

International Financial Reporting Standards (IFRSs) together with their accompanying documents are issued by the International Accounting Standards Board (IASB):

30 Cannon Street, London, EC4M 6XH, United Kingdom.

Tel: +44 (0)20 7246 6410 Fax: +44 (0)20 7246 6411

Email: info@ifrs.org Web: www.ifrs.org

Copyright © 2004 IFRS Foundation

IFRSs (which include International Accounting Standards and Interpretations) are copyright of the IFRS Foundation. The authoritative text of IFRSs is that issued by the IASB in the English language. Copies may be obtained from the IFRS Foundation Publications Department. Please address publication and copyright matters to:

IFRS Foundation Publications Department

30 Cannon Street, London, EC4M 6XH, United Kingdom.

Tel: +44 (0)20 7332 2730 Fax: +44 (0)20 7332 2749

Email: publications@ifrs.org Web: www.ifrs.org

All rights reserved. No part of this publication may be translated, reprinted or reproduced or utilised in any form either in whole or in part or by any electronic, mechanical or other means, now known or hereafter invented, including photocopying and recording, or in any information storage and retrieval system, without prior permission in writing from the IFRS Foundation.



The IFRS Foundation logo, the IASB logo, the IFRS for SMEs logo, the 'Hexagon Device', 'IFRS Foundation', 'eIFRS', 'IAS', 'IASB', 'IASB Foundation', 'IASCF', 'IFRS for SMEs', 'IASs', 'IFRS', 'IFRSs', 'International Accounting Standards' and 'International Financial Reporting Standards' are Trade Marks of the IFRS Foundation

Approval by the Board of IAS 36 issued in March 2004

International Accounting Standard 36 *Impairment of Assets* (as revised in 2004) was approved for issue by eleven of the fourteen members of the International Accounting Standards Board. Messrs Cope and Leisenring and Professor Whittington dissented. Their dissenting opinions are set out after the Basis for Conclusions on IAS 36.

Sir David Tweedie

Chairman

Thomas E Jones

Vice-Chairman

Mary E Barth

Hans-Georg Bruns

Anthony T Cope

Robert P Garnett

Gilbert Gélard

James J Leisenring

Warren J McGregor

Patricia L O'Malley

Harry K Schmid

John T Smith

Geoffrey Whittington

Tatsumi Yamada

Approval by the Board of *Recoverable Amount Disclosures for Non-Financial Assets* (Amendments to IAS 36) issued in May 2013

Recoverable Amount Disclosures for Non-Financial Assets was approved for issue by fifteen members of the International Accounting Standards Board (IASB). Mr Kabureck abstained from voting in view of his recent appointment to the IASB.

Hans Hoogervorst Chairman

Ian Mackintosh Vice-Chairman

Stephen Cooper

Philippe Danjou

Martin Edelmann

Jan Engström

Patrick Finnegan

Amaro Luiz de Oliveira Gomes

Gary Kabureck

Prabhakar Kalavacherla

Patricia McConnell

Takatsugu Ochi

Darrel Scott

Chungwoo Suh

Mary Tokar

Wei-Guo Zhang

CONTENTS

**BASIS FOR CONCLUSIONS ON
IAS 36 *IMPAIRMENT OF ASSETS***

	<i>from paragraph</i>
INTRODUCTION	BC1
SCOPE (PARAGRAPH 2)	BCZ4
MEASURING RECOVERABLE AMOUNT (PARAGRAPHS 18–57)	BCZ9
Recoverable amount based on the sum of undiscounted cash flows	BCZ12
Recoverable amount based on fair value	BCZ14
Recoverable amount based on value in use	BCZ21
Recoverable amount based on the higher of net selling price ¹ and value in use	BCZ23
Other refinements to the measurement of recoverable amount	BCZ28
NET SELLING PRICE (PARAGRAPHS 25–29)	BCZ31
Net realisable value	BCZ37
VALUE IN USE (PARAGRAPHS 30–57 AND APPENDIX A)	BCZ40
Expected value approach	BCZ41
Future cash flows from internally generated goodwill and synergy with other assets	BCZ43
Value in use estimated in a foreign currency (paragraph 54)	BCZ46
Discount rate (paragraphs 55–57 and A15–A21)	BCZ52
Additional guidance included in the Standard in 2004	BC56
INCOME TAXES	BCZ81
Consideration of future tax cash flows	BCZ81
Determining a pre-tax discount rate	BCZ85
Interaction with IAS 12	BCZ86
Comments by field visit participants and respondents to the December 2002 Exposure Draft	BC90
RECOGNITION OF AN IMPAIRMENT LOSS (PARAGRAPHS 58–64)	BCZ95
Recognition based on a ‘permanent’ criterion	BCZ96
Recognition based on a ‘probability’ criterion	BCZ98
Recognition based on an ‘economic’ criterion	BCZ105
Revalued assets: recognition in the income statement versus directly in equity	BCZ108
CASH-GENERATING UNITS (PARAGRAPHS 66–73)	BCZ113
Internal transfer pricing (paragraph 70)	BC116
TESTING INDEFINITE-LIVED INTANGIBLES FOR IMPAIRMENT	BC119
Frequency and timing of impairment testing (paragraphs 9 and 10(a))	BC121
Measuring recoverable amount and accounting for impairment losses and reversals of impairment losses	BC129
TESTING GOODWILL FOR IMPAIRMENT (PARAGRAPHS 80–99)	BC131
Allocating goodwill to cash-generating units (paragraph 80–87)	BC137
Recognition and measurement of impairment losses ((paragraphs 88–90 and 104)	BC160
Changes as a result of 2008 revisions to IFRS 3 (Appendix C)	BC170A

¹ In IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations*, issued by the IASB in 2004, the term ‘net selling price’ was replaced in IAS 36 by ‘fair value less costs to sell’.

