International Accounting Standards Board,
30 Cannon Street, London EC4M 6XH, United Kingdom
Telephone: +44 (0)20 7246 6410 Fax: +44 (0)20 7246 6411
Email: iasb@iasb.org Web: www.iasb.org

IASCF Publications Department,
30 Cannon Street, London EC4M 6XH, United Kingdom
Telephone: +44 (0)20 7332 2730 Fax: +44 (0)20 7332 2749
Email: publications@iasb.org Web: www.iasb.org

ISBN 1-905590-22-9

9 781905 590223 >

SET ISBN 1-905590-21-0

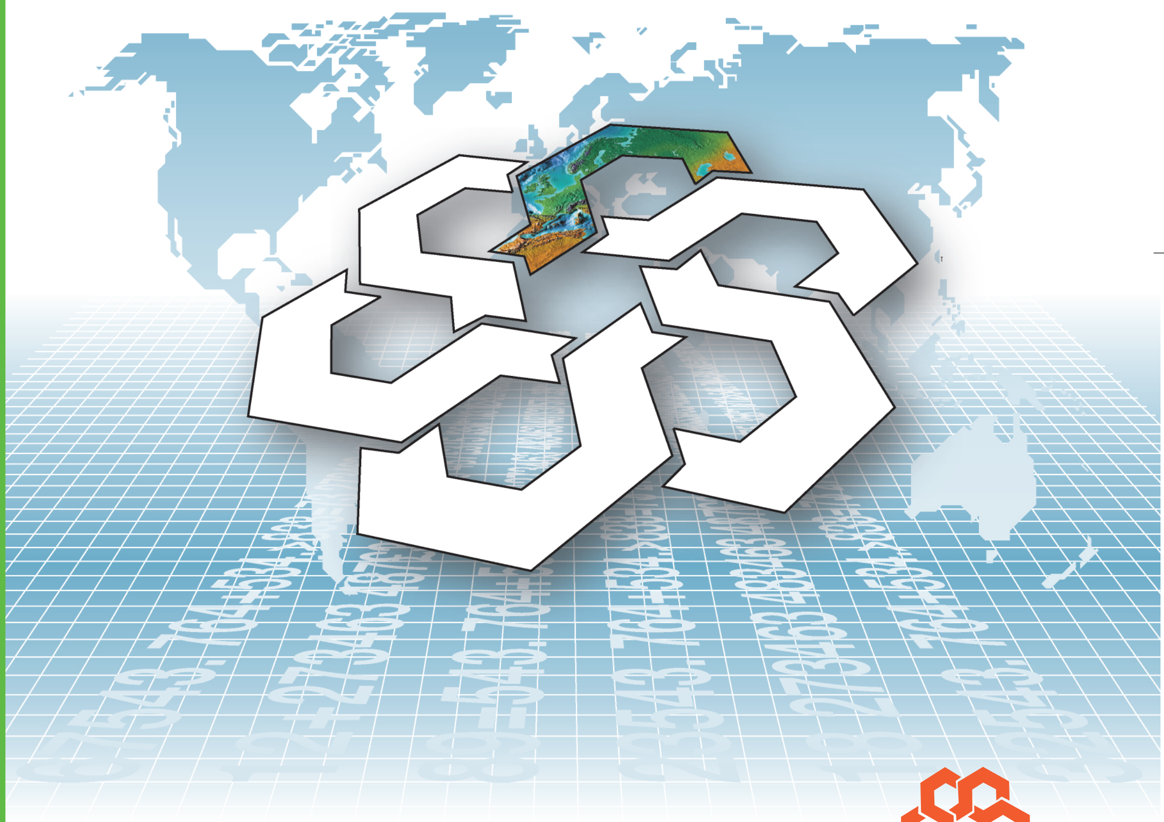
November 2006

DISCUSSION PAPER

Fair Value Measurements

Part 1: Invitation to Comment and relevant IFRS guidance

Comments to be submitted by 2 April 2007



International Accounting Standards Board®

DISCUSSION PAPER

Fair Value Measurements

Part 1: Invitation to Comment

Comments to be received by 2 April 2007

This Discussion Paper *Fair Value Measurements* is published (in two parts) by the International Accounting Standards Board (IASB) for comment only. Part 1 contains the text of the IASB's Invitation to Comment. For the text of the US standard SFAS 157 *Fair Value Measurements*, please see Part 2.

Comments on the contents of the Discussion Paper should be submitted in writing so as to be received by **2 April 2007**.

All responses will be put on the public record unless the respondent requests confidentiality. However, such requests will not normally be granted unless supported by good reason, such as commercial confidence. If commentators respond by fax or email, it would be helpful if they could also send a hard copy of their response by post. Comments should preferably be sent by email to: **CommentLetters@iasb.org** or addressed to:

Jon Nelson
International Accounting Standards Board
30 Cannon Street, London EC4M 6XH, United Kingdom
Fax: +44 (0)20 7246 6411

ISBN for this part: 1-905590-22-9
ISBN for complete publication (two parts): 1-905590-21-0

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INVITATION TO COMMENT

Introduction

1 In February 2006 the International Accounting Standards Board (IASB) and the US Financial Accounting Standards Board (FASB) published a Memorandum of Understanding reaffirming their commitment to the convergence of US generally accepted accounting principles (GAAP) and International Financial Reporting Standards (IFRSs) and to their shared objective of developing high quality, common accounting standards for use in the world's capital markets. The convergence work programme set out in the Memorandum reflects the standard-setting context of the 'roadmap' developed by the US Securities and Exchange Commission in consultation with the IASB, FASB and European Commission for the removal of the reconciliation requirement for non-US companies that use IFRSs and are registered in the US. The work programme includes a project on measuring fair value.

2 The FASB has recently issued Statement of Financial Accounting Standards No. 157 *Fair Value Measurements* (SFAS 157), on which work was well advanced before the Memorandum of Understanding was published. SFAS 157 establishes a single definition of fair value together with a framework for measuring fair value for US GAAP. The IASB recognised the need for guidance on measuring fair value in IFRSs and for increased convergence with US GAAP. Consequently, the IASB decided to use the FASB's standard as the starting point for its deliberations. As the first stage of its project, the IASB is publishing in this discussion paper its preliminary views on the principal issues contained in SFAS 157. To assist readers, the following are reproduced in this discussion paper:

(a) excerpts of fair value measurement guidance in IFRSs (in the Appendix) and

(b) the text of SFAS 157, together with the related application guidance, present value guidance and basis for conclusions (in Part 2)

3 The IASB plans to hold round-table meetings on this discussion paper in conjunction with the development of an exposure draft. Please indicate in your response to this Invitation to Comment if you are interested in taking part in a round-table meeting. Please note that, because of timing and space constraints, not all of those indicating an interest may be able to take part.

4 The IASB will consider responses to this Invitation to Comment and the related round-table discussions in developing an exposure draft of an IFRS on fair value measurement. The exposure draft will be prepared specifically for application to IFRSs. Although provisions of SFAS 157 may be used in the preparation of an exposure draft, they may be reworded or altered to be consistent with other IFRSs and to reflect the decisions of the IASB. The IASB plans to publish an exposure draft by early 2008.

5 In November 2005 the IASB published for comment a discussion paper, *Measurement Bases for Financial Accounting – Measurement on Initial Recognition*, written by the staff of the Canadian Accounting Standards Board. Although that paper contained a discussion of fair value, its primary purpose was to discuss which measurement attributes were appropriate for initial recognition. That paper is part of the ongoing Conceptual Framework project that seeks to establish, among other things, a framework for measurement in financial reporting. Because of the different scope and intent of that paper, it is not discussed in this discussion paper. However, comments on that discussion paper relating to the measurement of fair value will be considered in the development of the exposure draft of an IFRS on fair value measurement as well as in the Conceptual Framework project.

Issue 1. SFAS 157 and fair value measurement guidance in current IFRSs

6 IFRSs require some assets, liabilities and equity instruments to be measured at fair value in some circumstances. However, guidance on measuring fair value is dispersed throughout IFRSs and is not always consistent. The IASB believes that establishing a single source of guidance for all fair value measurements required by IFRSs will both simplify IFRSs and improve the quality of fair value information included in financial reports. A concise definition of fair value combined with consistent guidance that applies to all fair value measurements would more clearly communicate the objective of fair value measurement and eliminate the need for constituents to consider guidance dispersed throughout IFRSs.

7 The IASB emphasises that the Fair Value Measurements project is not a means of expanding the use of fair value in financial reporting. Rather, the objective of the project is to codify, clarify and simplify existing guidance that is dispersed widely in IFRSs. However, in order to establish a single standard that provides uniform guidance for all fair value

measurements required by IFRSs, amendments will need to be made to the existing guidance. As discussed further in Issue 2, the amendments might change how fair value is measured in some standards and how the requirements are interpreted and applied.

8 In some IFRSs the IASB (or its predecessor body) consciously included measurement guidance that results in a measurement that is treated as if it were fair value even though the guidance is not consistent with the fair value measurement objective. For example, paragraph B16 of IFRS 3 *Business Combinations* provides guidance that is inconsistent with the fair value measurement objective for items acquired in a business combination such as tax assets, tax liabilities and net employee benefit assets or liabilities for defined benefit plans. Furthermore, some IFRSs contain measurement reliability criteria. For example, IAS 16 *Property, Plant and Equipment* permits the revaluation model to be used only if fair value can be measured reliably (see paragraph 31 of IAS 16). This project will not change any of that guidance. Rather, that guidance will be considered project by project. However, the IASB plans to use the Fair Value Measurements project to establish guidance where there currently is none, such as in IAS 17 *Leases*, as well as to eliminate inconsistent guidance that does not clearly articulate a single measurement objective.

9 Because SFAS 157 establishes a single source of guidance and a single objective that can be applied to all fair value measurements, the IASB has reached the preliminary view that SFAS 157 is an improvement on the disparate guidance in IFRSs. However, as discussed in more detail below, the IASB has not reached preliminary views on all provisions of SFAS 157.

Questions for respondents

Q1 In your view, would a single source of guidance for all fair value measurements in IFRSs both reduce complexity and improve consistency in measuring fair value? Why or why not?

Q2 Is there fair value measurement guidance in IFRSs that you believe is preferable to the provisions of SFAS 157? If so, please explain.

Issue 2. Differences between the definitions of fair value in SFAS 157 and in IFRSs

10 Paragraph 5 of SFAS 157 defines fair value as 'the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.' By comparison, fair value is generally defined in IFRSs as 'the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction' (with some slight variations in wording in different standards). The definition in SFAS 157 differs from the definition in IFRSs in three important ways:

(a) The definition in SFAS 157 is explicitly an exit (selling) price. The definition in IFRSs is neither explicitly an exit price nor an entry (buying) price.

(b) The definition in SFAS 157 explicitly refers to market participants. The definition in IFRSs refers to knowledgeable, willing parties in an arm's length transaction.

(c) For liabilities, the definition of fair value in SFAS 157 rests on the notion that the liability is transferred (the liability to the counterparty continues; it is not settled with the counterparty). The definition in IFRSs refers to the amount at which a liability could be settled between knowledgeable, willing parties in an arm's length transaction.

11 These differences are discussed in more detail below.

Issue 2A. Exit price measurement objective

12 The Basis for Conclusions of SFAS 157 includes the following discussion:

> C26 The transaction to sell the asset or transfer the liability is a hypothetical transaction at the measurement date, considered from the perspective of a market participant that holds the asset or owes the liability. Therefore, the objective of a fair value measurement is to determine the price that would be received for the asset or paid to transfer the liability at the measurement date, that is, an exit price. The Board [FASB] concluded that an exit price objective is appropriate because it embodies current expectations about the future inflows associated with the asset and the future outflows associated with the liability from the perspective of market participants. The emphasis on inflows and outflows is consistent with the definitions of assets and liabilities in FASB Concepts Statement No. 6, *Elements of Financial*

Statements. Paragraph 25 of Concepts Statement 6 defines assets in terms of future economic benefits (future inflows). Paragraph 35 of Concepts Statement 6 defines liabilities in terms of future sacrifices of economic benefits (future outflows).

13 Paragraph 49 of the IASB's *Framework for the Preparation and Presentation of Financial Statements* similarly defines assets and liabilities in terms of inflows and outflows of economic benefits. The majority of IASB members believe that a fair value measurement with an exit price objective is consistent with these definitions and is appropriate because it reflects current market-based expectations of flows of economic benefit into or out of the entity.

14 Other IASB members agree with this view, but in their view an entry price also reflects current market-based expectations of flows of economic benefit into or out of the entity. Therefore, they suggest replacing the term 'fair value' with terms that are more descriptive of the measurement attribute, such as 'current entry price' or 'current exit price'.

15 An entry price measurement objective would differ from the exit price objective in SFAS 157 in that it would be defined as the price that would be *paid to acquire* an asset or *received to assume* a liability in an orderly transaction between market participants at the measurement date. Some members of the IASB are of the view that an entry price and an exit price would be the same amount in the same market, assuming that transaction costs are excluded. However, an entity might buy an asset or assume a liability in one market and sell that same asset or transfer that same liability (ie without modification or repackaging) in another market. In such circumstances, the exit price in SFAS 157 would be likely to differ from the entry price.

Questions for respondents

Q3 Do you agree that fair value should be defined as an exit price from the perspective of a market participant that holds the asset or owes the liability? Why or why not?

Q4	**Do you believe an entry price also reflects current market-based expectations of flows of economic benefit into or out of the entity? Why or why not? Additionally, do you agree with the view that, excluding transaction costs, entry and exit prices will differ only when they occur in different markets? Please provide a basis for your views.**
Q5	**Would it be advisable to eliminate the term 'fair value' and replace it with terms, such as 'current exit price' or 'current entry price', that more closely reflect the measurement objective for each situation? Please provide a basis for your views.**

16 Some fair value measurements required by IFRSs might not be consistent with an exit price measurement objective. In particular, the IASB observes that this might be the case when fair value is required on initial recognition, such as in:

(a) IFRS 3,

(b) IAS 17 for the initial recognition of assets and liabilities by a lessee under a finance lease, and

(c) IAS 39 *Financial Instruments: Recognition and Measurement* for the initial recognition of some financial assets and financial liabilities.

17 In developing an exposure draft, the IASB may propose a revised definition of fair value. If so, it will complete a standard-by-standard review of fair value measurements required in IFRSs to assess whether each standard's intended measurement objective is consistent with the proposed definition. If the IASB concludes that the intended measurement objective in a particular standard is inconsistent with the proposed definition of fair value, either that standard will be excluded from the scope of the exposure draft or the intended measurement objective will be restated using a term other than fair value (such as 'current entry value'). To assist in its review, the IASB would like to

understand how the fair value measurement guidance in IFRSs is currently applied in practice. It therefore requests respondents to identify those fair value measurements in IFRSs for which practice differs from the fair value measurement objective in SFAS 157.

Question for respondents	
Q6	**Does the exit price measurement objective in SFAS 157 differ from fair value measurements in IFRSs as applied in practice? If so, which fair value measurements in IFRSs differ from the measurement objective in SFAS 157? In those circumstances, is the measurement objective as applied in practice an entry price? If not, what is the measurement objective applied in practice? Please provide a basis for your views.**

Issue 2B. Market participant view

18 SFAS 157 emphasises that a fair value measurement is a market-based measurement, not an entity-specific measurement. Therefore, a fair value measurement should be based on the assumptions that market participants would use in pricing the asset or liability. Furthermore, even when there is limited or no observable market activity, the objective of the fair value measurement remains the same: to determine the price that would be received to sell an asset or be paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless of the entity's intention or ability to sell the asset or transfer the liability at that date.

19 Paragraph 10 of SFAS 157 defines market participants as buyers and sellers in the principal (or most advantageous) market for the asset or liability who are:

(a) Independent of the reporting entity; that is, they are not related parties

(b) Knowledgeable, having a reasonable understanding about the asset or liability and the transaction based on all available information, including information that might be obtained through due diligence efforts that are usual and customary

(c) Able to transact for the asset or liability

(d) Willing to transact for the asset or liability; that is, they are motivated but not forced or otherwise compelled to do so.

20 In comparison, the definition of fair value in IFRSs refers to 'knowledgeable, willing parties in an arm's length transaction'. Paragraphs 42-44 of IAS 40 *Investment Property* provide a description of this concept:

> 42 The definition of fair value refers to 'knowledgeable, willing parties'. In this context, 'knowledgeable' means that both the willing buyer and the willing seller are reasonably informed about the nature and characteristics of the investment property, its actual and potential uses, and market conditions at the balance sheet date. A willing buyer is motivated, but not compelled, to buy. This buyer is neither over-eager nor determined to buy at any price. The assumed buyer would not pay a higher price than a market comprising knowledgeable, willing buyers and sellers would require.
>
> 43 A willing seller is neither an over-eager nor a forced seller, prepared to sell at any price, nor one prepared to hold out for a price not considered reasonable in current market conditions. The willing seller is motivated to sell the investment property at market terms for the best price obtainable. The factual circumstances of the actual investment property owner are not a part of this consideration because the willing seller is a hypothetical owner (eg a willing seller would not take into account the particular tax circumstances of the actual investment property owner).
>
> 44 The definition of fair value refers to an arm's length transaction. An arm's length transaction is one between parties that do not have a particular or special relationship that makes prices of transactions uncharacteristic of market conditions. The transaction is presumed to be between unrelated parties, each acting independently.

21 The IASB's preliminary view is that the market participant view is generally consistent with the concepts of a knowledgeable, willing party in an arm's length transaction that are currently contained in IFRSs. However, in the IASB's view, the proposed definition more clearly articulates the market-based fair value measurement objective in IFRSs.

Questions for respondents

Q7 **Do you agree with how the market participant view is articulated in SFAS 157? Why or why not?**

Q8 **Do you agree that the market participant view in SFAS 157 is consistent with the concepts of 'knowledgeable, willing parties' and 'arm's length transaction' as defined in IFRSs? If not, how do you believe they differ?**

Issue 2C. Transfer versus settlement of a liability

22 IFRSs define the fair value of a liability as the amount for which a liability could be *settled* between knowledgeable, willing parties in an arm's length transaction. SFAS 157 clearly states that the fair value of a liability is the price that would be paid to *transfer* a liability in an orderly transaction between market participants. Paragraph C40 of the Basis for Conclusions of SFAS 157 discusses why the FASB used the term 'transfer':

> Because the liability is transferred to a market participant, the liability continues; it is not settled with the counterparty. The Board [FASB] acknowledged that in some cases, the reporting entity might not have the intent to transfer the liability to a third party. For example, the reporting entity might have advantages (or disadvantages) relative to the market that would make it more (or less) beneficial for the reporting entity to perform or otherwise settle the liability using its own internal resources. However, the Board [FASB] agreed that the fair value of the liability from the perspective of a market participant is the same regardless of how the reporting entity intends to settle the liability. Conceptually, a fair value measurement provides a market benchmark to use as a basis for assessing the reporting entity's advantages (or disadvantages) in performance or settlement relative to the market. Specifically, when a liability is measured at fair value, the relative efficiency of the reporting entity in settling the liability using its own internal resources appears in earnings over the course of its settlement, not before.

23 Although IFRSs use the term 'settlement' in the definition of fair value, the IASB's preliminary view is that the term 'transfer' more accurately describes the fair value measurement objective in IFRSs.[*] This preliminary view is based on existing guidance in IFRSs, which refers to market-based objectives for measuring the fair value of liabilities. Such a market-based objective is consistent with a transfer notion because it excludes entity-specific efficiencies or inefficiencies that might be included in a settlement notion. Rather, a transfer notion reflects market participants' views on settlement of the liability. Market participants that would assume a liability at the measurement date would also assume the obligation to settle with the counterparty to the liability. Therefore, the

[*] Paragraph 36 of IAS 37 *Provisions, Contingent Liabilities and Contingent Assets* states that the amount recognised as a provision shall be the best estimate of the expenditure required to settle the present obligation at the balance sheet date. Paragraph 37 of IAS 37 explains that the best estimate of the expenditure required to settle the present obligation is the amount that an entity would rationally pay to settle the obligation at the balance sheet date or to transfer it to a third party at that time. However, as IAS 37 does not require provisions be recorded at fair value, it is not in the scope of this project.

price that market participants would require in order to assume the liability reflects their views on the expected outflow of resources embodying economic benefits associated with the ultimate settlement with the counterparty.

24 The following guidance in IFRSs supports the IASB's preliminary view:

(a) Paragraph B16(l) of IFRS 3 refers to a transfer notion for contingent liabilities: 'for contingent liabilities of the acquiree the acquirer shall use the amounts that a third party would charge to assume those contingent liabilities.'

(b) In IAS 39, paragraphs AG71 and AG72 state that quoted prices in an active market are the best evidence of fair value. Such quoted prices in an active market generally represent a transfer price as opposed to an entity-specific settlement price. Similarly, paragraph AG75 indicates that when an entity uses a valuation model because a quoted price in an active market is not available, 'the objective of using a valuation technique is to establish what the transaction price would have been on the measurement date in an arm's length exchange motivated by normal business considerations.'

Questions for respondents

Q9 **Do you agree that the fair value of a liability should be based on the price that would be paid to transfer the liability to a market participant? Why or why not?**

Q10 **Does the transfer measurement objective for liabilities in SFAS 157 differ from fair value measurements required by IFRSs as applied in practice? If so, in practice which fair value measurements under IFRSs differ from the transfer measurement objective in SFAS 157 and how do they differ?**

Issue 3. Transaction price and fair value at initial recognition

25 Paragraph 16 of SFAS 157 states that entry prices and exit prices are conceptually different. Therefore, SFAS 157 requires entities to consider factors specific to the transaction and the asset or liability in determining whether the transaction price paid to acquire an asset or received to assume a liability represents fair value at initial recognition. Paragraph 17 of SFAS 157 also provides examples of situations when a transaction price might not represent fair value.

26 The IASB noted that the guidance on fair value at initial recognition in paragraphs 16 and 17 of SFAS 157 diverges from the guidance in paragraph AG76 of IAS 39, which states that:

> ... The best evidence of the fair value of a financial instrument at initial recognition is the transaction price (ie the fair value of the consideration given or received) unless the fair value of that instrument is evidenced by comparison with other observable current market transactions in the same instrument (ie without modification or repackaging) or based on a valuation technique whose variables include only data from observable markets.

27 At present, under IAS 39, an entity may recognise the difference between a model-based estimate of fair value and the transaction price at initial recognition (day-one gain or loss) only if the model-based estimate of fair value is based entirely on observable market inputs. If this condition is not met, gains or losses on the financial asset or financial liability in periods after initial recognition can comprise changes in the model-based value *as well as* the portion of the unrecognised day-one gain or loss subsequently recognised because of a change in factors (including time).

28 In comparison, if the provisions of SFAS 157 were applied to IFRSs without modification, the difference between the model-based estimate of fair value and the transaction price would be recognised in profit or loss at initial recognition. Subsequent gains and losses relating to the financial asset or financial liability would then reflect *only* changes in the model-based estimate of fair value.

29 The IASB discussed two views about the divergence between paragraphs 16 and 17 of SFAS 157 and paragraph AG76 of IAS 39:

(a) View 1 maintains the accounting required at present by IAS 39. Supporters of View 1 do not fully agree with the provisions of paragraphs 16 and 17 of SFAS 157. They believe that the transaction price is the best evidence of fair value in the absence of observable market information or evidence to the contrary, as discussed in paragraph AG76 of IAS 39. As such, supporters of View 1 do not believe it is appropriate to measure a financial asset or financial liability initially at an amount different from the transaction price unless the financial asset or financial liability can be valued at a different amount using only observable market information.

(b) View 2 acknowledges that entry prices and exit prices are conceptually different, as noted in paragraphs 16 and 17 of SFAS 157. Supporters of View 2 believe that if fair value has an exit price objective, it should be used consistently whenever fair value is required by IFRSs, regardless of whether a fair value measurement can be corroborated by observable market information. As such, supporters of View 2 accept the recognition in profit or loss of a difference between a model-based estimate of fair value and the transaction price at initial recognition, even if the asset or liability cannot be valued using only market-based information. Supporters of View 2 argue that accounting for day-one gains and losses separately from the subsequent changes in the model-based estimate of fair value provides users of financial statements with more relevant information and a better understanding of the economics of the transactions.

30 The IASB has not reached a preliminary view on this matter, and seeks the views of respondents.

31 Additionally, SFAS 157 does not define the unit of account for assets or liabilities measured at fair value except in Level 1 of the hierarchy. Some members of the IASB are concerned that if the provisions of SFAS 157 were applied to IFRSs entities would measure the fair values of financial assets and financial liabilities on the basis of a portfolio of the separately identifiable risks held by the entity rather than as an in-exchange exit price for the individual instruments. They observe that, based on guidance in paragraphs 48A, AG71 and AG75 of IAS 39, the objective of measuring fair value for financial assets and financial liabilities in IFRSs is to establish what the transaction price would have been on the measurement date in an arm's length exchange motivated by normal business considerations for the individual instrument. The IASB requests respondents to comment on whether they believe that the provisions of

SFAS 157, considered with the unit of account guidance in IAS 39, would result in a fair value measurement using a portfolio-based valuation of identifiable risks of instruments considered in aggregate or an exit price valuation of the individual instruments.

Questions for respondents

Q11 **In your view is it appropriate to use a measurement that includes inputs that are not observable in a market as fair value at initial recognition, even if this measurement differs from the transaction price? Alternatively, in your view, in the absence of a fair value measurement based solely on observable market inputs, should the transaction price be presumed to be fair value at initial recognition, thereby potentially resulting in the deferral of day-one gains and losses? Please give reasons for your views.**

Q12 **Do you believe that the provisions of SFAS 157, considered in conjunction with the unit of account guidance in IAS 39, would result in a portfolio-based valuation of identifiable risks of instruments considered in aggregate, or an in-exchange exit price for the individual instruments? Please give reasons for your views.**

Issue 4. Principal (or most advantageous) market

32 Paragraph 8 of SFAS 157 states:

> A fair value measurement assumes that the transaction to sell the asset or transfer the liability occurs in the principal market for the asset or liability or, in the absence of a principal market, the most advantageous market for the asset or liability. The principal market is the market in which the reporting entity would sell the asset or transfer the liability with the greatest volume and level of activity for the asset or liability. The most advantageous market is the market in which the reporting entity would sell the asset or transfer the liability with the price that maximizes the amount that would be received for the asset or minimizes the amount that would be paid to transfer the liability, considering transaction costs in the respective market(s).

33 Paragraph C28 of the Basis for Conclusions on SFAS 157 states that the FASB concluded that a fair value measurement should be based on the principal market, if one exists, so that entities need not continuously monitor multiple markets in order to determine which market is the

most advantageous at the measurement date. Rather, the FASB concluded that, generally, the principal market for an asset or liability (the market in which the reporting entity would sell the asset or transfer the liability with the greatest volume and level of activity for the asset or liability) will represent the most advantageous market for the asset or liability. Accordingly, the FASB concluded that a fair value measurement should represent the price in the principal market (whether observable or otherwise determined using a valuation technique), even if a price in a different market is potentially more advantageous at the measurement date.

34 The IASB observed that IFRSs do not contain consistent guidance about which market should be used as a basis for measuring fair value when more than one market exists. For example, paragraph AG71 of IAS 39 states that 'the objective of determining fair value for a financial instrument that is traded in an active market is to arrive at the price at which a transaction would occur at the balance sheet date in that instrument (ie without modifying or repackaging the instrument) in the most advantageous active market to which the entity has immediate access.' However, paragraph 17 of IAS 41 *Agriculture* states:

> If an entity has access to different active markets, the entity uses the most relevant one. For example, if an entity has access to two active markets, it would use the price existing in the market expected to be used.

35 The IASB's preliminary view agrees with the guidance in SFAS 157. The IASB reached this preliminary view because it observed that in most instances the principal market for an asset or liability will be the most advantageous market and that entities need not continuously monitor multiple markets in order to determine which market is most advantageous at the measurement date. Furthermore, the IASB reasoned that the market on which an asset or liability is principally traded provides a more liquid, and therefore more representative, input for a fair value measurement.

Question for respondents

Q13 Do you agree that a fair value measurement should be based on the principal market for the asset or liability or, in the absence of a principal market, the most advantageous market for the asset or liability? Why or why not?

Issue 5. Attributes specific to the asset or liability

36 Paragraph 6 of SFAS 157 states that a fair value measurement 'should consider attributes specific to the asset or liability, for example, the condition and/or location of the asset or liability and restrictions, if any, on the sale or use of the asset at the measurement date.' This concept also includes any other attributes of the asset or liability that market participants would consider when pricing the asset or liability, such as contractual enhancements or encumbrances (so long as these attributes are not accounted for separately from the asset or liability).

37 Paragraph 9 of SFAS 157 clarifies that transaction costs that would be incurred to sell the asset or transfer the liability at the measurement date are not an attribute of the asset or liability; rather, they are specific to the transaction and will vary depending on how the reporting entity transacts. Therefore, transaction costs should not be deducted from (or, in the case of liabilities, added to) the price in the principal (or most advantageous) market when measuring fair value. Rather, SFAS 157 states that transaction costs should be accounted for in accordance with the provisions of other accounting pronouncements. Paragraph 9 also distinguishes transaction costs from costs that would be incurred to transport the asset or liability to its principal (or most advantageous) market. If location is an attribute of the asset or liability, the price in the principal (or most advantageous) market is adjusted for costs that would be incurred to transport the asset or liability from its current location to the principal (or most advantageous) market. This adjustment reflects the increase or decrease in value of the asset or liability given its location relative to the principal (or most advantageous) market.

38 The IASB reached the preliminary view that it is appropriate to consider attributes specific to the asset or liability that a market participant would consider when pricing the asset or liability. The IASB also agrees that when location is an attribute of the asset or liability the price in the principal (or most advantageous) market should be adjusted for costs that would be incurred to transport the asset or liability from its current location to the principal (or most advantageous) market. Lastly, the IASB agrees that transaction costs are an attribute of the transaction rather than an attribute of the asset or liability. Thus, they should be considered separately from fair value, which is consistent with current IFRSs. For example, some IFRSs require assets or liabilities to be measured at fair value less transaction costs that would be incurred (such as biological

assets recognised in accordance with IAS 41 at fair value less estimated point-of-sale costs). The fair value measurement does not include transaction costs; rather, they are separately deducted from the fair value measurement as a component of the point-of-sale costs.

Questions for respondents

Q14 **Do you agree that a fair value measurement should consider attributes specific to the asset or liability that market participants would consider in pricing the asset or liability? If not, why?**

Q15 **Do you agree that transaction costs that would be incurred in a transaction to sell an asset or transfer a liability are an attribute of the transaction and not of the asset or liability? If not, why?**

Issue 6. Valuation of liabilities

39 Paragraph 15 of SFAS 157 observes that the risk that an obligation will not be fulfilled ('non-performance risk') affects the value at which the liability is transferred. As such, the fair value of the liability reflects the non-performance risk relating to that liability. Paragraph 15 of SFAS 157 further clarifies that non-performance risk includes, but may not be limited to, the entity's own credit risk (credit standing). Therefore, SFAS 157 requires the entity to consider the effect of its credit risk (credit standing) on the fair value of the liability in all periods in which the liability is measured at fair value. That effect may vary depending on the liability, for example, whether the liability is an obligation to deliver cash (a financial liability) or an obligation to deliver goods or services (a non-financial liability), and the terms of credit enhancements related to the liability, if any.

40 IAS 39 establishes that fair value reflects the credit quality of the instrument (paragraph AG69) and not the entity's own credit risk as in SFAS 157. However, the IASB believes that the two concepts are consistent, as SFAS 157 indicates that the effects of an entity's own credit risk may vary because of the terms of credit enhancements related to the liability.

41 IFRSs do not provide guidance on whether non-performance risk should be considered when measuring the fair value of a non-financial liability. However, the IASB observes that a requirement to consider non-performance risk when measuring the fair value of a liability extends to fair value measurements of all liabilities the principle already established for financial liabilities in IAS 39. Also, the IASB agrees with the position in SFAS 157 that the risk that an obligation will not be satisfied affects the value at which that obligation would be transferred. Therefore, the IASB reached a preliminary view that the fair value of a liability should reflect non-performance risk.

Question for respondents

Q16 Do you agree that the risk of non-performance, including credit risk, should be considered in measuring the fair value of a liability? If not, why?

Issue 7. 'In-use valuation premise' versus 'value in use'

42 Paragraphs 12–14 of SFAS 157 discuss the application of the standard to assets. Paragraph 12 states 'a fair value measurement assumes the highest and best use of the asset by market participants, considering the use of the asset that is physically possible, legally permissible, and financially feasible at the measurement date.' In broad terms, the highest and best use refers to how market participants would use an asset in order to maximise the value of the asset or the group of assets within which the asset would be used. In accordance with SFAS 157, the highest and best use is determined on the basis of the use of the asset by market participants, even if the intended use of the asset by the reporting entity is different.

