
**SINGAPORE FINANCIAL REPORTING STANDARDS
(INTERNATIONAL)**

**SFRS(I) 1-36
Impairment of Assets**

This Standard is applicable for annual reporting period beginning on
1 January 2022.

CONTENTS

*from paragraph***SINGAPORE FINANCIAL REPORTING STANDARD (INTERNATIONAL) 1-36
IMPAIRMENT OF ASSETS**

OBJECTIVE	1
SCOPE	2
DEFINITIONS	6
IDENTIFYING AN ASSET THAT MAY BE IMPAIRED	7
MEASURING RECOVERABLE AMOUNT	18
Measuring the recoverable amount of an intangible asset with an indefinite useful life	24
Fair value less costs of disposal	28
Value in use	30
RECOGNISING AND MEASURING AN IMPAIRMENT LOSS	58
CASH-GENERATING UNITS AND GOODWILL	65
Identifying the cash-generating unit to which an asset belongs	66
Recoverable amount and carrying amount of a cash-generating unit	74
Impairment loss for a cash-generating unit	104
REVERSING AN IMPAIRMENT LOSS	109
Reversing an impairment loss for an individual asset	117
Reversing an impairment loss for a cash-generating unit	122
Reversing an impairment loss for goodwill	124
DISCLOSURE	126
Estimates used to measure recoverable amounts of cash-generating units containing goodwill or intangible assets with indefinite useful lives	134
TRANSITION PROVISIONS AND EFFECTIVE DATE	139
WITHDRAWAL OF OTHER STANDARDS	141
APPENDICES	
A Using present value techniques to measure value in use	
B Amendment to other standards	
C Impairment testing cash-generating units with goodwill and non-controlling interests	
ILLUSTRATIVE EXAMPLES <i>(See separate document)</i>	

Singapore Financial Reporting Standard (International) 1-36 *Impairment of Assets* (SFRS(I) 1-36) is set out in paragraphs 1–141 and Appendices A–C. All the paragraphs have equal authority. SFRS(I) 1-36 should be read in the context of its objective, the *Preface to Singapore Financial Reporting Standards (International)*, the *Conceptual Framework for Financial Reporting*, and the Basis for Conclusions on International Financial Reporting Standards. SFRS(I) 1-8 *Accounting Policies, Changes in Accounting Estimates and Errors* provides a basis for selecting and applying accounting policies in the absence of explicit guidance.

Preface

Singapore Financial Reporting Standards (International) (SFRS(I)s) are available for entities to apply for annual reporting periods beginning on or after 1 January 2018.

The first volume of SFRS(I)s contains the equivalent of the consolidated text of International Financial Reporting Standards (IFRSs) as issued by the International Accounting Standards Board (IASB) at 31 December 2017 that are applicable for annual reporting period beginning on 1 January 2018.

In this Standard, paragraphs with a prefix 'IFRS' refer to effective date, transition provisions and/or other text that are extracted from IFRSs. An entity that is not a first-time adopter shall apply those requirements, if applicable¹. Paragraphs that are specific to SFRS(I)s are indicated with a prefix 'SG'.

Notwithstanding the effective date and transition provisions in this Standard, an entity that is a first-time adopter of SFRS(I)s² shall:

- (A) Initially apply this Standard in the first annual period in which it adopts SFRS(I)s; and
- (B) Apply SFRS(I) 1 *First-time Adoption of Singapore Financial Reporting Standards (International)* in its first SFRS(I) financial statements. The entity shall also apply SFRS(I) 1 in each interim financial report that it presents in accordance with SFRS(I) 1-34 *Interim Financial Reporting* for any part of the period covered by its first SFRS(I) financial statements.

SFRS(I) 1-36 *Impairment of Assets* is equivalent to IAS 36 *Impairment of Assets*. An entity that complies with SFRS(I) 1-36 can simultaneously comply with IAS 36.

1 For example, SFRS(I) 1 *First-time Adoption of Singapore Financial Reporting Standards (International)* specifies that the transitional provisions in SFRS(I)s apply to a transitioning entity's transition to SFRS(I)s. SFRS(I) 1 defines a 'transitioning entity' as an entity that presents its first SFRS(I) financial statements, and that presented its annual financial statements in the most recent previous year that contained an explicit and unreserved statement of compliance with IFRSs.

2 SFRS(I) 1 *First-time Adoption of Singapore Financial Reporting Standards (International)* defines a 'first-time adopter' as an entity that presents its first SFRS(I) financial statements. A first-time adopter excludes a transitioning entity.

Singapore Financial Reporting Standard (International) 1-36

Impairment of Assets

Objective

- 1 The objective of this Standard is to prescribe the procedures that an entity applies to ensure that its assets are carried at no more than their recoverable amount. An asset is carried at more than its recoverable amount if its carrying amount exceeds the amount to be recovered through use or sale of the asset. If this is the case, the asset is described as impaired and the Standard requires the entity to recognise an impairment loss. The Standard also specifies when an entity should reverse an impairment loss and prescribes disclosures.

Scope

- 2 **This Standard shall be applied in accounting for the impairment of all assets, other than:**
- (a) **inventories (see SFRS(I) 1-2 *Inventories*);**
 - (b) **contract assets and assets arising from costs to obtain or fulfil a contract that are recognised in accordance with SFRS(I) 15 *Revenue from Contracts with Customers*;**
 - (c) **deferred tax assets (see SFRS(I) 1-12 *Income Taxes*);**
 - (d) **assets arising from employee benefits (see SFRS(I) 1-19 *Employee Benefits*);**
 - (e) **financial assets that are within the scope of SFRS(I) 9 *Financial Instruments*;**
 - (f) **investment property that is measured at fair value (see SFRS(I) 1-40 *Investment Property*);**
 - (g) **biological assets related to agricultural activity within the scope of SFRS(I) 1-41 *Agriculture* that are measured at fair value less costs to sell;**
 - (h) **deferred acquisition costs, and intangible assets, arising from an insurer's contractual rights under insurance contracts within the scope of SFRS(I) 4 *Insurance Contracts*; and**
 - (i) **non-current assets (or disposal groups) classified as held for sale in accordance with SFRS(I) 5 *Non-current Assets Held for Sale and Discontinued Operations*.**
- 3 This Standard does not apply to inventories, assets arising from construction contracts, deferred tax assets, assets arising from employee benefits, or assets classified as held for sale (or included in a disposal group that is classified as held for sale) because existing SFRS(I)s applicable to these assets contain requirements for recognising and measuring these assets.
- 4 This Standard applies to financial assets classified as:
- (a) subsidiaries, as defined in SFRS(I) 10 *Consolidated Financial Statements*;
 - (b) associates, as defined in SFRS(I) 1-28 *Investments in Associates and Joint Ventures*; and
 - (c) joint ventures, as defined in SFRS(I) 11 *Joint Arrangements*.

For impairment of other financial assets, refer to SFRS(I) 9.

- 5 This Standard does not apply to financial assets within the scope of SFRS(I) 9, investment property measured at fair value within the scope of SFRS(I) 1-40, or biological assets related to agricultural activity measured at fair value less costs to sell within the scope of SFRS(I) 1-41. However, this Standard applies to assets that are carried at revalued amount (ie fair value at the date of the revaluation less any subsequent accumulated depreciation and subsequent accumulated impairment losses) in accordance with other SFRS(I)s, such as the revaluation model in SFRS(I) 1-16 *Property, Plant and Equipment* and SFRS(I) 1-38 *Intangible Assets*. The only difference between an asset's fair value and its fair value less costs of disposal is the direct incremental costs attributable to the disposal of the asset.
- (a) If the disposal costs are negligible, the recoverable amount of the revalued asset is necessarily close to, or greater than, its revalued amount. In this case, after the revaluation requirements have been applied, it is unlikely that the revalued asset is impaired and recoverable amount need not be estimated.
- (b) [deleted]
- (c) If the disposal costs are not negligible, the fair value less costs of disposal of the revalued asset is necessarily less than its fair value. Therefore, the revalued asset will be impaired if its value in use is less than its revalued amount. In this case, after the revaluation requirements have been applied, an entity applies this Standard to determine whether the asset may be impaired.

Definitions

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

Carrying amount is the amount at which an asset is recognised after deducting any accumulated depreciation (amortisation) and accumulated impairment losses thereon.

A cash-generating unit is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets.

Corporate assets are assets other than goodwill that contribute to the future cash flows of both the cash-generating unit under review and other cash-generating units.

Costs of disposal are incremental costs directly attributable to the disposal of an asset or cash-generating unit, excluding finance costs and income tax expense.

Depreciable amount is the cost of an asset, or other amount substituted for cost in the financial statements, less its residual value.

Depreciation (Amortisation) is the systematic allocation of the depreciable amount of an asset over its useful life.¹

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. (See SFRS(I) 13 *Fair Value Measurement*.)

An impairment loss is the amount by which the carrying amount of an asset or a cash-generating unit exceeds its recoverable amount.

The recoverable amount of an asset or a cash-generating unit is the higher of its fair value less costs of disposal and its value in use.

Useful life is either:

¹ In the case of an intangible asset, the term 'amortisation' is generally used instead of 'depreciation'. The two terms have the same meaning.

- (a) the period of time over which an asset is expected to be used by the entity; or
- (b) the number of production or similar units expected to be obtained from the asset by the entity.

Value in use is the present value of the future cash flows expected to be derived from an asset or cash-generating unit.