Timing of impairment tests (paragraphs 96–99)	BC171
ALLOCATING AN IMPAIRMENT LOSS BETWEEN THE ASSETS OF A CASH-GENERATING UNIT (PARAGRAPHS 104–107)	BCZ178
REVERSING IMPAIRMENT LOSSES FOR ASSETS OTHER THAN GOODWILL (PARAGRAPHS 118–123)	BCZ182
REVERSING GOODWILL IMPAIRMENT LOSSES (PARAGRAPH 124)	BC187
DISCLOSURES FOR CASH-GENERATING UNITS CONTAINING GOODWILL OR INDEFINITE-LIVED INTANGIBLES (PARAGRAPHS 134 AND 135)	BC192
Background to the proposals in the Exposure Draft	BC192
The Board’s redeliberations	BC205
CHANGES AS A RESULT OF <i>IMPROVEMENTS TO IFRS</i> (2008)	BC209A
CHANGES AS A RESULT OF IFRS 13 <i>FAIR VALUE MEASUREMENT</i>	BC209B
Recoverable Amount Disclosures for Non-Financial Assets	BC209E
TRANSITIONAL PROVISIONS (PARAGRAPHS 138–140)	BC210
Transitional impairment test for goodwill	BC216
Transitional impairment test for indefinite-lived intangibles	BC223
Early application (paragraph 140)	BC227
Transitional provisions for <i>Improvements to IFRSs</i> (2009)	BC228A
Transition provisions for <i>Recoverable Amount Disclosures for Non-Financial Assets</i>	BC228B
SUMMARY OF MAIN CHANGES FROM THE EXPOSURE DRAFT	BC229
HISTORY OF THE DEVELOPMENT OF A STANDARD ON IMPAIRMENT OF ASSETS	BCZ230
DISSENTING OPINIONS	

Basis for Conclusions on IAS 36 *Impairment of Assets*

The International Accounting Standards Board revised IAS 36 as part of its project on business combinations. It was not the Board's intention to reconsider as part of that project all of the requirements in IAS 36.

The previous version of IAS 36 was accompanied by a Basis for Conclusions summarising the former International Accounting Standards Committee's considerations in reaching some of its conclusions in that Standard. For convenience the Board has incorporated into its own Basis for Conclusions material from the previous Basis for Conclusions that discusses (a) matters the Board did not reconsider and (b) the history of the development of a standard on impairment of assets. That material is contained in paragraphs denoted by numbers with the prefix BCZ. Paragraphs describing the Board's considerations in reaching its own conclusions are numbered with the prefix BC.

In this Basis for Conclusions the terminology has not been amended to reflect the changes made by IAS 1 Presentation of Financial Statements (as revised in 2007).

In developing IFRS 13 Fair Value Measurement, issued in May 2011, the Board changed the definition of fair value less costs to sell. As a consequence all references to 'fair value less costs to sell' in IAS 36 were replaced with 'fair value less costs of disposal'. This Basis for Conclusions has not been amended to reflect that change.

Introduction

- BC1 This Basis for Conclusions summarises the International Accounting Standards Board's considerations in reaching the conclusions in IAS 36 *Impairment of Assets*. Individual Board members gave greater weight to some factors than to others.
- BC2 The International Accounting Standards Committee (IASC) issued the previous version of IAS 36 in 1998. It has been revised by the Board as part of its project on business combinations. That project has two phases. The first has resulted in the Board issuing simultaneously in 2004 IFRS 3 *Business Combinations* and revised versions of IAS 36 and IAS 38 *Intangible Assets*. The Board's intention in revising IAS 36 as part of the first phase of the project was not to reconsider all of the requirements in IAS 36. The changes to IAS 36 were primarily concerned with the impairment tests for intangible assets with indefinite useful lives (hereafter referred to as 'indefinite-lived intangibles') and goodwill. The second phase of the project on business combinations resulted in the Board issuing simultaneously in 2008 a revised IFRS 3 and an amended version of IAS 27 *Consolidated and Separate Financial Statements*². The Board amended IAS 36 to reflect its decisions on the measurement of a non-controlling interest in an acquiree (see paragraph BC170A). The Board has not deliberated the other requirements in IAS 36. Those other requirements will be considered by the Board as part of a future project on impairment of asset.
- BC3 The previous version of IAS 36 was accompanied by a Basis for Conclusions summarising IASC's considerations in reaching some of its conclusions in that Standard. For convenience, the Board has incorporated into this Basis for Conclusions material from the previous Basis for Conclusions that discusses matters the Board did not consider. That material is contained in paragraphs denoted by numbers with the prefix BCZ. The views expressed in paragraphs denoted by numbers with the prefix BCZ are those of IASC.

Scope (paragraph 2)

- BCZ4 IAS 2 *Inventories* requires an enterprise to measure the recoverable amount of inventory at its net realisable value. IASC believed that there was no need to revise this requirement because it was well accepted as an appropriate test for recoverability of inventories. No major difference exists between IAS 2 and the requirements included in IAS 36 (see paragraphs BCZ37–BCZ39).
- BCZ5 IAS 11 *Construction Contracts* and IAS 12 *Income Taxes* already deal with the impairment of assets arising from construction contracts and deferred tax assets respectively. Under both IAS 11 and IAS 12, recoverable amount is, in effect, determined on an undiscounted basis. IASC acknowledged that this was inconsistent with the requirements of IAS 36. However, IASC believed that it was not possible to eliminate that inconsistency without fundamental changes to IAS 11 and IAS 12. IASC had no plans to revise IAS 11 or IAS 12.

² The consolidation requirements in IAS 27 were superseded by IFRS 10 *Consolidated Financial Statements* issued in May 2011.

- BCZ6 IAS 19 *Employee Benefits* contains an upper limit on the amount at which an enterprise should recognise an asset arising from employee benefits. Therefore, IAS 36 does not deal with such assets. The limit in IAS 19 is determined on a discounted basis that is broadly compatible with the requirements of IAS 36.³
- BCZ7 IAS 39 *Financial Instruments: Recognition and Measurement* sets out the requirements for impairment of financial assets.
- BCZ8 IAS 36 is applicable to all assets, unless specifically excluded, regardless of their classification as current or non-current. Before IAS 36 was issued, there was no International Accounting Standard on accounting for the impairment of current assets other than inventories.

Measuring recoverable amount (paragraphs 18–57)

- BCZ9 In determining the principles that should govern the measurement of recoverable amount, IASC considered, as a first step, what an enterprise will do if it discovers that an asset is impaired. IASC concluded that, in such cases, an enterprise will either keep the asset or dispose of it. For example, if an enterprise discovers that the service potential of an asset has decreased:
- (a) the enterprise may decide to sell the asset if the net proceeds from the sale would provide a higher return on investment than continuing use in operations; or
 - (b) the enterprise may decide to keep the asset and use it, even if its service potential is lower than originally expected. Some reasons may be that:
 - (i) the asset cannot be sold or disposed of immediately;
 - (ii) the asset can be sold only at a low price;
 - (iii) the asset's service potential can still be recovered but only with additional efforts or expenditure; or
 - (iv) the asset could still be profitable although not to the same extent as expected originally.

IASC concluded that the resulting decision from a rational enterprise is, in substance, an investment decision based on estimated net future cash flows expected from the asset.