43 Paragraph 13 of SFAS 157 states that the highest and best use of an asset establishes the valuation premise used to measure the fair value of the asset. The highest and best use is the higher of the fair value with an in-use valuation premise and the fair value with an in-exchange valuation premise. Both the in-use valuation premise and the in-exchange valuation premise in SFAS 157 assume a hypothetical transaction between market participants at the measurement date. Paragraph 13(a) of SFAS 157 discusses the in-use valuation premise as follows:

> The highest and best use of the asset is in-use if the asset would provide maximum value to market participants principally through its use in combination with other assets as a group (as installed or otherwise

configured for use). For example, that might be the case for certain nonfinancial assets. If the highest and best use of the asset is in-use, the fair value of the asset shall be measured using an in-use valuation premise. When using an in-use valuation premise, the fair value of the asset is determined based on the price that would be received in a current transaction to sell the asset assuming that the asset would be used with other assets as a group and that those assets would be available to market participants. Generally, assumptions about the highest and best use of the asset should be consistent for all of the assets of the group within which it would be used.

44 In contrast, IAS 36 *Impairment of Assets* uses the term 'value in use' in conjunction with assessing and measuring impairments of assets or cash-generating units. Paragraph 30 of IAS 36 requires the following elements to be reflected in the calculation of an asset's (or cash-generating unit's) value in use:

(a) an estimate of the future cash flows the entity expects to derive from the asset;

(b) expectations about possible variations in the amount or timing of those future cash flows;

(c) the time value of money, represented by the current market risk-free rate of interest;

(d) the price for bearing the uncertainty inherent in the asset; and

(e) other factors, such as illiquidity, that market participants would reflect in pricing the future cash flows the entity expects to derive from the asset.

45 'Value in use' in IAS 36 incorporates an estimate of future cash flows that the entity expects to derive from the asset (or asset group) and does not require those cash flows to be adjusted to reflect market participant expectations. Therefore, the resulting value is an entity-specific value. In comparison, fair value measurement determined using an in-use valuation premise is a market-based measurement, not an entity-specific measurement. The IASB seeks respondents' views on whether the differences between the concept of an 'in-use valuation premise' under SFAS 157 and the concept of 'value in use' under IAS 36 are clear.

Question for respondents

Q17 Is it clear that the 'in-use valuation premise' used to measure the fair value of an asset in SFAS 157 is different from 'value in use' in IAS 36? Why or why not?

Issue 8. Fair value hierarchy

46 To increase consistency and comparability in fair value measurements and related disclosures, SFAS 157 establishes a three-level hierarchy that assigns priorities to the inputs that valuation techniques use to measure fair value. The fair value hierarchy gives the highest priority to quoted prices in active markets for identical assets or liabilities, and the lowest priority to inputs that cannot be observed in a market. For disclosure purposes, the level in the fair value hierarchy within which the fair value measurement falls is determined on the basis of the lowest level input that is significant to the fair value measurement in its entirety.

47 IFRSs do not have a consistent hierarchy that applies to all fair value measurements. Instead, individual IFRSs provide guidance about which information should be given priority when measuring fair value. The lack of consistent guidance adds complexity to IFRSs and reduces comparability. For these reasons, the IASB favours a single hierarchy such as the one in SFAS 157.

Questions for respondents

Q18 Do you agree with the hierarchy in SFAS 157? If not, why?

Q19 Are the differences between the levels of the hierarchy clear? If not, what additional information would be helpful in clarifying the differences between the levels?

Issue 9. Large positions of a single financial instrument (blocks)

48 The IASB noted the following discussion in paragraph 27 of SFAS 157:

> If the reporting entity holds a position in a single financial instrument (including a block) and the instrument is traded in an active market, the fair value of the position shall be measured within Level 1 as the product of the quoted price for the individual instrument times the quantity held. The quoted price shall not be adjusted because of the size of the position relative to trading volume (blockage factor). The use of a blockage factor is prohibited, even if a market's normal daily trading volume is not sufficient to absorb the quantity held and placing orders to sell the position in a single transaction might affect the quoted price.

49 The IASB agrees in concept with the prohibition on the use of blockage factors in measuring fair value. The IASB noted that the guidance in SFAS 157 is similar to paragraphs AG71 and AG72 of IAS 39, which state that a published price quotation in an active market is the best estimate of fair value and that the fair value of a portfolio of financial instruments is the product of the number of units of the instrument held and its quoted market price. Further, as discussed in paragraph 31 above, the IASB also observes that guidance in paragraphs 48A, AG71 and AG75 of IAS 39 indicates that the objective when measuring fair value for all financial assets and liabilities is to establish what the transaction price would have been on the measurement date for an *individual* instrument. The Board observes that blockage factors are often meant to adjust for the illiquidity of a large position of individual financial instruments that might be held by the entity. However, the illiquidity of an individual instrument is not affected by the size of a position held by an entity. If a financial instrument is not traded in an active market and the illiquidity affects the price that a market participant would pay for an individual financial asset or require for an individual financial liability the fair value measurement should reflect that illiquidity. However, the adjustment should not consider the size of the position held by the entity. Therefore, the IASB concluded that a blockage factor adjustment should be prohibited at all levels of the hierarchy.

Question for respondents

Q20 Do you agree with the provision of SFAS 157 that a blockage adjustment should be prohibited for financial instruments when there is a price for the financial instrument in an active market (Level 1)? In addition, do you agree that this provision should apply as a principle to all levels of the hierarchy? Please provide a basis for your views.

Issue 10. Measuring fair value within the bid-ask spread

50 Some inputs to a fair value measurement are based on bid and ask prices, for example, in a dealer market for financial assets and liabilities in which the bid price represents the price at which the dealer is willing to buy and the ask price represents the price at which the dealer is willing to sell. Paragraph 31 of SFAS 157 establishes the principle that if an input is based on bid and ask prices, the price within the bid-ask spread that is most representative of fair value in the circumstances is used to measure fair value. However, SFAS 157 does not preclude the use of mid-market

pricing or another pricing convention as a practical expedient for fair value measurements within a bid-ask spread. This guidance applies to inputs used in fair value measurements in all levels of the fair value hierarchy. As such, entities may indirectly compute or infer a bid-ask spread adjustment even if a spread cannot be observed.

51 IFRSs generally require assets to be measured at the bid price and liabilities to be measured at the ask price when they are measured at fair value. For example, this is the case in IAS 36, IAS 38 *Intangible Assets* and IAS 39. Furthermore, an entity is allowed to use a mid-market pricing convention only for financial assets and liabilities with offsetting market risks (paragraph AG72 of IAS 39). Bid-ask pricing guidance in IFRSs is discussed only in terms of observable market prices. No bid-ask spread guidance is provided for valuation techniques when there is no active market. Finally, paragraph AG70 of IAS 39 defines the term 'the bid-ask spread' to include only transaction costs. Other adjustments to arrive at fair value (eg for counterparty credit risk) are not included in the term 'bid-ask spread'. This definition may need modification if the bid-ask approach in SFAS 157 were adopted by the IASB.

52 The IASB reached the preliminary view that fair value measurements should be determined using the price within the bid-ask spread that is most representative of fair value in the circumstances, as provided in paragraph 31 of SFAS 157. In reaching this preliminary view, the IASB noted that different entities in different markets carry out transactions at different points within a bid-ask spread.

53 The IASB has not yet reached a preliminary view on whether it is appropriate to use mid-market pricing or another pricing convention as a practical expedient for fair value measurements within a bid-ask spread, even if the pricing convention is applied on a consistent basis. The IASB has also not reached a preliminary view on whether bid-ask

guidance should apply only when bid and ask prices are observable in a market, or whether the concept should apply more broadly to fair value measurements in all levels of the hierarchy. The IASB seeks respondents' views on these matters.

Questions for respondents

Q21 **Do you agree that fair value measurements should be determined using the price within the bid-ask spread that is most representative of fair value in the circumstances, as prescribed by paragraph 31 of SFAS 157? Alternatively, do you believe that the guidance contained in IFRSs, which generally requires assets to be valued at the bid price and liabilities at the ask price, is more appropriate? Please explain the basis for your view.**

Q22 **Should a pricing convention (such as mid-market pricing or bid price for assets and ask price for liabilities) be allowed even when another price within the bid-ask spread might be more representative of fair value? Why or why not?**

Q23 **Should bid-ask pricing guidance apply to all levels of the hierarchy, including when the fair value measurement includes unobservable inputs? Why or why not?**

Issue 11. Disclosures

54 SFAS 157 requires disclosures that are designed to enable users of financial statements to assess the extent to which fair value is used to measure assets and liabilities recognised in the financial statements, both on a recurring basis and on a non-recurring basis in periods after initial recognition. In developing an exposure draft the IASB will consider these disclosure requirements in conjunction with disclosures required by other IFRSs.

Question for respondents

Q24 Do the disclosure requirements of SFAS 157 provide sufficient information? If not, what additional disclosures do you believe would be helpful to users and why? Alternatively, are there disclosures required by SFAS 157 that you believe are excessive or not beneficial when considered in conjunction with other disclosures required by IFRSs? Please provide a basis for your view.

Issue 12. Application guidance

55 The application guidance in Appendix A of SFAS 157 illustrates the provisions and guidance of the standard. Additionally, Appendix B of SFAS 157 provides guidance for using present value techniques to measure fair value. IFRSs require assets and liabilities to be measured at fair value in situations in which US GAAP does not. For example, biological assets are measured at fair value less estimated point-of-sale costs under IAS 41 whereas there is no such requirement in US GAAP. As such, additional application guidance might be necessary to illustrate how the provisions of a standard on the measurement of fair value would be applied under IFRSs. The IASB seeks views from respondents on what additional application guidance might be needed.

56 The IASB believes that the principles established in the Fair Value Measurements project should apply to all fair value measurements in all jurisdictions. However, it acknowledges that entities in emerging and developing economies might need additional guidance in order to apply the requirements of a fair value measurements standard. Such guidance

could be provided through educational outreach or through additional implementation guidance that would accompany a fair value measurements standard. The IASB invites suggestions from respondents on how best to address the needs of emerging and developing economies.

Questions for respondents

Q25 **Does the guidance in Appendices A and B of SFAS 157 sufficiently illustrate the standard's principles and provisions as they would apply under IFRSs? If not, please specify what additional guidance you believe is needed and why.**

Q26 **Does the guidance in Appendices A and B of SFAS 157 sufficiently illustrate the standard's principles and provisions as they would apply in emerging or developing markets? If not, please specify what additional guidance you believe is needed and the most effective way to provide this guidance (for example, through additional implementation guidance or through focused education efforts).**

Issue 13. Other matters

57 The IASB welcomes comments, suggestions and views from respondents on any other matters relating to the discussion paper and the Fair Value Measurements project.

Question for respondents

Q27 **Please provide comments on any other matters raised by the discussion paper.**

Appendix
Fair value measurement guidance in IFRSs

This appendix contains excerpts of fair value measurement guidance contained in IFRSs and is provided to assist readers in considering the provisions of SFAS 157 and the discussion in the Invitation to Comment. The appendix includes only measurement guidance. It does not include excerpts from IFRSs discussing when assets, liabilities or other items are required to be measured at fair value or discussing reliability requirements for fair value measurements. These items have not been included because they are beyond the scope of the Fair Value Measurements project. As noted in the Invitation to Comment, the IASB will not use this project to change when fair value is required or to modify reliability requirements in IFRSs. These matters will be considered separately project by project.

Additionally, as noted in paragraph 8 of the Invitation to Comment, some IFRSs include measurement guidance that results in a measurement that is treated as fair value even though the guidance is not consistent with the fair value measurement objective. For example, paragraph B16 of IFRS 3 *Business Combinations* provides measurement guidance that is inconsistent with the fair value measurement objective for items such as tax assets, tax liabilities and net employee benefit assets or liabilities for defined benefit plans acquired in a business combination. This project will not change any of that guidance. However, that guidance will be differentiated from fair value to articulate the measurement objective more clearly.

Extracts from IFRS 2 *Share-based Payment*

Transactions measured by reference to the fair value of the equity instruments granted

Determining the fair value of equity instruments granted

16 For transactions measured by reference to the fair value of the equity instruments granted, an entity shall measure the fair value of equity instruments granted at the measurement date, based on market prices if available, taking into account the terms and conditions upon which those equity instruments were granted (subject to the requirements of paragraphs 19–22).

17 If market prices are not available, the entity shall estimate the fair value of the equity instruments granted using a valuation technique to estimate what the price of those equity instruments would have been on the measurement date in an arm's length transaction between knowledgeable, willing parties. The valuation technique shall be consistent with generally accepted valuation methodologies for pricing financial instruments, and shall incorporate all factors and assumptions that knowledgeable, willing market participants would consider in setting the price (subject to the requirements of paragraphs 19–22).

18 Appendix B contains further guidance on the measurement of the fair value of shares and share options, focusing on the specific terms and conditions that are common features of a grant of shares or share options to employees.

Treatment of vesting conditions

19 A grant of equity instruments might be conditional upon satisfying specified vesting conditions. For example, a grant of shares or share options to an employee is typically conditional on the employee remaining in the entity's employ for a specified period of time. There might be performance conditions that must be satisfied, such as the entity achieving a specified growth in profit or a specified increase in the entity's share price. Vesting conditions, other than market conditions, shall not be taken into account when estimating the fair value of the shares or share options at the measurement date. Instead, vesting conditions shall be taken into account by adjusting the number of equity instruments included in the measurement of the transaction amount so that, ultimately, the amount recognised for goods or services received as consideration for the equity instruments granted shall be based on the

number of equity instruments that eventually vest. Hence, on a cumulative basis, no amount is recognised for goods or services received if the equity instruments granted do not vest because of failure to satisfy a vesting condition, eg the counterparty fails to complete a specified service period, or a performance condition is not satisfied, subject to the requirements of paragraph 21.

20 To apply the requirements of paragraph 19, the entity shall recognise an amount for the goods or services received during the vesting period based on the best available estimate of the number of equity instruments expected to vest and shall revise that estimate, if necessary, if subsequent information indicates that the number of equity instruments expected to vest differs from previous estimates. On vesting date, the entity shall revise the estimate to equal the number of equity instruments that ultimately vested, subject to the requirements of paragraph 21.

21 Market conditions, such as a target share price upon which vesting (or exercisability) is conditioned, shall be taken into account when estimating the fair value of the equity instruments granted. Therefore, for grants of equity instruments with market conditions, the entity shall recognise the goods or services received from a counterparty who satisfies all other vesting conditions (eg services received from an employee who remains in service for the specified period of service), irrespective of whether that market condition is satisfied.

Treatment of a reload feature

22 For options with a reload feature, the reload feature shall not be taken into account when estimating the fair value of options granted at the measurement date. Instead, a reload option shall be accounted for as a new option grant, if and when a reload option is subsequently granted.

After vesting date

23 Having recognised the goods or services received in accordance with paragraphs 10–22, and a corresponding increase in equity, the entity shall make no subsequent adjustment to total equity after vesting date. For example, the entity shall not subsequently reverse the amount recognised for services received from an employee if the vested equity

instruments are later forfeited or, in the case of share options, the options are not exercised. However, this requirement does not preclude the entity from recognising a transfer within equity, ie a transfer from one component of equity to another.

* * * * *

Appendix B
Application Guidance

This appendix is an integral part of the IFRS.

Estimating the fair value of equity instruments granted

B1 Paragraphs B2–B41 of this appendix discuss measurement of the fair value of shares and share options granted, focusing on the specific terms and conditions that are common features of a grant of shares or share options to employees. Therefore, it is not exhaustive. Furthermore, because the valuation issues discussed below focus on shares and share options granted to employees, it is assumed that the fair value of the shares or share options is measured at grant date. However, many of the valuation issues discussed below (eg determining expected volatility) also apply in the context of estimating the fair value of shares or share options granted to parties other than employees at the date the entity obtains the goods or the counterparty renders service.

Shares

B2 For shares granted to employees, the fair value of the shares shall be measured at the market price of the entity's shares (or an estimated market price, if the entity's shares are not publicly traded), adjusted to take into account the terms and conditions upon which the shares were granted (except for vesting conditions that are excluded from the measurement of fair value in accordance with paragraphs 19–21).

B3 For example, if the employee is not entitled to receive dividends during the vesting period, this factor shall be taken into account when estimating the fair value of the shares granted. Similarly, if the shares are subject to restrictions on transfer after vesting date, that factor shall be taken into account, but only to the extent that the post-vesting restrictions affect the price that a knowledgeable, willing market participant would pay for that share. For example, if the shares are actively traded in a deep and liquid market, post-vesting transfer restrictions may have little, if any, effect on the price that a knowledgeable, willing market participant would pay for those shares. Restrictions on transfer or other restrictions that exist during the vesting period shall not be taken into account when estimating the grant date fair value of the shares granted, because those restrictions stem from the existence of vesting conditions, which are accounted for in accordance with paragraphs 19–21.

Share options

B4 For share options granted to employees, in many cases market prices are not available, because the options granted are subject to terms and conditions that do not apply to traded options. If traded options with similar terms and conditions do not exist, the fair value of the options granted shall be estimated by applying an option pricing model.

B5 The entity shall consider factors that knowledgeable, willing market participants would consider in selecting the option pricing model to apply. For example, many employee options have long lives, are usually exercisable during the period between vesting date and the end of the options' life, and are often exercised early. These factors should be considered when estimating the grant date fair value of the options. For many entities, this might preclude the use of the Black-Scholes-Merton formula, which does not allow for the possibility of exercise before the end of the option's life and may not adequately reflect the effects of expected early exercise. It also does not allow for the possibility that expected volatility and other model inputs might vary over the option's life. However, for share options with relatively short contractual lives, or that must be exercised within a short period of time after vesting date, the factors identified above may not apply. In these instances, the Black-Scholes-Merton formula may produce a value that is substantially the same as a more flexible option pricing model.

B6 All option pricing models take into account, as a minimum, the following factors:

(a) the exercise price of the option;

(b) the life of the option;

(c) the current price of the underlying shares;

(d) the expected volatility of the share price;

(e) the dividends expected on the shares (if appropriate); and

(f) the risk-free interest rate for the life of the option.

B7 Other factors that knowledgeable, willing market participants would consider in setting the price shall also be taken into account (except for vesting conditions and reload features that are excluded from the measurement of fair value in accordance with paragraphs 19–22).

B8 For example, a share option granted to an employee typically cannot be exercised during specified periods (eg during the vesting period or during periods specified by securities regulators). This factor shall be taken into account if the option pricing model applied would otherwise assume that the option could be exercised at any time during its life. However, if an entity uses an option pricing model that values options that can be exercised only at the end of the options' life, no adjustment is required for the inability to exercise them during the vesting period (or other periods during the options' life), because the model assumes that the options cannot be exercised during those periods.

B9 Similarly, another factor common to employee share options is the possibility of early exercise of the option, for example, because the option is not freely transferable, or because the employee must exercise all vested options upon cessation of employment. The effects of expected early exercise shall be taken into account, as discussed in paragraphs B16–B21.

B10 Factors that a knowledgeable, willing market participant would not consider in setting the price of a share option (or other equity instrument) shall not be taken into account when estimating the fair value of share options (or other equity instruments) granted. For example, for share options granted to employees, factors that affect the value of the option from the individual employee's perspective only are not relevant to estimating the price that would be set by a knowledgeable, willing market participant.

Inputs to option pricing models

B11 In estimating the expected volatility of and dividends on the underlying shares, the objective is to approximate the expectations that would be reflected in a current market or negotiated exchange price for the option. Similarly, when estimating the effects of early exercise of employee share options, the objective is to approximate the expectations that an outside party with access to detailed information about employees' exercise behaviour would develop based on information available at the grant date.

B12 Often, there is likely to be a range of reasonable expectations about future volatility, dividends and exercise behaviour. If so, an expected value should be calculated, by weighting each amount within the range by its associated probability of occurrence.

B13 Expectations about the future are generally based on experience, modified if the future is reasonably expected to differ from the past. In some circumstances, identifiable factors may indicate that unadjusted historical experience is a relatively poor predictor of future experience. For example, if an entity with two distinctly different lines of business disposes of the one that was significantly less risky than the other, historical volatility may not be the best information on which to base reasonable expectations for the future.

B14 In other circumstances, historical information may not be available. For example, a newly listed entity will have little, if any, historical data on the volatility of its share price. Unlisted and newly listed entities are discussed further below.

B15 In summary, an entity should not simply base estimates of volatility, exercise behaviour and dividends on historical information without considering the extent to which the past experience is expected to be reasonably predictive of future experience.

Expected early exercise

B16 Employees often exercise share options early, for a variety of reasons. For example, employee share options are typically non-transferable. This often causes employees to exercise their share options early, because that is the only way for the employees to liquidate their position. Also, employees who cease employment are usually required to exercise any vested options within a short period of time, otherwise the share options are forfeited. This factor also causes the early exercise of employee share options. Other factors causing early exercise are risk aversion and lack of wealth diversification.

B17 The means by which the effects of expected early exercise are taken into account depends upon the type of option pricing model applied. For example, expected early exercise could be taken into account by using an estimate of the option's expected life (which, for an employee share option, is the period of time from grant date to the date on which the option is expected to be exercised) as an input into an option pricing model (eg the Black-Scholes-Merton formula). Alternatively, expected early exercise could be modelled in a binomial or similar option pricing model that uses contractual life as an input.

B18 Factors to consider in estimating early exercise include:

(a) the length of the vesting period, because the share option typically cannot be exercised until the end of the vesting period. Hence, determining the valuation implications of expected early exercise is based on the assumption that the options will vest. The implications of vesting conditions are discussed in paragraphs 19–21.

(b) the average length of time similar options have remained outstanding in the past.

(c) the price of the underlying shares. Experience may indicate that the employees tend to exercise options when the share price reaches a specified level above the exercise price.

(d) the employee's level within the organisation. For example, experience might indicate that higher-level employees tend to exercise options later than lower-level employees (discussed further in paragraph B21).

(e) expected volatility of the underlying shares. On average, employees might tend to exercise options on highly volatile shares earlier than on shares with low volatility.

B19 As noted in paragraph B17, the effects of early exercise could be taken into account by using an estimate of the option's expected life as an input into an option pricing model. When estimating the expected life of share options granted to a group of employees, the entity could base that estimate on an appropriately weighted average expected life for the entire employee group or on appropriately weighted average lives for subgroups of employees within the group, based on more detailed data about employees' exercise behaviour (discussed further below).

B20 Separating an option grant into groups for employees with relatively homogeneous exercise behaviour is likely to be important. Option value is not a linear function of option term; value increases at a decreasing rate as the term lengthens. For example, if all other assumptions are equal, although a two-year option is worth more than a one-year option, it is not worth twice as much. That means that calculating estimated option value on the basis of a single weighted average life that includes widely differing individual lives would overstate the total fair value of the share options granted. Separating options granted into several groups, each of which has a relatively narrow range of lives included in its weighted average life, reduces that overstatement.

B21 Similar considerations apply when using a binomial or similar model. For example, the experience of an entity that grants options broadly to all levels of employees might indicate that top-level executives tend to hold their options longer than middle-management employees hold theirs and that lower-level employees tend to exercise their options earlier than any other group. In addition, employees who are encouraged or required to hold a minimum amount of their employer's equity instruments, including options, might on average exercise options later than employees not subject to that provision. In those situations, separating options by groups of recipients with relatively homogeneous exercise behaviour will result in a more accurate estimate of the total fair value of the share options granted.

Expected volatility

B22 Expected volatility is a measure of the amount by which a price is expected to fluctuate during a period. The measure of volatility used in option pricing models is the annualised standard deviation of the continuously compounded rates of return on the share over a period of time. Volatility is typically expressed in annualised terms that are comparable regardless of the time period used in the calculation, for example, daily, weekly or monthly price observations.

B23 The rate of return (which may be positive or negative) on a share for a period measures how much a shareholder has benefited from dividends and appreciation (or depreciation) of the share price.

B24 The expected annualised volatility of a share is the range within which the continuously compounded annual rate of return is expected to fall approximately two-thirds of the time. For example, to say that a share with an expected continuously compounded rate of return of 12 per cent has a volatility of 30 per cent means that the probability that the rate of return on the share for one year will be between −18 per cent (12% − 30%) and 42 per cent (12% + 30%) is approximately two-thirds. If the share price is CU100 at the beginning of the year and no dividends are paid, the year-end share price would be expected to be between CU83.53 (CU100 $\times$ $e^{-0.18}$) and CU152.20 (CU100 $\times$ $e^{0.42}$) approximately two-thirds of the time.

B25 Factors to consider in estimating expected volatility include:

(a) implied volatility from traded share options on the entity's shares, or other traded instruments of the entity that include option features (such as convertible debt), if any.

(b) the historical volatility of the share price over the most recent period that is generally commensurate with the expected term of the option (taking into account the remaining contractual life of the option and the effects of expected early exercise).

(c) the length of time an entity's shares have been publicly traded. A newly listed entity might have a high historical volatility, compared with similar entities that have been listed longer. Further guidance for newly listed entities is given below.

(d) the tendency of volatility to revert to its mean, ie its long-term average level, and other factors indicating that expected future volatility might differ from past volatility. For example, if an entity's share price was extraordinarily volatile for some identifiable period of time because of a failed takeover bid or a major restructuring, that period could be disregarded in computing historical average annual volatility.

(e) appropriate and regular intervals for price observations. The price observations should be consistent from period to period. For example, an entity might use the closing price for each week or the highest price for the week, but it should not use the closing price for some weeks and the highest price for other weeks. Also, the price observations should be expressed in the same currency as the exercise price.

Newly listed entities

B26 As noted in paragraph B25, an entity should consider historical volatility of the share price over the most recent period that is generally commensurate with the expected option term. If a newly listed entity does not have sufficient information on historical volatility, it should nevertheless compute historical volatility for the longest period for which trading activity is available. It could also consider the historical volatility of similar entities following a comparable period in their lives. For example, an entity that has been listed for only one year and grants options with an average expected life of five years might consider the pattern and level of historical volatility of entities in the same industry for the first six years in which the shares of those entities were publicly traded.

Unlisted entities

B27 An unlisted entity will not have historical information to consider when estimating expected volatility. Some factors to consider instead are set out below.

B28 In some cases, an unlisted entity that regularly issues options or shares to employees (or other parties) might have set up an internal market for its shares. The volatility of those share prices could be considered when estimating expected volatility.

B29 Alternatively, the entity could consider the historical or implied volatility of similar listed entities, for which share price or option price information is available, to use when estimating expected volatility. This would be appropriate if the entity has based the value of its shares on the share prices of similar listed entities.

B30 If the entity has not based its estimate of the value of its shares on the share prices of similar listed entities, and has instead used another valuation methodology to value its shares, the entity could derive an estimate of expected volatility consistent with that valuation methodology. For example, the entity might value its shares on a net asset or earnings basis. It could consider the expected volatility of those net asset values or earnings.

Expected dividends

B31 Whether expected dividends should be taken into account when measuring the fair value of shares or options granted depends on whether the counterparty is entitled to dividends or dividend equivalents.

B32 For example, if employees were granted options and are entitled to dividends on the underlying shares or dividend equivalents (which might be paid in cash or applied to reduce the exercise price) between grant date and exercise date, the options granted should be valued as if no dividends will be paid on the underlying shares, ie the input for expected dividends should be zero.

B33 Similarly, when the grant date fair value of shares granted to employees is estimated, no adjustment is required for expected dividends if the employee is entitled to receive dividends paid during the vesting period.

B34 Conversely, if the employees are not entitled to dividends or dividend equivalents during the vesting period (or before exercise, in the case of an option), the grant date valuation of the rights to shares or options should take expected dividends into account. That is to say, when the fair value of an option grant is estimated, expected dividends should be included in the application of an option pricing model. When the fair value of a share grant is estimated, that valuation should be reduced by the present value of dividends expected to be paid during the vesting period.

B35 Option pricing models generally call for expected dividend yield. However, the models may be modified to use an expected dividend amount rather than a yield. An entity may use either its expected yield or its expected payments. If the entity uses the latter, it should consider its historical pattern of increases in dividends. For example, if an entity's policy has generally been to increase dividends by approximately 3 per cent per year, its estimated option value should not assume a fixed dividend amount throughout the option's life unless there is evidence that supports that assumption.

B36 Generally, the assumption about expected dividends should be based on publicly available information. An entity that does not pay dividends and has no plans to do so should assume an expected dividend yield of zero. However, an emerging entity with no history of paying dividends might expect to begin paying dividends during the expected lives of its employee share options. Those entities could use an average of their past dividend yield (zero) and the mean dividend yield of an appropriately comparable peer group.

Risk-free interest rate

B37 Typically, the risk-free interest rate is the implied yield currently available on zero-coupon government issues of the country in whose currency the exercise price is expressed, with a remaining term equal to the expected term of the option being valued (based on the option's remaining contractual life and taking into account the effects of expected early exercise). It may be necessary to use an appropriate substitute, if no such government issues exist or circumstances indicate that the implied yield on zero-coupon government issues is not representative of the risk-free interest rate (for example, in high inflation economies). Also, an appropriate substitute should be used if market participants would typically determine the risk-free interest rate by using that substitute, rather than the implied yield of zero-coupon government issues, when estimating the fair value of an option with a life equal to the expected term of the option being valued.

Capital structure effects

B38 Typically, third parties, not the entity, write traded share options. When these share options are exercised, the writer delivers shares to the option holder. Those shares are acquired from existing shareholders. Hence the exercise of traded share options has no dilutive effect.

B39 In contrast, if share options are written by the entity, new shares are issued when those share options are exercised (either actually issued or issued in substance, if shares previously repurchased and held in treasury are used). Given that the shares will be issued at the exercise price rather than the current market price at the date of exercise, this actual or potential dilution might reduce the share price, so that the option holder does not make as large a gain on exercise as on exercising an otherwise similar traded option that does not dilute the share price.

B40 Whether this has a significant effect on the value of the share options granted depends on various factors, such as the number of new shares that will be issued on exercise of the options compared with the number of shares already issued. Also, if the market already expects that the option grant will take place, the market may have already factored the potential dilution into the share price at the date of grant.

B41 However, the entity should consider whether the possible dilutive effect of the future exercise of the share options granted might have an impact on their estimated fair value at grant date. Option pricing models can be adapted to take into account this potential dilutive effect.

Modifications to equity-settled share-based payment arrangements

B42 Paragraph 27 requires that, irrespective of any modifications to the terms and conditions on which the equity instruments were granted, or a cancellation or settlement of that grant of equity instruments, the entity should recognise, as a minimum, the services received measured at the grant date fair value of the equity instruments granted, unless those equity instruments do not vest because of failure to satisfy a vesting condition (other than a market condition) that was specified at grant date. In addition, the entity should recognise the effects of modifications that increase the total fair value of the share-based payment arrangement or are otherwise beneficial to the employee.

B43 To apply the requirements of paragraph 27:

(a) if the modification increases the fair value of the equity instruments granted (eg by reducing the exercise price), measured immediately before and after the modification, the entity shall include the incremental fair value granted in the measurement of the amount recognised for services received as consideration for the equity instruments granted. The incremental fair value granted is the difference between the fair value of the modified equity instrument and that of the original equity instrument, both estimated as at the date of the modification. If the modification occurs during the vesting period, the incremental fair value granted is included in the measurement of the amount recognised for services received over the period from the modification date until the date when the modified equity instruments vest, in addition to the amount based on the grant date fair value of the original equity instruments, which is recognised over the remainder of the original vesting period. If the modification occurs after vesting date, the incremental fair value granted is recognised immediately, or over the vesting period if the employee is required to complete an additional period of service before becoming unconditionally entitled to those modified equity instruments.

(b) similarly, if the modification increases the number of equity instruments granted, the entity shall include the fair value of the additional equity instruments granted, measured at the date of the modification, in the measurement of the amount recognised for services received as consideration for the equity instruments granted, consistently with the requirements in (a) above. For example, if the modification occurs during the vesting period, the fair value of the additional equity instruments granted is included in the measurement of the amount recognised for services received over the period from the modification date until the date when the additional equity instruments vest, in addition to the amount based on the grant date fair value of the equity instruments originally granted, which is recognised over the remainder of the original vesting period.

(c) if the entity modifies the vesting conditions in a manner that is beneficial to the employee, for example, by reducing the vesting period or by modifying or eliminating a performance condition (other than a market condition, changes to which are accounted for in accordance with (a) above), the entity shall take the modified vesting conditions into account when applying the requirements of paragraphs 19–21.

B44 Furthermore, if the entity modifies the terms or conditions of the equity instruments granted in a manner that reduces the total fair value of the share-based payment arrangement, or is not otherwise beneficial to the employee, the entity shall nevertheless continue to account for the services received as consideration for the equity instruments granted as if that modification had not occurred (other than a cancellation of some or all the equity instruments granted, which shall be accounted for in accordance with paragraph 28). For example:

(a) if the modification reduces the fair value of the equity instruments granted, measured immediately before and after the modification, the entity shall not take into account that decrease in fair value and shall continue to measure the amount recognised for services received as consideration for the equity instruments based on the grant date fair value of the equity instruments granted.

(b) if the modification reduces the number of equity instruments granted to an employee, that reduction shall be accounted for as a cancellation of that portion of the grant, in accordance with the requirements of paragraph 28.

