an asset that differs from its fair value on initial recognition results in a less informative matching in later periods when the asset is ultimately realized because the reported profit or loss at that future time will not distinguish the net income effects of activities relating to the acquisition or creation of the asset from the net income effects of subsequent activities.
125. Thus, it is reasoned that the cost-revenue matching objective is not lost, but is enhanced, by the measurement of assets at fair value rather than historical cost on initial recognition.

Decision Usefulness

126. Historical cost may be useful in predicting future reported net income. However, this does not in itself have any necessary implications for future cash flows. Fair value, on the other hand, does embody the market's expectations for those future cash flows.
127. *It is proposed that historical cost is less relevant than fair value on initial recognition of assets and liabilities* (see paragraphs 281-302 of the main paper for further analysis of the basis for this proposal).

Historical Cost as a Substitute for Fair Value on Initial Recognition

128. The analysis and tentative conclusions above indicate that historical cost would be considered as a substitute for fair value on initial recognition when fair value cannot be estimated with acceptable reliability. The relevance of historical cost lies in its representing the fair value of consideration given or received in exchange for an asset or liability.

Reliability Limitations

129. Historical cost, in its purest form, reflects the bargained exchange amount paid or received for an asset or liability on initial recognition. It is most directly and reliably measured when cash or cash-equivalent consideration is exchanged in a single transaction between an arm's length buyer and seller.

130. Historical cost measurement often requires the attribution of costs to an asset or liability. Costs often must be allocated amongst assets, liabilities, and expenses. Such attributions are likely to be subject to one-to-many or many-to-many allocation indeterminacy. Examples are the unresolved, and irresolvable, debates on overhead allocations to inventories, mining and oil exploration properties, and self-constructed assets or when a liability arises as part of a “basket” purchase transaction.
131. Representational faithfulness is substantially reduced in common situations when significant allocations are required. When the range of indeterminacy is very large, historical cost may not be measurable with reasonable reliability. Allocation rules prescribed in accounting standards could result in some consistency of historical cost measurements, thus improving both verifiability and, possibly, comparability. However, such rules cannot improve representational faithfulness. The situations in which historical cost indeterminacy may be greatest (self constructed or specialized non-contractual assets) are the same situations in which fair value may not be reliably estimable. Thus, it may be contended that historical cost has limited usefulness as a reliable substitute for fair value in these situations.
132. An additional problem arises in respect of pre-recognition costs. This problem is evident, for example, in the historical cost recorded for assets arising from research and development and the exploration and development of mineral and oil and gas properties, and for pre-construction and pre-contract costs. Such costs cannot be capitalized before an asset is recognized, and most standards prohibit their retroactive capitalization when an asset is subsequently recognized. As a result, the historical cost carrying amount of such an asset is not a faithful representation of the fair value of the consideration given to create it.
133. Finally, there is the asset cost recoverability condition and the potential difficulties in arriving at reliable estimates to support whether these conditions are met.
134. Thus, the determination of historical cost is subject to potentially large areas of measurement uncertainty in common situations.

135. Some may argue that, despite these problems, historical cost should be considered to be of acceptable reliability because historical cost:
- (a) is ultimately grounded in actual transaction exchange amounts; and
 - (b) has existed for many years, is supported by extensive experience in practice and familiarity, and many allocations are circumscribed to some extent by accounting standards.

The paper suggests that, on pragmatic grounds, historical cost determinations of items that accord with existing standards and practices should continue to be accepted to be reliable when there is no convincing evidence that another more relevant measurement basis can be reliably applied.

136. *It is proposed that the historical cost basis applied in accordance with generally accepted accounting principles can be accepted as a relevant and reliable substitute for fair value on initial recognition when fair value is not reliably estimable, if it is reasonable to assume that the historical cost amount is recoverable (if an asset), or reasonably represents the amount owing (if a liability) (see paragraphs 303-319 of the main paper for further analysis of the basis for this proposal).*
137. The relevance of historical cost as a substitute for fair value on initial recognition might be further improved if it is applied on bases that are as consistent as possible with the fair value measurement objective. The main paper identifies some of the issues that could be considered in this regard, but does not attempt to resolve them (see paragraphs 318-319 and Appendix C of the main paper).