- BCZ10 IASC then considered which of the following four alternatives for determining the recoverable amount of an asset would best reflect this conclusion:
- (a) recoverable amount should be the sum of undiscounted future cash flows.
 - (b) recoverable amount should be the asset's fair value: more specifically, recoverable amount should be derived primarily from the asset's market value. If market value cannot be determined, then recoverable amount should be based on the asset's value in use as a proxy for market value.⁴
 - (c) recoverable amount should be the asset's value in use.
 - (d) recoverable amount should be the higher of the asset's net selling price and value in use.⁵

Each of these alternatives is discussed below.

- BCZ11 It should be noted that fair value, net selling price and value in use all reflect a present value calculation (implicit or explicit) of estimated net future cash flows expected from an asset:
- (a) fair value⁶ reflects the market's expectation of the present value of the future cash flows to be derived from the asset;
 - (b) net selling price reflects the market's expectation of the present value of the future cash flows to be derived from the asset, less the direct incremental costs to dispose of the asset; and
 - (c) value in use is the enterprise's estimate of the present value of the future cash flows to be derived from continuing use and disposal of the asset.

These bases all consider the time value of money and the risks that the amount and timing of the actual cash flows to be received from an asset might differ from estimates. Fair value and net selling price may differ from value in use because the market may not use the same assumptions as an individual enterprise.

³ sentence deleted when IAS 19 *Employee Benefits* was amended in 2011.

⁴ IFRS 13 *Fair Value Measurement*, issued in May 2011, defines fair value and contains the requirements for measuring fair value. As a result the term 'market value' has been changed to 'fair value'.

⁵ In IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations*, issued by the IASB in 2004, the term 'net selling price' was replaced in IAS 36 by 'fair value less costs to sell'.

⁶ IFRS 13, issued in May 2011, defines fair value and contains the requirements for measuring fair value.

Recoverable amount based on the sum of undiscounted cash flows

BCZ12 Some argue that recoverable amount should be measured as the sum of undiscounted future cash flows from an asset. They argue that:

- (a) historical cost accounting is not concerned with measuring the economic value of assets. Therefore, the time value of money should not be considered in estimating the amount that will be recovered from an asset.
- (b) it is premature to use discounting techniques without further research and debates on:
 - (i) the role of discounting in the financial statements; and
 - (ii) how assets should be measured generally.

If financial statements include assets that are carried on a variety of different bases (historical cost, discounted amounts or other bases), this will be confusing for users.

- (c) identifying an appropriate discount rate will often be difficult and subjective.
- (d) discounting will increase the number of impairment losses recognised. This, coupled with the requirement for reversals of impairment losses, introduces a volatile element into the income statement. It will make it harder for users to understand the performance of an enterprise.

A minority of commentators on E55 *Impairment of Assets* supported this view.

BCZ13 IASC rejected measurement of recoverable amount based on the sum of undiscounted cash flows because:

- (a) the objective of the measurement of recoverable amount is to reflect an investment decision. Money has a time value, even when prices are stable. If future cash flows were not discounted, two assets giving rise to cash flows of the same amount but with different timings would show the same recoverable amount. However, their current market values would be different because all rational economic transactions take account of the time value of money.
- (b) measurements that take into consideration the time value of money are more relevant to investors, other external users of financial statements and management for resource allocation decisions, regardless of the general measurement basis adopted in the financial statements.
- (c) many enterprises were already familiar with the use of discounting techniques, particularly for supporting investment decisions.
- (d) discounting was already required for other areas of financial statements that are based on expectations of future cash flows, such as long-term provisions and employee benefit obligations.
- (e) users are better served if they are aware on a timely basis of assets that will not generate sufficient returns to cover, at least, the time value of money.

Recoverable amount based on fair value

BCZ14 IAS 32 *Financial Instruments: Disclosure and Presentation*⁷ and a number of other International Accounting Standards define fair value⁸ as:

‘... the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm’s length transaction...’

BCZ15 International Accounting Standards include the following requirements or guidance for measuring fair value⁹:

- (a) for the purpose of revaluation of an item of property, plant or equipment to its fair value, IAS 16 *Property, Plant and Equipment* indicates that fair value is usually an asset’s market value, normally determined by appraisal undertaken by professionally qualified valuers and, if no market exists, fair value is based on the asset’s depreciated replacement cost.

⁷ In 2005 the IASB amended IAS 32 as *Financial Instruments: Presentation*

⁸ IFRS 13, issued in May 2011, defines fair value as an exit price.

⁹ IFRS 13, issued in May 2011, defines fair value and contains the requirements for measuring fair value. As a consequence the relevant requirements in IAS 16 and IAS 39 have been deleted from those Standards.

- (b) for the purpose of revaluation of an intangible asset to its fair value, IASC proposed in E60 *Intangible Assets* that fair value be determined by reference to market values obtained from an active market. E60 proposed a definition of an active market.¹⁰
- (c) IASC proposed revisions to IAS 22 (see E61 *Business Combinations*) so that fair value would be determined without consideration of the acquirer's intentions for the future use of an asset.¹¹
- (d) IAS 39¹² indicates that if an active market exists, the fair value of a financial instrument is based on a quoted market price. If there is no active market, fair value is determined by using estimation techniques such as market values of similar types of financial instruments, discounted cash flow analysis and option pricing models.

BCZ16 Some argue that the only appropriate measurement for the recoverable amount of an asset is fair value (based on observable market prices or, if no observable market prices exist, estimated considering prices for similar assets and the results of discounted future cash flow calculations).¹³ Proponents of fair value argue that:

- (a) the purpose of measuring recoverable amount is to estimate a market value, not an enterprise-specific value. An enterprise's estimate of the present value of future cash flows is subjective and in some cases may be abused. Observable market prices that reflect the judgement of the marketplace are a more reliable measurement of the amounts that will be recovered from an asset. They reduce the use of management's judgement.
- (b) if an asset is expected to generate greater net cash inflows for the enterprise than for other participants, the superior returns are almost always generated by internally generated goodwill stemming from the synergy of the business and its management team. For consistency with IASC's proposals in E60 that internally generated goodwill should not be recognised as an asset, these above-market cash flows should be excluded from assessments of an asset's recoverable amount.
- (c) determining recoverable amount as the higher of net selling price and value in use is tantamount to determining two diverging measures whilst there should be only one measure to estimate recoverable amount.

A minority of commentators on E55 supported measuring recoverable amount at fair value (based on observable market prices or, if no observable market prices exist, estimated considering prices for similar assets and the results of discounted future cash flow calculations).