(c) if the entity modifies the vesting conditions in a manner that is not beneficial to the employee, for example, by increasing the vesting period or by modifying or adding a performance condition (other than a market condition, changes to which are accounted for in accordance with (a) above), the entity shall not take the modified vesting conditions into account when applying the requirements of paragraphs 19–21.

Extracts from IFRS 3 *Business Combinations*

Application of the purchase method

Cost of a business combination

27 The published price at the date of exchange of a quoted equity instrument provides the best evidence of the instrument's fair value and shall be used, except in rare circumstances. Other evidence and valuation methods shall be considered only in the rare circumstances when the acquirer can demonstrate that the published price at the date of exchange is an unreliable indicator of fair value, and that the other evidence and valuation methods provide a more reliable measure of the equity instrument's fair value. The published price at the date of exchange is an unreliable indicator only when it has been affected by the thinness of the market. If the published price at the date of exchange is an unreliable indicator or if a published price does not exist for equity instruments issued by the acquirer, the fair value of those instruments could, for example, be estimated by reference to their proportional interest in the fair value of the acquirer or by reference to the proportional interest in the fair value of the acquiree obtained, whichever is the more clearly evident. The fair value at the date of exchange of monetary assets given to equity holders of the acquiree as an alternative to equity instruments may also provide evidence of the total fair value given by the acquirer in exchange for control of the acquiree. In any event, all aspects of the combination, including significant factors influencing the negotiations, shall be considered. Further guidance on determining the fair value of equity instruments is set out in IAS 39 *Financial Instruments: Recognition and Measurement*.

* * * * *

Appendix B
Application Supplement

This appendix is an integral part of the IFRS.

Allocating the cost of a business combination

B16 This IFRS requires an acquirer to recognise the acquiree's identifiable assets, liabilities and contingent liabilities that satisfy the relevant recognition criteria at their fair values at the acquisition date. For the purpose of allocating the cost of a business combination, the acquirer shall treat the following measures as fair values:

(a) for financial instruments traded in an active market the acquirer shall use current market values.

(b) for financial instruments not traded in an active market the acquirer shall use estimated values that take into consideration features such as price-earnings ratios, dividend yields and expected growth rates of comparable instruments of entities with similar characteristics.

(c) for receivables, beneficial contracts and other identifiable assets the acquirer shall use the present values of the amounts to be received, determined at appropriate current interest rates, less allowances for uncollectibility and collection costs, if necessary. However, discounting is not required for short-term receivables, beneficial contracts and other identifiable assets when the difference between the nominal and discounted amounts is not material.

(d) for inventories of:

(i) finished goods and merchandise the acquirer shall use selling prices less the sum of (1) the costs of disposal and (2) a reasonable profit allowance for the selling effort of the acquirer based on profit for similar finished goods and merchandise;

(ii) work in progress the acquirer shall use selling prices of finished goods less the sum of (1) costs to complete, (2) costs of disposal and (3) a reasonable profit allowance for the completing and selling effort based on profit for similar finished goods; and

(iii) raw materials the acquirer shall use current replacement costs.

(e) for land and buildings the acquirer shall use market values.

(f) `for plant and equipment the acquirer shall use market values, normally determined by appraisal. If there is no market-based evidence of fair value because of the specialised nature of the item of plant and equipment and the item is rarely sold, except as part of a continuing business, an acquirer may need to estimate fair value using an income or a depreciated replacement cost approach.

(g) for intangible assets the acquirer shall determine fair value:

(i) by reference to an active market as defined in IAS 38 *Intangible Assets*; or

(ii) if no active market exists, on a basis that reflects the amounts the acquirer would have paid for the assets in arm's length transactions between knowledgeable willing parties, based on the best information available (see IAS 38 for further guidance on determining the fair values of intangible assets acquired in business combinations).

(h) for net employee benefit assets or liabilities for defined benefit plans the acquirer shall use the present value of the defined benefit obligation less the fair value of any plan assets. However, an asset is recognised only to the extent that it is probable it will be available to the acquirer in the form of refunds from the plan or a reduction in future contributions.

(i) for tax assets and liabilities the acquirer shall use the amount of the tax benefit arising from tax losses or the taxes payable in respect of profit or loss in accordance with IAS 12 *Income Taxes*, assessed from the perspective of the combined entity. The tax asset or liability is determined after allowing for the tax effect of restating identifiable assets, liabilities and contingent liabilities to their fair values and is not discounted.

(j) for accounts and notes payable, long-term debt, liabilities, accruals and other claims payable the acquirer shall use the present values of amounts to be disbursed in settling the liabilities determined at appropriate current interest rates. However, discounting is not required for short-term liabilities when the difference between the nominal and discounted amounts is not material.

(k) for onerous contracts and other identifiable liabilities of the acquiree the acquirer shall use the present values of amounts to be disbursed in settling the obligations determined at appropriate current interest rates.

(l) for contingent liabilities of the acquiree the acquirer shall use the amounts that a third party would charge to assume those contingent liabilities. Such an amount shall reflect all expectations about possible cash flows and not the single most likely or the expected maximum or minimum cash flow.

B17 Some of the above guidance requires fair values to be estimated using present value techniques. If the guidance for a particular item does not refer to the use of present value techniques, such techniques may be used in estimating the fair value of that item.

Extract from IAS 2 *Inventories*

Definitions

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

...

Net realisable value **is 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.**

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

7 Net realisable value refers to the net amount that an entity expects to realise from the sale of inventory in the ordinary course of business. Fair value reflects the amount for which the same inventory could be exchanged between knowledgeable and willing buyers and sellers in the marketplace. The former is an entity-specific value; the latter is not. Net realisable value for inventories may not equal fair value less costs to sell.

Extract from IAS 16 *Property, Plant and Equipment*

Measurement after recognition

Revaluation model

32 The fair value of land and buildings is usually determined from market-based evidence by appraisal that is normally undertaken by professionally qualified valuers. The fair value of items of plant and equipment is usually their market value determined by appraisal.

33 If there is no market-based evidence of fair value because of the specialised nature of the item of property, plant and equipment and the item is rarely sold, except as part of a continuing business, an entity may need to estimate fair value using an income or a depreciated replacement cost approach.

Extracts from IAS 19 *Employee Benefits*

Post-employment benefits: defined benefit plans

Recognition and measurement: plan assets

Fair value of plan assets

102 The fair value of any plan assets is deducted in determining the amount recognised in the balance sheet under paragraph 54. When no market price is available, the fair value of plan assets is estimated; for example, by discounting expected future cash flows using a discount rate that reflects both the risk associated with the plan assets and the maturity or expected disposal date of those assets (or, if they have no maturity, the expected period until the settlement of the related obligation).

104 Where plan assets include qualifying insurance policies that exactly match the amount and timing of some or all of the benefits payable under the plan, the fair value of those insurance policies is deemed to be the present value of the related obligations, as described in paragraph 54 (subject to any reduction required if the amounts receivable under the insurance policies are not recoverable in full).

104D If the right to reimbursement arises under an insurance policy that exactly matches the amount and timing of some or all of the benefits payable under a defined benefit plan, the fair value of the reimbursement right is deemed to be the present value of the related obligation, as described in paragraph 54 (subject to any reduction required if the reimbursement is not recoverable in full).

Extract from IAS 26 *Accounting and Reporting by Retirement Benefit Plans*

All plans

Valuation of plan assets

32 Retirement benefit plan investments shall be carried at fair value. In the case of marketable securities fair value is market value. Where plan investments are held for which an estimate of fair value is not possible disclosure shall be made of the reason why fair value is not used.

33 In the case of marketable securities fair value is usually market value because this is considered the most useful measure of the securities at the report date and of the investment performance for the period. Those securities that have a fixed redemption value and that have been acquired to match the obligations of the plan, or specific parts thereof, may be carried at amounts based on their ultimate redemption value assuming a constant rate of return to maturity. Where plan investments are held for which an estimate of fair value is not possible, such as total ownership of an entity, disclosure is made of the reason why fair value is not used. To the extent that investments are carried at amounts other than market value or fair value, fair value is generally also disclosed. Assets used in the operations of the fund are accounted for in accordance with the applicable Standards.

Extract from IAS 32 *Financial Instruments: Presentation*

Applendix
Application Guidance

This appendix is an integral part of the Standard.

Presentation

Compound financial instruments (paragraphs 28–32)

AG31 A common form of compound financial instrument is a debt instrument with an embedded conversion option, such as a bond convertible into ordinary shares of the issuer, and without any other embedded derivative features. Paragraph 28 requires the issuer of such a financial instrument to present the liability component and the equity component separately on the balance sheet, as follows:

(a) The issuer's obligation to make scheduled payments of interest and principal is a financial liability that exists as long as the instrument is not converted. On initial recognition, the fair value of the liability component is the present value of the contractually determined stream of future cash flows discounted at the rate of interest applied at that time by the market to instruments of comparable credit status and providing substantially the same cash flows, on the same terms, but without the conversion option.

(b) The equity instrument is an embedded option to convert the liability into equity of the issuer. The fair value of the option comprises its time value and its intrinsic value, if any. This option has value on initial recognition even when it is out of the money.

Extracts from IAS 36 *Impairment of Assets*

Measuring recoverable amount

Fair value less costs to sell

25 The best evidence of an asset's fair value less costs to sell is a price in a binding sale agreement in an arm's length transaction, adjusted for incremental costs that would be directly attributable to the disposal of the asset.

26 If there is no binding sale agreement but an asset is traded in an active market, fair value less costs to sell is the asset's market price less the costs of disposal. The appropriate market price is usually the current bid price. When current bid prices are unavailable, the price of the most recent transaction may provide a basis from which to estimate fair value less costs to sell, provided that there has not been a significant change in economic circumstances between the transaction date and the date as at which the estimate is made.

27 If there is no binding sale agreement or active market for an asset, fair value less costs to sell is based on the best information available to reflect the amount that an entity could obtain, at the balance sheet date, from the disposal of the asset in an arm's length transaction between knowledgeable, willing parties, after deducting the costs of disposal. In determining this amount, an entity considers the outcome of recent transactions for similar assets within the same industry. Fair value less costs to sell does not reflect a forced sale, unless management is compelled to sell immediately.

29 Sometimes, the disposal of an asset would require the buyer to assume a liability and only a single fair value less costs to sell is available for both the asset and the liability. Paragraph 78 explains how to deal with such cases.

Cash-generating units and goodwill

Recoverable amount and carrying amount of a cash-generating unit

78 It may be necessary to consider some recognised liabilities to determine the recoverable amount of a cash-generating unit. This may occur if the

disposal of a cash-generating unit would require the buyer to assume the liability. In this case, the fair value less costs to sell (or the estimated cash flow from ultimate disposal) of the cash-generating unit is the estimated selling price for the assets of the cash-generating unit and the liability together, less the costs of disposal. To perform a meaningful comparison between the carrying amount of the cash-generating unit and its recoverable amount, the carrying amount of the liability is deducted in determining both the cash-generating unit's value in use and its carrying amount.

Example

A company operates a mine in a country where legislation requires that the owner must restore the site on completion of its mining operations. The cost of restoration includes the replacement of the overburden, which must be removed before mining operations commence.
A provision for the costs to replace the overburden was recognised as soon as the overburden was removed. The amount provided was recognised as part of the cost of the mine and is being depreciated over the mine's useful life. The carrying amount of the provision for restoration costs is CU500,(a) which is equal to the present value of the restoration costs.

The entity is testing the mine for impairment. The cash-generating unit for the mine is the mine as a whole. The entity has received various offers to buy the mine at a price of around CU800. This price reflects the fact that the buyer will assume the obligation to restore the overburden. Disposal costs for the mine are negligible. The value in use of the mine is approximately CU1,200, excluding restoration costs. The carrying amount of the mine is CU1,000.

The cash-generating unit's fair value less costs to sell is CU800. This amount considers restoration costs that have already been provided for. As a consequence, the value in use for the cash-generating unit is determined after consideration of the restoration costs and is estimated to be CU700 (CU1,200 less CU500).
The carrying amount of the cash-generating unit is CU500, which is the carrying amount of the mine (CU1,000) less the carrying amount of the provision for restoration costs (CU500). Therefore, the recoverable amount of the cash-generating unit exceeds its carrying amount.

(a) In this Standard, monetary amounts are denominated in 'currency units' (CU).

79 For practical reasons, the recoverable amount of a cash-generating unit is sometimes determined after consideration of assets that are not part of the cash-generating unit (for example, receivables or other financial assets) or liabilities that have been recognised (for example, payables, pensions and other provisions). In such cases, the carrying amount of the cash-generating unit is increased by the carrying amount of those assets and decreased by the carrying amount of those liabilities.

Extracts from IAS 38 *Intangible Assets*

Recognition and measurement

Acquisition as part of a business combination

33 In accordance with IFRS 3 *Business Combinations*, if an intangible asset is acquired in a business combination, the cost of that intangible asset is its fair value at the acquisition date. The fair value of an intangible asset reflects market expectations about the probability that the future economic benefits embodied in the asset will flow to the entity. In other words, the effect of probability is reflected in the fair value measurement of the intangible asset. Therefore, the probability recognition criterion in paragraph 21(a) is always considered to be satisfied for intangible assets acquired in business combinations.

Measuring the fair value of an intangible asset acquired in a business combination

39 Quoted market prices in an active market provide the most reliable estimate of the fair value of an intangible asset (see also paragraph 78). The appropriate market price is usually the current bid price. If current bid prices are unavailable, the price of the most recent similar transaction may provide a basis from which to estimate fair value, provided that there has not been a significant change in economic circumstances between the transaction date and the date at which the asset's fair value is estimated.

40 If no active market exists for an intangible asset, its fair value is the amount that the entity would have paid for the asset, at the acquisition date, in an arm's length transaction between knowledgeable and willing parties, on the basis of the best information available. In determining this amount, an entity considers the outcome of recent transactions for similar assets.

41 Entities that are regularly involved in the purchase and sale of unique intangible assets may have developed techniques for estimating their fair values indirectly. These techniques may be used for initial measurement of an intangible asset acquired in a business combination if their objective is to estimate fair value and if they reflect current transactions and practices in the industry to which the asset belongs. These techniques include, when appropriate:

(a) applying multiples reflecting current market transactions to indicators that drive the profitability of the asset (such as revenue, market shares and operating profit) or to the royalty stream that could be obtained from licensing the intangible asset to another party in an arm's length transaction (as in the 'relief from royalty' approach); or

(b) discounting estimated future net cash flows from the asset.

Measurement after recognition

Revaluation model

75 **After initial recognition, an intangible asset shall be carried at a revalued amount, being its fair value at the date of the revaluation less any subsequent accumulated amortisation and any subsequent accumulated impairment losses. For the purpose of revaluations under this Standard, fair value shall be determined by reference to an active market. Revaluations shall be made with such regularity that at the balance sheet date the carrying amount of the asset does not differ materially from its fair value.**

Extracts from IAS 39 *Financial Instruments: Recognition and Measurement*

Measurement

Fair value measurement considerations

48 **In determining the fair value of a financial asset or a financial liability for the purpose of applying this Standard, IAS 32 or IFRS 7, an entity shall apply paragraphs AG69-AG82 of Appendix A.**

48A The best evidence of fair value is quoted prices in an active market. If the market for a financial instrument is not active, an entity establishes fair value by using a valuation technique. The objective of using a valuation technique is to establish what the transaction price would have been on the measurement date in an arm's length exchange motivated by normal business considerations. Valuation techniques include using recent arm's length market transactions between knowledgeable, willing parties, if available, reference to the current fair value of another instrument that is substantially the same, discounted cash flow analysis and option pricing models. If there is a valuation technique commonly used by market participants to price the instrument and that technique has been demonstrated to provide reliable estimates of prices obtained in actual market transactions, the entity uses that technique. The chosen valuation technique makes maximum use of market inputs and relies as little as possible on entity-specific inputs. It incorporates all factors that market participants would consider in setting a price and is consistent with accepted economic methodologies for pricing financial instruments. Periodically, an entity calibrates the valuation technique and tests it for validity using prices from any observable current market transactions in the same instrument (ie without modification or repackaging) or based on any available observable market data.

49 The fair value of a financial liability with a demand feature (eg a demand deposit) is not less than the amount payable on demand, discounted from the first date that the amount could be required to be paid.

Appendix A
Application Guidance

This appendix is an integral part of the Standard.

Measurement (paragraphs 43–70)

Initial measurement of financial assets and financial liabilities (paragraph 43)

AG64 The fair value of a financial instrument on initial recognition is normally the transaction price (ie the fair value of the consideration given or received, see also paragraph AG76). However, if part of the consideration given or received is for something other than the financial instrument, the fair value of the financial instrument is estimated, using a valuation technique (see paragraphs AG74–AG79). For example, the fair value of a long-term loan or receivable that carries no interest can be estimated as the present value of all future cash receipts discounted using the prevailing market rate(s) of interest for a similar instrument (similar as to currency, term, type of interest rate and other factors) with a similar credit rating. Any additional amount lent is an expense or a reduction of income unless it qualifies for recognition as some other type of asset.

AG65 If an entity originates a loan that bears an off-market interest rate (eg 5 per cent when the market rate for similar loans is 8 per cent), and receives an up-front fee as compensation, the entity recognises the loan at its fair value, ie net of the fee it receives. The entity accretes the discount to profit or loss using the effective interest rate method.

Fair value measurement considerations (paragraphs 48–49)

AG69 Underlying the definition of fair value is a presumption that an entity is a going concern without any intention or need to liquidate, to curtail materially the scale of its operations or to undertake a transaction on adverse terms. Fair value is not, therefore, the amount that an entity would receive or pay in a forced transaction, involuntary liquidation or distress sale. However, fair value reflects the credit quality of the instrument.

AG70 This Standard uses the terms 'bid price' and 'asking price' (sometimes referred to as 'current offer price') in the context of quoted market prices, and the term 'the bid-ask spread' to include only transaction costs. Other adjustments to arrive at fair value (eg for counterparty credit risk) are not included in the term 'bid-ask spread'.

Active market: quoted price

AG71 A financial instrument is regarded as quoted in an active market if quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's length basis. Fair value is defined in terms of a price agreed by a willing buyer and a willing seller in an arm's length transaction. The objective of determining fair value for a financial instrument that is traded in an active market is to arrive at the price at which a transaction would occur at the balance sheet date in that instrument (ie without modifying or repackaging the instrument) in the most advantageous active market to which the entity has immediate access. However, the entity adjusts the price in the more advantageous market to reflect any differences in counterparty credit risk between instruments traded in that market and the one being valued. The existence of published price quotations in an active market is the best evidence of fair value and when they exist they are used to measure the financial asset or financial liability.

AG72 The appropriate quoted market price for an asset held or liability to be issued is usually the current bid price and, for an asset to be acquired or liability held, the asking price. When an entity has assets and liabilities with offsetting market risks, it may use mid-market prices as a basis for establishing fair values for the offsetting risk positions and apply the bid or asking price to the net open position as appropriate. When current bid and asking prices are unavailable, the price of the most recent transaction provides evidence of the current fair value as long as there has not been a significant change in economic circumstances since the time of the transaction. If conditions have changed since the time of the transaction (eg a change in the risk-free interest rate following the most recent price quote for a corporate bond), the fair value reflects the change in conditions by reference to current prices or rates for similar financial instruments, as appropriate. Similarly, if the entity can demonstrate that the last transaction price is not fair value (eg because it reflected the amount that an entity would receive or pay in a forced transaction, involuntary liquidation or distress sale), that price is adjusted. The fair value of a portfolio of financial instruments is the product of the number of units of the instrument and its quoted market price. If a published price quotation in an active market does not exist for a financial instrument in its entirety, but active markets exist for its component parts, fair value is determined on the basis of the relevant market prices for the component parts.

AG73 If a rate (rather than a price) is quoted in an active market, the entity uses that market-quoted rate as an input into a valuation technique to determine fair value. If the market-quoted rate does not include credit risk or other factors that market participants would include in valuing the instrument, the entity adjusts for those factors.

No active market: valuation technique

AG74 If the market for a financial instrument is not active, an entity establishes fair value by using a valuation technique. Valuation techniques include using recent arm's length market transactions between knowledgeable, willing parties, if available, reference to the current fair value of another instrument that is substantially the same, discounted cash flow analysis and option pricing models. If there is a valuation technique commonly used by market participants to price the instrument and that technique has been demonstrated to provide reliable estimates of prices obtained in actual market transactions, the entity uses that technique.

AG75 The objective of using a valuation technique is to establish what the transaction price would have been on the measurement date in an arm's length exchange motivated by normal business considerations. Fair value is estimated on the basis of the results of a valuation technique that makes maximum use of market inputs, and relies as little as possible on entity-specific inputs. A valuation technique would be expected to arrive at a realistic estimate of the fair value if (a) it reasonably reflects how the market could be expected to price the instrument and (b) the inputs to the valuation technique reasonably represent market expectations and measures of the risk-return factors inherent in the financial instrument.

AG76 Therefore, a valuation technique (a) incorporates all factors that market participants would consider in setting a price and (b) is consistent with accepted economic methodologies for pricing financial instruments. Periodically, an entity calibrates the valuation technique and tests it for validity using prices from any observable current market transactions in the same instrument (ie without modification or repackaging) or based on any available observable market data. An entity obtains market data consistently in the same market where the instrument was originated or purchased. The best evidence of the fair value of a financial instrument at initial recognition is the transaction price (ie the fair value of the consideration given or received) unless the fair value of that instrument is evidenced by comparison with other observable current market transactions in the same instrument (ie without modification or repackaging) or based on a valuation technique whose variables include only data from observable markets.

AG76A The subsequent measurement of the financial asset or financial liability and the subsequent recognition of gains and losses shall be consistent with the requirements of this Standard. The application of paragraph AG76 may result in no gain or loss being recognised on the initial recognition of a financial asset or financial liability. In such a case, IAS 39 requires that a gain or loss shall be recognised after initial recognition only to the extent that it arises from a change in a factor (including time) that market participants would consider in setting a price.

AG77 The initial acquisition or origination of a financial asset or incurrence of a financial liability is a market transaction that provides a foundation for estimating the fair value of the financial instrument. In particular, if the financial instrument is a debt instrument (such as a loan), its fair value can be determined by reference to the market conditions that existed at its acquisition or origination date and current market conditions or interest rates currently charged by the entity or by others for similar debt instruments (ie similar remaining maturity, cash flow pattern, currency, credit risk, collateral and interest basis). Alternatively, provided there is no change in the credit risk of the debtor and applicable credit spreads after the origination of the debt instrument, an estimate of the current market interest rate may be derived by using a benchmark interest rate reflecting a better credit quality than the underlying debt instrument, holding the credit spread constant, and adjusting for the change in the benchmark interest rate from the origination date. If conditions have changed since the most recent market transaction, the corresponding change in the fair value of the financial instrument being valued is determined by reference to current prices or rates for similar financial instruments, adjusted as appropriate, for any differences from the instrument being valued.

AG78 The same information may not be available at each measurement date. For example, at the date that an entity makes a loan or acquires a debt instrument that is not actively traded, the entity has a transaction price that is also a market price. However, no new transaction information may be available at the next measurement date and, although the entity can determine the general level of market interest rates, it may not know what level of credit or other risk market participants would consider in pricing the instrument on that date. An entity may not have information from recent transactions to determine the appropriate credit spread over the basic interest rate to use in determining a discount rate for a present value computation. It would be reasonable to assume, in the absence of evidence to the contrary, that no changes have taken place in the spread that existed at the date the loan was made. However, the entity would be expected to make reasonable efforts to determine whether there is evidence that there has been a change in such factors. When evidence of a change exists, the entity would consider the effects of the change in determining the fair value of the financial instrument.

AG79 In applying discounted cash flow analysis, an entity uses one or more discount rates equal to the prevailing rates of return for financial instruments having substantially the same terms and characteristics, including the credit quality of the instrument, the remaining term over which the contractual interest rate is fixed, the remaining term to repayment of the principal and the currency in which payments are to be made. Short-term receivables and payables with no stated interest rate may be measured at the original invoice amount if the effect of discounting is immaterial.

Inputs to valuation techniques

AG82 An appropriate technique for estimating the fair value of a particular financial instrument would incorporate observable market data about the market conditions and other factors that are likely to affect the instrument's fair value. The fair value of a financial instrument will be based on one or more of the following factors (and perhaps others).

(a) *The time value of money (ie interest at the basic or risk-free rate).* Basic interest rates can usually be derived from observable government bond prices and are often quoted in financial publications. These rates typically vary with the expected dates of the projected cash flows along a yield curve of interest rates for different time horizons. For practical reasons, an entity may use a well-accepted and readily observable general rate, such as LIBOR or a swap rate, as the benchmark rate. (Because a rate such as LIBOR is not the risk-free interest rate, the credit risk adjustment appropriate to the particular financial instrument is determined on the basis of its credit risk in relation to the credit risk in this benchmark rate.) In some countries, the central government's bonds may carry a significant credit risk and may not provide a stable benchmark basic interest rate for instruments denominated in that currency. Some entities in these countries may have a better credit standing and a lower borrowing rate than the central government. In such a case, basic interest rates may be more appropriately determined by reference to interest rates for the highest rated corporate bonds issued in the currency of that jurisdiction.

(b) *Credit risk*. The effect on fair value of credit risk (ie the premium over the basic interest rate for credit risk) may be derived from observable market prices for traded instruments of different credit quality or from observable interest rates charged by lenders for loans of various credit ratings.

(c) *Foreign currency exchange prices*. Active currency exchange markets exist for most major currencies, and prices are quoted daily in financial publications.

(d) *Commodity prices*. There are observable market prices for many commodities.

(e) *Equity prices*. Prices (and indexes of prices) of traded equity instruments are readily observable in some markets. Present value based techniques may be used to estimate the current market price of equity instruments for which there are no observable prices.

(f) *Volatility (ie magnitude of future changes in price of the financial instrument or other item)*. Measures of the volatility of actively traded items can normally be reasonably estimated on the basis of historical market data or by using volatilities implied in current market prices.

(g) *Prepayment risk and surrender risk*. Expected prepayment patterns for financial assets and expected surrender patterns for financial liabilities can be estimated on the basis of historical data. (The fair value of a financial liability that can be surrendered by the counterparty cannot be less than the present value of the surrender amount—see paragraph 49.)

(h) *Servicing costs for a financial asset or a financial liability*. Costs of servicing can be estimated using comparisons with current fees charged by other market participants. If the costs of servicing a financial asset or financial liability are significant and other market participants would face comparable costs, the issuer would consider them in determining the fair value of that financial asset or financial liability. It is likely that the fair value at inception of a contractual right to future fees equals the origination costs paid for them, unless future fees and related costs are out of line with market comparables.

Extract from IAS 40 *Investment Property*

Measurement after recognition

Fair value model

36 The fair value of investment property is the price at which the property could be exchanged between knowledgeable, willing parties in an arm's length transaction (see paragraph 5). Fair value specifically excludes an estimated price inflated or deflated by special terms or circumstances such as atypical financing, sale and leaseback arrangements, special considerations or concessions granted by anyone associated with the sale.

37 An entity determines fair value without any deduction for transaction costs it may incur on sale or other disposal.

38 The fair value of investment property shall reflect market conditions at the balance sheet date.

39 Fair value is time-specific as of a given date. Because market conditions may change, the amount reported as fair value may be incorrect or inappropriate if estimated as of another time. The definition of fair value also assumes simultaneous exchange and completion of the contract for sale without any variation in price that might be made in an arm's length transaction between knowledgeable, willing parties if exchange and completion are not simultaneous.

40 The fair value of investment property reflects, among other things, rental income from current leases and reasonable and supportable assumptions that represent what knowledgeable, willing parties would assume about rental income from future leases in the light of current conditions. It also reflects, on a similar basis, any cash outflows (including rental payments and other outflows) that could be expected in respect of the property. Some of those outflows are reflected in the liability whereas others relate to outflows that are not recognised in the financial statements until a later date (eg periodic payments such as contingent rents).

41 Paragraph 25 specifies the basis for initial recognition of the cost of an interest in a leased property. Paragraph 33 requires the interest in the leased property to be remeasured, if necessary, to fair value. In a lease negotiated at market rates, the fair value of an interest in a leased property at acquisition, net of all expected lease payments (including those relating to recognised liabilities), should be zero. This fair value

does not change regardless of whether, for accounting purposes, a leased asset and liability are recognised at fair value or at the present value of minimum lease payments, in accordance with paragraph 20 of IAS 17. Thus, remeasuring a leased asset from cost in accordance with paragraph 25 to fair value in accordance with paragraph 33 should not give rise to any initial gain or loss, unless fair value is measured at different times. This could occur when an election to apply the fair value model is made after initial recognition.

42 The definition of fair value refers to 'knowledgeable, willing parties'. In this context, 'knowledgeable' means that both the willing buyer and the willing seller are reasonably informed about the nature and characteristics of the investment property, its actual and potential uses, and market conditions at the balance sheet date. A willing buyer is motivated, but not compelled, to buy. This buyer is neither over-eager nor determined to buy at any price. The assumed buyer would not pay a higher price than a market comprising knowledgeable, willing buyers and sellers would require.

43 A willing seller is neither an over-eager nor a forced seller, prepared to sell at any price, nor one prepared to hold out for a price not considered reasonable in current market conditions. The willing seller is motivated to sell the investment property at market terms for the best price obtainable. The factual circumstances of the actual investment property owner are not a part of this consideration because the willing seller is a hypothetical owner (eg a willing seller would not take into account the particular tax circumstances of the actual investment property owner).

44 The definition of fair value refers to an arm's length transaction. An arm's length transaction is one between parties that do not have a particular or special relationship that makes prices of transactions uncharacteristic of market conditions. The transaction is presumed to be between unrelated parties, each acting independently.

45 The best evidence of fair value is given by current prices in an active market for similar property in the same location and condition and subject to similar lease and other contracts. An entity takes care to identify any differences in the nature, location or condition of the property, or in the contractual terms of the leases and other contracts relating to the property.

46 In the absence of current prices in an active market of the kind described in paragraph 45, an entity considers information from a variety of sources, including:

(a) current prices in an active market for properties of different nature, condition or location (or subject to different lease or other contracts), adjusted to reflect those differences;

(b) recent prices of similar properties on less active markets, with adjustments to reflect any changes in economic conditions since the date of the transactions that occurred at those prices; and

(c) discounted cash flow projections based on reliable estimates of future cash flows, supported by the terms of any existing lease and other contracts and (when possible) by external evidence such as current market rents for similar properties in the same location and condition, and using discount rates that reflect current market assessments of the uncertainty in the amount and timing of the cash flows.

47 In some cases, the various sources listed in the previous paragraph may suggest different conclusions about the fair value of an investment property. An entity considers the reasons for those differences, in order to arrive at the most reliable estimate of fair value within a range of reasonable fair value estimates.

48 In exceptional cases, there is clear evidence when an entity first acquires an investment property (or when an existing property first becomes investment property following the completion of construction or development, or after a change in use) that the variability in the range of reasonable fair value estimates will be so great, and the probabilities of the various outcomes so difficult to assess, that the usefulness of a single estimate of fair value is negated. This may indicate that the fair value of the property will not be reliably determinable on a continuing basis (see paragraph 53).

49 Fair value differs from value in use, as defined in IAS 36 *Impairment of Assets*. Fair value reflects the knowledge and estimates of knowledgeable, willing buyers and sellers. In contrast, value in use reflects the entity's estimates, including the effects of factors that may be specific to the entity and not applicable to entities in general. For example, fair value does not reflect any of the following factors to the extent that they would not be generally available to knowledgeable, willing buyers and sellers:

(a) additional value derived from the creation of a portfolio of properties in different locations;

(b) synergies between investment property and other assets;

(c) legal rights or legal restrictions that are specific only to the current owner; and

(d) tax benefits or tax burdens that are specific to the current owner.

50 In determining the fair value of investment property, an entity does not double-count assets or liabilities that are recognised as separate assets or liabilities. For example:

(a) equipment such as lifts or air-conditioning is often an integral part of a building and is generally included in the fair value of the investment property, rather than recognised separately as property, plant and equipment.

(b) if an office is leased on a furnished basis, the fair value of the office generally includes the fair value of the furniture, because the rental income relates to the furnished office. When furniture is included in the fair value of investment property, an entity does not recognise that furniture as a separate asset.

(c) the fair value of investment property excludes prepaid or accrued operating lease income, because the entity recognises it as a separate liability or asset.

(d) the fair value of investment property held under a lease reflects expected cash flows (including contingent rent that is expected to become payable). Accordingly, if a valuation obtained for a property is net of all payments expected to be made, it will be necessary to add back any recognised lease liability, to arrive at the fair value of the investment property for accounting purposes.

51 The fair value of investment property does not reflect future capital expenditure that will improve or enhance the property and does not reflect the related future benefits from this future expenditure.

Extracts from IAS 41 *Agriculture*

Definitions

General definitions

9 The fair value of an asset is based on its present location and condition. As a result, for example, the fair value of cattle at a farm is the price for the cattle in the relevant market less the transport and other costs of getting the cattle to that market.