Current Cost — Reproduction Cost and Replacement Cost Relevance

138. “Current cost” encompasses reproduction cost and replacement cost. It is defined for the purposes of this paper as the most economic cost of replacing an asset with an identical one (reproduction cost) or with an asset of equivalent productive capacity or service potential (replacement cost).

Reproduction Cost

139. Reproduction cost will commonly be equal to historical cost on initial recognition. However, it could differ significantly when, for example, self-constructed assets require the allocation of costs incurred in past periods, significant pre-recognition costs were expensed as incurred, or the most economic current cost to reproduce an asset differs from the fair value of the consideration given to acquire it.
140. Like historical cost, reproduction cost purports only to measure the amount that would be expended on a measurement date. It does not purport to measure value received and, thus, must be supplemented by a recoverability condition.

Replacement Cost

141. Replacement cost has an additional, more ambitious, objective than reproduction cost. The objective is to measure the most economic cost to replace the productive capacity or service potential of an asset.
142. Supporters of replacement cost believe that it results in an appropriate measure of performance because it shows whether the entity is able to recover its replacement cost from revenues, which is considered to be particularly important in periods of changing prices. Further, it provides a good basis for predicting future profitability of an entity, by excluding holding gains and losses that may not be repeatable.
143. Fair value incorporates the essential properties of replacement cost on the basis of market expectations. In other words, the market price of an asset reflects the market's perception of the highest and best use of the asset's productive capacity or service potential (measured in terms of its cash-generating ability in its highest and best use, discounted using the market risk-adjusted rate of return).
144. Replacement cost would differ from fair value when it is based on entity-specific expectations as to an asset's service potential or productive capacity, and its "most economic" replacement cost, that differ from market expectations. The analysis in the main paper (see paragraphs 334-338 of the main paper) supports the conclusion that entity-specific determinations of replacement cost are subject to significant limitations. In particular, this is the case with respect to identifying and measuring the productive capacities or service potentials of many assets. These limitations render replacement cost less relevant than fair value on initial recognition.

145. In addition, replacement cost determined on an entity-specific basis purports only to measure the amount that would be expended on a measurement date. It does not purport to measure value received and, thus, must be supplemented by a recoverability condition.
146. *It is proposed that reproduction cost and replacement cost are each subject to significant limitations in what they can purport to measure that render them less relevant measurement bases than fair value for measurement on initial recognition (see paragraphs 320-350 of the main paper for further analysis of the basis for this proposal).*
147. Many current cost advocates believe that its relevance should be evaluated within the context of deprival value, which is discussed in a subsequent section of this chapter.

Current Cost as a Substitute for Fair Value on Initial Recognition

Relevance

148. Current cost bases may be reasoned to be more relevant than historical cost. This is because historical cost purports to measure what was paid for an asset or received for a liability, while current cost purports to measure the most economic amount that rationally could have been paid or received on initial recognition. If current cost amounts are reliably measurable and can be expected to be recoverable, they could be expected to have more information value than historical cost on initial recognition.
149. In comparing the two current cost objectives, the replacement cost of an asset purports to represent more than its reproduction cost, and thus is conceptually a more relevant objective.
150. Thus, the paper sets out a relevance hierarchy of cost substitutes. First preference is replacement cost, second preference is reproduction cost and third preference is historical cost.

Reliability Limitations

151. Although replacement cost is conceptually more relevant than reproduction cost or historical cost on initial recognition, it is subject to serious problems with respect to its capability for reliable estimation. These problems stem from the replacement cost objective itself, specifically from the lack of objective bases for defining the most economic service potential or productive capacity of assets in

entity-specific contexts. These problems become acute when the existing service potential or productive capacity of an asset may be most economically achieved by using different assets from those owned by the entity — that is, when an asset's replacement cost differs from its reproduction cost.

152. *It is proposed that replacement cost determined in an entity-specific context is generally not likely to be capable of sufficiently reliable estimation to be used as a substitute for fair value in measuring many assets on initial recognition (see paragraphs 354-356 of the main paper for further analysis of the basis for this proposal).*
153. The reproduction cost of an asset on initial recognition seems likely to be capable of reliable estimation on an entity-specific basis in some situations in which replacement costs will not be reliably measurable. For example, the reproduction cost of some self-constructed assets may be capable of reliable estimation on initial recognition, and may differ from historical cost. It is, however, vulnerable to the same allocation problems as historical cost.
154. *It is proposed that current cost should be used on initial recognition in preference to historical cost as a substitute for fair value when:*
- (a) *it is capable of reliable estimation; and*
 - (b) *it is reasonable to assume that it is recoverable (if an asset) or reasonably represents the amount owing (if a liability).*

When the above conditions are not met, it is proposed that historical cost is an acceptable substitute on initial recognition, subject to the same two conditions set out above for current cost (see paragraphs 351-361 of the main paper for further analysis of the basis for this proposal).