BCZ17 IASC rejected the proposal that an asset's recoverable amount should be determined by reference to its fair value (based on observable market prices or, if no observable market prices exist, estimated considering prices for similar assets and the results of discounted future cash flow calculations). The reasons are the following:

- (a) IASC believed that no preference should be given to the market's expectation of the recoverable amount of an asset (basis for fair value when market values are available and for net selling price) over a reasonable estimate performed by the individual enterprise that owns the asset (basis for fair value when market values are not available and for value in use). For example, an enterprise may have information about future cash flows that is superior to the information available in the marketplace. Also, an enterprise may plan to use an asset in a manner different from the market's view of the best use.
- (b) market values are a way to estimate fair value but only if they reflect the fact that both parties, the acquirer and the seller, are willing to enter a transaction. If an enterprise can generate greater cash flows by using an asset than by selling it, it would be misleading to base recoverable amount on the market price of the asset because a rational enterprise would not be willing to sell the asset. Therefore, recoverable amount should not refer only to a transaction between two parties (which is unlikely to happen) but should also consider an asset's service potential from its use by the enterprise.
- (c) IASC believed that in assessing the recoverable amount of an asset, it is the amount that an enterprise can expect to recover from that asset, including the effect of synergy with other assets, that is relevant.

¹⁰ IASC approved an International Accounting Standard on intangible assets in 1998.

¹¹ IASC approved revisions to IAS 22 *Business Combinations* in 1998.

¹² The IASB's project to revise IAS 32 and IAS 39 in 2003 resulted in the relocation of the requirements on fair value measurement from IAS 32 to IAS 39. In 2011 the IASB's project on fair value measurement resulted in the relocation of the requirements for measuring fair value to IFRS 13.

¹³ IFRS 13, issued in May 2011, describes valuation techniques for measuring the fair value of an asset that is being used (and would not be sold) by an entity, eg a current replacement cost valuation technique.

The following two examples illustrate the proposal (rejected by IASC) that an enterprise should measure an asset's recoverable amount at its fair value (primarily based on observable market values if these values are available).

Example 1

10 years ago, an enterprise bought its headquarters building for 2,000. Since then, the real estate market has collapsed and the building's market value at balance sheet date is estimated to be 1,000. Disposal costs of the building would be negligible. The building's carrying amount at the balance sheet date is 1,500 and its remaining useful life is 30 years. The building meets all the enterprise's expectations and it is likely that these expectations will be met for the foreseeable future. As a consequence, the enterprise has no plans to move from its current headquarters. The value in use of the building cannot be determined because the building does not generate independent cash inflows. Therefore, the enterprise assesses the recoverable amount of the building's cash-generating unit, that is, the enterprise as a whole. That calculation shows that the building's cash-generating unit is not impaired.

Proponents of fair value (primarily based on observable market values if these values are available) would measure the recoverable amount of the building at its market value -1,000 and, hence, would recognise an impairment loss of 500 (1,500 less 1,000), even though calculations show that the building's cash-generating unit is not impaired.

IASC did not support this approach and believed that the building was not impaired. IASC believed that, in the situation described, the enterprise would not be willing to sell the building for 1,000 and that the assumption of a sale was not relevant.

Example 2

At the end of 20X0, an enterprise purchased a computer for 100 for general use in its operations. The computer is depreciated over 4 years on a straight-line basis. Residual value is estimated to be nil. At the end of 20X2, the carrying amount of the computer is 50. There is an active market for second-hand computers of this type. The market value of the computer is 30. The enterprise does not intend to replace the computer before the end of its useful life. The computer's cash-generating unit is not impaired.

Proponents of fair value (primarily based on observable market values if these values are available) would measure the recoverable amount of the computer at its market value -30 and, therefore, would recognise an impairment loss of 20 (50 less 30) even though the computer's cash-generating unit is not impaired.

IASC did not support this approach and believed that the computer was not impaired as long as:

- (a) the enterprise was not committed to dispose of the computer before the end of its expected useful life; and*
- (b) the computer's cash-generating unit was not impaired.*

- BCZ18 If no deep and liquid market exists for an asset, IASC considered that value in use would be a reasonable estimate of fair value. This is likely to happen for many assets within the scope of IAS 36: observable market prices are unlikely to exist for goodwill, most intangible assets and many items of property, plant and equipment. Therefore, it is likely that the recoverable amount of these assets, determined in accordance with IAS 36, will be similar to the recoverable amount based on the fair value of these assets.
- BCZ19 For some assets within the scope of IAS 36, observable market prices exist or consideration of prices for similar assets is possible. In such cases, the asset's net selling price will differ from the asset's fair value only by the direct incremental costs of disposal. IASC acknowledged that recoverable amount as the higher of net selling price and value in use would sometimes differ from fair value primarily based on market prices (even if the disposal costs are negligible). This is because, as explained in paragraph BCZ17(a), the market may not use the same assumptions about future cash flows as an individual enterprise.¹⁴
- BCZ20 IASC believed that IAS 36 included sufficient requirements to prevent an enterprise from using assumptions different from the marketplace that are unjustified. For example, an enterprise is required to determine value in use using:
- (a) cash flow projections based on reasonable and supportable assumptions and giving greater weight to external evidence; and
 - (b) a discount rate that reflects current market assessments of the time value of money and the risks specific to the asset.

¹⁴ IFRS 13, issued in May 2011, describes the objective of a fair value measurement and the use of market participant assumptions.

Recoverable amount based on value in use

BCZ21 Some argue that value in use is the only appropriate measurement for the recoverable amount of an asset because:

- (a) financial statements are prepared under a going concern assumption. Therefore, no consideration should be given to an alternative measurement that reflects a disposal, unless this reflects the enterprise's intentions.
- (b) assets should not be carried at amounts higher than their service potential from use by the enterprise. Unlike value in use, a market value does not necessarily reflect the service potential of an asset.

Few commentators on E55 supported this view.

BCZ22 IASC rejected this proposal because:

- (a) if an asset's net selling price is higher than its value in use, a rational enterprise will dispose of the asset. In this situation, it is logical to base recoverable amount on the asset's net selling price to avoid recognising an impairment loss that is unrelated to economic reality.
- (b) if an asset's net selling price is greater than its value in use, but management decides to keep the asset, the extra loss (the difference between net selling price and value in use) properly falls in later periods because it results from management's decision in these later periods to keep the asset.

Recoverable amount based on the higher of net selling price and value in use¹⁵

BCZ23 The requirement that recoverable amount should be the higher of net selling price and value in use stems from the decision that measurement of the recoverable amount of an asset should reflect the likely behaviour of a rational management. Furthermore, no preference should be given to the market's expectation of the recoverable amount of an asset (basis for net selling price) over a reasonable estimate performed by the individual enterprise which owns the asset (basis for value in use) or vice versa (see paragraphs BCZ17–BCZ20 and BCZ22). It is uncertain whether the assumptions of the market or the enterprise are more likely to be true. Currently, perfect markets do not exist for many of the assets within the scope of IAS 36 and it is unlikely that predictions of the future will be entirely accurate, regardless of who makes them.