Recognition and measurement

15 The determination of fair value for a biological asset or agricultural produce may be facilitated by grouping biological assets or agricultural produce according to significant attributes; for example, by age or quality. An entity selects the attributes corresponding to the attributes used in the market as a basis for pricing.

16 Entities often enter into contracts to sell their biological assets or agricultural produce at a future date. Contract prices are not necessarily relevant in determining fair value, because fair value reflects the current market in which a willing buyer and seller would enter into a transaction. As a result, the fair value of a biological asset or agricultural produce is not adjusted because of the existence of a contract. In some cases, a contract for the sale of a biological asset or agricultural produce may be an onerous contract, as defined in IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*. IAS 37 applies to onerous contracts.

17 If an active market exists for a biological asset or agricultural produce, the quoted price in that market is the appropriate basis for determining the fair value of that asset. If an entity has access to different active markets, the entity uses the most relevant one. For example, if an entity has access to two active markets, it would use the price existing in the market expected to be used.

18 If an active market does not exist, an entity uses one or more of the following, when available, in determining fair value:

(a) the most recent market transaction price, provided that there has not been a significant change in economic circumstances between the date of that transaction and the balance sheet date;

(b) market prices for similar assets with adjustment to reflect differences; and

(c) sector benchmarks such as the value of an orchard expressed per export tray, bushel, or hectare, and the value of cattle expressed per kilogram of meat.

19 In some cases, the information sources listed in paragraph 18 may suggest different conclusions as to the fair value of a biological asset or agricultural produce. An entity considers the reasons for those differences, in order to arrive at the most reliable estimate of fair value within a relatively narrow range of reasonable estimates.

20 In some circumstances, market-determined prices or values may not be available for a biological asset in its present condition. In these circumstances, an entity uses the present value of expected net cash flows from the asset discounted at a current market-determined pre-tax rate in determining fair value.

21 The objective of a calculation of the present value of expected net cash flows is to determine the fair value of a biological asset in its present location and condition. An entity considers this in determining an appropriate discount rate to be used and in estimating expected net cash flows. The present condition of a biological asset excludes any increases in value from additional biological transformation and future activities of the entity, such as those related to enhancing the future biological transformation, harvesting, and selling.

22 An entity does not include any cash flows for financing the assets, taxation, or re-establishing biological assets after harvest (for example, the cost of replanting trees in a plantation forest after harvest).

23 In agreeing an arm's length transaction price, knowledgeable, willing buyers and sellers consider the possibility of variations in cash flows. It follows that fair value reflects the possibility of such variations. Accordingly, an entity incorporates expectations about possible variations in cash flows into either the expected cash flows, or the discount rate, or some combination of the two. In determining a discount rate, an entity uses assumptions consistent with those used in estimating the expected cash flows, to avoid the effect of some assumptions being double-counted or ignored.

24 Cost may sometimes approximate fair value, particularly when:

(a) little biological transformation has taken place since initial cost incurrence (for example, for fruit tree seedlings planted immediately prior to a balance sheet date); or

(b) the impact of the biological transformation on price is not expected to be material (for example, for the initial growth in a 30-year pine plantation production cycle).

25 Biological assets are often physically attached to land (for example, trees in a plantation forest). There may be no separate market for biological assets that are attached to the land but an active market may exist for the combined assets, that is, for the biological assets, raw land, and land improvements, as a package. An entity may use information regarding the combined assets to determine fair value for the biological assets. For example, the fair value of raw land and land improvements may be deducted from the fair value of the combined assets to arrive at the fair value of biological assets.

International Accounting Standards Board,
30 Cannon Street, London EC4M 6XH, United Kingdom
Telephone: +44 (0)20 7246 6410 Fax: +44 (0)20 7246 6411
Email: iasb@iasb.org Web: www.iasb.org

IASCF Publications Department,
30 Cannon Street, London EC4M 6XH, United Kingdom
Telephone: +44 (0)20 7332 2730 Fax: +44 (0)20 7332 2749
Email: publications@iasb.org Web: www.iasb.org

ISBN 1-905590-23-7
9 781905 590230 >
SET ISBN 1-905590-21-0

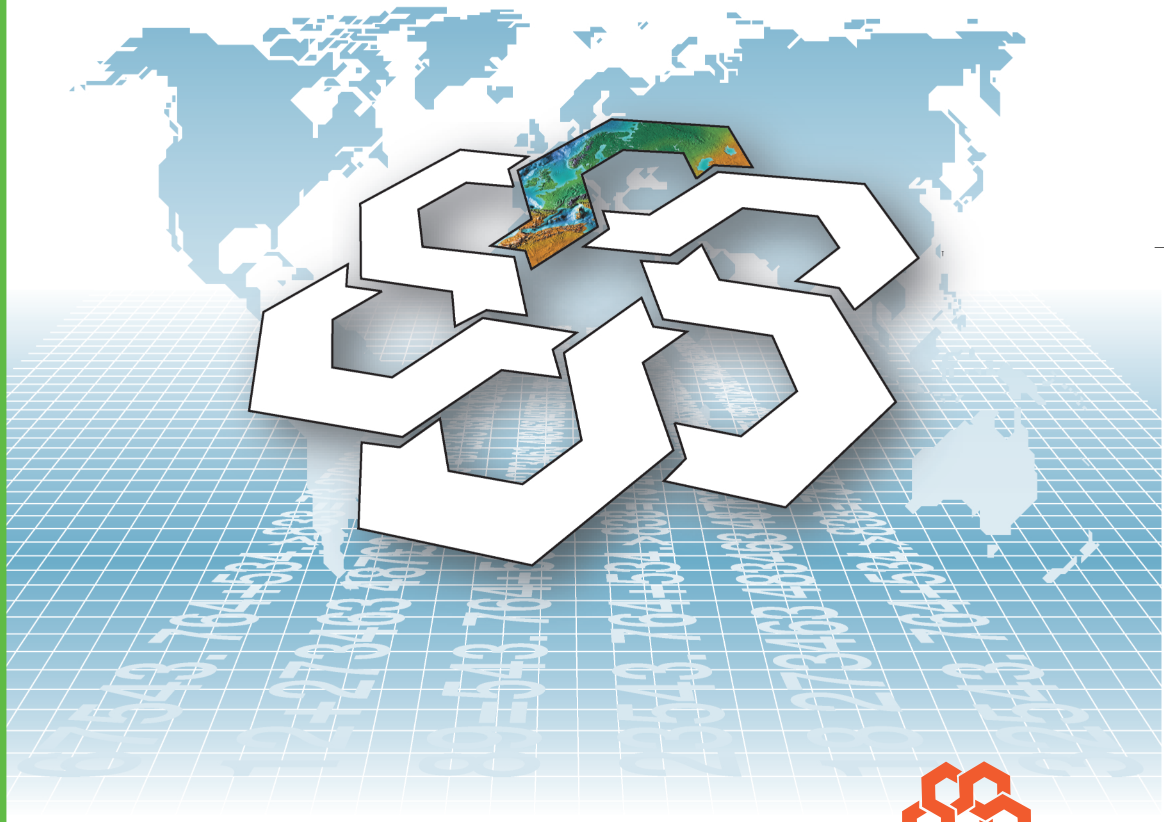
November 2006

DISCUSSION PAPER

Fair Value Measurements

Part 2: SFAS 157 *Fair Value Measurements*

Comments to be submitted by 2 April 2007



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DISCUSSION PAPER

Fair Value Measurements

Part 2: SFAS 157
Fair Value Measurements

Comments to be received by 2 April 2007

This Discussion Paper *Fair Value Measurements* is published (in two parts) by the International Accounting Standards Board (IASB) for comment only. For the IASB's Invitation to Comment, please see Part 1. Part 2 contains the text of the US standard SFAS 157 *Fair Value Measurements*.

Comments on the contents of the Discussion Paper should be submitted in writing so as to be received by **2 April 2007**.

All responses will be put on the public record unless the respondent requests confidentiality. However, such requests will not normally be granted unless supported by good reason, such as commercial confidence. If commentators respond by fax or email, it would be helpful if they could also send a hard copy of their response by post. Comments should preferably be sent by email to: **CommentLetters@iasb.org** or addressed to:

Jon Nelson
International Accounting Standards Board
30 Cannon Street, London EC4M 6XH, United Kingdom
Fax: +44 (0)20 7246 6411

ISBN for this part: 1-905590-23-7
ISBN for complete publication (two parts) 1-905590-21-0

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Additional copies of this publication may be obtained from: IASCF Publications Department, 1st Floor, 30 Cannon Street, London EC4M 6XH, United Kingdom. Tel: +44 (0)20 7332 2730 Fax: +44 (0)20 7332 2749 Email: publications@iasb.org Web: www.iasb.org

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paragraphs

PART 2
Statement of Financial Accounting Standards No. 157 *Fair Value Measurements*

[APPENDICES D AND E ARE NOT REPRODUCED IN THIS DISCUSSION PAPER]

Summary

This Statement defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles (GAAP), and expands disclosures about fair value measurements. This Statement applies under other accounting pronouncements that require or permit fair value measurements, the Board having previously concluded in those accounting pronouncements that fair value is the relevant measurement attribute. Accordingly, this Statement does not require any new fair value measurements. However, for some entities, the application of this Statement will change current practice.

Reason for Issuing This Statement

Prior to this Statement, there were different definitions of fair value and limited guidance for applying those definitions in GAAP. Moreover, that guidance was dispersed among the many accounting pronouncements that require fair value measurements. Differences in that guidance created inconsistencies that added to the complexity in applying GAAP. In developing this Statement, the Board considered the need for increased consistency and comparability in fair value measurements and for expanded disclosures about fair value measurements.

Differences between This Statement and Current Practice

The changes to current practice resulting from the application of this Statement relate to the definition of fair value, the methods used to measure fair value, and the expanded disclosures about fair value measurements.

The definition of fair value retains the exchange price notion in earlier definitions of fair value. This Statement clarifies that the exchange price is the price in an orderly transaction between market participants to sell the asset or transfer the liability in the market in which the reporting entity would transact for the asset or liability, that is, the principal or most advantageous market for the asset or liability. The transaction to sell the asset or transfer the liability is a hypothetical transaction at the measurement date, considered from the perspective of a market participant that holds the asset or owes the liability. Therefore, the definition focuses on the price that would be received to sell the asset or paid to transfer the liability (an exit price), not the price that would be paid to acquire the asset or received to assume the liability (an entry price).

This Statement emphasizes that fair value is a market-based measurement, not an entity-specific measurement. Therefore, a fair value measurement should be determined based on the assumptions that market participants would use in pricing the asset or liability. As a basis for considering market participant assumptions in fair value measurements, this Statement establishes a fair value hierarchy that distinguishes between (1) market participant assumptions developed based on market data obtained from sources independent of the reporting entity (observable inputs) and (2) the reporting entity's own assumptions about market participant assumptions developed based on the best information available in the circumstances (unobservable inputs). The notion of unobservable inputs is intended to allow for situations in which there is little, if any, market activity for the asset or liability at the measurement date. In those situations, the reporting entity need not undertake all possible efforts to obtain information about market participant assumptions. However, the reporting entity must not ignore information about market participant assumptions that is reasonably available without undue cost and effort.

This Statement clarifies that market participant assumptions include assumptions about risk, for example, the risk inherent in a particular valuation technique used to measure fair value (such as a pricing model) and/or the risk inherent in the inputs to the valuation technique. A fair value measurement should include an adjustment for risk if market participants would include one in pricing the related asset or liability, even if the adjustment is difficult to determine. Therefore, a measurement (for example, a "mark-to-model" measurement) that does not include an adjustment for risk would not represent a fair value measurement if market participants would include one in pricing the related asset or liability.

This Statement clarifies that market participant assumptions also include assumptions about the effect of a restriction on the sale or use of an asset. A fair value measurement for a restricted asset should consider the effect of the restriction if market participants would consider the effect of the restriction in pricing the asset. That guidance applies for stock with restrictions on sale that terminate within one year that is measured at fair value under FASB Statements No. 115, *Accounting for Certain Investments in Debt and Equity Securities*, and No. 124, *Accounting for Certain Investments Held by Not-for-Profit Organizations*.

This Statement clarifies that a fair value measurement for a liability reflects its nonperformance risk (the risk that the obligation will not be fulfilled). Because nonperformance risk includes the reporting entity's credit risk, the reporting entity should consider the effect of its credit risk (credit standing) on the fair value of the liability in all periods in which the liability is measured at fair value under other accounting pronouncements, including FASB Statement No. 133, *Accounting for Derivative Instruments and Hedging Activities*.

This Statement affirms the requirement of other FASB Statements that the fair value of a position in a financial instrument (including a block) that trades in an active market should be measured as the product of the quoted price for the individual instrument times the quantity held (within Level 1 of the fair value hierarchy). The quoted price should not be adjusted because of the size of the position relative to trading volume (blockage factor). This Statement extends that requirement to broker-dealers and investment companies within the scope of the AICPA Audit and Accounting Guides for those industries.

This Statement expands disclosures about the use of fair value to measure assets and liabilities in interim and annual periods subsequent to initial recognition. The disclosures focus on the inputs used to measure fair value and for recurring fair value measurements using significant unobservable inputs (within Level 3 of the fair value hierarchy), the effect of the measurements on earnings (or changes in net assets) for the period. This Statement encourages entities to combine the fair value information disclosed under this Statement with the fair value information disclosed under other accounting pronouncements, including FASB Statement No. 107, *Disclosures about Fair Value of Financial Instruments*, where practicable.

The guidance in this Statement applies for derivatives and other financial instruments measured at fair value under Statement 133 at initial recognition and in all subsequent periods. Therefore, this Statement nullifies the guidance in footnote 3 of EITF Issue No. 02-3, "Issues Involved in Accounting for Derivative Contracts Held for Trading Purposes and Contracts Involved in Energy Trading and Risk Management Activities." This Statement also amends Statement 133 to remove the similar guidance to that in Issue 02-3, which was added by FASB Statement No. 155, *Accounting for Certain Hybrid Financial Instruments*.

How the Conclusions in This Statement Relate to the FASB's Conceptual Framework

The framework for measuring fair value considers the concepts in FASB Concepts Statement No. 2, *Qualitative Characteristics of Accounting Information*. Concepts Statement 2 emphasizes that providing comparable information enables users of financial statements to identify similarities in and differences between two sets of economic events.

The definition of fair value considers the concepts relating to assets and liabilities in FASB Concepts Statement No. 6, *Elements of Financial Statements*, in the context of market participants. A fair value measurement reflects current market participant assumptions about the future inflows associated with an asset (future economic benefits) and the future outflows associated with a liability (future sacrifices of economic benefits).

This Statement incorporates aspects of the guidance in FASB Concepts Statement No. 7, *Using Cash Flow Information and Present Value in Accounting Measurements*, as clarified and/or reconsidered in this Statement. This Statement does not revise Concepts Statement 7. The Board will consider the need to revise Concepts Statement 7 in its conceptual framework project.

The expanded disclosures about the use of fair value to measure assets and liabilities should provide users of financial statements (present and potential investors, creditors, and others) with information that is useful in making investment, credit, and similar decisions—the first objective of financial reporting in FASB Concepts Statement No. 1, *Objectives of Financial Reporting by Business Enterprises*.

How the Changes in This Statement Improve Financial Reporting

A single definition of fair value, together with a framework for measuring fair value, should result in increased consistency and comparability in fair value measurements.

The expanded disclosures about the use of fair value to measure assets and liabilities should provide users of financial statements with better information about the extent to which fair value is used to measure recognized assets and liabilities, the inputs used to develop the measurements, and the effect of certain of the measurements on earnings (or changes in net assets) for the period.

The amendments made by this Statement advance the Board's initiatives to simplify and codify the accounting literature, eliminating differences that have added to the complexity in GAAP.

Costs and Benefits of Applying This Statement

The framework for measuring fair value builds on current practice and requirements. However, some entities will need to make systems and other changes to comply with the requirements of this Statement. Some entities also might incur incremental costs in applying the requirements of this Statement. However, the benefits from increased consistency and comparability in fair value measurements and expanded disclosures about those measurements should be ongoing.

The Effective Date of This Statement

This Statement is effective for financial statements issued for fiscal years beginning after November 15, 2007, and interim periods within those fiscal years.

Earlier application is encouraged, provided that the reporting entity has not yet issued financial statements for that fiscal year, including financial statements for an interim period within that fiscal year.

The provisions of this Statement should be applied prospectively as of the beginning of the fiscal year in which this Statement is initially applied, except as follows. The provisions of this Statement should be applied retrospectively to the following financial instruments as of the beginning of the fiscal year in which this Statement is initially applied (a limited form of retrospective application):

(a) A position in a financial instrument that trades in an active market held by a broker-dealer or investment company within the scope of the AICPA Audit and Accounting Guides for those industries that was measured at fair value using a blockage factor prior to initial application of this Statement

(b) A financial instrument that was measured at fair value at initial recognition under Statement 133 using the transaction price in accordance with the guidance in footnote 3 of Issue 02-3 prior to initial application of this Statement

(c) A hybrid financial instrument that was measured at fair value at initial recognition under Statement 133 using the transaction price in accordance with the guidance in Statement 133 (added by Statement 155) prior to initial application of this Statement.

The transition adjustment, measured as the difference between the carrying amounts and the fair values of those financial instruments at the date this Statement is initially applied, should be recognized as a cumulative-effect adjustment to the opening balance of retained earnings (or other appropriate components of equity or net assets in the statement of financial position) for the fiscal year in which this Statement is initially applied.

Statement of Financial Accounting Standards No. 157
Fair Value Measurements
September 2006

Objective

1. This Statement defines fair value, establishes a framework for measuring fair value, and expands disclosures about fair value measurements. Where applicable, this Statement simplifies and codifies related guidance within generally accepted accounting principles (GAAP).

Standards of Financial Accounting and Reporting

Scope

2. This Statement applies under other accounting pronouncements[1] that require or permit fair value measurements, except as follows:

   (a) This Statement does not apply under accounting pronouncements that address share-based payment transactions: FASB Statement No. 123 (revised 2004), *Share-Based Payment*, and its related interpretive accounting pronouncements that address share-based payment transactions.

   (b) This Statement does not eliminate the practicability exceptions to fair value measurements in accounting pronouncements within the scope of this Statement.[2]

1 This Statement uses the term *accounting pronouncements* consistent with its use in paragraph 2(b) of FASB Statement No. 154, *Accounting Changes and Error Corrections*.

2 Accounting pronouncements that permit practicability exceptions to fair value measurements in specified circumstances include APB Opinion No. 29, *Accounting for Nonmonetary Transactions*, FASB Statements No. 87, *Employers' Accounting for Pensions*, No. 106, *Employers' Accounting for Postretirement Benefits Other Than Pensions*, No. 107, *Disclosures about Fair Value of Financial Instruments*, No. 116, *Accounting for Contributions Received and Contributions Made*, No. 140, *Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities*, No. 141, *Business Combinations*, No. 143, *Accounting for Asset Retirement Obligations*, No. 146, *Accounting for Costs Associated with Exit or Disposal Activities*, and No. 153, *Exchanges of Nonmonetary Assets*, and FASB Interpretations No. 45, *Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others*, and No. 47, *Accounting for Conditional Asset Retirement Obligations*. Also included among those pronouncements are AICPA Audit and Accounting Guide, *Not-for-Profit Organizations*, and EITF Issues No. 85-40, "Comprehensive Review of Sales of Marketable Securities with Put Arrangements," and No. 99-17, "Accounting for Advertising Barter Transactions."

3. This Statement does not apply under accounting pronouncements that require or permit measurements that are similar to fair value but that are not intended to measure fair value, including the following:

   (a) Accounting pronouncements that permit measurements that are based on, or otherwise use, vendor-specific objective evidence of fair value[3]

   (b) ARB No. 43, Chapter 4, "Inventory Pricing."

4. Appendix D lists pronouncements of the Accounting Principles Board (APB) and the FASB existing at the date of this Statement that are within the scope of this Statement. Appendix E lists those APB and FASB pronouncements that are amended by this Statement. [Appendices D and E are not reproduced in this Discussion Paper.]

Measurement

Definition of Fair Value

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

The Asset or Liability

6. A fair value measurement is for a particular asset or liability.[4] Therefore, the measurement should consider attributes specific to the asset or liability, for example, the condition and/or location of the asset or liability and restrictions, if any, on the sale or use of the asset at the measurement date. The asset or liability might be a standalone asset or liability (for example, a financial instrument or an operating asset) or a group of assets and/or liabilities (for example, an asset group, a reporting

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3 Accounting pronouncements that permit measurements that are based on, or otherwise use, vendor-specific objective evidence of fair value include AICPA Statement of Position 97-2, *Software Revenue Recognition*, as modified by AICPA Statement of Position 98-9, *Modification of SOP 97-2*, Software Revenue Recognition, *With Respect to Certain Transactions*. Also included among those pronouncements are EITF Issues No. 00-3, "Application of AICPA Statement of Position 97-2 to Arrangements That Include the Right to Use Software Stored on Another Entity's Hardware," and No. 00-21, "Revenue Arrangements with Multiple Deliverables."

4 The definition of fair value focuses on assets and liabilities because they are a primary subject of accounting measurement. However, the definition of fair value also should be applied to instruments measured at fair value that are classified in stockholders' equity.

unit, or a business). Whether the asset or liability is a standalone asset or liability or a group of assets and/or liabilities depends on its unit of account. The unit of account determines what is being measured by reference to the level at which the asset or liability is aggregated (or disaggregated) for purposes of applying other accounting pronouncements. The unit of account for the asset or liability should be determined in accordance with the provisions of other accounting pronouncements, except as provided in paragraph 27.

The Price

7. A fair value measurement assumes that the asset or liability is exchanged in an orderly transaction between market participants to sell the asset or transfer the liability at the measurement date. An orderly transaction is a transaction that assumes exposure to the market for a period prior to the measurement date to allow for marketing activities that are usual and customary for transactions involving such assets or liabilities; it is not a forced transaction (for example, a forced liquidation or distress sale). The transaction to sell the asset or transfer the liability is a hypothetical transaction at the measurement date, considered from the perspective of a market participant that holds the asset or owes the liability. Therefore, the objective of a fair value measurement is to determine the price that would be received to sell the asset or paid to transfer the liability at the measurement date (an exit price).

The Principal (or Most Advantageous) Market

8. A fair value measurement assumes that the transaction to sell the asset or transfer the liability occurs in the principal market for the asset or liability or, in the absence of a principal market, the most advantageous market for the asset or liability. The principal market is the market in which the reporting entity would sell the asset or transfer the liability with the greatest volume and level of activity for the asset or liability. The most advantageous market is the market in which the reporting entity would sell the asset or transfer the liability with the price that maximizes the amount that would be received for the asset or minimizes the amount that would be paid to transfer the liability, considering transaction costs in the respective market(s). In either case, the principal (or most advantageous) market (and thus, market participants) should be considered from the perspective of the reporting entity, thereby allowing for differences between and among entities with different activities. If there is a principal market for the asset or liability, the fair value

measurement shall represent the price in that market (whether that price is directly observable or otherwise determined using a valuation technique), even if the price in a different market is potentially more advantageous at the measurement date.

9. The price in the principal (or most advantageous) market used to measure the fair value of the asset or liability shall not be adjusted for transaction costs.[5] Transaction costs represent the incremental direct costs to sell the asset or transfer the liability in the principal (or most advantageous) market for the asset or liability.[6] Transaction costs are not an attribute of the asset or liability; rather, they are specific to the transaction and will differ depending on how the reporting entity transacts. However, transaction costs do not include the costs that would be incurred to transport the asset or liability to (or from) its principal (or most advantageous) market. If location is an attribute of the asset or liability (as might be the case for a commodity), the price in the principal (or most advantageous) market used to measure the fair value of the asset or liability shall be adjusted for the costs, if any, that would be incurred to transport the asset or liability to (or from) its principal (or most advantageous) market.

Market Participants

10. Market participants are buyers and sellers in the principal (or most advantageous) market for the asset or liability that are:

(a) Independent of the reporting entity; that is, they are not related parties[7]

(b) Knowledgeable, having a reasonable understanding about the asset or liability and the transaction based on all available information, including information that might be obtained through due diligence efforts that are usual and customary

(c) Able to transact for the asset or liability

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5 Transaction costs should be accounted for in accordance with the provisions of other accounting pronouncements.

6 Incremental direct costs to sell the asset or transfer the liability refer to those costs that result directly from and are essential to that transaction and that would not have been incurred by the reporting entity had the decision to sell the asset (or transfer the liability) not been made (similar to cost to sell, as defined in paragraph 35 of FASB Statement No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*).

7 This Statement uses the term *related parties* consistent with its use in FASB Statement No. 57, *Related Party Disclosures*.

(d) Willing to transact for the asset or liability; that is, they are motivated but not forced or otherwise compelled to do so.

11. The fair value of the asset or liability shall be determined based on the assumptions that market participants would use in pricing the asset or liability. In developing those assumptions, the reporting entity need not identify specific market participants. Rather, the reporting entity should identify characteristics that distinguish market participants generally, considering factors specific to (a) the asset or liability, (b) the principal (or most advantageous) market for the asset or liability, and (c) market participants with whom the reporting entity would transact in that market.

Application to Assets

12. A fair value measurement assumes the highest and best use of the asset by market participants, considering the use of the asset that is physically possible, legally permissible, and financially feasible at the measurement date. In broad terms, highest and best use refers to the use of an asset by market participants that would maximize the value of the asset or the group of assets within which the asset would be used. Highest and best use is determined based on the use of the asset by market participants, even if the intended use of the asset by the reporting entity is different.

13. The highest and best use of the asset establishes the valuation premise used to measure the fair value of the asset. Specifically:

(a) *In-use*. The highest and best use of the asset is in-use if the asset would provide maximum value to market participants principally through its use in combination with other assets as a group (as installed or otherwise configured for use). For example, that might be the case for certain nonfinancial assets. If the highest and best use of the asset is in-use, the fair value of the asset shall be measured using an in-use valuation premise. When using an in-use valuation premise, the fair value of the asset is determined based on the price that would be received in a current transaction to sell the asset assuming that the asset would be used with other assets as a group and that those assets would be available to market participants. Generally, assumptions about the highest and best use of the asset should be consistent for all of the assets of the group within which it would be used.

(b) *In-exchange*. The highest and best use of the asset is in-exchange if the asset would provide maximum value to market participants principally on a standalone basis. For example, that might be the case for a financial asset. If the highest and best use of the asset is in-exchange, the fair value of the asset shall be measured using an in-exchange valuation premise. When using an in-exchange valuation premise, the fair value of the asset is determined based on the price that would be received in a current transaction to sell the asset standalone.

14. Because the highest and best use of the asset is determined based on its use by market participants, the fair value measurement considers the assumptions that market participants would use in pricing the asset, whether using an in-use or an in-exchange valuation premise.[8]

Application to Liabilities

15. A fair value measurement assumes that the liability is transferred to a market participant at the measurement date (the liability to the counterparty continues; it is not settled) and that the nonperformance risk relating to that liability is the same before and after its transfer. Nonperformance risk refers to the risk that the obligation will not be fulfilled and affects the value at which the liability is transferred. Therefore, the fair value of the liability shall reflect the nonperformance risk relating to that liability. Nonperformance risk includes but may not be limited to the reporting entity's own credit risk. The reporting entity shall consider the effect of its credit risk (credit standing) on the fair value of the liability in all periods in which the liability is measured at fair value. That effect may differ depending on the liability, for example, whether the liability is an obligation to deliver cash (a financial liability) or an obligation to deliver goods or services (a nonfinancial liability), and the terms of credit enhancements related to the liability, if any.

Fair Value at Initial Recognition

16. When an asset is acquired or a liability is assumed in an exchange transaction for that asset or liability, the transaction price represents the price paid to acquire the asset or received to assume the liability (an entry price). In contrast, the fair value of the asset or liability represents the price that would be received to sell the asset or paid to transfer the

8 The fair value of an asset in-use is determined based on the use of the asset together with other assets as a group (consistent with its highest and best use from the perspective of market participants), even if the asset that is the subject of the measurement is aggregated (or disaggregated) at a different level for purposes of applying other accounting pronouncements.

liability (an exit price). Conceptually, entry prices and exit prices are different. Entities do not necessarily sell assets at the prices paid to acquire them. Similarly, entities do not necessarily transfer liabilities at the prices received to assume them.

17. In many cases, the transaction price will equal the exit price and, therefore, represent the fair value of the asset or liability at initial recognition. In determining whether a transaction price represents the fair value of the asset or liability at initial recognition, the reporting entity shall consider factors specific to the transaction and the asset or liability. For example, a transaction price might not represent the fair value of an asset or liability at initial recognition if:

(a) The transaction is between related parties.

(b) The transaction occurs under duress or the seller is forced to accept the price in the transaction. For example, that might be the case if the seller is experiencing financial difficulty.

(c) The unit of account represented by the transaction price is different from the unit of account for the asset or liability measured at fair value. For example, that might be the case if the asset or liability measured at fair value is only one of the elements in the transaction, the transaction includes unstated rights and privileges that should be separately measured, or the transaction price includes transaction costs.

(d) The market in which the transaction occurs is different from the market in which the reporting entity would sell the asset or transfer the liability, that is, the principal or most advantageous market. For example, those markets might be different if the reporting entity is a securities dealer that transacts in different markets, depending on whether the counterparty is a retail customer (retail market) or another securities dealer (inter-dealer market).

Valuation Techniques

18. Valuation techniques consistent with the market approach, income approach, and/or cost approach shall be used to measure fair value. Key aspects of those approaches are summarized below:

(a) *Market approach*. The market approach uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities (including a business). For example, valuation techniques consistent with the market approach often use market multiples derived from a set of comparables. Multiples might lie in ranges with a different multiple for each comparable. The selection of where within the range the appropriate multiple falls requires judgment, considering factors specific to the measurement (qualitative and quantitative). Valuation techniques consistent with the market approach include matrix pricing. Matrix pricing is a mathematical technique used principally to value debt securities without relying exclusively on quoted prices for the specific securities, but rather by relying on the securities' relationship to other benchmark quoted securities.

(b) *Income approach*. The income approach uses valuation techniques to convert future amounts (for example, cash flows or earnings) to a single present amount (discounted). The measurement is based on the value indicated by current market expectations about those future amounts. Those valuation techniques include present value techniques; option-pricing models, such as the Black-Scholes-Merton formula (a closed-form model) and a binomial model (a lattice model), which incorporate present value techniques;[9] and the multiperiod excess earnings method, which is used to measure the fair value of certain intangible assets.[10]

(c) *Cost approach*. The cost approach is based on the amount that currently would be required to replace the service capacity of an asset (often referred to as current replacement cost). From the perspective of a market participant (seller), the price that would be received for the asset is determined based on the cost to a market participant (buyer) to acquire or construct a substitute asset of comparable utility, adjusted for obsolescence. Obsolescence encompasses physical deterioration, functional (technological) obsolescence, and economic (external) obsolescence and is broader than depreciation for financial reporting purposes (an allocation of historical cost) or tax purposes (based on specified service lives).

9 The guidance in this Statement does not apply for the fair-value-based measurements using option-pricing models under Statement 123(R).

10 The use of the multiperiod excess earnings method to measure the fair value of in-process research and development is discussed in AICPA Practice Aid, *Assets Acquired in a Business Combination to Be Used in Research and Development Activities: A Focus on Software, Electronic Devices, and Pharmaceutical Industries*.

19. Valuation techniques that are appropriate in the circumstances and for which sufficient data are available shall be used to measure fair value. In some cases, a single valuation technique will be appropriate (for example, when valuing an asset or liability using quoted prices in an active market for identical assets or liabilities). In other cases, multiple valuation techniques will be appropriate (for example, as might be the case when valuing a reporting unit). If multiple valuation techniques are used to measure fair value, the results (respective indications of fair value) shall be evaluated and weighted, as appropriate, considering the reasonableness of the range indicated by those results. A fair value measurement is the point within that range that is most representative of fair value in the circumstances.

20. Valuation techniques used to measure fair value shall be consistently applied. However, a change in a valuation technique or its application (for example, a change in its weighting when multiple valuation techniques are used) is appropriate if the change results in a measurement that is equally or more representative of fair value in the circumstances. That might be the case if, for example, new markets develop, new information becomes available, information previously used is no longer available, or valuation techniques improve. Revisions resulting from a change in the valuation technique or its application shall be accounted for as a change in accounting estimate (FASB Statement No. 154, *Accounting Changes and Error Corrections*, paragraph 19). The disclosure provisions of Statement 154 for a change in accounting estimate are not required for revisions resulting from a change in a valuation technique or its application.

Inputs to Valuation Techniques

21. In this Statement, *inputs* refer broadly to the assumptions that market participants would use in pricing the asset or liability, including assumptions about risk, for example, the risk inherent in a particular valuation technique used to measure fair value (such as a pricing model) and/or the risk inherent in the inputs to the valuation technique. Inputs may be observable or unobservable:

(a) *Observable inputs* are inputs that reflect the assumptions market participants would use in pricing the asset or liability developed based on market data obtained from sources independent of the reporting entity.