Net Realizable Value

Relevance

155. In contrast with cost-based measurements, net realizable value is a measure of the benefit value of an asset. The question is whether it is the most relevant measure of the benefit value on initial recognition.

Comparison with Fair Value

156. Focus on sale: Net realizable value stipulates realization through sale, rather than through holding or using an asset. While the phrase in the definition “selling price in the ordinary course of business” is presumably intended to avoid a forced liquidation sales price, the term “net realizable value” is generally interpreted to preclude a value in use connotation. In contrast, the fair value of an asset reflects what the market perceives to be its highest and best use. In addition, net realizable value is reduced by selling costs, which is not the case for fair value.
157. Entity-specific expectations: Net realizable value would generally differ from fair value by the amount of transaction costs deducted in determining net realizable value, and by the extent to which estimates of the costs of completion (if any) differ from the adjustment that the market could be expected to make. In addition, the phrase “the estimated selling price in the ordinary course of business” could be interpreted in an entity-specific context. These possible differences reflect the effects of differences between entity-specific and market expectations. The analysis of net realizable value does not reveal any cause to overturn the general conclusion that the market (fair) value is more relevant than entity-specific measurements on the initial recognition of assets and liabilities.
158. *It is proposed that net realizable value is a less relevant measurement basis than fair value on the initial recognition of assets and liabilities (see paragraphs 362-373 of the main paper for further analysis of the basis for this proposal).*

Net Realizable Value as a Substitute for Fair Value on Initial Recognition

159. If net realizable value is to be used, as a substitute for fair value, it should be applied on a basis that is as consistent as possible with the fair value measurement objective. This would mean:
- (a) interpreting “the estimated selling price in the ordinary course of business” as a market value measurement objective;
 - (b) excluding transaction costs (that is, adding them back to net realizable value); and
 - (c) interpreting “costs of completion” within a fair value context.

- The result would no longer be net realizable value. It would be an estimate of fair value if it is substantially based on information that is consistent with market expectations.
160. Alternatively, an estimate of net realizable value that is significantly dependent on entity-specific inputs might be the best substitute for fair value in some situations. For example, it might be determined that the closest substitute for the fair value of a work-in-process inventory acquired as part of a business acquisition is to adjust the observable market price of the finished good by an entity-specific estimate of the costs of completion. The question would then be whether this measurement could be accepted to be a reliable estimate of the fair value of the work in process, or whether its dependency on entity-specific expectations is so significant that it should be treated and described as a hybrid measurement basis.
161. It is concluded that there is no role for net realizable value, as traditionally defined, in the measurement of assets and liabilities on initial recognition. In other words, the concept requires substantial reinterpretation as a possible estimate of, or substitute for, fair value on initial recognition.

Value in Use

Relevance

162. Value in use is the present value of estimated future cash flows expected to arise from continuing use of an asset and from its disposal at the end of its useful life. The essential question that needs to be asked is: whose expectations should be used to determine the present value?

Market Expectations

163. If the objective is to apply the present value methodology to estimate the fair value of an asset (that is, to reflect market expectations), then value in use is indistinguishable from the fair value measurement objective. The term “value in use” has not generally been used to describe present value-based estimates of fair value.

Entity-Specific Expectations

164. The term “value in use” has generally been considered to be an entity-specific measurement objective. The objective is to measure the present value of the estimated net cash inflows that the reporting entity expects an asset to generate. This measure could differ significantly from

the asset's fair value on initial recognition. Such measurements would seem to have no clear external bases without the discipline of prices determined by market forces. No evidence or argument has been identified that would change the conclusion, in chapter 4, that the market value measurement objective is to be preferred.