BCZ24 IASC acknowledged that an enterprise would use judgement in determining whether an impairment loss needed to be recognised. For this reason, IAS 36 included some safeguards to limit the risk that an enterprise may make an over-optimistic (pessimistic) estimate of recoverable amount:

- (a) IAS 36 requires a formal estimate of recoverable amount whenever there is an indication that:
 - (i) an asset may be impaired; or
 - (ii) an impairment loss may no longer exist or may have decreased.

For this purpose, IAS 36 includes a relatively detailed (although not exhaustive) list of indicators that an asset may be impaired (see paragraphs 12 and 111 of IAS 36).

- (b) IAS 36 provides guidelines for the basis of management's projections of future cash flows to be used to estimate value in use (see paragraph 33 of IAS 36).

BCZ25 IASC considered the cost of requiring an enterprise to determine both net selling price and value in use, if the amount determined first is below an asset's carrying amount. IASC concluded that the benefits of such a requirement outweigh the costs.

BCZ26 The majority of the commentators on E55 supported IASC's view that recoverable amount should be measured at the higher of net selling price and value in use.

Assets held for disposal

BCZ27 IASC considered whether the recoverable amount of an asset held for disposal should be measured only at the asset's net selling price. When an enterprise expects to dispose of an asset within the near future, the net selling price of the asset is normally close to its value in use. Indeed, the value in use usually consists mostly of the net proceeds to be received for the asset, since future cash flows from continuing use are

¹⁵ In IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations*, issued by the IASB in 2004, the term 'net selling price' was replaced in IAS 36 by 'fair value less costs to sell'.

usually close to nil. Therefore, IASC believed that the definition of recoverable amount as included in IAS 36 is appropriate for assets held for disposal without a need for further requirements or guidance.

Other refinements to the measurement of recoverable amount

Replacement cost as a ceiling

- BCZ28 Some argue that the replacement cost of an asset should be adopted as a ceiling for its recoverable amount. They argue that the value of an asset to the business would not exceed the amount that the enterprise would be willing to pay for the asset at the balance sheet date.
- BCZ29 IASC believed that replacement cost techniques are not appropriate to measuring the recoverable amount of an asset. This is because replacement cost measures the cost of an asset and not the future economic benefits recoverable from its use and/or disposal.

Appraisal values

- BCZ30 In some cases, an enterprise might seek external appraisal of recoverable amount. External appraisal is not a separate technique in its own right. IASC believed that if appraisal values are used, an enterprise should verify that the external appraisal follows the requirements of IAS 36.

Net selling price (paragraphs 25–29)¹⁶

- BCZ31 IAS 36 defines net selling price as the amount obtainable from the sale of an asset in an arm's length transaction between knowledgeable, willing parties, less the incremental costs directly attributable to the disposal of the asset.
- BCZ32 In other words, net selling price reflects the market's expectations of the future cash flows for an asset after the market's consideration of the time value of money and the risks inherent in receiving those cash flows, less the disposal costs.
- BCZ33 Some argue that direct incremental costs of disposal should not be deducted from the amount obtainable from the sale of an asset because, unless management has decided to dispose of the asset, the going concern assumption should apply.
- BCZ34 IASC believed that it is appropriate to deduct direct incremental costs of disposal in determining net selling price because the purpose of the exercise is to determine the net amount that an enterprise could recover from the sale of an asset at the date of the measurement and to compare it with the alternative of keeping the asset and using it.
- BCZ35 IAS 36 indicates that termination benefits (as defined in IAS 19 *Employee Benefits*) 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. IASC considered these costs as incidental to (rather than a direct consequence of) the disposal of an asset. In addition, this guidance is consistent with the direction of the project on provisions.¹⁷
- BCZ36 Although the definition of 'net selling price' would be similar to a definition of 'net fair value', IASC decided to use the term 'net selling price' instead of 'net fair value'. IASC believed that the term 'net selling price' better describes the amount that an enterprise should determine and that will be compared with an asset's value in use.

Net realisable value

- BCZ37 IAS 2 *Inventories* defines net realisable value as:
- '... the estimated selling price in the ordinary course of business ... less the estimated costs necessary to make the sale...'
- BCZ38 For the purpose of determining recoverable amount, IASC decided not to use the term 'net realisable value' as defined in IAS 2 because:

¹⁶ In IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations*, issued by the IASB in 2004, the term 'net selling price' was replaced in IAS 36 by 'fair value less costs to sell'.

¹⁷ IASC approved an International Accounting Standard on provisions, contingent liabilities and contingent assets in 1998.

- (a) IAS 2's definition of net realisable value does not refer explicitly to transactions carried out on an arm's length basis.
- (b) net realisable value refers to an estimated selling price in the ordinary course of business. In certain cases, net selling price will reflect a forced sale, if management is compelled to sell immediately.
- (c) it is important that net selling price uses, as a starting point, a selling price agreed between knowledgeable, willing buyers and sellers. This is not explicitly mentioned in the definition of net realisable value.

BCZ39 In most cases, net selling price and net realisable value will be similar. However, IASC did not believe that it was necessary to change the definition of net realisable value used in IAS 2 because, for inventories, the definition of net realisable value is well understood and seems to work satisfactorily.

Value in use (paragraphs 30–57 and Appendix A)

BCZ40 IAS 36 defines value in use as the present value of the future cash flows expected to be derived from an asset.

Expected value approach

BCZ41 Some argue that, to better reflect uncertainties in timing and amounts inherent in estimated future cash flows, expected future cash flows should be used in determining value in use. An expected value approach considers all expectations about possible future cash flows instead of the single, most likely, future cash flows.

Example
<p>An enterprise estimates that there are two scenarios for future cash flows: a first possibility of future cash flows amounts to 120 with a 40 per cent probability and a second possibility amounts to 80 with a 60 per cent probability.</p> <p><i>The most likely future cash flows would be 80 and the expected future cash flows would be 96 (80 × 60% + 120 × 40%).</i></p>

BCZ42 In most cases, it is likely that budgets/forecasts that are the basis for cash flow projections will reflect a single estimate of future cash flows only. For this reason, IASC decided that an expected value approach should be permitted but not required.

Future cash flows from internally generated goodwill and synergy with other assets

BCZ43 IASC rejected a proposal that estimates of future cash inflows should reflect only future cash inflows relating to the asset that was initially recognised (or the remaining portion of that asset if part of it has already been consumed or sold). The purpose of such a requirement would be to avoid including in an asset's value in use future cash inflows from internally generated goodwill or from synergy with other assets. This would be consistent with IASC's proposal in E60 *Intangible Assets* to prohibit the recognition of internally generated goodwill as an asset.¹⁸

BCZ44 In many cases, it will not be possible in practice to distinguish future cash inflows from the asset initially recognised from the future cash inflows from internally generated goodwill or a modification of the asset. This is particularly true when businesses are merged or once an asset has been enhanced by subsequent expenditure. IASC concluded that it is more important to focus on whether the carrying amount of an asset will be recovered rather than on whether the recovery stems partly from internally generated goodwill.