Identifying an asset that may be impaired

- 7 Paragraphs 8–17 specify when recoverable amount shall be determined. These requirements use the term ‘an asset’ but apply equally to an individual asset or a cash-generating unit. The remainder of this Standard is structured as follows:
- (a) paragraphs 18–57 set out the requirements for measuring recoverable amount. These requirements also use the term ‘an asset’ but apply equally to an individual asset and a cash-generating unit.
 - (b) paragraphs 58–108 set out the requirements for recognising and measuring impairment losses. Recognition and measurement of impairment losses for individual assets other than goodwill are dealt with in paragraphs 58–64. Paragraphs 65–108 deal with the recognition and measurement of impairment losses for cash-generating units and goodwill.
 - (c) paragraphs 109–116 set out the requirements for reversing an impairment loss recognised in prior periods for an asset or a cash-generating unit. Again, these requirements use the term ‘an asset’ but apply equally to an individual asset or a cash-generating unit. Additional requirements for an individual asset are set out in paragraphs 117–121, for a cash-generating unit in paragraphs 122 and 123, and for goodwill in paragraphs 124 and 125.
 - (d) paragraphs 126–133 specify the information to be disclosed about impairment losses and reversals of impairment losses for assets and cash-generating units. Paragraphs 134–137 specify additional disclosure requirements for cash-generating units to which goodwill or intangible assets with indefinite useful lives have been allocated for impairment testing purposes.
- 8 An asset is impaired when its carrying amount exceeds its recoverable amount. Paragraphs 12–14 describe some indications that an impairment loss may have occurred. If any of those indications is present, an entity is required to make a formal estimate of recoverable amount. Except as described in paragraph 10, this Standard does not require an entity to make a formal estimate of recoverable amount if no indication of an impairment loss is present.
- 9 **An entity shall assess at the end of each reporting period whether there is any indication that an asset may be impaired. If any such indication exists, the entity shall estimate the recoverable amount of the asset.**
- 10 **Irrespective of whether there is any indication of impairment, an entity shall also:**
- (a) **test an intangible asset with an indefinite useful life or an intangible asset not yet available for use for impairment annually by comparing its carrying amount with its recoverable amount. This impairment test may be performed at any time during an annual period, provided it is performed at the same time every year. Different intangible assets may be tested for impairment at different times. However, if such an intangible asset was initially recognised during the current annual period, that intangible asset shall be tested for impairment before the end of the current annual period.**
 - (b) **test goodwill acquired in a business combination for impairment annually in accordance with paragraphs 80–99.**

11 The ability of an intangible asset to generate sufficient future economic benefits to recover its carrying amount is usually subject to greater uncertainty before the asset is available for use than after it is available for use. Therefore, this Standard requires an entity to test for impairment, at least annually, the carrying amount of an intangible asset that is not yet available for use.

12 **In assessing whether there is any indication that an asset may be impaired, an entity shall consider, as a minimum, the following indications:**

External sources of information

- (a) **there are observable indications that the asset's value has declined during the period significantly more than would be expected as a result of the passage of time or normal use.**
- (b) **significant changes with an adverse effect on the entity have taken place during the period, or will take place in the near future, in the technological, market, economic or legal environment in which the entity operates or in the market to which an asset is dedicated.**
- (c) **market interest rates or other market rates of return on investments have increased during the period, and those increases are likely to affect the discount rate used in calculating an asset's value in use and decrease the asset's recoverable amount materially.**
- (d) **the carrying amount of the net assets of the entity is more than its market capitalisation.**

Internal sources of information

- (e) **evidence is available of obsolescence or physical damage of an asset.**
- (f) **significant changes with an adverse effect on the entity have taken place during the period, or are expected to take place in the near future, in the extent to which, or manner in which, an asset is used or is expected to be used. These changes include the asset becoming idle, plans to discontinue or restructure the operation to which an asset belongs, plans to dispose of an asset before the previously expected date, and reassessing the useful life of an asset as finite rather than indefinite.²**
- (g) **evidence is available from internal reporting that indicates that the economic performance of an asset is, or will be, worse than expected.**

Dividend from a subsidiary, joint venture or associate

- (h) **for an investment in a subsidiary, joint venture or associate, the investor recognises a dividend from the investment and evidence is available that:**
 - (i) **the carrying amount of the investment in the separate financial statements exceeds the carrying amounts in the consolidated financial statements of the investee's net assets, including associated goodwill; or**
 - (ii) **the dividend exceeds the total comprehensive income of the subsidiary, joint venture or associate in the period the dividend is declared.**

² Once an asset meets the criteria to be classified as held for sale (or is included in a disposal group that is classified as held for sale), it is excluded from the scope of this Standard and is accounted for in accordance with SFRS(I) 5 *Non-current Assets Held for Sale and Discontinued Operations*.

- 13 The list in paragraph 12 is not exhaustive. An entity may identify other indications that an asset may be impaired and these would also require the entity to determine the asset's recoverable amount or, in the case of goodwill, perform an impairment test in accordance with paragraphs 80–99.
- 14 Evidence from internal reporting that indicates that an asset may be impaired includes the existence of:
- (a) cash flows for acquiring the asset, or subsequent cash needs for operating or maintaining it, that are significantly higher than those originally budgeted;
 - (b) actual net cash flows or operating profit or loss flowing from the asset that are significantly worse than those budgeted;
 - (c) a significant decline in budgeted net cash flows or operating profit, or a significant increase in budgeted loss, flowing from the asset; or
 - (d) operating losses or net cash outflows for the asset, when current period amounts are aggregated with budgeted amounts for the future.
- 15 As indicated in paragraph 10, this Standard requires an intangible asset with an indefinite useful life or not yet available for use and goodwill to be tested for impairment, at least annually. Apart from when the requirements in paragraph 10 apply, the concept of materiality applies in identifying whether the recoverable amount of an asset needs to be estimated. For example, if previous calculations show that an asset's recoverable amount is significantly greater than its carrying amount, the entity need not re-estimate the asset's recoverable amount if no events have occurred that would eliminate that difference. Similarly, previous analysis may show that an asset's recoverable amount is not sensitive to one (or more) of the indications listed in paragraph 12.
- 16 As an illustration of paragraph 15, if market interest rates or other market rates of return on investments have increased during the period, an entity is not required to make a formal estimate of an asset's recoverable amount in the following cases:
- (a) if the discount rate used in calculating the asset's value in use is unlikely to be affected by the increase in these market rates. For example, increases in short-term interest rates may not have a material effect on the discount rate used for an asset that has a long remaining useful life.
 - (b) if the discount rate used in calculating the asset's value in use is likely to be affected by the increase in these market rates but previous sensitivity analysis of recoverable amount shows that:
 - (i) it is unlikely that there will be a material decrease in recoverable amount because future cash flows are also likely to increase (eg in some cases, an entity may be able to demonstrate that it adjusts its revenues to compensate for any increase in market rates); or
 - (ii) the decrease in recoverable amount is unlikely to result in a material impairment loss.
- 17 If there is an indication that an asset may be impaired, this may indicate that the remaining useful life, the depreciation (amortisation) method or the residual value for the asset needs to be reviewed and adjusted in accordance with the Standard applicable to the asset, even if no impairment loss is recognised for the asset.

Measuring recoverable amount

- 18 This Standard defines recoverable amount as the higher of an asset's or cash-generating unit's fair value less costs of disposal and its value in use. Paragraphs 19–57 set out the requirements for measuring recoverable amount. These requirements use the term 'an asset' but apply equally to an individual asset or a cash-generating unit.
- 19 It is not always necessary to determine both an asset's fair value less costs of disposal and its value in use. If either of these amounts exceeds the asset's carrying amount, the asset is not impaired and it is not necessary to estimate the other amount.
- 20 It may be possible to measure fair value less costs of disposal, even if there is not a quoted price in an active market for an identical asset. However, sometimes it will not be possible to measure fair value less costs of disposal because there is no basis for making a reliable estimate of the price at which an orderly transaction to sell the asset would take place between market participants at the measurement date under current market conditions. In this case, the entity may use the asset's value in use as its recoverable amount.
- 21 If there is no reason to believe that an asset's value in use materially exceeds its fair value less costs of disposal, the asset's fair value less costs of disposal may be used as its recoverable amount. This will often be the case for an asset that is held for disposal. This is because the value in use of an asset held for disposal will consist mainly of the net disposal proceeds, as the future cash flows from continuing use of the asset until its disposal are likely to be negligible.
- 22 Recoverable amount is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. If this is the case, recoverable amount is determined for the cash-generating unit to which the asset belongs (see paragraphs 65–103), unless either:
- (a) the asset's fair value less costs of disposal is higher than its carrying amount; or
 - (b) the asset's value in use can be estimated to be close to its fair value less costs of disposal and fair value less costs of disposal can be measured.
- 23 In some cases, estimates, averages and computational short cuts may provide reasonable approximations of the detailed computations illustrated in this Standard for determining fair value less costs of disposal or value in use.

Measuring the recoverable amount of an intangible asset with an indefinite useful life

- 24 Paragraph 10 requires an intangible asset with an indefinite useful life to be tested for impairment annually by comparing its carrying amount with its recoverable amount, irrespective of whether there is any indication that it may be impaired. However, the most recent detailed calculation of such an asset's recoverable amount made in a preceding period may be used in the impairment test for that asset in the current period, provided all of the following criteria are met:
- (a) if the intangible asset does not generate cash inflows from continuing use that are largely independent of those from other assets or groups of assets and is therefore tested for impairment as part of the cash-generating unit to which it belongs, the assets and liabilities making up that unit have not changed significantly since the most recent recoverable amount calculation;
 - (b) the most recent recoverable amount calculation resulted in an amount that exceeded the asset's carrying amount by a substantial margin; and

- (c) based on an analysis of events that have occurred and circumstances that have changed since the most recent recoverable amount calculation, the likelihood that a current recoverable amount determination would be less than the asset's carrying amount is remote.

Fair value less costs of disposal

25– [Deleted]
27

- 28 Costs of disposal, other than those that have been recognised as liabilities, are deducted in measuring fair value less costs of disposal. Examples of such costs are legal costs, stamp duty and similar transaction taxes, costs of removing the asset, and direct incremental costs to bring an asset into condition for its sale. However, termination benefits (as defined in SFRS(I) 1-19) and costs associated with reducing or reorganising a business following the disposal of an asset are not direct incremental costs to dispose of the asset.
- 29 Sometimes, the disposal of an asset would require the buyer to assume a liability and only a single fair value less costs of disposal is available for both the asset and the liability. Paragraph 78 explains how to deal with such cases.

Value in use

- 30 **The following elements shall be reflected in the calculation of an asset'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.**

31 Estimating the value in use of an asset involves the following steps:

- (a) estimating the future cash inflows and outflows to be derived from continuing use of the asset and from its ultimate disposal; and
- (b) applying the appropriate discount rate to those future cash flows.

32 The elements identified in paragraph 30(b), (d) and (e) can be reflected either as adjustments to the future cash flows or as adjustments to the discount rate. Whichever approach an entity adopts to reflect expectations about possible variations in the amount or timing of future cash flows, the result shall be to reflect the expected present value of the future cash flows, ie the weighted average of all possible outcomes. Appendix A provides additional guidance on the use of present value techniques in measuring an asset's value in use.

Basis for estimates of future cash flows

33 **In measuring value in use an entity shall:**

- (a) **base cash flow projections on reasonable and supportable assumptions that represent management's best estimate of the range of economic conditions**

that will exist over the remaining useful life of the asset. Greater weight shall be given to external evidence.