165. *It is proposed that value in use is a less relevant measurement basis than fair value on the initial recognition of assets and liabilities (see paragraphs 376-385 of the main paper for further analysis of the basis for this proposal).*

Value in Use as a Substitute for Fair Value on Initial Recognition

166. The value in use measurement basis may be adapted to be an acceptable substitute for fair value in some circumstances. Such adaptation involves applying the present value technique on a basis that is as consistent as possible with the fair value measurement objective (i.e., using market data and assumptions that are as consistent as possible with market expectations). This would effectively change its objective so that it may no longer be considered to be consistent with the traditional interpretation of value in use.
167. Present value estimates will not meet the conditions for faithfully representing the fair value measurement objective when significant market inputs are not available, so that estimates are significantly dependent on entity-specific data and expectations that cannot be justified to be the same as market expectations. However, for some assets and liabilities, present value estimates may be the best possible substitute for fair value when fair value cannot be estimated reliably. Examples include defined benefit pension plan and asset retirement obligations, where there are typically no comparable market prices and no observable transactions.
168. Present value-based estimates will often be subject to very significant estimation uncertainty, but may be considered to be of acceptable reliability when supported by appropriate disclosures. The challenge for standard setters is to develop standards that meet reasonable reliability conditions for present value-based estimates of assets and liabilities that have no other practicable basis for determination on initial recognition. Present value determinations are subject to serious indeterminacies in certain common situations. In particular, many non-contractual assets do not generate independent cash flows. Rather, they contribute along with other inputs to revenue generating processes. Attribution of the cash flows of a revenue-generating process to individual inputs is an

arbitrary one-to-many allocation and therefore does not result in reliable measurements of those inputs.

169. *It is proposed that:*

- (a) *Value in use, defined as an entity-specific objective, is not an appropriate substitute for fair value on initial recognition.*
- (b) *However, a present value-based estimate of future net cash flows may be an acceptable estimate of, or substitute for, fair value on initial recognition, if the future cash flows and discount rate(s) can be reliably estimated on a consistent a basis as possible with the fair value measurement objective.*
- (c) *A reliable present value-based estimate is not possible for individual non-contractual assets that are used together with other inputs in a cash-generating process (see paragraphs 386-392 of the main paper for further analysis of the bases for these proposals).*

Deprival Value

170. Some believe that each of the three component measurement bases (replacement cost, net realizable value and value in use) should be considered in the context of the overarching theory of deprival value. The value of an asset to an entity is reasoned to depend on the opportunities that are available to that entity for the use or sale of that asset. The appropriate measurement is then determined by the opportunity that a rational manager should be expected to pursue in the entity's circumstances. Measurement bases that assume opportunities unavailable to the entity, or that do not make economic sense in the circumstances, are considered to be irrelevant.
171. The deprival value framework holds that the value of an asset to a business entity is the economic loss that the entity would suffer if deprived of it. The loss could not exceed the most economic current cost to replace its productive capacity or service potential. The upper boundary is replacement cost because, when (as will usually be the case) an entity expects a return from the asset in excess of its replacement cost, the entity will not lose that return, since it can replace the asset for a lower amount. A rational entity would not replace an asset when its recoverable value is less than its replacement cost, because it does not make economic sense to replace an asset that cannot be expected to recover its cost. In this case, if deprived of the existing asset, the entity stands to lose its recoverable value. Recoverable value reflects two

possibilities (opportunities) – the entity could sell the asset for its net realizable value, or it could use the asset and achieve its value in use. A rational entity would be expected to choose the alternative that yields the higher recoverable value.

Relevance

172. An asset's deprival value is its fair value when deprival value is measured on the basis of market expectations. The economic loss that an entity would suffer if deprived of an asset, measured on the basis of market expectations, is its fair value.
173. Deprival value could differ from fair value when an entity's management has different expectations from those that are implicit in the market price. Management's evaluation of the value of an asset is based on comparing management's forecast of the present value of the future cash flows to be achieved through the asset's use, management's expectations of the most economic cost to replace the asset's usable service potential, and the net proceeds that management would expect to realize if the asset were sold. Such estimations may require "what if" projections, and different estimates of deprival value might well be made on the basis of different possible scenarios.
174. Deprival value is subject to the entity-specific limitations of each of its three measurement components. There would seem to be nothing in the theory of deprival value that mitigates these limitations.
175. *It is proposed that deprival value, reflecting entity-specific assumptions and expectations, is a less relevant measurement basis than fair value on initial recognition (see paragraphs 393-405 of the main paper for further analysis of the basis for this proposal).*

Deprival Value as a Substitute for Fair Value on Initial Recognition

176. When fair value is not reliably measurable on initial recognition, deprival value may be considered to have merit as a rational decision framework for selecting between replacement cost (or its possible reproduction cost and historical cost substitutes), net realizable value, and value in use. Deprival value may be considered to have greater relevance than any of the three component measurement bases taken by themselves for the following reasons:
- (a) Its rational management behavioural framework overcomes a basic limitation of replacement cost alone. Since the deprival

value of an asset is its recoverable amount when replacement cost exceeds recoverable amount, deprival value is a measure of the asset's benefit value to the entity.