(b) *Unobservable inputs* are inputs that reflect the reporting entity's own assumptions about the assumptions market participants would use in pricing the asset or liability developed based on the best information available in the circumstances.

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

Fair Value Hierarchy

22. To increase consistency and comparability in fair value measurements and related disclosures, the fair value hierarchy prioritizes the inputs to valuation techniques used to measure fair value into three broad levels. The fair value hierarchy gives the highest priority to quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). In some cases, the inputs used to measure fair value might fall in different levels of the fair value hierarchy. The level in the fair value hierarchy within which the fair value measurement in its entirety falls shall be determined based on the lowest level input that is significant to the fair value measurement in its entirety. Assessing the significance of a particular input to the fair value measurement in its entirety requires judgment, considering factors specific to the asset or liability.

23. The availability of inputs relevant to the asset or liability and the relative reliability of the inputs might affect the selection of appropriate valuation techniques. However, the fair value hierarchy prioritizes the inputs to valuation techniques, not the valuation techniques. For example, a fair value measurement using a present value technique might fall within Level 2 or Level 3, depending on the inputs that are significant to the measurement in its entirety and the level in the fair value hierarchy within which those inputs fall.

Level 1 Inputs

24. Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the reporting entity has the ability to access at the measurement date. An active market for the asset or liability is a market in which transactions for the asset or liability occur with sufficient frequency and volume to provide pricing information on an ongoing basis. A quoted price in an active market provides the most reliable evidence of fair value and shall be used to measure fair value whenever available, except as discussed in paragraphs 25 and 26.

25. If the reporting entity holds a large number of similar assets or liabilities (for example, debt securities) that are required to be measured at fair value, a quoted price in an active market might be available but not readily accessible for each of those assets or liabilities individually. In that case, fair value may be measured using an alternative pricing method that does not rely exclusively on quoted prices (for example, matrix pricing) as a practical expedient. However, the use of an alternative pricing method renders the fair value measurement a lower level measurement.

26. In some situations, a quoted price in an active market might not represent fair value at the measurement date. That might be the case if, for example, significant events (principal-to-principal transactions, brokered trades, or announcements) occur after the close of a market but before the measurement date. The reporting entity should establish and consistently apply a policy for identifying those events that might affect fair value measurements. However, if the quoted price is adjusted for new information, the adjustment renders the fair value measurement a lower level measurement.

27. If the reporting entity holds a position in a single financial instrument (including a block) and the instrument is traded in an active market, the fair value of the position shall be measured within Level 1 as the product of the quoted price for the individual instrument times the quantity held. The quoted price shall not be adjusted because of the size of the position relative to trading volume (blockage factor). The use of a blockage factor is prohibited, even if a market's normal daily trading volume is not sufficient to absorb the quantity held and placing orders to sell the position in a single transaction might affect the quoted price.[11]

Level 2 Inputs

28. Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. If the asset or liability has a specified (contractual) term, a Level 2 input must be observable for substantially the full term of the asset or liability. Level 2 inputs include the following:

(a) Quoted prices for similar assets or liabilities in active markets

11 The guidance in this Statement applies for positions in financial instruments (including blocks) held by all entities, including broker-dealers and investment companies within the scope of the AICPA Audit and Accounting Guides for those industries.

(b) Quoted prices for identical or similar assets or liabilities in markets that are not active, that is, markets in which there are few transactions for the asset or liability, the prices are not current, or price quotations vary substantially either over time or among market makers (for example, some brokered markets), or in which little information is released publicly (for example, a principal-to-principal market)

(c) Inputs other than quoted prices that are observable for the asset or liability (for example, interest rates and yield curves observable at commonly quoted intervals, volatilities, prepayment speeds, loss severities, credit risks, and default rates)

(d) Inputs that are derived principally from or corroborated by observable market data by correlation or other means (market-corroborated inputs).

29. Adjustments to Level 2 inputs will vary depending on factors specific to the asset or liability. Those factors include the condition and/or location of the asset or liability, the extent to which the inputs relate to items that are comparable to the asset or liability, and the volume and level of activity in the markets within which the inputs are observed. An adjustment that is significant to the fair value measurement in its entirety might render the measurement a Level 3 measurement, depending on the level in the fair value hierarchy within which the inputs used to determine the adjustment fall.

Level 3 Inputs

30. Level 3 inputs are unobservable inputs for the asset or liability. Unobservable inputs shall be used to measure fair value to the extent that observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at the measurement date. However, the fair value measurement objective remains the same, that is, an exit price from the perspective of a market participant that holds the asset or owes the liability. Therefore, unobservable inputs shall reflect the reporting entity's own assumptions about the assumptions that market participants would use in pricing the asset or liability (including assumptions about risk). Unobservable inputs shall be developed based on the best information available in the circumstances, which might include the reporting entity's own data. In developing unobservable inputs, the reporting entity need not undertake all possible efforts to obtain information about market participant assumptions. However, the reporting entity shall not ignore

information about market participant assumptions that is reasonably available without undue cost and effort. Therefore, the reporting entity's own data used to develop unobservable inputs shall be adjusted if information is reasonably available without undue cost and effort that indicates that market participants would use different assumptions.

Inputs Based on Bid and Ask Prices

31. If an input used to measure fair value is based on bid and ask prices (for example, in a dealer market), the price within the bid-ask spread that is most representative of fair value in the circumstances shall be used to measure fair value, regardless of where in the fair value hierarchy the input falls (Level 1, 2, or 3). This Statement does not preclude the use of mid-market pricing or other pricing conventions as a practical expedient for fair value measurements within a bid-ask spread.

Disclosures

32. For assets and liabilities that are measured at fair value on a recurring basis in periods subsequent to initial recognition (for example, trading securities), the reporting entity shall disclose information that enables users of its financial statements to assess the inputs used to develop those measurements and for recurring fair value measurements using significant unobservable inputs (Level 3), the effect of the measurements on earnings (or changes in net assets) for the period. To meet that objective, the reporting entity shall disclose the following information for each interim and annual period (except as otherwise specified) separately for each major category of assets and liabilities:

(a) The fair value measurements at the reporting date

(b) The level within the fair value hierarchy in which the fair value measurements in their entirety fall, segregating fair value measurements using quoted prices in active markets for identical assets or liabilities (Level 1), significant other observable inputs (Level 2), and significant unobservable inputs (Level 3)

(c) For fair value measurements using significant unobservable inputs (Level 3), a reconciliation of the beginning and ending balances, separately presenting changes during the period attributable to the following:[12]

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12 For derivative assets and liabilities, the reconciliation disclosure required by paragraph 32(c) may be presented net.

(1) Total gains or losses for the period (realized and unrealized), segregating those gains or losses included in earnings (or changes in net assets), and a description of where those gains or losses included in earnings (or changes in net assets) are reported in the statement of income (or activities)

(2) Purchases, sales, issuances, and settlements (net)

(3) Transfers in and/or out of Level 3 (for example, transfers due to changes in the observability of significant inputs)

(d) The amount of the total gains or losses for the period in subparagraph (c)(1) above included in earnings (or changes in net assets) that are attributable to the change in unrealized gains or losses relating to those assets and liabilities still held at the reporting date and a description of where those unrealized gains or losses are reported in the statement of income (or activities)

(e) In annual periods only, the valuation technique(s) used to measure fair value and a discussion of changes in valuation techniques, if any, during the period.

33. For assets and liabilities that are measured at fair value on a nonrecurring basis in periods subsequent to initial recognition (for example, impaired assets), the reporting entity shall disclose information that enables users of its financial statements to assess the inputs used to develop those measurements. To meet that objective, the reporting entity shall disclose the following information for each interim and annual period (except as otherwise specified) separately for each major category of assets and liabilities:

(a) The fair value measurements recorded during the period and the reasons for the measurements

(b) The level within the fair value hierarchy in which the fair value measurements in their entirety fall, segregating fair value measurements using quoted prices in active markets for identical assets or liabilities (Level 1), significant other observable inputs (Level 2), and significant unobservable inputs (Level 3)

(c) For fair value measurements using significant unobservable inputs (Level 3), a description of the inputs and the information used to develop the inputs

(d) In annual periods only, the valuation technique(s) used to measure fair value and a discussion of changes, if any, in the valuation technique(s) used to measure similar assets and/or liabilities in prior periods.

34. The quantitative disclosures required by this Statement shall be presented using a tabular format. (See Appendix A.)

35. The reporting entity is encouraged, but not required, to combine the fair value information disclosed under this Statement with the fair value information disclosed under other accounting pronouncements (for example, FASB Statement No. 107, *Disclosures about Fair Value of Financial Instruments*) in the periods in which those disclosures are required, if practicable. The reporting entity also is encouraged, but not required, to disclose information about other similar measurements (for example, inventories measured at market value under ARB 43, Chapter 4), if practicable.

Effective Date and Transition

36. This Statement shall be effective for financial statements issued for fiscal years beginning after November 15, 2007, and interim periods within those fiscal years. Earlier application is encouraged, provided that the reporting entity has not yet issued financial statements for that fiscal year, including any financial statements for an interim period within that fiscal year.

37. This Statement shall be applied prospectively as of the beginning of the fiscal year in which this Statement is initially applied, except as follows. This Statement shall be applied retrospectively to the following financial instruments as of the beginning of the fiscal year in which this Statement is initially applied (a limited form of retrospective application):

(a) A position in a financial instrument that trades in an active market held by a broker-dealer or investment company within the scope of the AICPA Audit and Accounting Guides for those industries that was measured at fair value using a blockage factor prior to initial application of this Statement

(b) A financial instrument that was measured at fair value at initial recognition under Statement 133 using the transaction price in accordance with the guidance in footnote 3 of EITF Issue No. 02-3, "Issues Involved in Accounting for Derivative Contracts Held for Trading Purposes and Contracts Involved in Energy Trading and Risk Management Activities," prior to initial application of this Statement

(c) A hybrid financial instrument that was measured at fair value at initial recognition under Statement 133 using the transaction price in accordance with the guidance in Statement 133 (added by FASB Statement No. 155, *Accounting for Certain Hybrid Financial Instruments*) prior to initial application of this Statement.

38. At the date this Statement is initially applied to the financial instruments in paragraph 37(a)–(c), a difference between the carrying amounts and the fair values of those instruments shall be recognized as a cumulative-effect adjustment to the opening balance of retained earnings (or other appropriate components of equity or net assets in the statement of financial position) for that fiscal year, presented separately. The disclosure requirements of Statement 154 for a change in accounting principle do not apply.

39. The disclosure requirements of this Statement (paragraphs 32–35), including those disclosures that are required in annual periods only, shall be applied in the first interim period of the fiscal year in which this Statement is initially applied. The disclosure requirements of this Statement need not be applied for financial statements for periods presented prior to initial application of this Statement.

The provisions of this Statement need not be applied to immaterial items.

This Statement was adopted by the unanimous vote of the seven members of the Financial Accounting Standards Board:

Robert H. Herz, *Chairman*
George J. Batavick
G. Michael Crooch
Thomas J. Linsmeier
Leslie F. Seidman
Edward W. Trott
Donald M. Young

Appendix A
Implementation Guidance

Introduction

A1. This appendix describes in general terms certain provisions of this Statement and provides examples that incorporate simplified assumptions to illustrate the application of those provisions. This Statement sets out a framework for measuring fair value, which refers to certain valuation concepts and practices. However, this Statement is not intended to establish valuation standards.

The Fair Value Measurement Approach

A2. This Statement clarifies fair value in terms of the price in an orderly transaction between market participants to sell an asset or transfer a liability in the principal (or most advantageous) market for the asset or liability. The transaction to sell the asset or transfer the liability is a hypothetical transaction at the measurement date, considered from the perspective of a market participant that holds the asset or owes the liability. Therefore, the objective of a fair value measurement is to determine the price that would be received to sell the asset or paid to transfer the liability at the measurement date (an exit price). Because that exit price objective applies for all assets and liabilities measured at fair value, any fair value measurement requires that the reporting entity determine:

(a) The particular asset or liability that is the subject of the measurement (consistent with its unit of account)

(b) For an asset, the valuation premise appropriate for the measurement (consistent with its highest and best use)

(c) The principal (or most advantageous) market for the asset or liability (for an asset, consistent with its highest and best use)

(d) The valuation technique(s) appropriate for the measurement, considering the availability of data with which to develop inputs that represent the assumptions that market participants would use in pricing the asset or liability and the level in the fair value hierarchy within which the inputs fall.

A3. The judgments applied in different valuation situations often will be different. The examples in this appendix illustrate, in qualitative terms, the judgments a reporting entity that measures assets and/or liabilities at fair value might apply in varying valuation situations.

The Valuation Premise

A4. The valuation premise used to measure the fair value of an asset depends on the highest and best use of the asset by market participants. If the asset would provide maximum value to market participants principally through its use in combination with other assets as a group (highest and best use is "in-use"), the asset would be measured using an in-use valuation premise. If the asset would provide maximum value to market participants principally on a standalone basis (highest and best use is "in-exchange"), the asset would be measured using an in-exchange valuation premise.

A5. When measuring the fair value of an asset in-use, the in-use valuation premise can be incorporated in the measurement differently, depending on the circumstances. For example:

(a) The fair value of the asset might be the same whether using an in-use or an in-exchange valuation premise. For example, that might be the case if the asset is a business (such as a reporting unit) that market participants would continue to operate. In that case, the transaction would involve the business in its entirety. The use of the assets as a group in the context of an ongoing business would generate synergies that would be available to market participants (market participant synergies).

(b) The in-use valuation premise might be incorporated in the fair value of the asset through adjustments to the value of the asset in-exchange. For example, that might be the case if the asset is a machine and the fair value measurement is determined using an observed price for a similar machine (not installed or otherwise configured for use), adjusted for transportation and installation costs so that the fair value measurement reflects the current condition and location of the machine (installed and configured for use).

(c) The in-use valuation premise might be incorporated in the fair value of the asset through the market participant assumptions used to measure the fair value of the asset. For example, if the asset is work-in-process inventory that is unique and market participants would complete the inventory into finished goods, the fair value of the inventory would assume that any specialized machinery necessary to complete the inventory into finished goods would be available to market participants. In that case, market participants would have the specialized machinery in place or would acquire the specialized machinery in conjunction with the inventory.

(d) The in-use valuation premise might be incorporated in the fair value of the asset through the valuation technique used to measure the fair value of the asset. For example, that might be the case when using the multiperiod excess earnings method to measure the fair value of certain intangible assets because that valuation technique specifically considers the contribution of any complementary assets in the group in which an intangible asset would be used.

(e) In more limited situations, the asset might be measured at an amount that approximates its fair value in-use when allocating the fair value of the asset group within which the asset is used to the individual assets of the group. For example, that might be the case if the valuation involves real property and the fair value of improved property (an asset group) is allocated to its component assets (such as land and improvements).

Highest and Best Use

A6. Highest and best use is a valuation concept that refers broadly to the use of an asset that would maximize the value of the asset or the group of assets in which the asset would be used by market participants. For some assets, in particular, nonfinancial assets, application of the highest-and-best-use concept could have a significant effect on the fair value measurement. Examples 1–3 illustrate the application of the highest-and-best-use concept in situations in which nonfinancial assets are newly acquired.

Example 1—Asset Group

A7. The reporting entity, a strategic buyer, acquires a group of assets (Assets A, B, and C) in a business combination. Asset C is billing software developed by the acquired entity for its own use in conjunction with Assets A and B (related assets). The reporting entity measures the fair value of each of the assets individually, consistent with the specified unit of account for the assets. The reporting entity determines that each asset would provide maximum value to market participants principally through its use in combination with other assets as a group (highest and best use is in-use).

A8. In this instance, the market in which the reporting entity would sell the assets is the market in which it initially acquired the assets (that is, the "entry" and "exit" markets from the perspective of the reporting entity are the same). Market participant buyers with whom the reporting entity would transact in that market have characteristics that are generally representative of both financial buyers and strategic buyers and include those buyers that initially bid for the assets.[13] As discussed below, differences between the indicated fair values of the individual assets relate principally to the use of the assets by those market participants within different asset groups:

(a) *Strategic buyer asset group*. The reporting entity, a strategic buyer, determines that strategic buyers have related assets that would enhance the value of the group within which the assets would be used (market participant synergies). Those assets include a substitute asset for Asset C (the billing software), which would be used for only a limited transition period and could not be sold standalone at the end of that period. Because strategic buyers have substitute assets, Asset C would not be used for its full remaining economic life. The indicated fair values of Assets A, B, and C within the strategic buyer asset group (reflecting the synergies resulting from the use of the assets within that group) are $360, $260, and $30, respectively. The indicated fair value of the assets as a group within the strategic buyer asset group is $650.

(b) *Financial buyer asset group*. The reporting entity determines that financial buyers do not have related or substitute assets that would enhance the value of the group within which the assets would be used. Because financial buyers do not have substitute assets, Asset C (the billing software) would be used for its full remaining economic life. The indicated fair values of Assets A, B, and C within the financial buyer asset group are $300, $200, and $100, respectively. The indicated fair value of the assets as a group within the financial buyer asset group is $600.

13 While market participant buyers might be broadly classified as strategic and/or financial buyers, there often will be differences among the market participant buyers within each of those groups, reflecting, for example, different uses for an asset and different operating strategies.

A9. The fair values of Assets A, B, and C would be determined based on the use of the assets as a group within the strategic buyer group ($360, $260, and $30). Although the use of the assets within the strategic buyer group does not maximize the fair value of each of the assets individually, it maximizes the fair value of the assets as a group ($650).

Example 2—Land

A10. The reporting entity acquires land in a business combination. The land is currently developed for industrial use as a site for a manufacturing facility. The current use of land often is presumed to be its highest and best use. However, nearby sites have recently been developed for residential use as sites for high-rise condominiums. Based on that development and recent zoning and other changes to facilitate that development, the reporting entity determines that the land currently used as a site for a manufacturing facility could be developed as a site for residential use (for high-rise condominiums).

A11. In this instance, the highest and best use of the land would be determined by comparing (a) the fair value of the manufacturing operation, which presumes that the land would continue to be used as currently developed for industrial use (in-use) and (b) the value of the land as a vacant site for residential use, considering the demolition and other costs necessary to convert the land to a vacant site (in-exchange). The highest and best use of the land would be determined based on the higher of those values.[14]

Example 3—IPR&D Project

A12. The reporting entity acquires an in-process research and development (IPR&D) project in a business combination. The reporting entity does not intend to complete the IPR&D project. If completed, the IPR&D project would compete with one of its own IPR&D projects (to provide the next generation of the reporting entity's commercialized technology). Instead, the reporting entity intends to hold (lock up) the IPR&D project to prevent its competitors from obtaining access to the technology. The IPR&D project is expected to provide defensive value, principally by improving the prospects for the reporting entity's own competing technology. For purposes of measuring the fair value of the IPR&D project at initial recognition, the highest and best use of the IPR&D project would

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14 In situations involving real estate appraisal, the determination of highest and best use in the manner described above also might consider other factors relating to the manufacturing operation, including its assets and liabilities.

be determined based on its use by market participants. For example:

(a) The highest and best use of the IPR&D project would be in-use if market participants would continue to develop the IPR&D project and that use would maximize the value of the group of assets in which the IPR&D project would be used. That might be the case if market participants do not have similar technology (in development or commercialized). The fair value of the IPR&D project, measured using an in-use valuation premise, would be determined based on the price that would be received in a current transaction to sell the IPR&D project, assuming that the IPR&D would be used with its complementary assets as a group and that those complementary assets would be available to market participants.

(b) The highest and best use of the IPR&D project also would be in-use if, for competitive reasons, market participants would lock up the IPR&D project and that use would maximize the value of the group of assets in which the IPR&D project would be used (as a locked-up project). That might be the case if market participants have technology in a more advanced stage of development that would compete with the IPR&D project (if completed) and the IPR&D project would be expected to provide defensive value (if locked up). The fair value of the IPR&D project, measured using an in-use valuation premise, would be determined based on the price that would be received in a current transaction to sell the IPR&D project, assuming that the IPR&D would be used (locked up) with its complementary assets as a group and that those complementary assets would be available to market participants.

(c) The highest and best use of the IPR&D project would be in-exchange if market participants would discontinue the development of the IPR&D project. That might be the case if the IPR&D project is not expected to provide a market rate of return (if completed) and would not otherwise provide defensive value (if locked up). The fair value of the IPR&D project, measured using an in-exchange valuation premise, would be determined based on the price that would be received in a current transaction to sell the IPR&D project standalone (which might be zero).

Valuation Techniques

A13. This Statement emphasizes that valuation techniques consistent with the market approach, income approach, and/or cost approach should be used to measure fair value. In some cases, a single valuation technique will be appropriate. In other cases, multiple valuation techniques will be appropriate. If multiple valuation techniques are used, the reporting entity should evaluate the results (respective indications of fair value), considering the reasonableness of the range indicated by those results. The fair value measurement is the point within that range that is most representative of fair value in the circumstances. Examples 4 and 5 illustrate the use of multiple valuation techniques.

Example 4—Machine Held and Used

A14. The reporting entity tests for impairment an asset group that is held and used in operations. The asset group is impaired. The reporting entity measures the fair value of a machine that is used in the asset group as a basis for allocating the impairment loss to the assets of the group in accordance with FASB Statement No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*. The machine, initially purchased from an outside vendor, was subsequently customized by the reporting entity for use in its operations. However, the customization of the machine was not extensive. The reporting entity determines that the asset would provide maximum value to market participants through its use in combination with other assets as a group (as installed or otherwise configured for use). Therefore, the highest and best use of the machine is in-use.

A15. The reporting entity determines that sufficient data are available to apply the cost approach and, because the customization of the machine was not extensive, the market approach. The income approach is not used because the machine does not have a separately identifiable income stream from which to develop reliable estimates of future cash flows. Further, information about short-term and intermediate-term lease rates for similar used machinery that otherwise could be used to project an income stream (lease payments over remaining service lives) is not available. The market and cost approaches are applied as follows:

(a) *Market approach*. The market approach is applied using quoted prices for similar machines adjusted for differences between the machine (as customized) and the similar machines. The measurement reflects the price that would be received for the machine in its current condition (used) and location (installed and configured for use), thereby including installation and transportation costs. The fair value indicated by that approach ranges from $40,000 to $48,000.

(b) *Cost approach*. The cost approach is applied by estimating the amount that currently would be required to construct a substitute (customized) machine of comparable utility. The estimate considers the condition of the machine (for example, physical deterioration, functional obsolescence, and economic obsolescence) and includes installation costs. The fair value indicated by that approach ranges from $40,000 to $52,000.

A16. The reporting entity determines that the fair value indicated by the market approach is more representative of fair value than the fair value indicated by the cost approach and, therefore, ascribes more weight to the results of the market approach. That determination is based on the relative reliability of the inputs, considering the degree of comparability between the machine and the similar machines. In particular:

(a) The inputs used in the market approach (quoted prices for similar machines) require relatively fewer and less subjective adjustments than the inputs used in the cost approach.

(b) The range indicated by the market approach overlaps with, but is narrower than, the range indicated by the cost approach.

(c) There are no known unexplained differences (between the machine and the similar machines) within that range.

The reporting entity further determines that the higher end of the range indicated by the market approach is most representative of fair value, largely because the majority of relevant data points in the market approach fall at or near the higher end of the range. Accordingly, the reporting entity determines that the fair value of the machine is $48,000.

Example 5—Software Asset

A17. The reporting entity acquires a group of assets. The asset group includes an income-producing software asset internally developed for license to customers and its complementary assets (including a related database with which the software asset is used). For purposes of allocating the cost of the group to the individual assets acquired, the reporting entity measures the fair value of the software asset. The reporting entity determines that the software asset would provide maximum value to market participants through its use in combination with other assets (its complementary assets) as a group. Therefore, the highest and best use of the software asset is in-use. (In this instance, the licensing of the software asset, in and of itself, does not render the highest and best use of the software asset in-exchange.)

A18. The reporting entity determines that in addition to the income approach, sufficient data might be available to apply the cost approach but not the market approach. Information about market transactions for comparable software assets is not available. The income and cost approaches are applied as follows:

(a) *Income approach*. The income approach is applied using a present value technique. The cash flows used in that technique reflect the income stream expected to result from the software asset (license fees from customers) over its economic life. The fair value indicated by that approach is $15 million.

(b) *Cost approach*. The cost approach is applied by estimating the amount that currently would be required to construct a substitute software asset of comparable utility (considering functional, technological, and economic obsolescence). The fair value indicated by that approach is $10 million.

A19. Through its application of the cost approach, the reporting entity determines that market participants would not be able to replicate a substitute software asset of comparable utility. Certain attributes of the software asset are unique, having been developed using proprietary information, and cannot be readily replicated. The reporting entity determines that the fair value of the software asset is $15 million, as indicated by the income approach.

Inputs to Valuation Techniques

A20. This Statement emphasizes that valuation techniques used to measure the fair value of an asset or liability should maximize the use of observable inputs, that is, inputs that reflect the assumptions market participants would use in pricing the asset or liability developed based on market data obtained from sources independent of the reporting entity. Examples of markets in which inputs might be observable for some assets and liabilities (for example, financial instruments) include the following:

(a) *Exchange market*. In an active exchange market, closing prices are both readily available and generally representative of fair value. An example of such a market is the New York Stock Exchange.

(b) *Dealer market*. In a dealer market, dealers stand ready to trade (either buy or sell for their own account), thereby providing liquidity by using their capital to hold an inventory of the items for which they make a market. Typically, bid and ask prices (representing the price the dealer is willing to pay and the price at which the dealer is willing to sell, respectively) are more readily available than closing prices. Over-the-counter markets (where prices are publicly reported by the National Association of Securities Dealers Automated Quotations systems or by Pink Sheets LLC) are dealer markets. For example, the market for U.S. Treasury securities is a dealer market. Dealer markets also exist for some other assets and liabilities, including other financial instruments, commodities, and physical assets (for example, certain used equipment).

(c) *Brokered market*. In a brokered market, brokers attempt to match buyers with sellers but do not stand ready to trade for their own account. In other words, brokers do not use their own capital to hold an inventory of the items for which they make a market. The broker knows the prices bid and asked by the respective parties, but each party is typically unaware of another party's price requirements. Prices of completed transactions are sometimes available. Brokered markets include electronic communication networks, in which buy and sell orders are matched, and commercial and residential real estate markets.

(d) *Principal-to-principal market*. Principal-to-principal transactions, both originations and resales, are negotiated independently with no intermediary. Little information about those transactions may be released publicly.

Fair Value Hierarchy

A21. To increase consistency and comparability in fair value measurements and related disclosures, this Statement establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three broad levels. The level in the fair value hierarchy within which the fair value measurement in its entirety falls is determined based on the lowest level input that is significant to the measurement in its entirety.

Level 1 Inputs

A22. Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the reporting entity has the ability to access at the measurement date. A Level 1 input will be available for many financial assets and liabilities, some of which might be exchanged in multiple active markets (for example, on different exchanges). Therefore, the emphasis within Level 1 is on determining both of the following:

(a) The principal market for the asset or liability or, in the absence of a principal market, the most advantageous market for the asset or liability, considered from the perspective of the reporting entity; and

(b) Whether the reporting entity has the ability to access the price in that market for the asset or liability at the measurement date.

Example 6 illustrates the use of Level 1 inputs to measure the fair value of a financial asset that trades in multiple active markets with different prices.

Example 6—Level 1 principal (or most advantageous) market

A23. A financial asset is traded on two different exchanges with different prices. The reporting entity transacts in both markets and has the ability to access the price in those markets for the asset at the measurement date. In Market A, the price that would be received is $26, and transaction costs in that market are $3 (the net amount that would be received is $23). In Market B, the price that would be received is $25, and transaction costs in that market are $1 (the net amount that would be received in Market B is $24).

(a) If Market A is the principal market for the asset (the market in which the reporting entity would sell the asset with the greatest volume and level of activity for the asset), the fair value of the asset would be measured using the price that would be received in that market ($26).

(b) If neither market is the principal market for the asset, the fair value of the asset would be measured using the price in the most advantageous market. The most advantageous market is the market in which the reporting entity would sell the asset with the price that maximizes the amount that would be received for the asset, considering transaction costs in the respective markets (that is, the net amount that would be received in the respective markets). Because the price in Market B adjusted for transaction costs would maximize the net amount that would be received for the asset ($24), the fair value of the asset would be measured using the price in that market ($25). Although transaction costs are considered in determining the most advantageous market, the price in that market used to measure the fair value of the asset is not adjusted for those costs.

Level 2 Inputs

A24. Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly through corroboration with observable market data (market-corroborated inputs). If the asset or liability has a specified (contractual) term, a Level 2 input must be observable for substantially the full term of the asset or liability. An adjustment to a Level 2 input that is significant to the fair value measurement in its entirety might render the measurement a Level 3 measurement, depending on the level in the fair value hierarchy within which the inputs used to determine the adjustment fall. Examples of Level 2 inputs for particular assets and liabilities follow.

(a) *Receive-fixed, pay-variable interest rate swap based on the LIBOR swap rate*. A Level 2 input would include the LIBOR swap rate if that rate is observable at commonly quoted intervals for the full term of the swap.

(b) *Receive-fixed, pay-variable interest rate swap based on a foreign-denominated yield curve*. A Level 2 input would include the swap rate based on a foreign-denominated yield curve that is observable at commonly quoted intervals for substantially the full term of the swap. That would be the case if the term of the swap is 10 years and that rate is observable at commonly quoted intervals for 9 years, provided that any reasonable extrapolation of the yield curve for year 10 would not be significant to the fair value measurement of the swap in its entirety.

(c) *Receive-fixed, pay-variable interest rate swap based on a specific bank's prime rate*. A Level 2 input would include the bank's prime rate derived through extrapolation if the extrapolated values are corroborated by observable market data, for example, by correlation with an interest rate that is observable over substantially the full term of the swap.

(d) *Three-year option on exchange-traded shares*. A Level 2 input would include the implied volatility for the shares derived through extrapolation to year 3 if (1) prices for one- and two-year options on the shares are observable and (2) the extrapolated implied volatility of a three-year option is corroborated by observable market data for substantially the full term of the option. In that case, the implied volatility could be derived by extrapolating from the implied volatility of the one- and two-year options on the shares and corroborated by the implied volatility for three-year options on comparable entities' shares, provided that correlation with the one- and two-year implied volatilities is established.

(e) *Licensing arrangement*. For a licensing arrangement that is acquired in a business combination and that was recently negotiated with an unrelated party by the acquired entity (the party to the licensing arrangement), a Level 2 input would include the royalty rate at inception of the arrangement.

(f) *Finished goods inventory at retail outlet*. For finished goods inventory that is acquired in a business combination, a Level 2 input would include either a price to customers in a retail market or a wholesale price to retailers in a wholesale market, adjusted for differences between the condition and location of the inventory item and the comparable (similar) inventory items so that the fair value measurement reflects the price that would be received in a transaction to sell the inventory to another retailer that would complete the requisite selling efforts. Conceptually, the fair value measurement should be the same, whether adjustments are made to a retail price (downward) or to a wholesale price (upward). Generally, the price that requires the least amount of subjective adjustments should be used for the fair value measurement.

(g) *Building held and used*. A Level 2 input would include the price per square foot for the building (a valuation multiple) derived from observable market data, for example, multiples derived from prices in observed transactions involving comparable (similar) buildings in similar locations.

(h) *Reporting unit*. A Level 2 input would include a valuation multiple (for example, a multiple of earnings or revenue or a similar performance measure) derived from observable market data, for example, multiples derived from prices in observed transactions involving comparable (similar) businesses, considering operational, market, financial, and nonfinancial factors.

Level 3 Inputs

A25. Level 3 inputs are unobservable inputs for the asset or liability, that is, inputs that reflect the reporting entity's own assumptions about the assumptions market participants would use in pricing the asset or liability (including assumptions about risk) developed based on the best information available in the circumstances. Assumptions about risk include the risk inherent in a particular valuation technique used to measure fair value (such as a pricing model) and/or the risk inherent in the inputs to the valuation technique.[15] Examples of Level 3 inputs for particular assets and liabilities follow.

(a) *Long-dated currency swap*. A Level 3 input would include interest rates in a specified currency that are not observable and cannot be corroborated by observable market data at commonly quoted intervals or otherwise for substantially the full term of the currency swap. The interest rates in a currency swap are the swap rates calculated from the respective countries' yield curves.

(b) *Three-year option on exchange-traded shares*. A Level 3 input would include historical volatility, that is, the volatility for the shares derived from the shares' historical prices. Historical volatility typically does not represent current market participant expectations about future volatility, even if it is the only information available to price an option.

(c) *Interest rate swap*. A Level 3 input would include an adjustment to a mid-market consensus (nonbinding) price for the swap developed using data that are not directly observable and that cannot otherwise be corroborated by observable market data.