BCZ45 The proposal—that future cash inflows should reflect only future cash inflows relating to the asset that was initially recognised—would also conflict with the requirement under IAS 36 that cash flow projections should reflect reasonable and supportable assumptions that represent management's best estimate of the set of economic conditions that will exist over the remaining useful life of the asset (see paragraph 33 of IAS 36). Therefore, the Standard requires that future cash inflows should be estimated for an asset in its current condition, whether or not these future cash inflows are from the asset that was initially recognised or from its subsequent enhancement or modification.

¹⁸ IASC approved an International Accounting Standard on intangible assets in 1998.

Example

Several years ago, an enterprise purchased a customer list with 10,000 addresses that it recognised as an intangible asset. The enterprise uses this list for direct marketing of its products. Since initial recognition, about 2,000 customer addresses have been deleted from the list and 3,000 new customer addresses added to it. The enterprise is determining the value in use of the customer list.

Under the proposal (rejected by IASC) that an enterprise should reflect only future cash inflows relating to the asset that was initially recognised, the enterprise would consider only those future cash inflows generated by the remaining 8,000 (10,000 less 2,000) customers from the list acquired.

Under IAS 36, an enterprise considers the future cash inflows generated by the customer list in its current condition, ie by all 11,000 customers (8,000 plus 3,000).

Value in use estimated in a foreign currency (paragraph 54)

- BCZ46 In response to comments from field test participants, paragraph 54 of IAS 36 includes guidance on calculating the value in use of an asset that generates future cash flows in a foreign currency. IAS 36 indicates that value in use in a foreign currency is translated into the reporting currency¹⁹ using the spot exchange rate at the balance sheet date.
- BCZ47 If a currency is freely convertible and traded in an active market, the spot rate reflects the market's best estimate of future events that will affect that currency. Therefore, the only available unbiased estimate of a future exchange rate is the current spot rate, adjusted by the difference in expected future rates of general inflation in the two countries to which the currencies belong.
- BCZ48 A value in use calculation already deals with the effect of general inflation since it is calculated either by:
- estimating future cash flows in nominal terms (ie including the effect of general inflation and specific price changes) and discounting them at a rate that includes the effects of general inflation; or
 - estimating future cash flows in real terms (ie excluding the effect of general inflation but including the effect of specific price changes) and discounting them at a rate that excludes the effect of general inflation.
- BCZ49 To use a forward rate to translate value in use expressed in a foreign currency would be inappropriate. This is because a forward rate reflects the market's adjustment for the differential in interest rates. Using such a rate would result in double-counting the time value of money (first in the discount rate and then in the forward rate).
- BCZ50 Even if a currency is not freely convertible or is not traded in an active market—with the consequence that it can no longer be assumed that the spot exchange rate reflects the market's best estimate of future events that will affect that currency—IAS 36 indicates that an enterprise uses the spot exchange rate at the balance sheet date to translate value in use estimated in a foreign currency. This is because IASC believed that it is unlikely that an enterprise can make a more reliable estimate of future exchange rates than the current spot exchange rate.
- BCZ51 An alternative to estimating the future cash flows in the currency in which they are generated would be to estimate them in another currency as a proxy and discount them at a rate appropriate for this other currency. This solution may be simpler, particularly where cash flows are generated in the currency of a hyperinflationary economy (in such cases, some would prefer using a hard currency as a proxy) or in a currency other than the reporting currency. However, this solution may be misleading if the exchange rate varies for reasons other than changes in the differential between the general inflation rates in the two countries to which the currencies belong. In addition, this solution is inconsistent with the approach under IAS 29 *Financial Reporting in Hyperinflationary Economies*, which does not allow, if the reporting currency²⁰ is the currency of a hyperinflationary economy, translation into a hard currency as a proxy for restatement in terms of the measuring unit current at the balance sheet date.

¹⁹ In IAS 21 *The Effects of Changes in Foreign Exchange Rates*, as revised by the IASB in 2003, the term 'reporting currency' was replaced by 'functional currency'.

²⁰ In IAS 21 *The Effects of Changes in Foreign Exchange Rates*, as revised by the IASB in 2003, the term 'reporting currency' was replaced by 'functional currency'.

Discount rate (paragraphs 55–57 and A15–A21)

BCZ52 The purpose of discounting future cash flows is to reflect the time value of money and the uncertainties attached to those cash flows:

- (a) assets that generate cash flows soon are worth more than those generating the same cash flows later. All rational economic transactions will take account of the time value of money. The cost of not receiving a cash inflow until some date in the future is an opportunity cost that can be measured by considering what income has been lost by not investing that money for the period. The time value of money, before consideration of risk, is given by the rate of return on a risk-free investment, such as government bonds of the same duration.
- (b) the value of the future cash flows is affected by the variability (ie the risks) associated with the cash flows. Therefore, all rational economic transactions will take risk into account.

BCZ53 As a consequence IASC decided:

- (a) to reject a discount rate based on a historical rate—ie the effective rate implicit when an asset was acquired. A subsequent estimate of recoverable amount has to be based on prevailing interest rates because management's decisions about whether to keep the asset are based on prevailing economic conditions. Historical rates do not reflect prevailing economic conditions.
- (b) to reject a discount rate based on a risk-free rate, unless the future cash flows have been adjusted for all the risks specific to the asset.
- (c) to require that the discount rate should be a rate that reflects current market assessments of the time value of money and the risks specific to the asset. This rate 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 enterprise expects to derive from the asset.

BCZ54 In principle, value in use should be an enterprise-specific measure determined in accordance with the enterprise's own view of the best use of that asset. Logically, the discount rate should be based on the enterprise's own assessment both of the time value of money and of the risks specific to the future cash flows from the asset. However, IASC believed that such a rate could not be verified objectively. Therefore, IAS 36 requires that the enterprise should make its own estimate of future cash flows but that the discount rate should reflect, as far as possible, the market's assessment of the time value of money. Similarly, the discount rate should reflect the premium that the market would require from uncertain future cash flows based on the distribution estimated by the enterprise.

BCZ55 IASC acknowledged that a current asset-specific market-determined rate would rarely exist for the assets covered by IAS 36. Therefore, an enterprise uses current market-determined rates for other assets (as similar as possible to the asset under review) as a starting point and adjusts these rates to reflect the risks specific to the asset for which the cash flow projections have not been adjusted.