- (b) **base cash flow projections on the most recent financial budgets/forecasts approved by management, but shall exclude any estimated future cash inflows or outflows expected to arise from future restructurings or from improving or enhancing the asset's performance. Projections based on these budgets/forecasts shall cover a maximum period of five years, unless a longer period can be justified.**
 - (c) **estimate cash flow projections beyond the period covered by the most recent budgets/forecasts by extrapolating the projections based on the budgets/forecasts using a steady or declining growth rate for subsequent years, unless an increasing rate can be justified. This growth rate shall not exceed the long-term average growth rate for the products, industries, or country or countries in which the entity operates, or for the market in which the asset is used, unless a higher rate can be justified.**
- 34 Management assesses the reasonableness of the assumptions on which its current cash flow projections are based by examining the causes of differences between past cash flow projections and actual cash flows. Management shall ensure that the assumptions on which its current cash flow projections are based are consistent with past actual outcomes, provided the effects of subsequent events or circumstances that did not exist when those actual cash flows were generated make this appropriate.
- 35 Detailed, explicit and reliable financial budgets/forecasts of future cash flows for periods longer than five years are generally not available. For this reason, management's estimates of future cash flows are based on the most recent budgets/forecasts for a maximum of five years. Management may use cash flow projections based on financial budgets/forecasts over a period longer than five years if it is confident that these projections are reliable and it can demonstrate its ability, based on past experience, to forecast cash flows accurately over that longer period.
- 36 Cash flow projections until the end of an asset's useful life are estimated by extrapolating the cash flow projections based on the financial budgets/forecasts using a growth rate for subsequent years. This rate is steady or declining, unless an increase in the rate matches objective information about patterns over a product or industry lifecycle. If appropriate, the growth rate is zero or negative.
- 37 When conditions are favourable, competitors are likely to enter the market and restrict growth. Therefore, entities will have difficulty in exceeding the average historical growth rate over the long term (say, twenty years) for the products, industries, or country or countries in which the entity operates, or for the market in which the asset is used.
- 38 In using information from financial budgets/forecasts, an entity considers whether the information reflects reasonable and supportable assumptions and represents management's best estimate of the set of economic conditions that will exist over the remaining useful life of the asset.

Composition of estimates of future cash flows

- 39 **Estimates of future cash flows shall include:**
- (a) **projections of cash inflows from the continuing use of the asset;**
 - (b) **projections of cash outflows that are necessarily incurred to generate the cash inflows from continuing use of the asset (including cash outflows to prepare the asset for use) and can be directly attributed, or allocated on a reasonable and consistent basis, to the asset; and**

(c) net cash flows, if any, to be received (or paid) for the disposal of the asset at the end of its useful life.

- 40 Estimates of future cash flows and the discount rate reflect consistent assumptions about price increases attributable to general inflation. Therefore, if the discount rate includes the effect of price increases attributable to general inflation, future cash flows are estimated in nominal terms. If the discount rate excludes the effect of price increases attributable to general inflation, future cash flows are estimated in real terms (but include future specific price increases or decreases).
- 41 Projections of cash outflows include those for the day-to-day servicing of the asset as well as future overheads that can be attributed directly, or allocated on a reasonable and consistent basis, to the use of the asset.
- 42 When the carrying amount of an asset does not yet include all the cash outflows to be incurred before it is ready for use or sale, the estimate of future cash outflows includes an estimate of any further cash outflow that is expected to be incurred before the asset is ready for use or sale. For example, this is the case for a building under construction or for a development project that is not yet completed.
- 43 To avoid double-counting, estimates of future cash flows do not include:
- (a) cash inflows from assets that generate cash inflows that are largely independent of the cash inflows from the asset under review (for example, financial assets such as receivables); and
 - (b) cash outflows that relate to obligations that have been recognised as liabilities (for example, payables, pensions or provisions).
- 44 **Future cash flows shall be estimated for the asset in its current condition. Estimates of future cash flows shall not include estimated future cash inflows or outflows that are expected to arise from:**
- (a) a future restructuring to which an entity is not yet committed; or**
 - (b) improving or enhancing the asset's performance.**
- 45 Because future cash flows are estimated for the asset in its current condition, value in use does not reflect:
- (a) future cash outflows or related cost savings (for example reductions in staff costs) or benefits that are expected to arise from a future restructuring to which an entity is not yet committed; or
 - (b) future cash outflows that will improve or enhance the asset's performance or the related cash inflows that are expected to arise from such outflows.
- 46 A restructuring is a programme that is planned and controlled by management and materially changes either the scope of the business undertaken by an entity or the manner in which the business is conducted. SFRS(I) 1-37 *Provisions, Contingent Liabilities and Contingent Assets* contains guidance clarifying when an entity is committed to a restructuring.
- 47 When an entity becomes committed to a restructuring, some assets are likely to be affected by this restructuring. Once the entity is committed to the restructuring:
- (a) its estimates of future cash inflows and cash outflows for the purpose of determining value in use reflect the cost savings and other benefits from the restructuring (based on the most recent financial budgets/forecasts approved by management); and

- (b) its estimates of future cash outflows for the restructuring are included in a restructuring provision in accordance with SFRS(I) 1-37.

Illustrative Example 5 illustrates the effect of a future restructuring on a value in use calculation.

- 48 Until an entity incurs cash outflows that improve or enhance the asset's performance, estimates of future cash flows do not include the estimated future cash inflows that are expected to arise from the increase in economic benefits associated with the cash outflow (see Illustrative Example 6).
- 49 Estimates of future cash flows include future cash outflows necessary to maintain the level of economic benefits expected to arise from the asset in its current condition. When a cash-generating unit consists of assets with different estimated useful lives, all of which are essential to the ongoing operation of the unit, the replacement of assets with shorter lives is considered to be part of the day-to-day servicing of the unit when estimating the future cash flows associated with the unit. Similarly, when a single asset consists of components with different estimated useful lives, the replacement of components with shorter lives is considered to be part of the day-to-day servicing of the asset when estimating the future cash flows generated by the asset.
- 50 Estimates of future cash flows shall not include:**
- (a) **cash inflows or outflows from financing activities; or**
- (b) **income tax receipts or payments.**
- 51 Estimated future cash flows reflect assumptions that are consistent with the way the discount rate is determined. Otherwise, the effect of some assumptions will be counted twice or ignored. Because the time value of money is considered by discounting the estimated future cash flows, these cash flows exclude cash inflows or outflows from financing activities. Similarly, because the discount rate is determined on a pre-tax basis, future cash flows are also estimated on a pre-tax basis.
- 52 The estimate of net cash flows to be received (or paid) for the disposal of an asset at the end of its useful life shall be the amount that an entity expects to obtain from the disposal of the asset in an arm's length transaction between knowledgeable, willing parties, after deducting the estimated costs of disposal.**
- 53 The estimate of net cash flows to be received (or paid) for the disposal of an asset at the end of its useful life is determined in a similar way to an asset's fair value less costs of disposal, except that, in estimating those net cash flows:
- (a) an entity uses prices prevailing at the date of the estimate for similar assets that have reached the end of their useful life and have operated under conditions similar to those in which the asset will be used.
- (b) the entity adjusts those prices for the effect of both future price increases due to general inflation and specific future price increases or decreases. However, if estimates of future cash flows from the asset's continuing use and the discount rate exclude the effect of general inflation, the entity also excludes this effect from the estimate of net cash flows on disposal.
- 53A Fair value differs from value in use. Fair value reflects the assumptions market participants would use when pricing the asset. In contrast, value in use reflects 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 market participants:

- (a) additional value derived from the grouping of assets (such as the creation of a portfolio of investment properties in different locations);
- (b) synergies between the asset being measured and other assets;
- (c) legal rights or legal restrictions that are specific only to the current owner of the asset; and
- (d) tax benefits or tax burdens that are specific to the current owner of the asset.

Foreign currency future cash flows

- 54 Future cash flows are estimated in the currency in which they will be generated and then discounted using a discount rate appropriate for that currency. An entity translates the present value using the spot exchange rate at the date of the value in use calculation.

Discount rate

- 55 **The discount rate (rates) shall be a pre-tax rate (rates) that reflect(s) current market assessments of:**

- (a) **the time value of money; and**
- (b) **the risks specific to the asset for which the future cash flow estimates have not been adjusted.**

- 56 A rate that reflects current market assessments of the time value of money and the risks specific to the asset is the return that investors would require if they were to choose an investment that would generate cash flows of amounts, timing and risk profile equivalent to those that the entity expects to derive from the asset. This rate is estimated from the rate implicit in current market transactions for similar assets or from the weighted average cost of capital of a listed entity that has a single asset (or a portfolio of assets) similar in terms of service potential and risks to the asset under review. However, the discount rate(s) used to measure an asset's value in use shall not reflect risks for which the future cash flow estimates have been adjusted. Otherwise, the effect of some assumptions will be double-counted.

- 57 When an asset-specific rate is not directly available from the market, an entity uses surrogates to estimate the discount rate. Appendix A provides additional guidance on estimating the discount rate in such circumstances.

Recognising and measuring an impairment loss

- 58 Paragraphs 59–64 set out the requirements for recognising and measuring impairment losses for an individual asset other than goodwill. Recognising and measuring impairment losses for cash-generating units and goodwill are dealt with in paragraphs 65–108.

- 59 **If, and only if, the recoverable amount of an asset is less than its carrying amount, the carrying amount of the asset shall be reduced to its recoverable amount. That reduction is an impairment loss.**

- 60 **An impairment loss shall be recognised immediately in profit or loss, unless the asset is carried at revalued amount in accordance with another Standard (for example, in accordance with the revaluation model in SFRS(I) 1-16). Any impairment loss of a revalued asset shall be treated as a revaluation decrease in accordance with that other Standard.**

- 61 An impairment loss on a non-revalued asset is recognised in profit or loss. However, an impairment loss on a revalued asset is recognised in other comprehensive income to the extent that the impairment loss does not exceed the amount in the revaluation surplus for that same asset. Such an impairment loss on a revalued asset reduces the revaluation surplus for that asset.
- 62 **When the amount estimated for an impairment loss is greater than the carrying amount of the asset to which it relates, an entity shall recognise a liability if, and only if, that is required by another Standard.**
- 63 **After the recognition of an impairment loss, the depreciation (amortisation) charge for the asset shall be adjusted in future periods to allocate the asset's revised carrying amount, less its residual value (if any), on a systematic basis over its remaining useful life.**
- 64 If an impairment loss is recognised, any related deferred tax assets or liabilities are determined in accordance with SFRS(I) 1-12 by comparing the revised carrying amount of the asset with its tax base (see Illustrative Example 3).