- (b) Further, whereas net realizable value focuses only on realization through sale, within deprival value, it is only considered to be a rational measure of recoverable amount when it is higher than value in use (i.e., when it is rational to sell the asset). Similarly, value in use is the relevant measure of an asset's recoverable amount only when it is rational to continue to use the asset.
177. The traditional concept of deprival value requires significant reinterpretation as a substitute for fair value on initial recognition in light of the preceding analysis of the three component measurement bases. The following modifications are identified:
- (a) The term "current cost" (see paragraph 154 above) should replace "replacement cost," to allow for cases where replacement cost cannot be reliably estimated.
 - (b) The term "realizable value" should replace "net realizable value," to emphasize that the amount should be determined in a manner that is as consistent as possible with fair value (see paragraph 159 above).
 - (c) The term "present value" should replace "value in use," to emphasize that the amount should be determined in a manner that is as consistent as possible with fair value (see paragraph 166 above).
178. *It is proposed that the "deprival value" decision rule would, assuming reliable measurability, be restated to be:*

the lower of current cost and recoverable amount, with recoverable amount being the higher of realizable value and the present value of the future net cash inflows to be generated by the asset. Each measurement basis component of deprival value would be applied as consistently as possible with the fair value measurement objective (see paragraphs 406-409 of the main paper for further analysis of the basis for this proposal).

Measurement Date on Initial Recognition — Additional Considerations

179. While the paper does not examine recognition or re-measurement issues, one issue does require consideration, because of an interdependency between initial recognition and measurement. This issue relates to the selection of the measurement date on the initial recognition of assets that are acquired on the basis of earlier fixed-price contracts. Consider, for example, an entity that has entered into a contract to purchase a truck for 1000 (which is its fair value at the date of entering into the contract), which is to be delivered at a later date on full payment of 1000 in cash. The fair value of the truck at the delivery date is 1100. The proposals in the paper would result in the truck being measured at 1100 on the delivery date.
180. Some argue that, if the truck is not to be continually measured at fair value, it should be measured on initial recognition at the contract date (1000). They challenge the relevance of recognizing price changes during the contract period if they are not to be recognized during the period when the truck is carried as an asset. Others argue that it is more relevant for the truck to be measured at its fair value on the acquisition date, because it does not become an asset of the entity that can be used in its cash-generating processes until that date. The gain represents the consequences of contracting at a fixed price prior to obtaining the asset.

Other Items Covered in the Main Paper

Fair value:

- Analysis of the FASB proposed fair value measurement hierarchy
- Professional valuations and property valuation standards

Historical cost:

- Relevance: liabilities

Current cost:

- Relevance: liabilities

Net realizable value:

- Relevance: liabilities

Value in use:

- Relevance: liabilities

Deprival value:

- Relevance: liabilities

Chapter 8 — A Synthesis and Some Consequential Recommendations

A Proposed Measurement Hierarchy on Initial Recognition

181. The following measurement hierarchy on initial recognition is proposed. The hierarchy presumes that the asset or liability to be measured on initial recognition has been fully defined, including its unit of account and other value-affecting properties.