Additional guidance included in the Standard in 2004

Elements reflected in value in use (paragraphs 30–32)

BC56 The Exposure Draft of Proposed Amendments to IAS 36 proposed, and the revised Standard includes, additional guidance to clarify:

- (a) the elements that are reflected in an asset's value in use; and
- (b) that some of those elements (ie expectations about possible variations in the amount or timing of future cash flows, the price for bearing the uncertainty inherent in the asset, and other factors that market participants would reflect in pricing the future cash flows the entity expects to derive from the asset) can be reflected either as adjustments to the future cash flows or as adjustments to the discount rate.

The Board decided to include this additional guidance in the Exposure Draft in response to a number of requests from its constituents for clarification of the requirements in the previous version of IAS 36 on measuring value in use.

BC57 Respondents to the Exposure Draft generally agreed with the proposals. Those that disagreed varied widely in their views, arguing that:

- (a) IAS 36 should be amended to permit entities to measure value in use using methods other than discounting of future cash flows.

- (b) when measuring the value in use of an intangible asset, entities should be required to reflect the price for bearing the uncertainty inherent in the asset as adjustments to the future cash flows.
- (c) it is inconsistent with the definition of value in use to reflect in that measure the other factors that market participants would reflect in pricing the future cash flows the entity expects to derive from the asset—this element refers to market pricing of an asset rather than to the value to the entity of the asset. Other factors should be reflected in value in use only to the extent that they affect the cash flows the entity can achieve from the asset.

BC58 In considering (a) above, the Board observed that the measure of recoverable amount in IAS 36 (ie higher of value in use and fair value less costs to sell) stems from IASC's decision that an asset's recoverable amount should reflect the likely behaviour of a rational management, with no preference given to the market's expectation of the recoverable amount of an asset (ie fair value less costs to sell) over a reasonable estimate performed by the entity that controls the asset (ie value in use) or vice versa (see paragraph BCZ23). In developing the Exposure Draft and revising IAS 36, the Board concluded that it would be inappropriate to modify the measurement basis adopted in the previous version of IAS 36 for determining recoverable amount until the Board considers and resolves the broader question of the appropriate measurement objective(s) in accounting. Moreover, IAS 36 does not preclude the use of other valuation techniques in estimating fair value less costs to sell. For example, paragraph 27 of the Standard states that 'If there is no binding sale agreement or active market for an asset, fair value less costs to sell is based on the best information available to reflect the amount that an entity could obtain, at the balance sheet date, from the disposal of the asset in an arm's length transaction between knowledgeable, willing parties, after deducting the costs of disposal.'²¹

BC59 In considering (b) above, the Board observed that the previous version of IAS 36 permitted risk adjustments to be reflected either in the cash flows or in the discount rate, without indicating a preference. The Board could see no justification for amending this approach to require risk adjustments for uncertainty to be factored into the cash flows, particularly given the Board's inclination to avoid modifying the requirements in the previous version of IAS 36 for determining recoverable amount until it considers and resolves the broader question of measurement in accounting. Additionally, the Board as part of its consultative process conducted field visits and round-table discussions during the comment period for the Exposure Draft.²² Many field visit participants indicated a preference for reflecting such risk adjustments in the discount rate.

BC60 In considering (c) above, the Board observed that the measure of value in use adopted in IAS 36 is not a pure 'entity-specific' measure. Although the cash flows used as the starting point in the calculation represent entity-specific cash flows (ie they are derived from the most recent financial budgets/forecasts approved by management and represent management's best estimate of the set of economic conditions that will exist over the remaining useful life of the asset), their present value is required to be determined using a discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. Paragraph 56 of the Standard (paragraph 49 of the previous version of IAS 36) clarifies that '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.' In other words, an asset's value in use reflects how the market would price the cash flows that management expects to derive from that asset.

BC61 Therefore, the Board concluded that:

- (a) it is consistent with the measure of value in use adopted in IAS 36 to include in the list of elements the other factors that market participants would reflect in pricing the future cash flows the entity expects to derive from the asset.
- (b) all of the elements proposed in the Exposure Draft (and listed in paragraph 30 of the revised Standard) should be reflected in the calculation of an asset's value in use.

Estimates of future cash flows (paragraphs 33, 34 and 44)

BC62 The Exposure Draft proposed requiring cash flow projections used in measuring value in use to be based on reasonable and supportable assumptions that take into account both past actual cash flows and management's past ability to forecast cash flows accurately.

²¹ IFRS 13, issued in May 2011, contains the requirements for measuring fair value. As a consequence paragraph 27 of IAS 36 has been deleted.

²² The field visits were conducted from early December 2002 to early April 2003, and involved IASB members and staff in meetings with 41 companies in Australia, France, Germany, Japan, South Africa, Switzerland and the United Kingdom. IASB members and staff also took part in a series of round-table discussions with auditors, preparers, accounting standard-setters and regulators in Canada and the United States on implementation issues encountered by North American companies during first-time application of US Statements of Financial Accounting Standards 141 *Business Combinations* and 142 *Goodwill and Other Intangible Assets*, and the equivalent Canadian Handbook Sections, which were issued in June 2001.