Cash-generating units and goodwill

- 65 Paragraphs 66–108 and Appendix C set out the requirements for identifying the cash-generating unit to which an asset belongs and determining the carrying amount of, and recognising impairment losses for, cash-generating units and goodwill.

Identifying the cash-generating unit to which an asset belongs

- 66 **If there is any indication that an asset may be impaired, recoverable amount shall be estimated for the individual asset. If it is not possible to estimate the recoverable amount of the individual asset, an entity shall determine the recoverable amount of the cash-generating unit to which the asset belongs (the asset's cash-generating unit).**
- 67 The recoverable amount of an individual asset cannot be determined if:
- (a) the asset's value in use cannot be estimated to be close to its fair value less costs of disposal (for example, when the future cash flows from continuing use of the asset cannot be estimated to be negligible); and
 - (b) the asset does not generate cash inflows that are largely independent of those from other assets.

In such cases, value in use and, therefore, recoverable amount, can be determined only for the asset's cash-generating unit.

Example

A mining entity owns a private railway to support its mining activities. The private railway could be sold only for scrap value and it does not generate cash inflows that are largely independent of the cash inflows from the other assets of the mine.

It is not possible to estimate the recoverable amount of the private railway because its value in use cannot be determined and is probably different from scrap value. Therefore, the entity estimates the recoverable amount of the cash-generating unit to which the private railway belongs, ie the mine as a whole.

- 68 As defined in paragraph 6, an asset's cash-generating unit is the smallest group of assets that includes the asset and generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. Identification of an asset's cash-generating unit involves judgement. If recoverable amount cannot be determined for an individual asset, an entity identifies the lowest aggregation of assets that generate largely independent cash inflows.

Example

<p>A bus company provides services under contract with a municipality that requires minimum service on each of five separate routes. Assets devoted to each route and the cash flows from each route can be identified separately. One of the routes operates at a significant loss.</p>
--

<p><i>Because the entity does not have the option to curtail any one bus route, the lowest level of identifiable cash inflows that are largely independent of the cash inflows from other assets or groups of assets is the cash inflows generated by the five routes together. The cash-generating unit for each route is the bus company as a whole.</i></p>
--

- 69 Cash inflows are inflows of cash and cash equivalents received from parties external to the entity. In identifying whether cash inflows from an asset (or group of assets) are largely independent of the cash inflows from other assets (or groups of assets), an entity considers various factors including how management monitors the entity's operations (such as by product lines, businesses, individual locations, districts or regional areas) or how management makes decisions about continuing or disposing of the entity's assets and operations. Illustrative Example 1 gives examples of identification of a cash-generating unit.
- 70 **If an active market exists for the output produced by an asset or group of assets, that asset or group of assets shall be identified as a cash-generating unit, even if some or all of the output is used internally. If the cash inflows generated by any asset or cash-generating unit are affected by internal transfer pricing, an entity shall use management's best estimate of future price(s) that could be achieved in arm's length transactions in estimating:**
- (a) **the future cash inflows used to determine the asset's or cash-generating unit's value in use; and**
 - (b) **the future cash outflows used to determine the value in use of any other assets or cash-generating units that are affected by the internal transfer pricing.**
- 71 Even if part or all of the output produced by an asset or a group of assets is used by other units of the entity (for example, products at an intermediate stage of a production process), this asset or group of assets forms a separate cash-generating unit if the entity could sell the output on an active market. This is because the asset or group of assets could generate cash inflows that would be largely independent of the cash inflows from other assets or groups of assets. In using information based on financial budgets/forecasts that relates to such a cash-generating unit, or to any other asset or cash-generating unit affected by internal transfer pricing, an entity adjusts this information if internal transfer prices do not reflect management's best estimate of future prices that could be achieved in arm's length transactions.
- 72 **Cash-generating units shall be identified consistently from period to period for the same asset or types of assets, unless a change is justified.**
- 73 If an entity determines that an asset belongs to a cash-generating unit different from that in previous periods, or that the types of assets aggregated for the asset's cash-generating unit have changed, paragraph 130 requires disclosures about the cash-generating unit, if an impairment loss is recognised or reversed for the cash-generating unit.

Recoverable amount and carrying amount of a cash-generating unit

74 The recoverable amount of a cash-generating unit is the higher of the cash-generating unit's fair value less costs of disposal and its value in use. For the purpose of determining the recoverable amount of a cash-generating unit, any reference in paragraphs 19–57 to 'an asset' is read as a reference to 'a cash-generating unit'.

75 The carrying amount of a cash-generating unit shall be determined on a basis consistent with the way the recoverable amount of the cash-generating unit is determined.

76 The carrying amount of a cash-generating unit:

- (a) includes the carrying amount of only those assets that can be attributed directly, or allocated on a reasonable and consistent basis, to the cash-generating unit and will generate the future cash inflows used in determining the cash-generating unit's value in use; and
- (b) does not include the carrying amount of any recognised liability, unless the recoverable amount of the cash-generating unit cannot be determined without consideration of this liability.

This is because fair value less costs of disposal and value in use of a cash-generating unit are determined excluding cash flows that relate to assets that are not part of the cash-generating unit and liabilities that have been recognised (see paragraphs 28 and 43).

77 When assets are grouped for recoverability assessments, it is important to include in the cash-generating unit all assets that generate or are used to generate the relevant stream of cash inflows. Otherwise, the cash-generating unit may appear to be fully recoverable when in fact an impairment loss has occurred. In some cases, although some assets contribute to the estimated future cash flows of a cash-generating unit, they cannot be allocated to the cash-generating unit on a reasonable and consistent basis. This might be the case for goodwill or corporate assets such as head office assets. Paragraphs 80–103 explain how to deal with these assets in testing a cash-generating unit for impairment.

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 of disposal (or the estimated cash flow from ultimate disposal) of the cash-generating unit is the price to sell 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.

Example
<p>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.</p> <p><i>The cash-generating unit's fair value less costs of disposal 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.</i></p>
<p>(a) In this Standard, monetary amounts are denominated in 'currency units (CU)'.</p>

- 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.

Goodwill

Allocating goodwill to cash-generating units

- 80 **For the purpose of impairment testing, goodwill acquired in a business combination shall, from the acquisition date, be allocated to each of the acquirer's cash-generating units, or groups of cash-generating units, that is expected to benefit from the synergies of the combination, irrespective of whether other assets or liabilities of the acquiree are assigned to those units or groups of units. Each unit or group of units to which the goodwill is so allocated shall:**
- (a) **represent the lowest level within the entity at which the goodwill is monitored for internal management purposes; and**
 - (b) **not be larger than an operating segment as defined by paragraph 5 of SFRS(I) 8 *Operating Segments* before aggregation.**
- 81 Goodwill recognised in a business combination is an asset representing the future economic benefits arising from other assets acquired in a business combination that are not individually identified and separately recognised. Goodwill does not generate cash flows independently of other assets or groups of assets, and often contributes to the cash flows of multiple cash-generating units. Goodwill sometimes cannot be allocated on a non-arbitrary basis to individual cash-generating units, but only to groups of cash-generating units. As a result, the lowest level within the entity at which the goodwill is monitored for internal management purposes sometimes comprises a number of cash-generating units to which the goodwill relates, but to which it cannot be allocated. References in paragraphs 83–99 and Appendix C to a cash-generating unit to which goodwill is allocated should be read as references also to a group of cash-generating units to which goodwill is allocated.
- 82 Applying the requirements in paragraph 80 results in goodwill being tested for impairment at a level that reflects the way an entity manages its operations and with which the goodwill

would naturally be associated. Therefore, the development of additional reporting systems is typically not necessary.

83 A cash-generating unit to which goodwill is allocated for the purpose of impairment testing may not coincide with the level at which goodwill is allocated in accordance with SFRS(I) 1-21 *The Effects of Changes in Foreign Exchange Rates* for the purpose of measuring foreign currency gains and losses. For example, if an entity is required by SFRS(I) 1-21 to allocate goodwill to relatively low levels for the purpose of measuring foreign currency gains and losses, it is not required to test the goodwill for impairment at that same level unless it also monitors the goodwill at that level for internal management purposes.

84 If the initial allocation of goodwill acquired in a business combination cannot be completed before the end of the annual period in which the business combination is effected, that initial allocation shall be completed before the end of the first annual period beginning after the acquisition date.

85 In accordance with SFRS(I) 3 *Business Combinations*, if the initial accounting for a business combination can be determined only provisionally by the end of the period in which the combination is effected, the acquirer:

- (a) accounts for the combination using those provisional values; and
- (b) recognises any adjustments to those provisional values as a result of completing the initial accounting within the measurement period, which will not exceed twelve months from the acquisition date.

In such circumstances, it might also not be possible to complete the initial allocation of the goodwill recognised in the combination before the end of the annual period in which the combination is effected. When this is the case, the entity discloses the information required by paragraph 133.

86 If goodwill has been allocated to a cash-generating unit and the entity disposes of an operation within that unit, the goodwill associated with the operation disposed of shall be:

- (a) **included in the carrying amount of the operation when determining the gain or loss on disposal; and**
- (b) **measured on the basis of the relative values of the operation disposed of and the portion of the cash-generating unit retained, unless the entity can demonstrate that some other method better reflects the goodwill associated with the operation disposed of.**

Example
<p>An entity sells for CU100 an operation that was part of a cash-generating unit to which goodwill has been allocated. The goodwill allocated to the unit cannot be identified or associated with an asset group at a level lower than that unit, except arbitrarily. The recoverable amount of the portion of the cash-generating unit retained is CU300.</p> <p><i>Because the goodwill allocated to the cash-generating unit cannot be non-arbitrarily identified or associated with an asset group at a level lower than that unit, the goodwill associated with the operation disposed of is measured on the basis of the relative values of the operation disposed of and the portion of the unit retained. Therefore, 25 per cent of the goodwill allocated to the cash-generating unit is included in the carrying amount of the operation that is sold.</i></p>

87 If an entity reorganises its reporting structure in a way that changes the composition of one or more cash-generating units to which goodwill has been allocated, the

goodwill shall be reallocated to the units affected. This reallocation shall be performed using a relative value approach similar to that used when an entity disposes of an operation within a cash-generating unit, unless the entity can demonstrate that some other method better reflects the goodwill associated with the reorganised units.