Estimates of Fair Value — Levels 1 and 2

182. *Fair value can be estimated with an acceptable level of reliability on initial recognition when either of the following conditions is met:*
- (a) *Level 1 — There is an observable market price for assets or liabilities that are identical or similar to the item to be measured on or near the time of initial recognition, and appropriate adjustment consistent with market expectations can be made for:*
 - (i) *any differences between the market traded assets or liabilities and the asset or liability to be measured; and*
 - (ii) *any time difference.*
 - (b) *Level 2 — Failing an observable market price meeting the conditions of Level 1, there is an accepted model or technique for estimating the market price of the item to be measured on initial recognition, and all significant inputs reflect observable market prices or reliably measurable phenomena that can be expected to be the basis of market participants' determinations within the model or technique.*

Substitutes for Fair Value — Levels 3 and 4

183. *Level 3 — Estimates of current cost: Failing the ability to estimate fair value with acceptable reliability (that is, to meet the conditions of Level 1 or 2):*
- (a) *an asset should be measured on initial recognition at its current cost, provided that this amount can be reliably estimated and can be reasonably expected to be recoverable; and*

- (b) *a liability should be measured on initial recognition at its current consideration amount¹, provided that this amount can be reliably estimated and can be reasonably expected to represent the amount owed.*
184. *Level 4 — Models or techniques that depend significantly on entity-specific expectations: When the conditions of Level 1, 2 or 3 cannot be met, an asset or liability should be measured on initial recognition on the basis of an accepted model or technique. To the extent that reliable market-based data are unavailable, the measurement model or technique should use reliably estimable entity-specific data that are not demonstrably inconsistent with observable market expectations.*
- (See paragraphs 422-439 of the main paper for further analysis of the basis for the proposal in paragraphs 182-184.)
185. With respect to Level 3, it is proposed that current cost be interpreted to be replacement cost when replacement cost is reliably measurable, or failing its reliable measurement, to be reproduction cost when reproduction cost is capable of reliable measurement. When the above conditions for the measurement of current cost, or current consideration amount, are not met, it is proposed that historical cost is an acceptable substitute when it can meet these conditions. Further, it is suggested that, for practical purposes, historical cost measurement might be accepted in lieu of current cost on initial recognition of an asset or liability absent persuasive evidence that a reliable measurement of current cost is practicable and would differ significantly from historical cost.
186. With respect to Levels 3 and 4, the challenge for accounting standard setters is to develop standards for assets and liabilities that enable relevant and reliable measurements that are applied on bases that are as consistent as possible with the objectives of fair value, and are supported by appropriate disclosures. Since these measurements do not meet the conditions for being described as fair value estimates, they should be described in more limited terms on the basis of the models or techniques used and sources of significant data inputs.

1 The liability equivalent of replacement and reproduction cost is not defined in IASB standards, and the project staff is not aware that it has been defined in the authoritative literature of national standard setters. It has been reasoned that it is appropriately defined as the “current consideration amount”. This may be presumed to be the fair value of the consideration that the owing entity would have received if the liability had been incurred by it on the measurement date.

187. Levels 3 and 4 are consistent with the restated deprival value decision rule proposed in chapter 7. Under that restated decision rule, when an asset cannot be reliably measured under Level 1 or 2 on initial recognition, it would be measured under Level 3 at its current cost when current cost is reliably measurable, unless its recoverable amount is lower. When an asset's recoverable amount is recognized to be less than its current cost on initial recognition, its recoverable amount would have to be estimated by reference to Level 4. If the application of measurement techniques in accordance with Level 4 resulted in different realizable value and present value amounts, then the higher of the two amounts would be used.

Non-Recognition — The Only Option When the Conditions of Levels 1-4 Cannot Be Met

188. While the paper does not deal with asset and liability recognition conditions, the implication of the above proposed measurement hierarchy is that when none of the above measurement levels can be applied basic conditions for recognition of an asset or liability have not been met.

Future Research

189. A number of issues have been raised that require research beyond the scope of the paper. The more significant areas for further research are summarized as follows:
- (a) Secondary issues (i.e., those excluded from the scope of the paper).
 - (b) The nature and causes of different prices in different markets for apparently similar assets and liabilities.
 - (c) Certain issues relating to defining the unit of account for measurement purposes on initial recognition.
 - (d) Market pricing principles and techniques, and the conditions that may be considered to define "market" for the purposes of applying the market (fair) value measurement objective.
 - (e) The literature and practices of professional valuation disciplines. In particular, it is proposed that research be undertaken into replacement cost and reproduction cost valuation techniques employed by professional valuers.

- (f) Re-examination of the cost allocation bases literature and practices within the context of the fair value measurement objective on initial recognition.
- (g) The information value of fair value estimates in comparison with other measurement bases, and how market participants incorporate reliability into prices of assets and liabilities.

Other Items Covered in the Main Paper

- Judging reliability – some general considerations
 - Disclosure of measurement uncertainty
 - Procedures and controls