(d) *Asset retirement obligation at initial recognition*. A Level 3 input would include expected cash flows (adjusted for risk) developed using the reporting entity's own data if there is no information reasonably available without undue cost and effort that indicates that market participants would use different assumptions. That Level 3 input would be used in a present value technique together with other inputs, for example (1) a risk-free interest rate or (2) a credit-adjusted risk-free rate if the effect of the reporting entity's

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15 A measurement (for example, a "mark-to-model" measurement) that does not include an adjustment for risk would not represent a fair value measurement if market participants would include one in pricing the related asset or liability.

credit standing on the fair value of the liability is reflected in the discount rate rather than in the expected cash flows.[16]

(e) *Reporting unit*. A Level 3 input would include a financial forecast (for example, of cash flows or earnings) developed using the reporting entity's own data if there is no information reasonably available without undue cost and effort that indicates that market participants would use different assumptions.

Transaction Prices and Initial Fair Value Measurements

A26. This Statement clarifies that in many cases the transaction price, that is, the price paid (received) for a particular asset (liability), will represent the fair value of that asset (liability) at initial recognition, but not presumptively.[17] Example 7 illustrates situations in which the price in a transaction involving a derivative instrument might (and might not) represent the fair value of the instrument.

Example 7—Interest Rate Swap at Initial Recognition

A27. Entity A (a retail counterparty) enters into an interest rate swap in a retail market with Entity B (a securities dealer) for no initial consideration (transaction price is zero). Entity A transacts only in the retail market. Entity B transacts in the retail market (with retail counterparties) and in the inter-dealer market (with securities dealer counterparties).

(a) *Entity A (retail counterparty)*. From the perspective of Entity A, the retail market in which it initially transacted is the principal market for the swap; if Entity A were to transfer its rights and obligations under the swap, it would do so with a securities dealer counterparty in that market. In that case, the transaction price (zero) would represent the fair value of the swap to Entity A at initial recognition, that is, the price that Entity A would receive

16 FASB Statement No. 143, *Accounting for Asset Retirement Obligations*, illustrates the application of the expected present value technique to an asset retirement obligation measured at fair value at initial recognition under that Statement. (See Appendix C of Statement 143.)

17 The guidance in this Statement applies for derivatives and other financial instruments that are measured at fair value under FASB Statement No. 133, *Accounting for Derivative Instruments and Hedging Activities*, including hybrid financial instruments. Therefore, this Statement nullifies the guidance in footnote 3 of EITF Issue No. 02-3, "Issues Involved in Accounting for Derivative Contracts Held for Trading Purposes and Contracts Involved in Energy Trading and Risk Management Activities."

(or pay) to sell (or transfer) the swap in a transaction with a securities dealer counterparty in the retail market (an exit price).[18] That price would not be adjusted for any incremental (transaction) costs that would be charged by that securities dealer counterparty.

(b) *Entity B (securities dealer)*. From the perspective of Entity B, the inter-dealer market (not the retail market in which it initially transacted) is the principal market for the swap; if Entity B were to transfer its rights and obligations under the swap, it would do so with a securities dealer in that market. Because the market in which Entity B initially transacted is different from the principal market for the swap, the transaction price (zero) would not necessarily represent the fair value of the swap to Entity B at initial recognition.

Restricted Assets

A28. The effect on a fair value measurement of a restriction on the sale or use of an asset by a reporting entity will differ depending on whether the restriction would be considered by market participants in pricing the asset. Examples 8 and 9 illustrate the effect of restrictions in determining the fair value of an asset.

Example 8—Restriction on Sale of Security

A29. The reporting entity holds a security of an issuer for which sale is legally restricted for a specified period. (For example, such a restriction could limit sale to qualifying investors, as may be the case under Rule 144 or similar rules of the Securities and Exchange Commission.) The restriction is specific to (an attribute of) the security and, therefore, would transfer to market participants. In that case, the fair value of the security would be based on the quoted price for an otherwise identical unrestricted security of the same issuer that trades in a public market, adjusted to reflect the effect of the restriction. The adjustment would reflect the amount market participants would demand because of the risk relating to the inability to access a public market for the security for the specified period.[19] The adjustment will vary depending on the nature and duration

18 If the transaction price represents fair value at initial recognition and a pricing model will be used to measure fair value in subsequent periods, the model should be calibrated so that the model value at initial recognition equals the transaction price.

19 The guidance in this Statement applies for equity securities with restrictions that terminate within one year that are measured at fair value under FASB Statements No. 115, *Accounting for Certain Investments in Debt and Equity Securities*, and No. 124, *Accounting for Certain Investments Held by Not-for-Profit Organizations*.

of the restriction, the extent to which buyers are limited by the restriction (for example, there might be a large number of qualifying investors), and factors specific to both the security and the issuer (qualitative and quantitative).[20]

Example 9—Restrictions on Use of Asset

A30. A donor contributes land in an otherwise developed residential area to a not-for-profit neighborhood association (Association). The land is currently used as a playground. The donor specifies that the land must continue to be used by the Association as a playground in perpetuity. Upon review of relevant documentation (legal and other), the Association determines that the fiduciary responsibility to meet the donor's restriction would not otherwise transfer to market participants if the asset was to be sold by the Association, that is, the donor restriction on the use of the land is specific to the Association. Absent the restriction on the use of the land by the Association, the land could be used as a site for residential development. In addition, the land has an easement for utility lines on a portion of the property.

(a) *Donor restriction on use of land*. Because in this instance the donor restriction on the use of the land is specific to the Association, the restriction would not transfer to market participants. Therefore, the fair value of the land would be based on the higher of its fair value in-use as a playground or fair value in-exchange as a site for residential development, regardless of the restriction on the use of the land by the Association.[21]

(b) *Easement for utility lines*. Because the easement for utility lines is specific to (an attribute of) the land, it would transfer to market participants. Therefore, the fair value measurement of the land would consider the effect of the easement, regardless of whether highest and best use is in-use as a playground or in-exchange as a site for residential development.

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20 ASR No. 113, *Statement Regarding "Restricted Securities,"* provides related guidance.

21 The donor restriction, which is legally binding on the Association, would be indicated through classification of the associated net assets (permanently restricted) and disclosure of the nature of the restriction in accordance with paragraphs 12 and 14 of FASB Statement No. 117, *Financial Statements of Not-for-Profit Organizations*.

Liabilities and Credit Risk

A31. Nonperformance risk relating to a liability includes the reporting entity's credit risk. The reporting entity should consider the effect of its credit risk (credit standing) on the fair value of the liability in all periods in which the liability is measured at fair value because those who might hold the entity's obligations as assets would consider the effect of the entity's credit standing in determining the prices they would be willing to pay. For example, assume that Entity X and Entity Y each enter into a contractual obligation to pay cash ($500) to Entity Z in 5 years. Entity X has a AA credit rating and can borrow at 6 percent, while Entity Y has a BBB credit rating and can borrow at 12 percent. Entity X will receive about $374 in exchange for its promise (the present value of $500 in 5 years at 6 percent). Entity Y will receive about $284 in exchange for its promise (the present value of $500 in 5 years at 12 percent). The fair value of the liability to each entity (the proceeds) incorporates that entity's credit standing. Example 10 illustrates the effect of credit standing on the fair value of a financial liability at initial recognition and in subsequent periods.

Example 10—Structured Note

A32. On January 1, 2007, Entity A, an investment bank with a AA credit rating, issues a five-year fixed rate note to Entity B. The contractual principal amount to be paid by Entity A at maturity is linked to the S&P 500 index. No credit enhancements are issued in conjunction with or otherwise related to the contract (that is, no collateral is posted and there is no third-party guarantee). Entity A elects to account for the entire note at fair value in accordance with FASB Statement No. 155, *Accounting for Certain Hybrid Financial Instruments*. The fair value of the note (the obligation of Entity A) during 2007 is measured using an expected present value technique. Changes in fair value are discussed below.

(a) *Fair value at January 1, 2007*. The expected cash flows used in the expected present value technique are discounted at the risk-free rate (using the treasury yield curve at January 1, 2007), plus the current market observable AA corporate bond spread to treasuries adjusted (up or down) for Entity A's specific credit risk (credit-adjusted risk-free rate). Therefore, the fair value of the obligation of Entity A at initial recognition considers nonperformance risk, including that entity's credit risk (presumably, reflected in the proceeds).

(b) *Fair value at March 31, 2007*. During March 2007, the credit spread for AA corporate bonds widens, with no changes to the specific credit risk of Entity A. The expected cash flows used in the expected present value technique are discounted at the risk-free rate (using the treasury yield curve at March 31, 2007), plus the current market observable AA corporate bond spread to treasuries, adjusted for Entity A's specific credit risk (credit-adjusted risk-free rate). Entity A's specific credit risk is unchanged from initial recognition. Therefore, the fair value of the obligation of Entity A changes due to changes in credit spreads generally. Changes in credit spreads reflect current market participant assumptions about changes in nonperformance risk generally.

(c) *Fair value at June 30, 2007*. As of June 30, 2007, there have been no changes to the AA corporate bond spreads. However, based on structured note issuances corroborated with other qualitative information, Entity A determines that its own specific credit worthiness has strengthened within the AA credit spread. The expected cash flows used in the expected present value technique are discounted at the risk-free rate (using the treasury yield curve at June 30, 2007), plus the current market observable AA corporate bond spread to treasuries (unchanged from March 31, 2007), adjusted for Entity A's specific credit risk (credit-adjusted risk-free rate). Therefore, the fair value of the obligation of Entity A changes due to the change in its own specific credit risk within the AA corporate bond spread.

Fair Value Disclosures

A33. This Statement requires disclosures about the fair value of assets and liabilities recognized in the statement of financial position in periods subsequent to initial recognition, whether the measurements are made on a recurring basis (for example, trading securities) or on a nonrecurring basis (for example, impaired assets). Quantitative disclosures using a tabular format are required in all periods (interim and annual). Qualitative (narrative) disclosures about the valuation techniques used to measure fair value are required in all annual periods. The disclosures required by paragraph 32(a)–(d) and paragraph 33(a) and (b) are illustrated below.

Assets Measured at Fair Value on a Recurring Basis

A34. For assets and liabilities measured at fair value on a recurring basis during the period, this Statement requires quantitative disclosures about the fair value measurements separately for each major category of assets and liabilities (paragraph 32(a) and (b)). For assets, that information might be presented as follows:

($ in 000s)		**Fair Value Measurements at Reporting Date Using**		
Description	**12/31/XX**	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**
Trading securities	$115	$105	$10	
Available-for-sale securities	75	75		
Derivatives	60	25	15	$20
Venture capital investments	10			10
Total	$260	$205	$25	$30

(Note: For liabilities, a similar table should be presented.)

Assets Measured at Fair Value on a Recurring Basis Using Significant Unobservable Inputs (Level 3)

A35. For assets and liabilities measured at fair value on a recurring basis using significant unobservable inputs (Level 3) during the period, this Statement requires a reconciliation of the beginning and ending balances, separately for each major category of assets and liabilities, except for derivative assets and liabilities, which may be presented net (paragraph 32(c) and (d)). For assets, the reconciliation might be presented as follows:

($ in 000s)	**Fair Value Measurements Using Significant Unobservable Inputs (Level 3)**		
	Derivatives	**Venture Capital Investments**	**Total**
Beginning balance	$14	$11	$25
Total gains or losses (realized/unrealized)			
Included in earnings (or changes in net assets)	11	(3)	8
Included in other comprehensive income	4		4
Purchases, issuances, and settlements	(7)	2	(5)
Transfers in and/or out of Level 3	(2)	0	(2)
Ending balance	$20	$10	$30
The amount of total gains or losses for the period included in earnings (or changes in net assets) attributable to the change in unrealized gains or losses relating to assets still held at the reporting date	$7	$2	$9

(Note: For liabilities, a similar table should be presented.)

Gains and losses (realized and unrealized) included in earnings (or changes in net assets) for the period (above) are reported in trading revenues and in other revenues as follows:

	Trading Revenues	Other Revenues
Total gains or losses included in earnings (or changes in net assets) for the period (above)	$11	$(3)
Change in unrealized gains or losses relating to assets still held at reporting date	$7	$2

Assets Measured at Fair Value on a Nonrecurring Basis

A36. For each major category of assets and liabilities measured at fair value on a nonrecurring basis during the period, this Statement requires disclosures about the fair value measurements (paragraph 33(a) and (b)). That information might be presented as follows:

($ in millions)		Fair Value Measurements Using			
Description	Year Ended 12/31/XX	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total Gains (Losses)
Long-lived assets held and used	$75		$75		$(25)
Goodwill	30			$30	(35)
Long-lived assets held for sale	26		26		(15)
					$(75)

In accordance with the provisions of Statement 144, long-lived assets held and used with a carrying amount of $100 million were written down to their fair value of $75 million, resulting in an impairment charge of $25 million, which was included in earnings for the period.

In accordance with the provisions of Statement 142, goodwill with a carrying amount of $65 million was written down to its implied fair value of $30 million, resulting in an impairment charge of $35 million, which was included in earnings for the period.

In accordance with the provisions of Statement 144, long-lived assets held for sale with a carrying amount of $35 million were written down to their fair value of $26 million, less cost to sell of $6 million (or $20 million), resulting in a loss of $15 million, which was included in earnings for the period.

Appendix B
Present Value Techniques

Introduction

B1. FASB Concepts Statement No. 7, *Using Cash Flow Information and Present Value in Accounting Measurements*, provides guidance for using present value techniques to measure fair value. That guidance focuses on a traditional or discount rate adjustment technique and an expected cash flow (expected present value) technique. This appendix clarifies that guidance.[22] This appendix neither prescribes the use of one specific present value technique nor limits the use of present value techniques to measure fair value to the techniques discussed herein. The present value technique used to measure fair value will depend on facts and circumstances specific to the asset or liability being measured (for example, whether comparable assets or liabilities can be observed in the market) and the availability of sufficient data.

The Components of a Present Value Measurement

B2. Present value is a tool used to link uncertain future amounts (cash flows or values) to a present amount using a discount rate (an application of the income approach) that is consistent with value maximizing behavior and capital market equilibrium. A fair value measurement of an asset or liability, using present value, should capture the following elements from the perspective of market participants as of the measurement date:

(a) An estimate of future cash flows for the asset or liability being measured.

(b) Expectations about possible variations in the amount and/or timing of the cash flows representing the uncertainty inherent in the cash flows.

(c) The time value of money, represented by the rate on risk-free monetary assets that have maturity dates or durations that coincide with the period covered by the cash flows (risk-free interest rate). For present value computations denominated in nominal U.S. dollars, the yield curve for U.S. Treasury securities determines the appropriate risk-free interest rate. U.S. Treasury

22 That guidance is included or otherwise referred to principally in paragraphs 39–46, 51, 62–71, 114, and 115 of Concepts Statement 7.

securities are deemed (default) risk free because they pose neither uncertainty in timing nor risk of default to the holder.

(d) The price for bearing the uncertainty inherent in the cash flows (risk premium).

(e) Other case-specific factors that would be considered by market participants.

(f) In the case of a liability, the nonperformance risk relating to that liability, including the reporting entity's (obligor's) own credit risk.

General Principles

B3. Present value techniques differ in how they capture those elements. However, certain general principles govern the application of any present value technique:

(a) Cash flows and discount rates should reflect assumptions that market participants would use in pricing the asset or liability.

(b) Cash flows and discount rates should consider only factors attributed to the asset (or liability) being measured.

(c) To avoid double counting or omitting the effects of risk factors, discount rates should reflect assumptions that are consistent with those inherent in the cash flows.[23]

(d) Assumptions about cash flows and discount rates should be internally consistent. For example, nominal cash flows (that include the effect of inflation) should be discounted at a rate that includes the effect of inflation. The nominal risk-free interest rate includes the effect of inflation. Real cash flows (that exclude the effect of inflation) should be discounted at a rate that excludes the effect of inflation. Similarly, after-tax cash flows should be discounted using an after-tax discount rate. Pretax cash flows should be discounted at a rate consistent with those cash flows (for example, a U.S. Treasury rate is quoted on a pretax basis, as is a LIBOR rate or a prevailing term loan rate).

23 For example, a discount rate that reflects expectations about future defaults is appropriate if using contractual cash flows of a loan (discount rate adjustment technique). That same rate would not be used if using expected (probability-weighted) cash flows (expected present value technique) because the expected cash flows already reflect assumptions about future defaults; instead, a discount rate that is commensurate with the risk inherent in the expected cash flows should be used.

(e) Discount rates should be consistent with the underlying economic factors of the currency in which the cash flows are denominated.

Risk and Uncertainty

B4. A fair value measurement, using present value, is made under conditions of uncertainty because the cash flows used are estimates rather than known amounts. In many cases, both the amount and timing of the cash flows will be uncertain. Even contractually fixed amounts, like the payments on a loan, will be uncertain if there is risk of default.

B5. Risk-averse market participants generally seek compensation for bearing the uncertainty inherent in the cash flows of an asset or liability (risk premium). A fair value measurement should include a risk premium reflecting the amount market participants would demand because of the risk (uncertainty) in the cash flows. Otherwise, the measurement would not faithfully represent fair value. In some cases, determining the appropriate risk premium might be difficult. However, the degree of difficulty alone is not a sufficient basis on which to exclude a risk adjustment.

B6. Present value techniques differ in how they adjust for risk and in the type of cash flows they use. For example, the discount rate adjustment technique uses a risk-adjusted discount rate and contractual, promised, or most likely cash flows; Method 1 of the expected present value technique uses a risk-free rate and risk-adjusted expected cash flows; and Method 2 of the expected present value technique uses a risk-adjusted discount rate (which is different from the rate used in the discount rate adjustment technique) and expected cash flows. Those present value techniques are discussed below.

Discount Rate Adjustment Technique

B7. The discount rate adjustment technique uses a single set of cash flows from the range of possible estimated amounts, whether contractual or promised (as is the case for a bond) or most likely cash flows. In all cases, those cash flows are conditional upon the occurrence of specified events (for example, contractual or promised cash flows for a bond are conditional on the event of no default by the debtor). The discount rate used in the discount rate adjustment technique is derived from observed rates of return for comparable assets or liabilities that are traded in the market. Accordingly, the contractual, promised, or most likely cash flows are discounted at a rate that corresponds to an observed market rate associated with such conditional cash flows (market rate of return).

B8. The application of the discount rate adjustment technique requires an analysis of market data for comparable assets or liabilities. Comparability is established by considering the nature of the cash flows (for example, whether the cash flows are contractual or noncontractual and are likely to respond similarly to changes in economic conditions), as well as other factors (for example, credit standing, collateral, duration, restrictive covenants, and liquidity). Alternatively, if a single comparable asset or liability does not fairly reflect the risk inherent in the cash flows of the asset or liability being measured, it may be possible to derive a discount rate using data for several comparable assets or liabilities in conjunction with the risk-free yield curve (a "build-up" approach).

B9. To illustrate a build-up approach, assume that Asset A is a contractual right to receive $800 in 1 year (no timing uncertainty). There is an established market for comparable assets, and information about those assets, including price information, is available. Of those comparable assets:

(a) Asset B is a contractual right to receive $1,200 in 1 year and has a market price of $1,083. Thus, the implied annual rate of return (1-year market rate of return) is 10.8 percent [($1,200/$1,083) − 1].

(b) Asset C is a contractual right to receive $700 in 2 years and has a market price of $566. Thus, the implied annual rate of return (2-year market rate of return) is 11.2 percent [($700/$566)^0.5 − 1].

(c) All three assets are comparable with respect to risk (dispersion of possible payoffs and credit).

B10. Based on the timing of the contractual payments to be received relative to Asset A (one year for Asset B versus two years for Asset C), Asset B is deemed more comparable to Asset A. Using the contractual payment to be received for Asset A ($800) and the 1-year market rate derived from Asset B (10.8 percent), the fair value of Asset A is $722 ($800/1.108). Alternatively, in the absence of available market information for Asset B, the one-year market rate could be derived from Asset C using the build-up approach. In that case, the 2-year market rate indicated by Asset C (11.2 percent) would be adjusted to a 1-year market rate based on the term structure of the risk-free yield curve. Additional information and analysis also might be required to determine if the risk premium for one-year and two-year assets is the same. If it is determined that the risk premium for one-year and two-year assets is not the same, the two-year market rate of return would be further adjusted for that effect.

B11. In applying the discount rate adjustment technique to fixed claims, the adjustment for risk inherent in the cash flows of the asset or liability being measured is included in the discount rate. In some applications of the discount rate adjustment technique to cash flows that are other than fixed claims, an adjustment to the cash flows also may be necessary to achieve comparability with the observed asset or liability from which the discount rate is derived.

Expected Present Value Technique

B12. The expected present value technique uses as a starting point a set of cash flows that, in theory, represents the probability-weighted average of all possible cash flows (expected cash flows). The resulting estimate is identical to *expected value*, which, in statistical terms, is the weighted average of a discrete random variable's possible values where the respective probabilities are used as weights. Because all possible cash flows are probability weighted, the resulting expected cash flow is not conditional upon the occurrence of any specified event (as are the cash flows used in the discount rate adjustment technique).

B13. In making an investment decision, risk-averse market participants would consider the risk inherent in the expected cash flows. Portfolio theory distinguishes between two types of risk. The first is risk specific to a particular asset or liability, also referred to as unsystematic (diversifiable) risk. The second is general market risk, also referred to as systematic (nondiversifiable) risk. The systematic or nondiversifiable risk of an asset (or liability) refers to the amount by which the asset (or liability) increases the variance of a diversified portfolio when it is added to that portfolio. Portfolio theory holds that in a market in equilibrium, market participants will be compensated only for bearing the systematic or nondiversifiable risk inherent in the cash flows. (In markets that are inefficient or out of equilibrium, other forms of return or compensation might be available.)

B14. Method 1 of the expected present value technique adjusts the expected cash flows for the systematic (market) risk by subtracting a cash risk premium (risk-adjusted expected cash flows). These risk-adjusted expected cash flows represent a certainty-equivalent cash flow, which is discounted at a risk-free interest rate. A *certainty-equivalent cash flow* refers to an expected cash flow (as defined), adjusted for risk such that one is indifferent to trading a certain cash flow for an expected cash flow.

For example, if one were willing to trade an expected cash flow of $1,200 for a certain cash flow of $1,000, the $1,000 is the certainty equivalent of the $1,200 (the $200 would represent the cash risk premium). In that case, one would be indifferent as to the asset held.

B15. In contrast, Method 2 of the expected present value technique adjusts for systematic (market) risk by adding a risk premium to the risk-free interest rate. Accordingly, the expected cash flows are discounted at a rate that corresponds to an expected rate associated with probability-weighted cash flows (expected rate of return). Models used for pricing risky assets, such as the Capital Asset Pricing Model, can be used to estimate the expected rate of return. Because the discount rate used in the discount rate adjustment technique is a rate of return relating to conditional cash flows, it likely will be higher than the discount rate used in Method 2 of the expected present value technique, which is an expected rate of return relating to expected or probability-weighted cash flows.

B16. To illustrate Methods 1 and 2, assume that an asset has expected cash flows of $780 in 1 year based on the possible cash flows and probabilities shown below. The applicable risk-free interest rate for cash flows with a 1-year horizon is 5 percent, and the systematic risk premium is 3 percent.

Possible Cash Flows	**Probability**	**Probability-Weighted Cash Flows**
$500	15%	$75
$800	60%	$480
$900	25%	$225
Expected cash flows		$780

B17. In this simple illustration, the expected cash flows ($780) represent the probability-weighted average of the 3 possible outcomes. In more realistic situations, there could be many possible outcomes. However, it is not always necessary to consider distributions of literally all possible cash flows using complex models and techniques to apply the expected present value technique. Rather, it should be possible to develop a limited number of discrete scenarios and probabilities that capture the array of possible cash flows. For example, a reporting entity might use realized cash flows for some relevant past period, adjusted for changes in circumstances occurring subsequently (for example, changes in external factors, including economic or market conditions, industry trends, and competition as well as changes in internal factors impacting the entity more specifically), considering the assumptions of market participants.

B18. In theory, the present value (fair value) of the asset's cash flows is the same ($722) whether determined under Method 1 or Method 2, as indicated below. Specifically:

(a) Under Method 1, the expected cash flows are adjusted for systematic (market) risk. In the absence of market data directly indicating the amount of the risk adjustment, such adjustment could be derived from an asset pricing model using the concept of certainty equivalents. For example, the risk adjustment (cash risk premium of $22) could be determined based on the systematic risk premium of 3 percent ($780 − [$780 × (1.05/1.08)]), which results in risk-adjusted expected cash flows of $758 ($780 − $22). The $758 is the certainty equivalent of $780 and is discounted at the risk-free interest rate (5 percent). The present value (fair value) of the asset is $722 ($758/1.05).

(b) Under Method 2, the expected cash flows are not adjusted for systematic (market) risk. Rather, the adjustment for that risk is included in the discount rate. Thus, the expected cash flows are discounted at an expected rate of return of 8 percent (the 5 percent risk-free interest rate plus the 3 percent systematic risk premium). The present value (fair value) of the asset is $722 ($780/1.08).

B19. When using an expected present value technique to measure fair value, either Method 1 or Method 2 could be used. The selection of Method 1 or Method 2 will depend on facts and circumstances specific to the asset or liability being measured, the extent to which sufficient data are available, and the judgments applied.

Appendix C
Background Information and Basis for Conclusions

CONTENTS

Appendix C
Background Information and
Basis for Conclusions

Introduction

C1. This appendix summarizes considerations that Board members deemed significant in reaching the conclusions in this Statement. It includes the reasons for accepting certain views and rejecting others. Individual Board members gave greater weight to some factors than to others.

Background Information

C2. In many accounting pronouncements, the Board has concluded that fair value information is relevant, and users of financial statements generally have agreed. Paragraph 47 of FASB Concepts Statement No. 2, *Qualitative Characteristics of Accounting Information*, states, "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."

C3 Some have expressed concerns about the ability to apply the fair value measurement objective in GAAP, including in response to the FASB Proposal, *Principles-Based Approach to U.S. Standard Setting*, issued in October 2002.[24] In large part, those concerns focus on the reliability of the measurements in the absence of quoted market prices, including concerns about the ability to verify the measurements. Paragraph 59 of Concepts Statement 2 states, "The reliability of a measure rests on the faithfulness with which it represents what it purports to represent, coupled with an assurance for the user, which comes through verification, that it has that representational quality."

C4. The Board believes that, in part, those concerns result because there is limited guidance for applying the fair value measurement objective in GAAP. The guidance that currently exists has evolved piecemeal over time and is dispersed among the accounting pronouncements that

24 In July 2003, the Securities and Exchange Commission (SEC) published, "Study Pursuant to Section 108(d) of the Sarbanes-Oxley Act of 2002 on the Adoption by the United States Financial Reporting System of a Principles-Based Accounting System," which encouraged a move to more "objectives-oriented" accounting standards.

require fair value measurements. Differences in that guidance have created inconsistencies that have added to the complexity in GAAP. There also is limited conceptual guidance for addressing measurement issues in the Board's conceptual framework.

C5. In June 2003, the Board added the fair value measurement project to its agenda to address fair value measurement issues broadly.[25] At that time, the Board agreed that, conceptually, the definition of fair value and its application in GAAP should be the same for all assets and liabilities. This Statement is the result of that project. This Statement defines fair value, establishes a framework for measuring fair value, and expands disclosures about fair value measurements. This Statement also simplifies and codifies the related guidance that currently exists for developing fair value measurements, eliminating differences that have added to the complexity in GAAP. This Statement applies under other accounting pronouncements that require or permit fair value measurements, the Board having previously concluded in those pronouncements that fair value is the relevant measurement attribute. This Statement does not require any new fair value measurements.

C6. In June 2004, the Board issued an Exposure Draft, *Fair Value Measurements*, and received comment letters from nearly 100 respondents. In September 2004, the Board held public roundtable meetings with some of those respondents to discuss significant issues raised in the comment letters. In October 2005, the Board issued a proposed FASB Staff Position (FSP) FAS 133-a, "Accounting for Unrealized Gains (Losses) Relating to Derivative Instruments Measured at Fair Value under Statement 133," to address related practice issues under EITF Issue No. 02-3, "Issues Involved in Accounting for Derivative Contracts Held for Trading Purposes and Contracts Involved in Energy Trading and Risk Management Activities," raised by respondents to the Exposure Draft. (See paragraphs C10–C17.) The Board received comment letters from 25 respondents (principally, financial institutions).

C7. In developing this Statement, the Board considered comments from respondents to the Exposure Draft and to proposed FSP FAS 133-a, as well as input from the Valuation Resource Group, the Financial Accounting Standards Advisory Council, the User Advisory Council, members of the Investor Task Force, and other interested parties. In response, the Board reconsidered and/or clarified certain aspects of the proposals in the Exposure Draft.

25 The Board has a separate project on its agenda to improve its conceptual framework.

Scope

Share-Based Payment Transactions

C8. Accounting pronouncements that require fair value measurements but that are excluded from the scope of this Statement are limited to FASB Statement No. 123 (revised 2004), *Share-Based Payment*, and its related interpretive accounting pronouncements that address share-based payment transactions. The fair value measurement objective in Statement 123(R) is generally consistent with the fair value measurement objective in this Statement. However, for certain share-based payment transactions with employees, the measurements at the grant date are fair-value-based measurements, not fair value measurements. Although some measurements in Statement 123(R) are fair value measurements, the Board decided for practical reasons to exclude Statement 123(R) in its entirety from the scope of this Statement.

Leasing Transactions

C9. In the Exposure Draft, the Board decided to exclude from the scope of this Statement FASB Statement No. 13, *Accounting for Leases*, and other accounting pronouncements that require fair value measurements for leasing transactions. At that time, the Board was concerned that applying the fair value measurement objective in this Statement to leasing transactions could have unintended consequences when considered together with longstanding valuation practices common within the leasing industry. The Board decided to defer consideration of fair value measurement issues specific to those transactions. However, respondents indicated that the fair value measurement objective for leasing transactions is generally consistent with the fair value measurement objective in this Statement and that the guidance in this Statement should apply for the fair value measurements required for those transactions. Others in the leasing industry subsequently affirmed that view. Based on that input, the Board decided to include those accounting pronouncements in the scope of this Statement.

EITF Issue 02-3

C10. In the Exposure Draft, the Board decided to exclude from the scope of this Statement the guidance in footnote 3 of Issue 02-3, which stated:

> The FASB staff believes that, in the absence of (a) quoted market prices in an active market, (b) observable prices of other current market transactions, or (c) other observable data supporting a valuation technique, the transaction price represents the best information available with which to estimate fair

> value at the inception of the arrangement. Therefore, in the FASB staff's view an entity should not recognize an unrealized gain or loss at inception of a derivative instrument unless the fair value of that instrument is obtained from a quoted market price in an active market or is otherwise evidenced by comparison to other observable current market transactions or based on a valuation technique incorporating observable market data. For example, a valuation technique that includes extrapolated price curves with little or no observable market inputs for any significant duration of the instrument should not result in an initial fair value estimate that differs from the transaction price for the instrument taken as a whole, because, in this example, the transaction price is the best evidence of the instrument's fair value at that point in time.

C11. The guidance in footnote 3 of Issue 02-3 applied for derivatives (and other) instruments measured at fair value at initial recognition under FASB Statement No. 133, *Accounting for Derivative Instruments and Hedging Activities*. That guidance precluded immediate recognition in earnings of an unrealized gain or loss, measured as the difference between the transaction price and the fair value of the instrument at initial recognition, if the fair value of the instrument was determined using significant unobservable inputs. However, Issue 02-3 did not provide guidance for when to subsequently recognize that unrealized gain or loss in earnings. As a result, practice was diverse with regard to both the method and timing of revenue recognition. For example, some entities recognized the unrealized gain or loss in earnings when the fair value of the instrument was observable (generally, at or near the end of the contract). Other entities amortized the unrealized gain or loss in earnings over the term of the instrument. In the Exposure Draft, the Board acknowledged that issue but decided not to address that issue in this Statement because it raised recognition issues similar to those that were being addressed in its revenue recognition project.

C12. Respondents disagreed with that scope exclusion. They said that for many entities, in particular, financial institutions, Issue 02-3 is significant and that the Board should address related issues in this Statement, focusing on potential inconsistencies between the guidance in footnote 3 of Issue 02-3 and the related guidance proposed in the Exposure Draft. In response, the Board decided to address those issues separately in proposed FSP FAS 133-a.

C13. In proposed FSP FAS 133-a, the Board decided that an instrument should be measured at fair value under Statement 133 using the guidance in this Statement and that an unrealized gain or loss should not be recognized in earnings until a minimum reliability threshold for the measurement is met. In reaching that decision, the Board concluded that for some entities, in particular, securities dealers that transact in different markets with different counterparties, the transaction price (an entry price) might not represent the fair value of the instrument (an exit price) at initial recognition. The Board agreed that, conceptually, an unrealized gain or loss at initial recognition should be immediately recognized in earnings. However, the Board observed that if the fair value of the instrument is measured using significant unobservable inputs, some (or all) of the unrealized gain or loss might represent measurement error, raising concerns about the reliability of the measurement and the effect of the measurement on earnings. Therefore, the minimum reliability threshold would have precluded recognition in earnings of an unrealized gain or loss at initial recognition if the fair value of the instrument is measured using significant unobservable inputs. Instead, the unrealized gain or loss at initial recognition would have been recognized as a deferred credit or debit, separate from the instrument.