Example
<p>Goodwill had previously been allocated to cash-generating unit A. The goodwill allocated to A cannot be identified or associated with an asset group at a level lower than A, except arbitrarily. A is to be divided and integrated into three other cash-generating units, B, C and D.</p> <p><i>Because the goodwill allocated to A cannot be non-arbitrarily identified or associated with an asset group at a level lower than A, it is reallocated to units B, C and D on the basis of the relative values of the three portions of A before those portions are integrated with B, C and D.</i></p>

Testing cash-generating units with goodwill for impairment

88 When, as described in paragraph 81, goodwill relates to a cash-generating unit but has not been allocated to that unit, the unit shall be tested for impairment, whenever there is an indication that the unit may be impaired, by comparing the unit's carrying amount, excluding any goodwill, with its recoverable amount. Any impairment loss shall be recognised in accordance with paragraph 104.

89 If a cash-generating unit described in paragraph 88 includes in its carrying amount an intangible asset that has an indefinite useful life or is not yet available for use and that asset can be tested for impairment only as part of the cash-generating unit, paragraph 10 requires the unit also to be tested for impairment annually.

90 A cash-generating unit to which goodwill has been allocated shall be tested for impairment annually, and whenever there is an indication that the unit may be impaired, by comparing the carrying amount of the unit, including the goodwill, with the recoverable amount of the unit. If the recoverable amount of the unit exceeds the carrying amount of the unit, the unit and the goodwill allocated to that unit shall be regarded as not impaired. If the carrying amount of the unit exceeds the recoverable amount of the unit, the entity shall recognise the impairment loss in accordance with paragraph 104.

91– [Deleted]
95

Timing of impairment tests

96 The annual impairment test for a cash-generating unit to which goodwill has been allocated may be performed at any time during an annual period, provided the test is performed at the same time every year. Different cash-generating units may be tested for impairment at different times. However, if some or all of the goodwill allocated to a cash-generating unit was acquired in a business combination during the current annual period, that unit shall be tested for impairment before the end of the current annual period.

97 If the assets constituting the cash-generating unit to which goodwill has been allocated are tested for impairment at the same time as the unit containing the goodwill, they shall be tested for impairment before the unit containing the goodwill. Similarly, if the cash-generating units constituting a group of cash-generating units to which goodwill has been allocated are tested for impairment at the same time as the group of units containing the goodwill, the individual units shall be tested for impairment before the group of units containing the goodwill.

- 98 At the time of impairment testing a cash-generating unit to which goodwill has been allocated, there may be an indication of an impairment of an asset within the unit containing the goodwill. In such circumstances, the entity tests the asset for impairment first, and recognises any impairment loss for that asset before testing for impairment the cash-generating unit containing the goodwill. Similarly, there may be an indication of an impairment of a cash-generating unit within a group of units containing the goodwill. In such circumstances, the entity tests the cash-generating unit for impairment first, and recognises any impairment loss for that unit, before testing for impairment the group of units to which the goodwill is allocated.
- 99 **The most recent detailed calculation made in a preceding period of the recoverable amount of a cash-generating unit to which goodwill has been allocated may be used in the impairment test of that unit in the current period provided all of the following criteria are met:**
- (a) **the assets and liabilities making up the unit have not changed significantly since the most recent recoverable amount calculation;**
 - (b) **the most recent recoverable amount calculation resulted in an amount that exceeded the carrying amount of the unit by a substantial margin; and**
 - (c) **based on an analysis of events that have occurred and circumstances that have changed since the most recent recoverable amount calculation, the likelihood that a current recoverable amount determination would be less than the current carrying amount of the unit is remote.**

Corporate assets

- 100 Corporate assets include group or divisional assets such as the building of a headquarters or a division of the entity, EDP equipment or a research centre. The structure of an entity determines whether an asset meets this Standard's definition of corporate assets for a particular cash-generating unit. The distinctive characteristics of corporate assets are that they do not generate cash inflows independently of other assets or groups of assets and their carrying amount cannot be fully attributed to the cash-generating unit under review.
- 101 Because corporate assets do not generate separate cash inflows, the recoverable amount of an individual corporate asset cannot be determined unless management has decided to dispose of the asset. As a consequence, if there is an indication that a corporate asset may be impaired, recoverable amount is determined for the cash-generating unit or group of cash-generating units to which the corporate asset belongs, and is compared with the carrying amount of this cash-generating unit or group of cash-generating units. Any impairment loss is recognised in accordance with paragraph 104.
- 102 **In testing a cash-generating unit for impairment, an entity shall identify all the corporate assets that relate to the cash-generating unit under review. If a portion of the carrying amount of a corporate asset:**
- (a) **can be allocated on a reasonable and consistent basis to that unit, the entity shall compare the carrying amount of the unit, including the portion of the carrying amount of the corporate asset allocated to the unit, with its recoverable amount. Any impairment loss shall be recognised in accordance with paragraph 104.**
 - (b) **cannot be allocated on a reasonable and consistent basis to that unit, the entity shall:**
 - (i) **compare the carrying amount of the unit, excluding the corporate asset, with its recoverable amount and recognise any impairment loss in accordance with paragraph 104;**

- (ii) identify the smallest group of cash-generating units that includes the cash-generating unit under review and to which a portion of the carrying amount of the corporate asset can be allocated on a reasonable and consistent basis; and
- (iii) compare the carrying amount of that group of cash-generating units, including the portion of the carrying amount of the corporate asset allocated to that group of units, with the recoverable amount of the group of units. Any impairment loss shall be recognised in accordance with paragraph 104.

103 Illustrative Example 8 illustrates the application of these requirements to corporate assets.

Impairment loss for a cash-generating unit

104 An impairment loss shall be recognised for a cash-generating unit (the smallest group of cash-generating units to which goodwill or a corporate asset has been allocated) if, and only if, the recoverable amount of the unit (group of units) is less than the carrying amount of the unit (group of units). The impairment loss shall be allocated to reduce the carrying amount of the assets of the unit (group of units) in the following order:

- (a) first, to reduce the carrying amount of any goodwill allocated to the cash-generating unit (group of units); and
- (b) then, to the other assets of the unit (group of units) pro rata on the basis of the carrying amount of each asset in the unit (group of units).

These reductions in carrying amounts shall be treated as impairment losses on individual assets and recognised in accordance with paragraph 60.

105 In allocating an impairment loss in accordance with paragraph 104, an entity shall not reduce the carrying amount of an asset below the highest of:

- (a) its fair value less costs of disposal (if measurable);
- (b) its value in use (if determinable); and
- (c) zero.

The amount of the impairment loss that would otherwise have been allocated to the asset shall be allocated pro rata to the other assets of the unit (group of units).

106 If it is not practicable to estimate the recoverable amount of each individual asset of a cash-generating unit, this Standard requires an arbitrary allocation of an impairment loss between the assets of that unit, other than goodwill, because all assets of a cash-generating unit work together.

107 If the recoverable amount of an individual asset cannot be determined (see paragraph 67):

- (a) an impairment loss is recognised for the asset if its carrying amount is greater than the higher of its fair value less costs of disposal and the results of the allocation procedures described in paragraphs 104 and 105; and
- (b) no impairment loss is recognised for the asset if the related cash-generating unit is not impaired. This applies even if the asset's fair value less costs of disposal is less than its carrying amount.

Example

A machine has suffered physical damage but is still working, although not as well as before it was damaged. The machine's fair value less costs of disposal is less than its carrying amount. The machine does not generate independent cash inflows. The smallest identifiable group of assets that includes the machine and generates cash inflows that are largely independent of the cash inflows from other assets is the production line to which the machine belongs. The recoverable amount of the production line shows that the production line taken as a whole is not impaired.

Assumption 1: budgets/forecasts approved by management reflect no commitment of management to replace the machine.

The recoverable amount of the machine alone cannot be estimated because the machine's value in use:

- (a) *may differ from its fair value less costs of disposal; and*
- (b) *can be determined only for the cash-generating unit to which the machine belongs (the production line).*

The production line is not impaired. Therefore, no impairment loss is recognised for the machine. Nevertheless, the entity may need to reassess the depreciation period or the depreciation method for the machine. Perhaps a shorter depreciation period or a faster depreciation method is required to reflect the expected remaining useful life of the machine or the pattern in which economic benefits are expected to be consumed by the entity.

Assumption 2: budgets/forecasts approved by management reflect a commitment of management to replace the machine and sell it in the near future. Cash flows from continuing use of the machine until its disposal are estimated to be negligible.

The machine's value in use can be estimated to be close to its fair value less costs of disposal. Therefore, the recoverable amount of the machine can be determined and no consideration is given to the cash-generating unit to which the machine belongs (ie the production line). Because the machine's fair value less costs of disposal is less than its carrying amount, an impairment loss is recognised for the machine.

- 108 After the requirements in paragraphs 104 and 105 have been applied, a liability shall be recognised for any remaining amount of an impairment loss for a cash-generating unit if, and only if, that is required by another SFRS(I).**

Reversing an impairment loss

- 109 Paragraphs 110–116 set out the requirements for reversing an impairment loss recognised for an asset or a cash-generating unit in prior periods. These requirements use the term 'an asset' but apply equally to an individual asset or a cash-generating unit. Additional requirements for an individual asset are set out in paragraphs 117–121, for a cash-generating unit in paragraphs 122 and 123 and for goodwill in paragraphs 124 and 125.
- 110 An entity shall assess at the end of each reporting period whether there is any indication that an impairment loss recognised in prior periods for an asset other than goodwill may no longer exist or may have decreased. If any such indication exists, the entity shall estimate the recoverable amount of that asset.**
- 111 In assessing whether there is any indication that an impairment loss recognised in prior periods for an asset other than goodwill may no longer exist or may have decreased, an entity shall consider, as a minimum, the following indications:**

External sources of information

- (a) **there are observable indications that the asset's value has increased significantly during the period.**
- (b) **significant changes with a favourable effect on the entity have taken place during the period, or will take place in the near future, in the technological, market, economic or legal environment in which the entity operates or in the market to which the asset is dedicated.**
- (c) **market interest rates or other market rates of return on investments have decreased during the period, and those decreases are likely to affect the discount rate used in calculating the asset's value in use and increase the asset's recoverable amount materially.**

Internal sources of information

- (d) **significant changes with a favourable effect on the entity have taken place during the period, or are expected to take place in the near future, in the extent to which, or manner in which, the asset is used or is expected to be used. These changes include costs incurred during the period to improve or enhance the asset's performance or restructure the operation to which the asset belongs.**
- (e) **evidence is available from internal reporting that indicates that the economic performance of the asset is, or will be, better than expected.**

112 Indications of a potential decrease in an impairment loss in paragraph 111 mainly mirror the indications of a potential impairment loss in paragraph 12.

113 If there is an indication that an impairment loss recognised for an asset other than goodwill may no longer exist or may have decreased, this may indicate that the remaining useful life, the depreciation (amortisation) method or the residual value may need to be reviewed and adjusted in accordance with the SFRS(I) applicable to the asset, even if no impairment loss is reversed for the asset.

114 An impairment loss recognised in prior periods for an asset other than goodwill shall be reversed if, and only if, there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognised. If this is the case, the carrying amount of the asset shall, except as described in paragraph 117, be increased to its recoverable amount. That increase is a reversal of an impairment loss.

115 A reversal of an impairment loss reflects an increase in the estimated service potential of an asset, either from use or from sale, since the date when an entity last recognised an impairment loss for that asset. Paragraph 130 requires an entity to identify the change in estimates that causes the increase in estimated service potential. Examples of changes in estimates include:

- (a) a change in the basis for recoverable amount (ie whether recoverable amount is based on fair value less costs of disposal or value in use);
- (b) if recoverable amount was based on value in use, a change in the amount or timing of estimated future cash flows or in the discount rate; or
- (c) if recoverable amount was based on fair value less costs of disposal, a change in estimate of the components of fair value less costs of disposal.

116 An asset's value in use may become greater than the asset's carrying amount simply because the present value of future cash inflows increases as they become closer. However,

the service potential of the asset has not increased. Therefore, an impairment loss is not reversed just because of the passage of time (sometimes called the 'unwinding' of the discount), even if the recoverable amount of the asset becomes higher than its carrying amount.

Reversing an impairment loss for an individual asset

- 117** The increased carrying amount of an asset other than goodwill attributable to a reversal of an impairment loss shall not exceed the carrying amount that would have been determined (net of amortisation or depreciation) had no impairment loss been recognised for the asset in prior years.
- 118 Any increase in the carrying amount of an asset other than goodwill above the carrying amount that would have been determined (net of amortisation or depreciation) had no impairment loss been recognised for the asset in prior years is a revaluation. In accounting for such a revaluation, an entity applies the SFRS(I) applicable to the asset.
- 119** A reversal of an impairment loss for an asset other than goodwill shall be recognised immediately in profit or loss, unless the asset is carried at revalued amount in accordance with another SFRS(I) (for example, the revaluation model in SFRS(I) 1-16). Any reversal of an impairment loss of a revalued asset shall be treated as a revaluation increase in accordance with that other SFRS(I).
- 120 A reversal of an impairment loss on a revalued asset is recognised in other comprehensive income and increases the revaluation surplus for that asset. However, to the extent that an impairment loss on the same revalued asset was previously recognised in profit or loss, a reversal of that impairment loss is also recognised in profit or loss.
- 121** After a reversal of an impairment loss is recognised, the depreciation (amortisation) charge for the asset shall be adjusted in future periods to allocate the asset's revised carrying amount, less its residual value (if any), on a systematic basis over its remaining useful life.

Reversing an impairment loss for a cash-generating unit

- 122** A reversal of an impairment loss for a cash-generating unit shall be allocated to the assets of the unit, except for goodwill, pro rata with the carrying amounts of those assets. These increases in carrying amounts shall be treated as reversals of impairment losses for individual assets and recognised in accordance with paragraph 119.
- 123** In allocating a reversal of an impairment loss for a cash-generating unit in accordance with paragraph 122, the carrying amount of an asset shall not be increased above the lower of:
- (a) its recoverable amount (if determinable); and
 - (b) the carrying amount that would have been determined (net of amortisation or depreciation) had no impairment loss been recognised for the asset in prior periods.

The amount of the reversal of the impairment loss that would otherwise have been allocated to the asset shall be allocated pro rata to the other assets of the unit, except for goodwill.

Reversing an impairment loss for goodwill

- 124 **An impairment loss recognised for goodwill shall not be reversed in a subsequent period.**
- 125 SFRS(I) 1-38 *Intangible Assets* prohibits the recognition of internally generated goodwill. Any increase in the recoverable amount of goodwill in the periods following the recognition of an impairment loss for that goodwill is likely to be an increase in internally generated goodwill, rather than a reversal of the impairment loss recognised for the acquired goodwill.

Disclosure

- 126 **An entity shall disclose the following for each class of assets:**
- (a) **the amount of impairment losses recognised in profit or loss during the period and the line item(s) of the statement of comprehensive income in which those impairment losses are included.**
 - (b) **the amount of reversals of impairment losses recognised in profit or loss during the period and the line item(s) of the statement of comprehensive income in which those impairment losses are reversed.**
 - (c) **the amount of impairment losses on revalued assets recognised in other comprehensive income during the period.**
 - (d) **the amount of reversals of impairment losses on revalued assets recognised in other comprehensive income during the period.**
- 127 A class of assets is a grouping of assets of similar nature and use in an entity's operations.
- 128 The information required in paragraph 126 may be presented with other information disclosed for the class of assets. For example, this information may be included in a reconciliation of the carrying amount of property, plant and equipment, at the beginning and end of the period, as required by SFRS(I) 1-16.
- 129 **An entity that reports segment information in accordance with SFRS(I) 8 shall disclose the following for each reportable segment:**
- (a) **the amount of impairment losses recognised in profit or loss and in other comprehensive income during the period.**
 - (b) **the amount of reversals of impairment losses recognised in profit or loss and in other comprehensive income during the period.**
- 130 **An entity shall disclose the following for an individual asset (including goodwill) or a cash-generating unit, for which an impairment loss has been recognised or reversed during the period:**
- (a) **the events and circumstances that led to the recognition or reversal of the impairment loss.**
 - (b) **the amount of the impairment loss recognised or reversed.**
 - (c) **for an individual asset:**
 - (i) **the nature of the asset; and**
 - (ii) **if the entity reports segment information in accordance with SFRS(I) 8, the reportable segment to which the asset belongs.**

- (d) for a cash-generating unit:
- (i) a description of the cash-generating unit (such as whether it is a product line, a plant, a business operation, a geographical area, or a reportable segment as defined in SFRS(I) 8);
 - (ii) the amount of the impairment loss recognised or reversed by class of assets and, if the entity reports segment information in accordance with SFRS(I) 8, by reportable segment; and
 - (iii) if the aggregation of assets for identifying the cash-generating unit has changed since the previous estimate of the cash-generating unit's recoverable amount (if any), a description of the current and former way of aggregating assets and the reasons for changing the way the cash-generating unit is identified.
- (e) the recoverable amount of the asset (cash-generating unit) and whether the recoverable amount of the asset (cash-generating unit) is its fair value less costs of disposal or its value in use.
- (f) if the recoverable amount is fair value less costs of disposal, the entity shall disclose the following information:
- (i) the level of the fair value hierarchy (see SFRS(I) 13) within which the fair value measurement of the asset (cash-generating unit) is categorised in its entirety (without taking into account whether the 'costs of disposal' are observable);
 - (ii) for fair value measurements categorised within Level 2 and Level 3 of the fair value hierarchy, a description of the valuation technique(s) used to measure fair value less costs of disposal. If there has been a change in valuation technique, the entity shall disclose that change and the reason(s) for making it; and
 - (iii) for fair value measurements categorised within Level 2 and Level 3 of the fair value hierarchy, each key assumption on which management has based its determination of fair value less costs of disposal. Key assumptions are those to which the asset's (cash-generating unit's) recoverable amount is most sensitive. The entity shall also disclose the discount rate(s) used in the current measurement and previous measurement if fair value less costs of disposal is measured using a present value technique.
- (g) if recoverable amount is value in use, the discount rate(s) used in the current estimate and previous estimate (if any) of value in use.
- 131 An entity shall disclose the following information for the aggregate impairment losses and the aggregate reversals of impairment losses recognised during the period for which no information is disclosed in accordance with paragraph 130:
- (a) the main classes of assets affected by impairment losses and the main classes of assets affected by reversals of impairment losses.
 - (b) the main events and circumstances that led to the recognition of these impairment losses and reversals of impairment losses.
- 132 An entity is encouraged to disclose assumptions used to determine the recoverable amount of assets (cash-generating units) during the period. However, paragraph 134 requires an entity to disclose information about the estimates used to measure the recoverable amount

of a cash-generating unit when goodwill or an intangible asset with an indefinite useful life is included in the carrying amount of that unit.

- 133** If, in accordance with paragraph 84, any portion of the goodwill acquired in a business combination during the period has not been allocated to a cash-generating unit (group of units) at the end of the reporting period, the amount of the unallocated goodwill shall be disclosed together with the reasons why that amount remains unallocated.

Estimates used to measure recoverable amounts of cash-generating units containing goodwill or intangible assets with indefinite useful lives

- 134** An entity shall disclose the information required by (a)–(f) for each cash-generating unit (group of units) for which the carrying amount of goodwill or intangible assets with indefinite useful lives allocated to that unit (group of units) is significant in comparison with the entity's total carrying amount of goodwill or intangible assets with indefinite useful lives:

- (a) the carrying amount of goodwill allocated to the unit (group of units).
- (b) the carrying amount of intangible assets with indefinite useful lives allocated to the unit (group of units).
- (c) the basis on which the unit's (group of units') recoverable amount has been determined (ie value in use or fair value less costs of disposal).
- (d) if the unit's (group of units') recoverable amount is based on value in use:
 - (i) each key assumption on which management has based its cash flow projections for the period covered by the most recent budgets/forecasts. Key assumptions are those to which the unit's (group of units') recoverable amount is most sensitive.
 - (ii) a description of management's approach to determining the value(s) assigned to each key assumption, whether those value(s) reflect past experience or, if appropriate, are consistent with external sources of information, and, if not, how and why they differ from past experience or external sources of information.
 - (iii) the period over which management has projected cash flows based on financial budgets/forecasts approved by management and, when a period greater than five years is used for a cash-generating unit (group of units), an explanation of why that longer period is justified.
 - (iv) the growth rate used to extrapolate cash flow projections beyond the period covered by the most recent budgets/forecasts, and the justification for using any growth rate that exceeds the long-term average growth rate for the products, industries, or country or countries in which the entity operates, or for the market to which the unit (group of units) is dedicated.
 - (v) the discount rate(s) applied to the cash flow projections.
- (e) if the unit's (group of units') recoverable amount is based on fair value less costs of disposal, the valuation technique(s) used to measure fair value less costs of disposal. An entity is not required to provide the disclosures required by SFRS(I) 13. If fair value less costs of disposal is not measured using a quoted price for an identical unit (group of units), an entity shall disclose the following information:

- (i) each key assumption on which management has based its determination of fair value less costs of disposal. Key assumptions are those to which the unit's (group of units') recoverable amount is most sensitive.
- (ii) a description of management's approach to determining the value (or values) assigned to each key assumption, whether those values reflect past experience or, if appropriate, are consistent with external sources of information, and, if not, how and why they differ from past experience or external sources of information.
- (iiA) the level of the fair value hierarchy (see SFRS(I) 13) within which the fair value measurement is categorised in its entirety (without giving regard to the observability of 'costs of disposal').
- (iiB) if there has been a change in valuation technique, the change and the reason(s) for making it.