C14. Respondents to proposed FSP FAS 133-a generally agreed that the proposed FSP would represent an improvement over the related guidance in Issue 02-3, largely because an instrument would be measured at its fair value at initial recognition and in all subsequent periods. However, many of those respondents expressed concerns that the minimum reliability threshold approach for revenue recognition would add to the complexity in GAAP. They indicated that if the measurement objective is fair value, then financial reporting should reflect that measurement and the consequences of using that measurement.

C15. In response, the Board met with some respondents to develop an alternative approach focusing on expanded disclosures about fair value measurements using significant unobservable inputs and the effect of the measurements on earnings for the period. The Board discussed that alternative disclosure approach with certain users of financial statements, including members of the Investor Task Force that concentrate on the investment banking, energy trading, and insurance industries, and members of the User Advisory Council. Those users generally supported that disclosure approach (over the minimum reliability threshold approach). In particular, they indicated that the expanded disclosures would allow users of financial statements to make more informed judgments and adjustments to their own models.

C16. Based on the input received, the Board decided not to impose the minimum reliability threshold in proposed FSP FAS 133-a. The Board agreed that the fair value measurement objective in this Statement should apply for fair value measurements at initial recognition under Statement 133 (an exit price objective). Consistent with that objective, this Statement clarifies that the measurements should be adjusted for risk, that is, the amount market participants would demand because of the risk (uncertainty) inherent in a particular valuation technique used to measure fair value (such as a pricing model) and/or the risk inherent in the inputs to the valuation technique (a risk premium notion). Accordingly, a measurement (for example, a "mark-to-model" measurement) that does not include an adjustment for risk would not represent a fair value measurement if market participants would include one in pricing the related asset or liability.

C17. To improve transparency in financial reporting, the Board decided to require expanded disclosures about fair value measurements using significant unobservable inputs and the effects of such measurements on earnings. This Statement includes those expanded disclosure requirements (for all assets and liabilities measured at fair value on a recurring basis using significant unobservable inputs) and nullifies the guidance in footnote 3 of Issue 02-3.

Statement 114

C18. In the Exposure Draft, the Board decided to exclude FASB Statement No. 114, *Accounting by Creditors for Impairment of a Loan*, from the scope of this Statement. The Board clarified that the measurement for impaired loans, determined using a present value technique, is not a fair value measurement. Respondents agreed. However, they noted that the practical expedient in Statement 114 (observable market price or the fair value of collateral if the loan is collateral-dependent) is a fair value measurement. They said that when the practical expedient is used, the guidance in this Statement should apply. The Board agreed and decided to include Statement 114 in the scope of this Statement as it relates to the practical expedient.

Opinion 21

C19. In this Statement, the Board affirmed that the measurement for receivables and payables in APB Opinion No. 21, *Interest on Receivables and Payables*, determined using a present value technique, is a fair value measurement. The discount rate for contractual (promised) cash flows described in that Opinion (rate commensurate with the risk) embodies the same notion as the discount rate used in the traditional approach (or discount rate adjustment technique) described in FASB Concepts Statement No. 7, *Using Cash Flow Information and Present Value in Accounting Measurements*, and clarified in this Statement. Paragraph 13 of Opinion 21 explains:

> The objective is to approximate the rate which would have resulted if an independent borrower and an independent lender had negotiated a similar transaction under comparable terms and conditions with the option to pay the cash price upon purchase or to give a note for the amount of the purchase which bears the prevailing rate of interest to maturity.

C20. Accordingly, the guidance for using present value techniques to measure fair value in this Statement applies for the measurements required under Opinion 21. It also applies for the similar measurements required under other accounting pronouncements.

Practicability Exceptions

C21. The Board observed that some of the accounting pronouncements within the scope of this Statement permit practicability exceptions to fair value measurements in specified circumstances. Those practicability exceptions include the following:

(a) The use of a transaction price (an entry price) to measure fair value (an exit price) at initial recognition (guarantees under FASB Interpretation No. 45, *Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others*, and financial assets and liabilities under FASB Statement No. 140, *Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities*)

(b) An exemption to the requirement to measure fair value if it is not practicable to do so (financial instruments under FASB Statement No. 107, *Disclosures about Fair Value of Financial Instruments*, and financial assets obtained and financial liabilities incurred in a sale under Statement 140 and EITF Issue No. 85-40, "Comprehensive Review of Sales of Marketable Securities with Put Arrangements")

(c) An exemption to the requirement to measure fair value if fair value is not reasonably determinable (nonmonetary assets under APB Opinion No. 29, *Accounting for Nonmonetary Transactions*, FASB Statement No. 153, *Exchanges of Nonmonetary Assets*, and EITF Issue No. 99-17, "Accounting for Advertising Barter Transactions"; asset retirement obligations under FASB Statement No. 143, *Accounting for Asset Retirement Obligations*, and FASB Interpretation No. 47, *Accounting for Conditional Asset Retirement Obligations*; restructuring obligations under FASB Statement No. 146, *Accounting for Costs Associated with Exit or Disposal Activities*; and participation rights under FASB Statements No. 87, *Employers' Accounting for Pensions*, and No. 106, *Employers' Accounting for Postretirement Benefits Other Than Pensions*)

(d) An exemption to the requirement to measure fair value if fair value cannot be measured with sufficient reliability (contributions under FASB Statement No. 116, *Accounting for Contributions Received and Contributions Made*, and AICPA Audit and Accounting Guide, *Not-for-Profit Organizations*)

(e) The use of certain of the measurement methods referred to in paragraph 37 of FASB Statement No. 141, *Business Combinations*, that allow measurements other than fair value for certain assets acquired and liabilities assumed in a business combination.

C22. The Board acknowledged the inconsistencies created by those practicability exceptions. However, the Board decided for practical reasons not to address those inconsistencies in this Statement. The Board is addressing issues relating to some practicability exceptions in other agenda projects (for example, its business combinations project). Other practicability exceptions raise issues about what to measure at fair value that are beyond the scope of this Statement.

Other Similar Measurements

C23. This Statement does not apply under accounting pronouncements that permit measurements that are based on, or otherwise use, vendor-specific objective evidence of fair value. Those accounting pronouncements include AICPA Statement of Position 97-2, *Software Revenue Recognition*, as modified by AICPA Statement of Position 98-9, *Modification of SOP 97-2*, Software Revenue Recognition, *With Respect to Certain Transactions*, and EITF Issue No. 00-21, "Revenue Arrangements with Multiple Deliverables." In those accounting pronouncements, vendor-specific objective evidence of fair value refers to the price for a deliverable established by the reporting entity. Issue 00-21 further refers to the price for a deliverable established by a third-party vendor as a practical expedient to vendor-specific objective evidence of fair value. Conceptually, vendor-specific objective evidence of fair value is a measurement determined based on a transaction price (an entry price) that is different from a fair value measurement (an exit price), whether considered from the perspective of the reporting entity or a third-party vendor (as a practical expedient).

C24. This Statement also does not apply for the market value measurement that results when measuring inventories at the lower of cost or market under ARB No. 43, Chapter 4, "Inventory Pricing." ARB 43, Chapter 4, places upper and lower limits on the measurement that may not result in a fair value measurement.

Definition of Fair Value

C25. The definition of fair value in this Statement retains the exchange price notion contained, either explicitly or implicitly, in earlier definitions of fair value. However, this Statement clarifies that the exchange price is the price in an orderly transaction between market participants to sell the asset or transfer the liability in the principal (or most advantageous) market for the asset or liability. The Board affirmed that the transaction to sell the asset or transfer the liability is an orderly transaction, not a forced transaction (for example, if the seller is experiencing financial difficulty), that assumes exposure to the market for a period prior to the measurement date to allow for information dissemination and marketing in order to transact at the most advantageous price for the asset or liability at the measurement date. To convey that notion more clearly, the Board revised the definition of fair value in this Statement to refer to an orderly transaction, as do other definitions used in valuations for purposes other than financial reporting that are similar to fair value (for example, fair market value).

C26. The transaction to sell the asset or transfer the liability is a hypothetical transaction at the measurement date, considered from the perspective of a market participant that holds the asset or owes the liability. Therefore, the objective of a fair value measurement is to determine the price that would be received for the asset or paid to transfer the liability at the measurement date, that is, an exit price. The Board concluded that an exit price objective is appropriate because it embodies current expectations about the future inflows associated with the asset and the future outflows associated with the liability from the perspective of market participants. The emphasis on inflows and outflows is consistent with the definitions of assets and liabilities in FASB Concepts Statement No. 6, *Elements of Financial Statements*. Paragraph 25 of Concepts Statement 6 defines *assets* in terms of future economic benefits (future inflows). Paragraph 35 of Concepts Statement 6 defines *liabilities* in terms of future sacrifices of economic benefits (future outflows).

Principal (or Most Advantageous) Markets

C27. The Exposure Draft emphasized within Level 1 of the fair value hierarchy that the price in the most advantageous market for the asset or liability should be used to measure the fair value of the asset or liability. The most advantageous market is the market in which the reporting entity would sell the asset or transfer the liability with the price that maximizes the amount that would be received for the asset or minimizes the amount that would be paid to transfer the liability, considering transaction costs in the respective markets. The Board concluded that a most advantageous market approach is reasonable based on the assumption that the goal of most entities is to maximize profits or net assets. The most advantageous market approach embodies both the buying side and the selling side of rational economic behavior and is consistent with normal profit motivations.

C28. Respondents generally agreed with that most advantageous market approach. However, some respondents interpreted the related guidance within Level 1 as requiring the use of prices in most advantageous markets over prices in principal markets, referring to possible conflicts with ASR No. 118, *Accounting for Investment Securities by Registered Investment Companies*, and its principal market approach for registered funds. They noted that an approach that prioritizes prices in most advantageous markets over prices in principal markets would not be cost effective because it would require continuous evaluations of prices for multiple assets and liabilities as a basis for determining which of those prices are the most advantageous at the measurement date. The Board agreed that its intent was not to require that entities continuously search across all possible markets in which transactions for the related asset or liability can be observed for the most advantageous price for the asset or liability. To convey its intent more clearly, the Board clarified its view that generally the principal market for an asset or liability (the market in which the reporting entity would sell the asset or transfer the liability with the greatest volume and level of activity for the asset or liability) will represent the most advantageous market for the asset or liability. Accordingly, this Statement specifies that if there is a principal market for the asset or liability (determined under ASR 118 or otherwise), the fair value measurement should represent the price in that market (whether observable or otherwise determined using a valuation technique), even if the price in a different market is potentially more advantageous at the measurement date.

C29. Some respondents further indicated that to achieve consistency in applying the fair value measurement objective in this Statement, the principal (or most advantageous) market approach should not be limited to Level 1; it is a general principle that should apply broadly. The Board agreed and decided to expand the principal (or most advantageous) market approach so that it applies broadly. The Board observed that because different entities (and operating units within those entities) with different activities transact in different markets, the principal (or most advantageous) market for the same asset or liability might be different for different entities. Because financial reporting is from the perspective of the reporting entity, the Board determined that an exit price should be determined based on the interaction of market participants (buyers and sellers) in the principal (or most advantageous) market considered from the perspective of the reporting entity, thereby allowing for differences between and among entities.

C30. The Board affirmed that the price in the principal (or most advantageous) market used to measure the fair value of an asset or liability should not be adjusted for transaction costs. Transaction costs refer to the incremental direct costs to transact in the principal (or most advantageous) market for the asset or liability, similar to cost to sell as defined in paragraph 35 of FASB Statement No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*, and may differ, depending on how the reporting entity transacts. In other words, transaction costs are not an attribute of an asset or liability.

C31. In response to related issues raised by some respondents, the Board clarified that transaction costs are different from transportation costs, that is, the costs that would be incurred to transport the asset or liability to (or from) its principal (or most advantageous) market. This Statement clarifies that if location is an attribute of the asset or liability (for example, a commodity), the price in the principal (or most advantageous) market used to measure the fair value of the asset or liability should be adjusted for those costs.

Market Participants

C32 This Statement emphasizes that a fair value measurement is a market-based measurement, not an entity-specific measurement. Therefore, a fair value measurement should be determined based on the assumptions that market participants—buyers and sellers in the principal (or most advantageous) market for the asset or liability—would use in pricing the asset or liability. Paragraph 26 of Concepts Statement 7 explains:

> Among their many functions, markets are systems that transmit information in the form of prices. Marketplace participants attribute prices to assets and, in doing so, distinguish the risks and rewards of one asset from those of another. Stated differently, the market's pricing mechanism ensures that unlike things do not appear alike and that like things do not appear to be different (a qualitative characteristic of accounting information). An observed market price encompasses the consensus view of all marketplace participants about an asset or liability's utility, future cash flows, the uncertainties surrounding those cash flows, and the amount that marketplace participants demand for bearing those uncertainties.

C33. To convey more clearly the idea of a measurement that is made from the perspective of market participants, this Statement clarifies the "willing parties" referred to in earlier definitions of fair value in the context of market participants, referring to buyers and sellers in the principal (or most advantageous) market for the asset or liability that are independent of the reporting entity (unrelated), knowledgeable, and both able and willing to transact.

C34. In that context, some respondents questioned the extent to which market participants would be expected to be knowledgeable, referring to markets that are characterized by information asymmetry, where some market participants have information about an asset or liability that is not available to other market participants. The Board agreed that it would be reasonable to presume that a market participant that is both able and willing to transact for the asset or liability would undertake efforts necessary to become sufficiently knowledgeable about the asset or liability based on available information, including information obtained through usual and customary due diligence efforts, and would factor any related risk into the fair value measurement.

Application to Assets

C35. For an asset, a fair value measurement assumes the highest and best use of the asset by market participants.

Highest and Best Use

C36. Highest and best use is a valuation concept used to value many assets (for example, real estate). In broad terms, the highest and best use of an asset refers to the use of an asset that would maximize the fair value of the asset or the group of assets in which the asset would be used by market participants. Highest and best use is determined based on the use of the asset by market participants, even if the intended use of the asset by the reporting entity is different. Paragraph 32(a) of Concepts Statement 7 explains:

> The entity's managers might intend a different use or settlement than that anticipated by others. For example, they might intend to operate a property as a bowling alley, even though others in the marketplace consider its highest and best use to be a parking lot.

C37. This Statement incorporates that highest-and-best-use concept as a basis for selecting the valuation premise that should be used to measure the fair value of the asset. If the highest and best use of an asset is in-use, the fair value of the asset would be measured using an in-use valuation premise, reflecting the price that would be received in a current transaction to sell the asset assuming that the asset would be used with other assets as a group and that those assets would be available to market participants. If the highest and best use of an asset is in-exchange, the fair value of the asset would be measured using an in-exchange valuation premise, reflecting the price that would be received in a current transaction to sell the asset standalone.

C38. In the context of the related guidance included in the Exposure Draft, some respondents referred to possible conflicts between the in-use valuation premise and the exchange notion encompassed within the definition of fair value. In this Statement, the Board clarified that the exchange notion applies regardless of the valuation premise used to measure the fair value of an asset. Whether using an in-use or an in-exchange valuation premise, the measurement is a market-based measurement determined based on the use of an asset by market participants, not a value determined based solely on the use of an asset by the reporting entity (a value-in-use or entity-specific measurement).

Application to Liabilities

C39. For a liability, a fair value measurement assumes that the liability is transferred to a market participant at the measurement date and that the nonperformance risk relating to that liability (that is, the risk that the obligation will not be fulfilled) is the same before and after its transfer.

The Transfer

C40. Because the liability is transferred to a market participant, the liability continues; it is not settled with the counterparty. The Board acknowledged that in some cases, the reporting entity might not have the intent to transfer the liability to a third party. For example, the reporting entity might have advantages (or disadvantages) relative to the market that would make it more (or less) beneficial for the reporting entity to perform or otherwise settle the liability using its own internal resources. However, the Board agreed that the fair value of the liability from the perspective of a market participant is the same regardless of how the reporting entity intends to settle the liability. Conceptually, a fair value measurement provides a market benchmark to use as a basis for assessing the reporting entity's advantages (or disadvantages) in performance or settlement relative to the market. Specifically, when a liability is measured at fair value, the relative efficiency of the reporting entity in settling the liability using its own internal resources appears in earnings over the course of its settlement, not before.

C41. In the context of both assets and liabilities, paragraph 33 of Concepts Statement 7 explains:

> If the entity measures an asset or liability at fair value, its comparative advantage or disadvantage will appear in earnings as it realizes assets or settles liabilities for amounts different [from] fair value. The effect on earnings appears when the advantage is employed to achieve cost savings or the disadvantage results in excess costs. In contrast, if the entity measures an asset or liability using a measurement other than fair value, its comparative advantage or disadvantage is embedded in the measurement of the asset or liability at initial recognition. If the offsetting entry is to revenue or expense, measurements other than fair value cause the future effects of this comparative advantage or disadvantage to be recognized in earnings at initial measurement.

Nonperformance Risk and Credit Standing

C42. Nonperformance risk includes (but may not be limited to) the reporting entity's own credit risk. In the Exposure Draft, the Board concluded, as it did in Concepts Statement 7, that a fair value measurement for a liability always considers the credit risk of the entity obligated to perform. Those who might hold the reporting entity's obligations as assets would consider the effect of the entity's credit risk in determining the prices they would be willing to pay. Therefore, this Statement clarifies that a fair value measurement for a liability should consider the effect of the reporting entity's own credit risk (credit standing) on the fair value of the liability in all periods in which the liability is measured at fair value.

C43. Respondents agreed that, conceptually, the effect of the reporting entity's own credit standing should be considered in all liability measurements at fair value. However, they expressed concerns about requiring that the reporting entity consider the effect of changes in its credit standing in liability remeasurements at fair value, noting that related issues are not clearly and consistently addressed in GAAP (including Statements 107 and 133).

C44. Paragraph 68 of Statement 107 states:

> The Board acknowledges that, as for assets with no quoted prices, variations in the methods used to estimate the fair value of liabilities with no quoted prices might reduce the comparability of fair value information among entities. Some entities will estimate fair value by using an incremental rate of borrowing that considers changes in an entity's own credit risk, while others will use a settlement rate that ignores at least part of those credit risk changes. However, the Board concluded that it should not, at this time, prescribe a single method to be used for all unquoted liabilities.

C45. Similarly, paragraph 316 of Statement 133 states:

> Some respondents to the Exposure Draft noted that Statement 107 permits an entity to choose whether to consider changes in its own creditworthiness in determining the fair value of its debt and asked for further guidance on that issue. The definition of fair value in Statement 125 says that in measuring liabilities at fair value by discounting estimated future cash flows, an objective is to use discount rates at which those liabilities could be settled in an arm's-length transaction. However, the FASB's pronouncements to date have not broadly addressed whether changes in a debtor's creditworthiness after incurrence of a liability should be reflected in measuring its fair value. Pending resolution of the broad issue of the effect of a debtor's creditworthiness on the fair value of its liabilities, the Board decided to use the definition in Statement 125 but not to provide additional guidance on reflecting the effects of changes in creditworthiness.

C46. Respondents' concerns focused on the counterintuitive and potentially confusing reporting that could result from including the effect of changes in the reporting entity's credit standing in liability remeasurements at fair value ("gains" for credit deterioration and "losses" for credit improvements). Respondents acknowledged that liabilities currently remeasured at fair value on a regular basis are limited largely to derivative liabilities under Statement 133. However, they stated that issues related to credit standing and liability remeasurements will become more pervasive as more liabilities are remeasured at fair value on a regular basis (referring to other agenda projects, including the fair value option project). Respondents urged the Board to address related issues in this Statement.

C47. In its redeliberations, the Board noted that in Concepts Statement 7, it considered issues related to credit standing and liability remeasurements similar to those referred to by respondents. Paragraphs 83–88 of Concepts Statement 7 explain:

> The role of an entity's credit standing in the accounting measurement of its liabilities has been a controversial question among accountants. The entity's credit standing clearly affects the interest rate at which it borrows in the marketplace. The initial proceeds of a loan, therefore, always reflect the entity's credit standing at that time. Similarly, the price at which others buy and sell the entity's loan includes their assessment of the entity's ability to repay... However, some have questioned whether an entity's financial statements should reflect the effect of its credit standing (or changes in credit standing).
>
> Some suggest that the measurement objective for liabilities is fundamentally different from the measurement objective for assets. In their view, financial statement users are better served by liability measurements that focus on the entity's obligation. They suggest a measurement approach in which financial statements would portray the present value of an obligation such

that two entities with the same obligation but different credit standing would report the same carrying amount. Some existing accounting pronouncements take this approach, most notably FASB Statements No. 87, *Employers' Accounting for Pensions*, and No. 106, *Employers' Accounting for Postretirement Benefits Other Than Pensions*.

However, there is no convincing rationale for why the initial measurement of some liabilities would necessarily include the effect of credit standing (as in a loan for cash) while others might not (as in a warranty liability or similar item). Similarly, there is no rationale for why, in initial or fresh-start measurement, the recorded amount of a liability should reflect something other than the price that would exist in the marketplace. Consistent with its conclusions on fair value (refer to paragraph 30), the Board found no rationale for taking a different view in subsequent fresh-start measurements of an existing asset or liability than would pertain to measurements at initial recognition.

Some argue that changes in an entity's credit standing are not relevant to users of financial statements. In their view, a fresh-start measurement that reflects changes in credit standing produces accounting results that are confusing. If the measurement includes changes in credit standing, and an entity's credit standing declines, the fresh-start measurement of its liabilities declines. That decline in liabilities is accompanied by an increase in owners' equity, a result that they find counterintuitive. How, they ask, can a bad thing (declining credit standing) produce a good thing (increased owners' equity)?

Like all measurements at fair value, fresh-start measurement of liabilities can produce unfamiliar results when compared with reporting the liabilities on an amortized basis. A change in credit standing represents a change in the relative positions of the two classes of claimants (shareholders and creditors) to an entity's assets. If the credit standing diminishes, the fair value of creditors' claims diminishes. The amount of shareholders' residual claim to the entity's assets may appear to increase, but that increase probably is offset by losses that may have occasioned the decline in credit standing. Because shareholders usually cannot be called on to pay a corporation's liabilities, the amount of their residual claims approaches, and is limited by, zero. Thus, a change in the position of borrowers necessarily alters the position of shareholders, and vice versa.

The failure to include changes in credit standing in the measurement of a liability ignores economic differences between liabilities. Consider the case of an entity that has two classes of borrowing. Class One was transacted when the entity had a strong credit standing and a correspondingly low interest rate. Class Two is new and was transacted under the entity's current lower credit standing. Both classes trade in the marketplace based on the entity's current credit standing. If the two liabilities are subject to fresh-start measurement, failing to include changes in the entity's credit standing makes the classes of borrowings seem different—even though the marketplace evaluates the quality of their respective cash flows as similar to one another.

C48. The Board further noted that in the amendment to IAS 39, *Financial Instruments: Recognition and Measurement—The Fair Value Option*, the International Accounting Standards Board (IASB) considered similar issues in the context of a financial liability. Paragraph BC89 of the IAS 39 amendment explains that in reaching its decision to include credit risk relating to a financial liability in the measurement of that liability, the IASB noted that ". . . credit risk affects the value at which liabilities could be repurchased or settled. Accordingly, the fair value of a financial liability reflects the credit risk relating to that liability."

C49. In its redeliberations, the Board affirmed that, conceptually, credit standing is an essential component of a fair value measurement. A measurement that does not consider the effect of the reporting entity's credit standing is not a fair value measurement. The Board acknowledged the practical concerns about credit standing and liability remeasurements at fair value expressed by respondents. Some Board members share those concerns, especially considering situations in which the reporting entity is experiencing financial difficulty and reports gains resulting from credit deterioration that cannot be immediately realized. However, the Board agreed that those concerns derive from a threshold issue that relates principally to the selection of the appropriate measurement attribute for liability remeasurements. The Board plans to continue to address the issue of which measurement attribute should be required for liability remeasurements in individual accounting pronouncements on a project-by-project basis.

Interaction between Fair Value and Fair Market Value

C50. The Board agreed that the measurement objective encompassed in the definition of fair value used for financial reporting purposes is generally consistent with similar definitions of fair market value used for valuation purposes. For example, the definition of fair market value in Internal Revenue Service Revenue Ruling 59-60 (the legal standard of value in many valuation situations) refers to "the price at which property would change hands between a willing buyer and a willing seller when the former is not under any compulsion to buy and the latter is not under any compulsion to sell, both parties having reasonable knowledge of relevant facts." However, the Board observed that the definition of fair market value relates principally to assets (property). Further, the definition has a significant body of interpretive case law, developed in the context of tax regulation. Because such interpretive case law, in the context of financial reporting, may not be relevant, the Board chose not to adopt the definition of fair market value, and its interpretive case law, for financial reporting purposes.

Fair Value at Initial Recognition

C51. Respondents indicated that the guidance in the Exposure Draft was ambiguous about when a price in an actual transaction that involves the reporting entity should be used to measure the fair value of an asset or liability at initial recognition. Many of those respondents referred to related practice issues under Issue 02-3 (and its guidance in footnote 3 for fair value measurements at initial recognition). In its redeliberations, the Board considered that issue largely in the context of the related guidance in paragraphs 7 and 27 of Concepts Statement 7, which state:

> At initial recognition, the cash or equivalent amount paid or received (historical cost or proceeds) is usually assumed to approximate fair value, absent evidence to the contrary.
>
> A transaction in the marketplace—an exchange for cash at or near to the date of the transaction—is the most common trigger for accounting recognition, and accountants typically accept actual exchange prices as fair value in measuring those transactions, absent persuasive evidence to the contrary. Indeed, the usual condition for using a measurement other than the exchange price is a conclusion that the stated price is not representative of fair value. [Footnote reference omitted.]

C52. In this Statement, the Board clarified that in situations in which the reporting entity acquires an asset or assumes a liability in an exchange transaction, the transaction price represents the price paid to acquire the asset or received to assume the liability (an entry price). The fair value of the asset or liability represents the price that would be received to sell the asset or paid to transfer the liability (an exit price). Conceptually, entry and exit prices are different. Entities do not necessarily sell or otherwise dispose of assets at the prices paid to acquire them. Similarly, entities do not necessarily transfer liabilities at the prices paid to assume them. The Board agreed that in many cases the transaction price will equal the exit price and, therefore, represent the fair value of the asset or liability at initial recognition, but not presumptively (a change to Concepts Statement 7). This Statement includes examples of factors the reporting entity should consider in determining whether a transaction price represents the fair value of the asset or liability at initial recognition. The Board plans to consider those factors in assessing the appropriate measurement attribute at initial recognition in individual accounting pronouncements on a project-by-project basis.

Valuation Techniques

C53. This Statement emphasizes that valuation techniques used to measure fair value should be consistent with the market approach, income approach, and/or cost approach. The related guidance in the Exposure Draft contained references to the use of "multiple" valuation techniques consistent with all three valuation approaches whenever the information necessary to apply those techniques is available without undue "cost and effort." In its redeliberations, the Board reconsidered and/or clarified certain aspects of that guidance.

Single versus Multiple Valuation Techniques

C54. Several respondents interpreted the related guidance in the Exposure Draft as requiring the use of multiple valuation techniques in all cases (except as otherwise indicated, for example, when valuing an asset or liability using quoted prices in an active market for identical assets or liabilities). They emphasized that in many cases, multiple valuation techniques would not be appropriate or cost beneficial. The Board affirmed that its intent was not to require the use of multiple valuation techniques. To convey its intent more clearly, the Board clarified that, consistent with existing valuation practice, valuation techniques that are appropriate in the circumstances and for which sufficient data are available should be used to measure fair value. This Statement does not specify the valuation technique that should be used in any particular circumstances. Determining the appropriateness of valuation techniques in the circumstances requires judgment.

C55. The Exposure Draft referred to the cost and effort involved in obtaining the information used in a particular valuation technique as a basis for determining whether to use that valuation technique. Some respondents pointed out that the most appropriate valuation technique also might be the most costly valuation technique and that cost and effort should not be a basis for determining whether to use that valuation technique. Moreover, a cost-and-effort criterion likely would not be consistently applied. The Board agreed and removed that cost-and-effort criterion from this Statement.

C56. The Board expects that in some cases, a single valuation technique will be used. In other cases, multiple valuation techniques will be used, and the results of those techniques evaluated and weighted, as appropriate, in determining fair value. The Board acknowledged that valuation techniques will differ, depending on the asset or liability and the availability of data. However, in all cases, the objective is to use the valuation technique (or combination of valuation techniques) that is appropriate in the circumstances and for which there are sufficient data.

Consistency Constraint

C57. This Statement emphasizes the need for consistency in the valuation technique(s) used to measure fair value. This Statement does not preclude a change in the valuation technique used to measure fair value or its application (for example, a change in its weighting when multiple valuation techniques are used), provided that the change results in a measurement that is equally or more representative of fair value in the circumstances. The Board decided that absent an error (for example, in the selection and/or application of a valuation technique), revisions resulting from a change in the valuation technique used or its application should be accounted for as a change in accounting estimate in accordance with the provisions of FASB Statement No. 154, *Accounting Changes and Error Corrections*. The Board concluded that in those situations, the disclosure requirements in Statement 154 for a change in accounting estimate would not be cost beneficial. Therefore, those disclosures are not required.

Present Value Techniques

C58. Valuation techniques consistent with the income approach include the present value techniques discussed in Concepts Statement 7, specifically, the (a) traditional approach (or discount rate adjustment technique) and (b) expected cash flow approach (or expected present value technique). In this Statement, the Board clarified aspects of the guidance for applying those present value techniques in Concepts Statement 7.

C59. Those clarifications focus principally on the adjustment for risk (systematic or nondiversifiable risk) when using an expected present value technique. The Board understands that because Concepts Statement 7 refers to the appropriate discount rate for expected cash flows as the risk-free interest rate, the related guidance could be interpreted as requiring that the adjustment for risk be reflected only in the expected cash flows. However, in many valuation situations, the adjustment for risk is reflected in the discount rate, that is, as an adjustment to the risk-free interest rate. The Board agreed that it was not its intent to preclude that approach. To convey its intent more clearly, the Board expanded the guidance in Concepts Statement 7 to clarify that when using an expected present value technique, the adjustment for risk may be reflected in either:

(a) The expected cash flows, in which case the risk-adjusted expected cash flows should be discounted at a risk-free interest rate (Method 1); or

(b) The discount rate, in which case the unadjusted expected cash flows should be discounted at a risk-adjusted discount rate, that is, the risk-free interest rate, adjusted for risk (Method 2).

C60. In its discussions, the Board acknowledged, as it did in paragraph 68 of Concepts Statement 7, that ". . . the appropriate risk premium consistent with fair value may be difficult to determine." However, the Board decided that the potential difficulty of determining the appropriate risk premium is not, in and of itself, a sufficient basis for excluding that adjustment (in effect, permitting the use of no risk adjustment). Risk is an essential element of any present value technique. Therefore, a fair value measurement, using present value, should include an adjustment for risk if market participants would include one in pricing the related asset or liability.

C61. This Statement incorporates the related guidance in Concepts Statement 7, as clarified. (See Appendix B.) However, the Board decided not to revise Concepts Statement 7 in this project to reflect conforming changes to that guidance. Some respondents indicated that leaving the conceptual guidance in Concepts Statement 7 unchanged would create conflicts between the Concepts Statements and Level A GAAP that would be confusing. The Board acknowledged those concerns but concluded that it was not necessary to revise Concepts Statement 7 at this time. The Board will consider the need to revise Concepts Statement 7 in its conceptual framework project.

Multiperiod Excess Earnings Method

C62. In response to questions raised by some respondents, the Board clarified that valuation techniques consistent with the income approach also include the multiperiod excess earnings method discussed in the AICPA Practice Aid, *Assets Acquired in a Business Combination to Be Used in Research and Development Activities: A Focus on Software, Electronic Devices, and Pharmaceutical Industries* (Practice Aid). However, for in-process research and development (IPR&D), the Board observed that the related guidance in the Practice Aid could be interpreted as permitting a fair value measurement using an in-exchange valuation premise (to value the IPR&D standalone) in some situations in which this Statement would require a fair value measurement using an in-use valuation premise (to value the IPR&D within a group of assets). For example, that might be the case if, for competitive reasons, the reporting entity intends to hold (lock up) IPR&D acquired in a business combination that market participants would develop (and use within a group of assets). The Board agreed that the multiperiod excess earnings method should continue to be used under this Statement. However, consistent with the related guidance in this Statement, the valuation premise used for the fair value measurement should be determined based on the use of an asset by market participants, even if the intended use by the reporting entity is different.

Inputs to Valuation Techniques

C63. In this Statement, *inputs* refer broadly to the assumptions that market participants would use in pricing the asset or liability, including assumptions about risk. The Board decided that a necessary input to a valuation technique is an adjustment for risk. The measurement should include an adjustment for risk whenever market participants would include one in pricing the related asset or liability (consistent with the risk premium notion in Concepts Statement 7, reconsidered in this Statement) so that the measurement reflects an exit price for the related asset or liability, that is, the price the reporting entity would receive (or pay) in a transaction to sell (or transfer) the related asset (or liability). In this Statement, the Board focused on the need to adjust for the risk inherent in a particular valuation technique used to measure fair value, such as a pricing model (model risk) and/or the risk inherent in the inputs to the valuation technique (input risk).