If fair value less costs of disposal is measured using discounted cash flow projections, an entity shall disclose the following information:

- (iii) the period over which management has projected cash flows.
 - (iv) the growth rate used to extrapolate cash flow projections.
 - (v) the discount rate(s) applied to the cash flow projections.
- (f) if a reasonably possible change in a key assumption on which management has based its determination of the unit's (group of units') recoverable amount would cause the unit's (group of units') carrying amount to exceed its recoverable amount:
- (i) the amount by which the unit's (group of units') recoverable amount exceeds its carrying amount.
 - (ii) the value assigned to the key assumption.
 - (iii) the amount by which the value assigned to the key assumption must change, after incorporating any consequential effects of that change on the other variables used to measure recoverable amount, in order for the unit's (group of units') recoverable amount to be equal to its carrying amount.

135 If some or all of the carrying amount of goodwill or intangible assets with indefinite useful lives is allocated across multiple cash-generating units (groups of units), and the amount so allocated to each unit (group of units) is not significant in comparison with the entity's total carrying amount of goodwill or intangible assets with indefinite useful lives, that fact shall be disclosed, together with the aggregate carrying amount of goodwill or intangible assets with indefinite useful lives allocated to those units (groups of units). In addition, if the recoverable amounts of any of those units (groups of units) are based on the same key assumption(s) and the aggregate carrying amount of goodwill or intangible assets with indefinite useful lives allocated to them is significant in comparison with the entity's total carrying amount of goodwill or intangible assets with indefinite useful lives, an entity shall disclose that fact, together with:

- (a) the aggregate carrying amount of goodwill allocated to those units (groups of units).
- (b) the aggregate carrying amount of intangible assets with indefinite useful lives allocated to those units (groups of units).

- (c) a description of the key assumption(s).
- (d) a description of management's approach to determining the value(s) assigned to the key assumption(s), whether those value(s) reflect past experience or, if appropriate, are consistent with external sources of information, and, if not, how and why they differ from past experience or external sources of information.
- (e) if a reasonably possible change in the key assumption(s) would cause the aggregate of the units' (groups of units') carrying amounts to exceed the aggregate of their recoverable amounts:
 - (i) the amount by which the aggregate of the units' (groups of units') recoverable amounts exceeds the aggregate of their carrying amounts.
 - (ii) the value(s) assigned to the key assumption(s).
 - (iii) the amount by which the value(s) assigned to the key assumption(s) must change, after incorporating any consequential effects of the change on the other variables used to measure recoverable amount, in order for the aggregate of the units' (groups of units') recoverable amounts to be equal to the aggregate of their carrying amounts.

136 The most recent detailed calculation made in a preceding period of the recoverable amount of a cash-generating unit (group of units) may, in accordance with paragraph 24 or 99, be carried forward and used in the impairment test for that unit (group of units) in the current period provided specified criteria are met. When this is the case, the information for that unit (group of units) that is incorporated into the disclosures required by paragraphs 134 and 135 relate to the carried forward calculation of recoverable amount.

137 Illustrative Example 9 illustrates the disclosures required by paragraphs 134 and 135.

Transition provisions and effective date

IFRS. [Deleted]
138

IFRS. An entity shall apply [IAS 36 *Impairment of Assets* (issued by IASB in March 2004)]:
139

- (a) to goodwill and intangible assets acquired in business combinations for which the agreement date is on or after 31 March 2004; and
- (b) to all other assets prospectively from the beginning of the first annual period beginning on or after 31 March 2004.

IFRS. Entities to which paragraph 139 applies are encouraged to apply the requirements of this Standard before the effective dates specified in paragraph 139. However, if an entity applies this Standard before those effective dates, it also shall apply IFRS 3 and IAS 38 (as revised in 2004) at the same time.
140

IFRS. IAS 1 *Presentation of Financial Statements* (as revised in 2007) amended the terminology used throughout IFRSs. In addition it amended paragraphs 61, 120, 126 and 129. An entity shall apply those amendments for annual periods beginning on or after 1 January 2009. If an entity applies IAS 1 (revised 2007) for an earlier period, the amendments shall be applied for that earlier period.
140A

- IFRS. IFRS 3 (as revised in 2008) amended paragraphs 65, 81, 85 and 139, deleted paragraphs
140B 91–95 and 138 and added Appendix C. An entity shall apply those amendments for annual periods beginning on or after 1 July 2009. If an entity applies IFRS 3 (revised 2008) for an earlier period, the amendments shall also be applied for that earlier period.
- IFRS. Paragraph 134(e) was amended by *Improvements to IFRSs* issued in May 2008. An entity
140C shall apply that amendment for annual periods beginning on or after 1 January 2009. Earlier application is permitted. If an entity applies the amendment for an earlier period it shall disclose that fact.
- IFRS. *Cost of an Investment in a Subsidiary, Jointly Controlled Entity or Associate* (Amendments to
140D IFRS 1 *First-time Adoption of International Financial Reporting Standards* and IAS 27), issued in May 2008, added paragraph 12(h). An entity shall apply that amendment prospectively for annual periods beginning on or after 1 January 2009. Earlier application is permitted. If an entity applies the related amendments in paragraphs 4 and 38A of IAS 27 for an earlier period, it shall apply the amendment in paragraph 12(h) at the same time.
- IFRS. *Improvements to IFRSs* issued in April 2009 amended paragraph 80(b). An entity shall apply
140E that amendment prospectively for annual periods beginning on or after 1 January 2010. Earlier application is permitted. If an entity applies the amendment for an earlier period it shall disclose that fact.
- IFRS. [Deleted]
140F
- IFRS. [Deleted]
140G
- IFRS. IFRS 10 and IFRS 11, issued in May 2011, amended paragraph 4, the heading above
140H paragraph 12(h) and paragraph 12(h). An entity shall apply those amendments when it applies IFRS 10 and IFRS 11.
- IFRS. IFRS 13, issued in May 2011, amended paragraphs 5, 6, 12, 20, 22, 28, 78, 105, 111, 130
140I and 134, deleted paragraphs 25–27 and added paragraph 53A. An entity shall apply those amendments when it applies IFRS 13.
- IFRS. In May 2013 paragraphs 130 and 134 and the heading above paragraph 138 were amended.
140J An entity shall apply those amendments retrospectively for annual periods beginning on or after 1 January 2014. Earlier application is permitted. An entity shall not apply those amendments in periods (including comparative periods) in which it does not also apply IFRS 13.
- IFRS. [Deleted]
140K
- IFRS. IFRS 15 *Revenue from Contracts with Customers*, issued in May 2014, amended paragraph
140L 2. An entity shall apply that amendment when it applies IFRS 15.
- IFRS. IFRS 9, as issued in July 2014, amended paragraphs 2, 4 and 5 and deleted paragraphs
140M 140F, 140G and 140K. An entity shall apply those amendments when it applies IFRS 9.

Withdrawal of other standards

- IFRS. This Standard supersedes IAS 36 *Impairment of Assets* (issued in 1998).
141

Appendix A

Using present value techniques to measure value in use

This appendix is an integral part of the Standard. It provides guidance on the use of present value techniques in measuring value in use. Although the guidance uses the term 'asset', it equally applies to a group of assets forming a cash-generating unit.

The components of a present value measurement

- A1 The following elements together capture the economic differences between assets:
- (a) an estimate of the future cash flow, or in more complex cases, series of future cash flows the entity expects to derive from the asset;
 - (b) expectations about possible variations in the amount or timing of those 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, sometimes unidentifiable, factors (such as illiquidity) that market participants would reflect in pricing the future cash flows the entity expects to derive from the asset.
- A2 This appendix contrasts two approaches to computing present value, either of which may be used to estimate the value in use of an asset, depending on the circumstances. Under the 'traditional' approach, adjustments for factors (b)–(e) described in paragraph A1 are embedded in the discount rate. Under the 'expected cash flow' approach, factors (b), (d) and (e) cause adjustments in arriving at risk-adjusted expected cash flows. Whichever approach an entity adopts to reflect expectations about possible variations in the amount or timing of future cash flows, the result should be to reflect the expected present value of the future cash flows, ie the weighted average of all possible outcomes.

General principles

- A3 The techniques used to estimate future cash flows and interest rates will vary from one situation to another depending on the circumstances surrounding the asset in question. However, the following general principles govern any application of present value techniques in measuring assets:
- (a) interest rates used to discount cash flows should reflect assumptions that are consistent with those inherent in the estimated cash flows. Otherwise, the effect of some assumptions will be double-counted or ignored. For example, a discount rate of 12 per cent might be applied to contractual cash flows of a loan receivable. That rate reflects expectations about future defaults from loans with particular characteristics. That same 12 per cent rate should not be used to discount expected cash flows because those cash flows already reflect assumptions about future defaults.
 - (b) estimated cash flows and discount rates should be free from both bias and factors unrelated to the asset in question. For example, deliberately understating estimated net cash flows to enhance the apparent future profitability of an asset introduces a bias into the measurement.
 - (c) estimated cash flows or discount rates should reflect the range of possible outcomes rather than a single most likely, minimum or maximum possible amount.

Traditional and expected cash flow approaches to present value

Traditional approach

- A4 Accounting applications of present value have traditionally used a single set of estimated cash flows and a single discount rate, often described as ‘the rate commensurate with the risk’. In effect, the traditional approach assumes that a single discount rate convention can incorporate all the expectations about the future cash flows and the appropriate risk premium. Therefore, the traditional approach places most of the emphasis on selection of the discount rate.
- A5 In some circumstances, such as those in which comparable assets can be observed in the marketplace, a traditional approach is relatively easy to apply. For assets with contractual cash flows, it is consistent with the manner in which marketplace participants describe assets, as in ‘a 12 per cent bond’.
- A6 However, the traditional approach may not appropriately address some complex measurement problems, such as the measurement of non-financial assets for which no market for the item or a comparable item exists. A proper search for ‘the rate commensurate with the risk’ requires analysis of at least two items—an asset that exists in the marketplace and has an observed interest rate and the asset being measured. The appropriate discount rate for the cash flows being measured must be inferred from the observable rate of interest in that other asset. To draw that inference, the characteristics of the other asset’s cash flows must be similar to those of the asset being measured. Therefore, the measurer must do the following:
- (a) identify the set of cash flows that will be discounted;
 - (b) identify another asset in the marketplace that appears to have similar cash flow characteristics;
 - (c) compare the cash flow sets from the two items to ensure that they are similar (for example, are both sets contractual cash flows, or is one contractual and the other an estimated cash flow?);
 - (d) evaluate whether there is an element in one item that is not present in the other (for example, is one less liquid than the other?); and
 - (e) evaluate whether both sets of cash flows are likely to behave (ie vary) in a similar fashion in changing economic conditions.

Expected cash flow approach

- A7 The expected cash flow approach is, in some situations, a more effective measurement tool than the traditional approach. In developing a measurement, the expected cash flow approach uses all expectations about possible cash flows instead of the single most likely cash flow. For example, a cash flow might be CU100, CU200 or CU300 with probabilities of 10 per cent, 60 per cent and 30 per cent, respectively. The expected cash flow is CU220. The expected cash flow approach thus differs from the traditional approach by focusing on direct analysis of the cash flows in question and on more explicit statements of the assumptions used in the measurement.
- A8 The expected cash flow approach also allows use of present value techniques when the timing of cash flows is uncertain. For example, a cash flow of CU1,000 may be received in one year, two years or three years with probabilities of 10 per cent, 60 per cent and 30 per cent, respectively. The example below shows the computation of expected present value in that situation.

Present value of CU1,000 in 1 year at 5%	CU952.38	
Probability	<u>10.00%</u>	CU95.24
Present value of CU1,000 in 2 years at 5.25%	CU902.73	
Probability	<u>60.00%</u>	CU541.64
Present value of CU1,000 in 3 years at 5.50%	CU851.61	
Probability	<u>30.00%</u>	<u>CU255.48</u>
Expected present value		<u>CU892.36</u>

A9 The expected present value of CU892.36 differs from the traditional notion of a best estimate of CU902.73 (the 60 per cent probability). A traditional present value computation applied to this example requires a decision about which of the possible timings of cash flows to use and, accordingly, would not reflect the probabilities of other timings. This is because the discount rate in a traditional present value computation cannot reflect uncertainties in timing.

A10 The use of probabilities is an essential element of the expected cash flow approach. Some question whether assigning probabilities to highly subjective estimates suggests greater precision than, in fact, exists. However, the proper application of the traditional approach (as described in paragraph A6) requires the same estimates and subjectivity without providing the computational transparency of the expected cash flow approach.

A11 Many estimates developed in current practice already incorporate the elements of expected cash flows informally. In addition, accountants often face the need to measure an asset using limited information about the probabilities of possible cash flows. For example, an accountant might be confronted with the following situations:

- (a) the estimated amount falls somewhere between CU50 and CU250, but no amount in the range is more likely than any other amount. Based on that limited information, the estimated expected cash flow is CU150 $[(50 + 250)/2]$.
- (b) the estimated amount falls somewhere between CU50 and CU250, and the most likely amount is CU100. However, the probabilities attached to each amount are unknown. Based on that limited information, the estimated expected cash flow is CU133.33 $[(50 + 100 + 250)/3]$.
- (c) the estimated amount will be CU50 (10 per cent probability), CU250 (30 per cent probability), or CU100 (60 per cent probability). Based on that limited information, the estimated expected cash flow is CU140 $[(50 \times 0.10) + (250 \times 0.30) + (100 \times 0.60)]$.

In each case, the estimated expected cash flow is likely to provide a better estimate of value in use than the minimum, most likely or maximum amount taken alone.

A12 The application of an expected cash flow approach is subject to a cost-benefit constraint. In some cases, an entity may have access to extensive data and may be able to develop many cash flow scenarios. In other cases, an entity may not be able to develop more than general statements about the variability of cash flows without incurring substantial cost. The entity needs to balance the cost of obtaining additional information against the additional reliability that information will bring to the measurement.

A13 Some maintain that expected cash flow techniques are inappropriate for measuring a single item or an item with a limited number of possible outcomes. They offer an example of an asset with two possible outcomes: a 90 per cent probability that the cash flow will be CU10 and a 10 per cent probability that the cash flow will be CU1,000. They observe that the expected cash flow in that example is CU109 and criticise that result as not representing either of the amounts that may ultimately be paid.

A14 Assertions like the one just outlined reflect underlying disagreement with the measurement objective. If the objective is accumulation of costs to be incurred, expected cash flows may not produce a representationally faithful estimate of the expected cost. However, this Standard is concerned with measuring the recoverable amount of an asset. The recoverable amount of the asset in this example is not likely to be CU10, even though that is the most likely cash flow. This is because a measurement of CU10 does not incorporate the uncertainty of the cash flow in the measurement of the asset. Instead, the uncertain cash flow is presented as if it were a certain cash flow. No rational entity would sell an asset with these characteristics for CU10.

Discount rate

A15 Whichever approach an entity adopts for measuring the value in use of an asset, interest rates used to discount cash flows should not reflect risks for which the estimated cash flows have been adjusted. Otherwise, the effect of some assumptions will be double-counted.

A16 When an asset-specific rate is not directly available from the market, an entity uses surrogates to estimate the discount rate. The purpose is to estimate, as far as possible, a market assessment of:

- (a) the time value of money for the periods until the end of the asset's useful life; and
- (b) factors (b), (d) and (e) described in paragraph A1, to the extent those factors have not caused adjustments in arriving at estimated cash flows.

A17 As a starting point in making such an estimate, the entity might take into account the following rates:

- (a) the entity's weighted average cost of capital determined using techniques such as the Capital Asset Pricing Model;
- (b) the entity's incremental borrowing rate; and
- (c) other market borrowing rates.

A18 However, these rates must be adjusted:

- (a) to reflect the way that the market would assess the specific risks associated with the asset's estimated cash flows; and
- (b) to exclude risks that are not relevant to the asset's estimated cash flows or for which the estimated cash flows have been adjusted.

Consideration should be given to risks such as country risk, currency risk and price risk.

A19 The discount rate is independent of the entity's capital structure and the way the entity financed the purchase of the asset, because the future cash flows expected to arise from an asset do not depend on the way in which the entity financed the purchase of the asset.

A20 Paragraph 55 requires the discount rate used to be a pre-tax rate. Therefore, when the basis used to estimate the discount rate is post-tax, that basis is adjusted to reflect a pre-tax rate.

A21 An entity normally uses a single discount rate for the estimate of an asset's value in use. However, an entity uses separate discount rates for different future periods where value in use is sensitive to a difference in risks for different periods or to the term structure of interest rates.

Appendix B Amendment to other standards

[Not used]

Appendix C Impairment testing cash-generating units with goodwill and non-controlling interests

This appendix is an integral part of the Standard.

- C1 In accordance with SFRS(I) 3, the acquirer measures and recognises goodwill as of the acquisition date as the excess of (a) over (b) below:
- (a) the aggregate of:
 - (i) the consideration transferred measured in accordance with SFRS(I) 3, which generally requires acquisition-date fair value;
 - (ii) the amount of any non-controlling interest in the acquiree measured in accordance with SFRS(I) 3; and
 - (iii) in a business combination achieved in stages, the acquisition-date fair value of the acquirer's previously held equity interest in the acquiree.
 - (b) the net of the acquisition-date amounts of the identifiable assets acquired and liabilities assumed measured in accordance with SFRS(I) 3.

Allocation of goodwill

- C2 Paragraph 80 of this Standard requires goodwill acquired in a business combination to be allocated to each of the acquirer's cash-generating units, or groups of cash-generating units, expected to benefit from the synergies of the combination, irrespective of whether other assets or liabilities of the acquiree are assigned to those units, or groups of units. It is possible that some of the synergies resulting from a business combination will be allocated to a cash-generating unit in which the non-controlling interest does not have an interest.

Testing for impairment

- C3 Testing for impairment involves comparing the recoverable amount of a cash-generating unit with the carrying amount of the cash-generating unit.
- C4 If an entity measures non-controlling interests as its proportionate interest in the net identifiable assets of a subsidiary at the acquisition date, rather than at fair value, goodwill attributable to non-controlling interests is included in the recoverable amount of the related cash-generating unit but is not recognised in the parent's consolidated financial statements. As a consequence, an entity shall gross up the carrying amount of goodwill allocated to the unit to include the goodwill attributable to the non-controlling interest. This adjusted carrying amount is then compared with the recoverable amount of the unit to determine whether the cash-generating unit is impaired.

Allocating an impairment loss

- C5 Paragraph 104 requires any identified impairment loss to be allocated first to reduce the carrying amount of goodwill allocated to the unit and then to the other assets of the unit pro rata on the basis of the carrying amount of each asset in the unit.

C6 If a subsidiary, or part of a subsidiary, with a non-controlling interest is itself a cash-generating unit, the impairment loss is allocated between the parent and the non-controlling interest on the same basis as that on which profit or loss is allocated.

C7 If a subsidiary, or part of a subsidiary, with a non-controlling interest is part of a larger cash-generating unit, goodwill impairment losses are allocated to the parts of the cash-generating unit that have a non-controlling interest and the parts that do not. The impairment losses should be allocated to the parts of the cash-generating unit on the basis of:

- (a) to the extent that the impairment relates to goodwill in the cash-generating unit, the relative carrying values of the goodwill of the parts before the impairment; and
- (b) to the extent that the impairment relates to identifiable assets in the cash-generating unit, the relative carrying values of the net identifiable assets of the parts before the impairment. Any such impairment is allocated to the assets of the parts of each unit pro rata on the basis of the carrying amount of each asset in the part.

In those parts that have a non-controlling interest, the impairment loss is allocated between the parent and the non-controlling interest on the same basis as that on which profit or loss is allocated.

C8 If an impairment loss attributable to a non-controlling interest relates to goodwill that is not recognised in the parent's consolidated financial statements (see paragraph C4), that impairment is not recognised as a goodwill impairment loss. In such cases, only the impairment loss relating to the goodwill that is allocated to the parent is recognised as a goodwill impairment loss.

C9 Illustrative Example 7 illustrates the impairment testing of a non-wholly-owned cash-generating unit with goodwill.