Fair Value Hierarchy

C64. To increase consistency and comparability in fair value measurements and related disclosures, this Statement establishes a fair value hierarchy that prioritizes the inputs used to measure fair value into three broad levels, considering the relative reliability of the inputs. The availability of inputs might affect the valuation technique(s) used to measure fair value. However, the fair value hierarchy focuses on the inputs, not the valuation techniques, thereby requiring judgment in the selection and application of valuation techniques.

C65. Many respondents generally agreed that prioritizing the inputs used to measure fair value is important and that the fair value hierarchy provides a useful construct for considering the relative reliability of fair value measurements. However, several respondents urged the Board to revise the fair value hierarchy initially proposed in the Exposure Draft to convey more clearly a continuum of inputs. The principal concerns focused on the use of the fair value hierarchy as a framework for disclosures about fair value measurements. In response, the Board subsequently revised the fair value hierarchy, as discussed below.

Level 1 Inputs

C66. Like the Exposure Draft, this Statement includes within Level 1 quoted prices (unadjusted) in active markets for identical assets or liabilities. The Board affirmed its conclusion in other accounting pronouncements that quoted prices in active markets generally provide the most reliable evidence of fair value and should be used to measure fair value whenever available. For example, paragraph 57 of Statement 107 states:

> The Board concluded that quoted market prices provide the most reliable measure of fair value. Quoted market prices are easy to obtain and are reliable and verifiable. They are used and relied upon regularly and are well understood by investors, creditors, and other users of financial information. In recent years, new markets have developed and some existing markets have evolved from thin to active markets, thereby increasing the ready availability of reliable fair value information.

C67. The Board also affirmed its decision in the Exposure Draft that a fair value measurement within Level 1 should be based on a quoted price in an active market that the reporting entity has the ability to access for the asset or liability at the measurement date. Because a quoted price, alone, forms the basis for the measurement, the access requirement within Level 1 limits discretion in pricing the asset or liability, including in situations in which there are multiple markets for the asset or liability with different prices and no single market represents a principal market for the asset or liability.

Adjustments to Quoted Prices in Active Markets

C68. The Exposure Draft emphasized that a quoted price (unadjusted) in an active market should be used to measure fair value whenever it is available. Some respondents interpreted the related guidance as requiring the use of a quoted price in an active market without regard to whether that price is readily available or representative of fair value. Those respondents referred to possible conflicts with ASR 118, which requires adjustments to a quoted price in those situations (fair value pricing). In its redeliberations, the Board affirmed that its intent was not to preclude adjustments to a quoted price if that price is not readily available or representative of fair value, noting that in those situations, the market for the particular asset or liability might not be active. To convey its intent more clearly, the Board clarified that in those situations, the fair value of the asset or liability should be measured using the quoted price, as adjusted, but within a lower level of the fair value hierarchy.

C69. A few respondents referred to situations in which an entity holds a large number of similar assets and liabilities (for example, debt securities) that are required to be measured at fair value and a quoted price in an active market is not readily accessible for each of those assets and liabilities. They indicated that in those situations, the fair value hierarchy should allow for practical considerations and trade-offs in selecting the valuation technique used to measure fair value within Level 1, considering the number of assets and/or liabilities required to be measured in a financial reporting period and the timing of that reporting. The Board subsequently revised the guidance within Level 1 to allow for the use of an alternative pricing method that does not rely exclusively on quoted prices (for example, matrix pricing) as a practical expedient in the limited situations referred to. However, when the practical expedient within Level 1 is used, the fair value measurement is a lower level measurement.

C70. The Board observed that in some cases, significant events (for example, principal-to-principal transactions, brokered trades, or announcements) might occur after the close of a market but before the measurement date. In those cases, a quoted price in that market might not be representative of fair value at the measurement date. The Board affirmed its view in the Exposure Draft that the reporting entity need not undertake all possible efforts to obtain information about after-hours trading or news events. However, the reporting entity should not ignore information that is available at the reporting date (for example, a large change in the price in another market after the close of the principal market in which the asset or liability trades). The Board agreed that entities should establish and consistently apply a policy for identifying those events that might affect fair value measurements. However, if a quoted price is adjusted for new information, the fair value measurement is a lower level measurement.

Financial Instruments

C71. Prior to this Statement, the FASB, the AICPA Accounting Standards Executive Committee (AcSEC), the Securities and Exchange Commission (SEC), and others considered issues relating to fair value measurements involving financial instruments. The threshold issue focused on whether the appropriate unit of account for a block position in an instrument that trades in an active market is (a) the individual trading unit, where the fair value measurement would be determined as the product of the quoted price for the individual instrument times the quantity held (P×Q), or (b) the block, where the fair value measurement would be determined using the quoted price, adjusted because of the size of the position relative to trading volume (blockage factor).

C72. In other FASB Statements (including Statements 107 and 133, and FASB Statements No. 115, *Accounting for Certain Investments in Debt and Equity Securities*, and No. 124, *Accounting for Certain Investments Held by Not-for-Profit Organizations*), the Board decided that for a block, the fair value measurement should be based on the individual trading unit, determined using P×Q. Therefore, those Statements preclude the use of a blockage factor, even if the normal trading volume for one day is not sufficient to absorb the quantity held and placing orders to sell the position in a single transaction might affect the quoted price.

C73. Paragraph 58 of Statement 107 states:

> Although many respondents to the 1990 and 1987 Exposure Drafts agreed with the usefulness of disclosing quoted market prices derived from active markets, some argued that quoted prices from thin markets do not provide relevant measures of fair value, particularly when an entity holds a large amount of a thinly traded financial instrument that could not be absorbed by the market in a single transaction. The Board considered this issue and reiterated its belief that quoted prices, even from thin markets, provide useful information because investors and creditors regularly rely on those prices to make their decisions. The Board noted that providing the liquidation value of a block of financial instruments is not the objective of this Statement. The Board also concluded that requiring the use of available quoted market prices would increase the comparability of the disclosures among entities.

C74. Similarly, paragraph 315 of Statement 133 states:

> The definition of fair value requires that fair value be determined as the product of the number of trading units of an asset times a quoted market price if available [as required by Statement 107]. . . . Some respondents to the Exposure Draft indicated that the guidance in Statement 107 (and implicitly the definition of *fair value* in this Statement) should be revised to require or permit consideration of a discount in valuing a large asset position.

They asserted that an entity that holds a relatively large amount (compared with average trading volume) of a traded asset and liquidates the entire amount at one time likely would receive an amount less than the quoted market price. Although respondents generally focused on a discount, holding a relatively large amount of an asset might sometimes result in a premium over the market price for a single trading unit. The Board currently believes that the use of a blockage factor would lessen the reliability and comparability of reported estimates of fair value.

C75. For broker-dealers and certain investment companies (investment companies other than registered funds subject to SEC reporting requirements that used blockage factors in financial statements for fiscal years ending on or before May 31, 2000), the AICPA Audit and Accounting Guides for those industries allowed an exception to the requirement of other FASB pronouncements to use P×Q to measure the fair value of a block. Specifically, the Guides permitted a fair value measurement using a blockage factor, where appropriate.

C76. In developing this Statement, the Board decided to address that inconsistency within GAAP. The Board considered the earlier work completed by AcSEC through its Blockage Factor Task Force, which was formed in 2000 to address issues specific to the use of blockage factors (discounts) by broker-dealers and investment companies. Based on its discussions with industry representatives (broker-dealers, mutual funds, and other investment companies) and a review of relevant academic research and market data, the task force affirmed that discounts involving large blocks exist, generally increasing as the size of the block to be traded (expressed as a percentage of the daily trading volume) increases but that the methods for measuring the blockage factors (discounts) vary among entities and are largely subjective.

C77. In the Exposure Draft, the Board acknowledged the diversity in practice with respect to the methods for measuring blockage factors (discounts). However, the Board agreed that for entities that regularly buy and sell securities in blocks, the financial reporting that would result when using P×Q to measure the fair value of a block position would not be representationally faithful of the underlying business activities. In particular, if a block is purchased at a discount to the quoted price, a fair value measurement using P×Q would give the appearance of a gain upon buying the block, followed by a reported loss on subsequently selling the block (at a discount to the quoted price). At that time, the Board understood that for blocks held by broker-dealers, industry practice was to also sell the securities in blocks. In view of that selling practice (in blocks), the Board decided that this Statement should allow the exception to P×Q in the Guides to continue, thereby permitting the use of blockage factors by broker-dealers and certain investment companies that buy or sell securities in blocks.

C78. Many respondents, in particular, broker-dealers, agreed with that decision. However, during its redeliberations, the Board discussed the need for expanded disclosures about blocks measured using blockage factors with representative preparers (broker-dealers) and users (analysts that follow broker-dealers). Through those discussions, the Board learned that for blocks held by broker-dealers, industry practice is often to sell the securities in multiple transactions involving quantities that might be large but that are not necessarily blocks; that is, the securities could be sold at the quoted price for an individual trading unit. Because of that selling practice, the majority of the Board decided that there was no compelling reason to allow the exception to P×Q in the Guides to continue under this Statement, noting that revised IAS 39 includes similar guidance in paragraph AG72, which states that "the fair value of a portfolio of financial instruments is the product of the number of units of the instrument and its quoted market price."

C79. In reaching that decision, the majority of the Board affirmed its conclusions relating to the prohibition on the use of blockage factors in other FASB Statements. In particular, the Board emphasized that when a quoted price in an active market for a security is available, that price should be used to measure fair value without regard to an entity's intent to transact at that price. Basing the fair value on the quoted price results in comparable reporting. Adjusting the price for the size of the position introduces management intent (to trade in blocks) into the measurement, reducing comparability. Following the reasoning used in Statement 107, the quoted price provides useful information because investors regularly rely on quoted prices for decision making. Also, the decision to exchange a large position in a single transaction at a price lower than the price that would be available if the position were to be exchanged in multiple transactions (in smaller quantities) is a decision whose consequences should be reported when that decision is executed. Until that transaction occurs, the entity that holds the block has the ability to effect the transaction either in the block market or in another market (the principal or more advantageous market for the individual trading unit).

C80. This Statement precludes the use of blockage factors and eliminates the exception to PxQ in the Guides for a financial instrument that trades in an active market (within Level 1). In other words, the unit of account for an instrument that trades in an active market is the individual trading unit. This Statement amends Statements 107, 115, 124, 133, and 140 to remove the similar unit-of-account guidance in those accounting pronouncements, which referred to a fair value measurement using PxQ for an instrument that trades in any market, including a market that is not active, for example, a thin market (within Level 2). In this Statement, the Board decided not to specify the unit of account for an instrument that trades in a market that is not active. The Board plans to address unit-of-account issues broadly in its conceptual framework project.

Level 2 Inputs

C81. The Exposure Draft limited the inputs within Level 2 to quoted prices in active markets for similar assets or liabilities, adjusted for differences that are objectively determinable. Several respondents indicated that because all adjustments involve some degree of subjective judgment and estimation, Level 2 would be overly restrictive. The Board agreed and decided to broaden Level 2 to include all inputs other than quoted prices included within Level 1 that are observable for the asset or liability.

C82. Observable inputs within Level 2 include inputs that are directly observable for the asset or liability (including quoted prices for similar assets or liabilities) as well as inputs that are not directly observable for the asset or liability but that are derived principally from or corroborated by observable market data through correlation or by other means (market-corroborated inputs). The concept of market-corroborated inputs is intended to incorporate observable market data (such as interest rates and yield curves that are observable at commonly quoted intervals), based on an assessment of factors relevant to the asset or liability. The Board concluded that market-corroborated inputs are observable inputs and that fair value measurements using market-corroborated inputs (within Level 2) should be distinguished from fair value measurements using unobservable inputs (within Level 3).

Level 3 Inputs

C83. The Exposure Draft included within a single level (Level 3) observable inputs other than quoted prices in active markets (for identical or similar assets or liabilities) together with all unobservable inputs (previously referred to as entity inputs). Several respondents observed that fair value measurements reported and disclosed within Level 3 would be overly broad. In particular, they indicated that the measurements would range widely in reliability and that including such a wide range in a single level could be misleading to users of financial statements. Some fair value measurements would be objectively determined (using quoted inputs other than prices), while other fair value measurements would be more subjectively determined (using unobservable inputs). The Board agreed and decided to limit Level 3 inputs to unobservable inputs.

C84. In reaching that decision, the Board affirmed its conclusion in other accounting pronouncements that unobservable inputs should be used to measure fair value to the extent that observable inputs are not available, allowing for situations in which there might be little, if any, market activity for the asset or liability at the measurement date. However, the fair value measurement objective remains the same—an exit price from the perspective of a market participant that holds the asset or owes the liability. Therefore, unobservable inputs should reflect the reporting entity's own assumptions about the assumptions market participants would use in pricing the asset or liability (including assumptions about risk) developed based on the best information available in the circumstances.

C85. The Board agreed that in many cases, the best information available with which to develop unobservable inputs might be the reporting entity's own data. The Board affirmed its view in Concepts Statement 7 (and other existing accounting pronouncements) that the reporting entity may use its own data to develop unobservable inputs, provided that there is no information reasonably available without undue cost and effort that indicates that market participants would use different assumptions in pricing the asset or liability. Paragraph 38 of Concepts Statement 7 explains:

> . . . an entity that uses cash flows in accounting measurements often has little or no information about some or all of the assumptions that marketplace participants would use in assessing the fair value of an asset or a liability. In those situations, the entity must necessarily use the information that is available without undue cost and effort in developing cash flow estimates. The use of an entity's own assumptions about future cash flows is compatible with an estimate of fair value, as long as there are no contrary data indicating that marketplace participants would use different assumptions. If such data exist, the entity must adjust its assumptions to incorporate that market information.

C86. In this Statement, the Board clarified that the reporting entity need not undertake all possible efforts to obtain information about the assumptions that market participants would use in pricing the asset or liability or otherwise establish the absence of contrary data indicating that market participants would use different assumptions. However, the reporting entity must not ignore information about market participant assumptions that is available within reasonable cost-benefit constraints.

C87. Within Level 3, unobservable inputs relevant to the asset or liability should be used as a basis for replicating the actions of market participants in a hypothetical transaction for the asset or liability at the measurement date. The Board understands that for some, a measurement using a hypothetical construct that relies on unobservable inputs raises concerns about the resulting fair value measurement. In particular, some believe that a hypothetical construct might not faithfully represent an actual economic phenomenon and, as such, would seem to be of questionable relevance to users of financial statements. Some Board members share those concerns. However, the Board agreed that concerns about fair value measurements that are predicated on hypothetical transactions in hypothetical markets derive from a threshold issue that relates principally to the selection of the appropriate measurement attribute, an area of focus in the Board's conceptual framework project. The Board plans to continue to address the issue of which measurement attribute should be required in individual accounting pronouncements on a project-by-project basis.

Inputs Based on Bid and Ask Prices

C88. The Board observed that in some situations, inputs might be determined based on bid and ask prices, for example, in a dealer market where the bid price represents the price the dealer is willing to pay and the ask price represents the price at which the dealer is willing to sell. The related guidance in ASR 118 provides entities (investment companies and broker-dealers) with flexibility in selecting the bid-ask pricing method used to measure fair value. Accordingly, the practice that has evolved under ASR 118 is diverse.

C89. In the Exposure Draft, the Board agreed that a single bid-ask spread pricing method would maximize the consistency and comparability of fair value measurements within Level 1. At that time, the Board decided to require the use of bid prices for long positions (assets) and ask prices for short positions (liabilities), similar to the related guidance in paragraph BC99 of revised IAS 39, which states:

> The Board confirmed the proposal in the Exposure Draft that the appropriate quoted market price for an asset held or liability to be issued is usually the current bid price and, for an asset to be acquired or liability held, the asking price. It concluded that applying mid-market prices to an individual instrument is not appropriate because it would result in entities recognising up-front gains or losses for the difference between the bid-ask price and the mid-market price.

C90. Respondents agreed that a single bid-ask spread pricing method would maximize the consistency and comparability of fair value measurements using bid and ask prices. However, many respondents stated that because different market participants transact at different prices within a bid-ask spread, the resulting measurements would not be relevant in all cases. Some of those respondents emphasized that for entities that enter into derivative instruments to manage risk, the bid-ask spread pricing method would create operational difficulties because many of those instruments are traded in active dealer markets and currently valued using other pricing methods (for example, mid-market prices or prices within a range of observable bid and ask prices). Other respondents indicated that the bid-ask spread pricing method within Level 1 would create inconsistencies between fair value measurements using bid and ask prices within Level 1 and fair value measurements using bid and ask prices within other levels of the fair value hierarchy. Respondents stated that this Statement should allow an approach consistent with the related guidance in ASR 118.

C91. In its redeliberations, the Board reconsidered the required bid-ask spread pricing method within Level 1. The Board decided that the price within the bid-ask spread that is most representative of fair value in the circumstances should be used to measure the fair value of the related asset or liability within all levels of the fair value hierarchy, provided that the price is consistently determined. In reaching that decision, the Board observed that in many situations, bid and ask prices establish the boundaries within which market participants would negotiate the price in the exchange for the related asset or liability. The Board concluded that having clarified the fair value measurement objective in this Statement, entities should use judgment in meeting that objective. Accordingly, bid-ask spread pricing methods appropriate under ASR 118 are appropriate under this Statement. The use of bid prices for long positions (assets) and ask prices for short positions (liabilities) is permitted but not required.

C92. Because the Exposure Draft would have required the use of bid prices for long positions (assets) and ask prices for short positions (liabilities), the Board initially decided to specify the pricing for offsetting positions to preclude recognition of up-front gains or losses. Specifically, the Board decided to require the use of mid-market prices for the matched portion and bid and ask prices for the net open position, as appropriate, similar to the related guidance in paragraph BC100 of revised IAS 39. Because this Statement does not require the use of bid prices for long positions (assets) and ask prices for short positions (liabilities), the Board decided not to include in this Statement the guidance for offsetting positions in the Exposure Draft.

Disclosures

C93. The Board observed that few of the accounting pronouncements that require fair value measurements also require disclosures about those measurements. Further, the required disclosures vary. The Board decided that having established a framework for measuring fair value, this Statement should require expanded disclosures about fair value measurements. Because at initial recognition many assets and liabilities are measured in the statement of financial position at amounts that approximate fair value (for example, in a business combination), the Board decided to limit the disclosures to fair value measurements in periods subsequent to initial recognition, whether the measurements are made on a recurring or nonrecurring basis.

C94. Some respondents disagreed with the Board's decision to include expanded disclosures about fair value measurements in this Statement. They indicated that, instead, the Board should develop a comprehensive disclosure framework and reconsider all related disclosures currently required under existing accounting pronouncements in the context of that framework. Some of those respondents further indicated that the Board should consider disclosures about fair value (and changes in fair value) in its project on financial statement presentation (formerly, financial performance reporting by business enterprises). In the Exposure Draft, the Board considered the interaction between that project and the fair value measurement project. Based on input initially received from members of the User Advisory Council and others, the Board decided that until such time as a final Statement in that project is issued, expanded disclosures about fair value measurements would provide information that is useful to users of financial statements. The Board agreed that the issues raised by respondents indicate the need to reconsider or otherwise clarify some of the disclosure requirements initially proposed in the Exposure Draft, but not eliminate those requirements from this Statement altogether, noting that some entities (in particular, entities in the financial services industry) already are making similar disclosures in SEC filings.

Fair Value Measurements

C95. The Board affirmed that the reporting entity should disclose information that enables users of its financial statements to assess the extent to which fair value is used to measure assets and liabilities in periods subsequent to initial recognition and the inputs used for fair value measurements. In the Exposure Draft, the Board concluded that information about the inputs used for fair value measurements would allow users of financial statements to assess the relative reliability of the measurements. Many respondents generally agreed with those disclosures, subject to clarifications to conform the disclosures to the levels within the fair value hierarchy, as revised. Therefore, the disclosures required by this Statement segregate fair value measurements using quoted prices in active markets for identical assets or liabilities (Level 1), significant other observable inputs (Level 2), and significant unobservable inputs (Level 3), separately for each major category of assets and liabilities. To improve consistency in the fair value measurements disclosed, this Statement specifies that the level within the fair value hierarchy in which a fair value measurement in its entirety falls should be determined based on the lowest level input that is significant to the measurement in its entirety.

Level 3 Reconciliation for Recurring Fair Value Measurements

C96. The Board affirmed that the reporting entity should disclose information that enables users of its financial statements to assess the effects of recurring fair value measurements on earnings (or changes in net assets) for the period. That disclosure is limited to recurring fair value measurements because similar disclosures for nonrecurring fair value measurements (for example, impaired assets) are currently required under other accounting pronouncements.

C97. In the Exposure Draft, the Board decided that the disclosures for recurring fair value measurements should focus principally on earnings (or changes in net assets), separate from other comprehensive income, and the unrealized gains or losses included in earnings (or changes in net assets) for the period. In reaching that decision, the Board concluded that information about unrealized gains or losses included in earnings would allow users to broadly assess the quality of reported earnings. However, some respondents disagreed. They stated that disclosures about unrealized gains or losses, alone, would not be cost beneficial and, in some cases, could be misleading. For example, users of financial statements might conclude that unrealized gains or losses are of a lesser quality than realized gains or losses, which might not be the case. Also, because some entities do not currently capture that information, incremental systems changes (in some cases significant) would be required to comply with the disclosures. Those respondents encouraged the Board to reconsider the disclosures.

C98. Concurrent with its redeliberations of related issues in proposed FSP FAS 133-a, the Board discussed the need for expanded disclosures about fair value measurements with certain users of financial statements, including members of the Investor Task Force that concentrate on the investment banking, energy trading, and insurance industries, and members of the User Advisory Council. Those discussions focused on expanded disclosures about recurring fair value measurements using significant unobservable inputs (within Level 3) and the effect of the measurements on earnings for the period. Those users strongly supported the expanded disclosures. They indicated that the expanded disclosures would allow users of financial statements to make more informed judgments and segregate the effects of fair value measurements that are inherently subjective, enhancing their ability to assess the quality of earnings broadly. Based on that input, the Board concluded that expanded disclosures about recurring fair value measurements and the effect of the measurements on earnings (or changes in net assets) for the period, separate from other comprehensive income, would provide useful information to users of financial statements and should be required in this Statement.

C99. To balance the needs of users with the concerns of respondents, the Board discussed the expanded disclosures with some respondents (principally, financial institutions). Those respondents indicated that expanded disclosures for recurring fair value measurements within Level 3 could be provided within reasonable cost-benefit constraints if presented in the form of a reconciliation of beginning and ending balances that segregates all changes during the period for each major category of assets and liabilities, except as follows. They stated that because the same derivative can be an asset in one reporting period and a liability in the next reporting period, separate (gross) presentation for derivative assets and liabilities would not be cost beneficial. In particular, systems changes would be needed to track and reconcile the information necessary to separately capture the related earnings effects. In considering that presentation issue, the Board agreed that the information conveyed by those disclosures would be more meaningful if presented separate (gross) rather than net. However, the Board decided that presentation issues for derivatives disclosures should be considered in the context of its current project on derivatives disclosures. The Board decided to allow derivatives to be presented net for purposes of the reconciliation disclosure in this Statement.

C100. The reconciliation of beginning and ending balances of recurring fair value measurements within Level 3 required in this Statement segregates changes from all sources, including total gains or losses recognized in earnings (or changes in net assets) during the period. The Board concluded (and respondents agreed) that disclosure of total gains or losses would provide needed context for disclosure of the change in unrealized gains or losses recognized in earnings (or changes in net assets) during the period relating to the assets and liabilities measured within Level 3 that are still held at the end of the period. The Board further concluded that because subsequent changes in fair value reflect changes in economic conditions without regard to whether an entity has transacted, disclosure of total gains or losses would provide incremental information about changes in shareholder wealth due to changes in economic conditions that would further enable users of financial statements to assess the effects of fair value measurements on earnings (or changes in net assets) for the period.

Other Disclosures

C101. A few respondents stated that this Statement should standardize disclosures of the discount rate and assumptions used in valuation techniques to measure fair value. The Board affirmed its view in the Exposure Draft that standardizing those disclosures for all assets and liabilities measured at fair value (for example, requiring disclosure of assumptions used to measure fair value) would not be practical. By way of example, the Board referred to other accounting pronouncements in which it reached different decisions on whether to require disclosures about significant assumptions. The Board noted that in some cases, an overwhelming volume of information would need to be disclosed for that information to be meaningful. Because sensitivity disclosures rely largely on those assumptions, the Board also decided not to require sensitivity disclosures (for example, market risk disclosures), as further suggested by some respondents. Instead, this Statement establishes broad disclosure objectives, which the Board expects to consider as a basis for requiring more specific disclosures in individual accounting pronouncements that require fair value measurements on a project-by-project basis.

C102. A few respondents also referred to the disclosures about the fair value of financial instruments required by Statement 107. They suggested that the Board consolidate those disclosures with the disclosures in this Statement. The Board disagreed. The disclosures required by Statement 107 are specific to financial instruments, as defined in that Statement, and extend beyond the measurements themselves. Further, those disclosures apply regardless of whether a financial instrument is recognized in the statement of financial position and measured at fair value. The Board agreed that the disclosures required by this Statement should be encouraged for financial instruments disclosed at fair value, including financial instruments recognized in the statement of financial position at amounts other than fair value (for example, loans carried at cost). Therefore, this Statement amends Statement 107 to refer to the related disclosures in this Statement.

C103. A few respondents also referred to possible conflicts and overlap with SEC disclosure requirements within management discussion and analysis, noting that to varying degrees the disclosures required by this Statement would duplicate those and other industry-specific disclosures made outside the basic financial statements. The Board affirmed its view in the Exposure Draft that the disclosures required by this Statement supplement related disclosures made outside the basic financial statements. The disclosures required by this Statement apply for all entities that hold assets and liabilities recognized in the statement of financial position that are measured at fair value. Further, all entities should include those disclosures within the basic financial statements.

C104. The Board emphasized that consistent with its related codification initiatives, the fair value information disclosed under this Statement should be combined and disclosed together with the fair value information disclosed under other pronouncements, including Statement 107 (for example, in a single fair value footnote), where practicable. The Board concluded that having those disclosures available in one place would enhance users' understanding about fair value and the use of fair value in financial reporting.

Amendment to Opinion 28

C105. In the Exposure Draft, the Board decided that the disclosures required by this Statement should be made in all interim periods. Some respondents emphasized that those disclosures in all interim periods would not be cost beneficial. The Board acknowledged those concerns. However, the Board affirmed its conclusion in the Exposure Draft that fair value disclosures in interim periods would provide timely information to users about fair value measurements and factors affecting those measurements during the year. Moreover, increased information about fair value on an ongoing basis would enhance users' understanding of fair value and the use of fair value in financial reporting. Because of respondents' concerns, the Board decided to limit the disclosures that are required in interim periods to quantitative disclosures. To communicate more clearly the information conveyed by those quantitative disclosures, the Board decided to require tabular presentation (in all periods). In reaching that decision, the Board considered related research, which indicates that tabular presentation of financial information is an important communications tool. This Statement amends APB Opinion No. 28, *Interim Financial Reporting*, to require those disclosures in all interim periods. Qualitative disclosures, for example, narrative disclosure about the valuation techniques used to measure fair value, are required only in annual periods.

Effective Date and Transition

C106. The Board decided that this Statement should be effective for financial statements issued for fiscal years beginning after November 15, 2007, and interim periods within those fiscal years. Because this Statement applies under other accounting pronouncements that require fair value measurements and does not require any new fair value measurements, the Board believes that the extended transition period under this Statement provides sufficient time for entities, their auditors, and users of financial statements to prepare for implementation of the provisions of this Statement. The Board encourages earlier application, provided that the reporting entity has not yet issued financial statements for that fiscal year (annual or interim).

C107. The Board agreed, as it did in the Exposure Draft, that because the substantive guidance in this Statement focuses broadly on the methods used to measure fair value, application of that guidance could result in a change in the method of applying an accounting principle. However, because the methods used to measure fair value are referred to generally, for example, in the context of inputs requiring both quantitative and qualitative assessments, the Board concluded that a change in the methods used to measure fair value would be inseparable from a change in the fair value measurements (that is, as new events occur or as new information is obtained, for example, through better insight or improved judgment). Therefore, the Board decided that the guidance in this Statement should be applied prospectively (similar to a change in accounting estimate) as of the beginning of the fiscal year in which this Statement is initially applied, except as discussed below.

C108. For the change in accounting for derivative (or other) instruments under Issue 02-3, the Board concluded that application of the guidance in this Statement would result in a change in the method of applying an accounting principle and that the change in the method would be separable from the change in the fair value measurements. Therefore, the Board decided that the guidance in this Statement should be applied retrospectively (similar to a change in accounting principle), but on a limited basis as of the beginning of the fiscal year in which this Statement is initially applied, considering the practical limitations involved in applying the change in method in all prior periods. Therefore, the difference between the carrying amount and the fair value of a derivative (or other instrument) that was measured at initial recognition using the transaction price in accordance with the guidance in footnote 3 of Issue 02-3 prior to initial application of this Statement should be recognized as a cumulative-effect adjustment to the opening balance of retained earnings (or other appropriate components of equity or net assets in the statement of financial position) for that fiscal year, presented separately.

C109. For the change in accounting for positions in financial instruments (including blocks) held by broker-dealers and certain investment companies, the Board agreed that application of the guidance in this Statement would result in a change in the method of applying an accounting principle that would be separable from the change in fair value measurements. The Board observed that because the information necessary to apply that change in accounting principle retrospectively to all prior periods presented should be available, the guidance in this Statement could be applied retrospectively (similar to a change in accounting principle) in all prior periods. However, the Board decided that three different transition approaches in this Statement (including two different transition approaches for financial instruments) would be unduly burdensome. Therefore, the Board decided for practical reasons that the limited retrospective transition approach for the change in accounting under Issue 02-3 also should apply for the change in accounting for positions in financial instruments (including blocks) held by broker-dealers and investment companies.

C110. To achieve comparability in future periods, all of the disclosures required by this Statement, including disclosures about the valuation techniques used to measure fair value required in annual periods only, are required in the first interim period in which this Statement is initially applied. However, those disclosures need not be presented in periods prior to initial application of this Statement.

Benefits and Costs

C111. The mission of the FASB is to establish and improve standards of financial accounting and reporting to provide information that is useful to users of financial statements (present and potential investors, creditors, donors, and other capital market participants) in making rational investment, credit, and similar resource allocation decisions. In fulfilling that mission, the Board endeavors to determine that a proposed standard will fill a significant need and that the costs imposed to meet that standard, as compared with other alternatives, are justified in relation to the overall benefits of the resulting information. Although the costs to implement a new standard may not be borne evenly, users of financial statements benefit from improvements in financial reporting, thereby facilitating the functioning of markets for capital and credit and the efficient allocation of resources in the economy.

C112. This Statement establishes a single definition of fair value and a framework for measuring fair value in GAAP. A single definition of fair value, together with a framework for measuring fair value, should result in increased consistency in application and, with respect to the resulting fair value measurements, increased comparability. Concepts Statement 2 emphasizes that providing comparable information enables users of financial statements to identify similarities in and differences between two sets of economic events.

C113. This Statement also expands disclosures about fair value measurements, improving the quality of information provided to users of financial statements. Providing information that is useful to users of financial statements in making rational investment, credit, and similar decisions is the first objective of financial reporting in FASB Concepts Statement No. 1, *Objectives of Financial Reporting by Business Enterprises*. In developing the disclosure requirements of this Statement, the Board obtained input from users, preparers, and other interested parties to ensure that the disclosures would be provided within reasonable cost-benefit constraints. This Statement encourages entities to include the fair value information disclosed under this Statement together with the fair value information disclosed under other accounting pronouncements in one place, where practicable. The Board concluded that having that information available in one place would improve the quality of information provided to users of financial statements about fair value measurements, thereby enhancing users' understanding about fair value and the use of fair value in financial reporting.

C114. In addition, the amendments made by this Statement simplify and, where appropriate, codify the related guidance that currently exists for measuring fair value, eliminating differences that have added to the complexity in GAAP, consistent with the Board's related codification initiatives.

C115. Although the framework for measuring fair value builds on current practice and requirements, the Board acknowledges that for some entities, certain methods required by this Statement may result in a change to practice. Further, some entities will need to make systems and operational changes, thereby incurring incremental costs. Some entities also might incur incremental costs in applying the requirements of this Statement. However, the Board believes that the benefits resulting from increased consistency and comparability of fair value information and improved communication of that information to users of financial statements will be ongoing. On balance, the Board concluded that this Statement will result in improved financial reporting.

International Financial Reporting Standards

C116. Many International Financial Reporting Standards require fair value measurements. Like the FASB, the IASB has previously addressed issues related to fair value largely in the context of financial instruments included in the scope of revised IAS 39. The IASB currently has on its agenda a fair value measurements project to consider fair value measurement broadly, focusing on the definition of fair value and the framework for measuring fair value. As part of that project, the IASB plans to issue this Statement in the form of a preliminary views document for public comment.