- BC63 Many respondents to the Exposure Draft disagreed with this proposal, arguing that:
- (a) the reasons for past cash flow forecasts differing from actual cash flows may be irrelevant to the current projections. For example, if there has been a major change in management, management's past ability to forecast cash flows might not be relevant to the current projections. Additionally, a poor record of forecasting cash flows accurately might be the result of factors outside of management's control (such as the events of September 11, 2001), rather than indicative of management bias.
 - (b) it is unclear how, in practice, the assumptions on which the cash flow projections are based could take into account past differences between management's forecasts and actual cash flows.
 - (c) the proposal is inconsistent with the requirement to base cash flow projections on the most recent financial budgets/forecasts approved by management.
- BC64 The Board observed that, as worded, the proposal would have *required* the assumptions on which the cash flow forecasts are based to be adjusted for past actual cash flows and management's past ability to forecast cash flows accurately. The Board agreed with respondents that it is not clear how, in practice, this might be achieved, and that in some circumstances past actual cash flows and management's past ability to forecast cash flows accurately might not be relevant to the development of current forecasts. However, the Board remained of the view that in developing the assumptions on which the cash flow forecasts are based, management should remain mindful of, and when appropriate make the necessary adjustments for, an entity's actual past performance or previous history of management consistently overstating or understating cash flow forecasts.
- BC65 Therefore, the Board decided not to proceed with the proposal, but instead to include in paragraph 34 of the Standard guidance clarifying that management:
- (a) should assess 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; and
 - (b) should 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.
- BC66 In finalising the Standard the Board also considered two issues identified by respondents to the Exposure Draft and referred to the Board by the International Financial Reporting Interpretations Committee. Both issues related to the application of paragraphs 27(b) and 37 of the previous version of IAS 36 (now paragraphs 33(b) and 44). The Board did not reconsider those paragraphs when developing the Exposure Draft.
- BC67 Paragraph 27(b) required the cash flow projections used to measure value in use to be based on the most recent financial budgets/forecasts that have been approved by management. Paragraph 37, however, required the future cash flows to be estimated for the asset [or cash-generating unit] in its current condition and excluded estimated future cash inflows or outflows that are expected to arise from: (a) a future restructuring to which an enterprise is not yet committed; or (b) future capital expenditure that will improve or enhance the asset [or cash-generating unit] in excess of its originally assessed standard of performance.²³
- BC68 The first issue the Board considered related to the acquisition of a cash-generating unit when:
- (a) the price paid for the unit was based on projections that included a major restructuring expected to result in a substantial increase in the net cash inflows derived from the unit; and
 - (b) there is no observable market from which to estimate the unit's fair value²⁴ less costs to sell.
- Respondents expressed concern that if the net cash inflows arising from the restructuring were not reflected in the unit's value in use, comparison of the unit's recoverable amount and carrying amount immediately after the acquisition would result in the recognition of an impairment loss.
- BC69 The Board agreed with respondents that, all else being equal, the value in use of a newly acquired unit would, in accordance with IAS 36, be less than the price paid for the unit to the extent that the price includes the net benefits of a future restructuring to which the entity is not yet committed. However, this does not

²³ The requirement to exclude future capital expenditure that will improve or enhance the asset in excess of its originally assessed standard of performance was amended in 2003 as a consequential amendment arising from the revision of IAS 16 *Property, Plant and Equipment*. Paragraph 44 of IAS 36 now requires estimates of future cash flows to exclude future cash inflows or outflows that are expected to arise from improving or enhancing the asset's performance.

²⁴ IFRS 13, issued in May 2011, contains the requirements for measuring fair value.

mean that a comparison of the unit's recoverable amount with its carrying amount immediately after the acquisition will result in the recognition of an impairment loss. The Board observed that²⁵:

- (a) recoverable amount is measured in accordance with IAS 36 as the higher of value in use and fair value less costs to sell. Fair value less costs to sell is defined in the Standard as 'the amount obtainable from the sale of an asset or cash-generating unit in an arm's length transaction between knowledgeable, willing parties, less the costs of disposal.'
- (b) paragraphs 25–27 of the Standard provide guidance on estimating fair value less costs to sell. In accordance with that guidance, the best evidence of a recently acquired unit's fair value less costs to sell is likely to be the arm's length price the entity paid to acquire the unit, adjusted for disposal costs and for any changes in economic circumstances between the transaction date and the date at which the estimate is made.
- (c) if the unit's fair value less costs to sell were to be otherwise estimated, it would also reflect the market's assessment of the expected net benefits any acquirer would be able to derive from restructuring the unit or from future capital expenditure on the unit.

BC70 Therefore, all else being equal, the unit's recoverable amount would be its fair value less costs to sell, rather than its value in use. As such, the net benefits of the restructuring would be reflected in the unit's recoverable amount, meaning that an impairment loss would arise only to the extent of any material disposal costs.

BC71 The Board acknowledged that treating the newly acquired unit's fair value less costs to sell as its recoverable amount seems inconsistent with the reason underpinning a 'higher of fair value less costs to sell and value in use' recoverable amount measurement objective. Measuring recoverable amount as the higher of fair value less costs to sell and value in use is intended to reflect the economic decisions that are made when an asset becomes impaired: is it better to sell or keep using the asset?

BC72 Nevertheless, the Board concluded that:

- (a) amending IAS 36 to include in value in use calculations the costs and benefits of future restructurings to which the entity is not yet committed would be a significant change to the concept of value in use adopted in the previous version of IAS 36. That concept is 'value in use for the asset in its current condition'.
- (b) the concept of value in use in IAS 36 should not be modified as part of the Business Combinations project, but should be reconsidered only once the Board considers and resolves the broader question of the appropriate measurement objectives in accounting.

BC73 The second issue the Board considered related to what some respondents suggested was a conflict between the requirements in paragraphs 27(b) and 37 of the previous version of IAS 36 (now paragraphs 33(b) and 44). Paragraph 27(b) required value in use to be based on the most recent forecasts approved by management—which would be likely to reflect management's intentions in relation to future restructurings and future capital expenditure—whereas paragraph 37 required value in use to exclude the effects of a future restructuring to which the enterprise is not yet committed and future capital expenditure that will improve or enhance the asset in excess of its originally assessed standard of performance.²⁶

BC74 The Board concluded that it is clear from the Basis for Conclusions on the previous version of IAS 36 that IASC's intention was that value in use should be calculated using estimates of future cash inflows for an asset in its current condition. The Board nevertheless agreed with respondents that the requirement for value in use to be based on the most recent forecasts approved by management could be viewed as inconsistent with paragraph 37 of the previous version of IAS 36 when those forecasts include either future restructurings to which the entity is not yet committed or future cash flows associated with improving or enhancing the asset's performance.

BC75 Therefore, the Board decided to clarify, in what is now paragraph 33(b) of the revised Standard, that cash flow projections should be based on the most recent financial budgets/forecasts that have been approved by management, but should exclude any estimated future cash inflows or outflows expected to arise from future restructurings or from improving or enhancing the asset's performance. The Board also decided to clarify that when a cash-generating unit contains assets with different estimated useful lives (or, similarly, when an asset comprises components with different estimated useful lives), the replacement of assets (components)

²⁵ IFRS 13, issued in May 2011, contains the requirements for measuring fair value. As a consequence paragraphs 25–27 of IAS 36 have been deleted.

²⁶ The requirement to exclude future capital expenditure that will improve or enhance the asset in excess of its originally assessed standard of performance was amended in 2003 as a consequential amendment arising from the revision of IAS 16 *Property, Plant and Equipment*. Paragraph 44 of IAS 36 now requires estimates of future cash flows to exclude future cash inflows or outflows that are expected to arise from improving or enhancing the asset's performance.

with shorter lives is considered to be part of the day-to-day servicing of the unit (asset) when estimating the future cash flows associated with the unit (asset).

Using present value techniques to measure value in use (paragraphs A1–A14)

- BC76 The Exposure Draft proposed additional application guidance on using present value techniques in measuring value in use. The Board decided to include this additional guidance in the Exposure Draft in response to requests for clarification of the requirements in the previous version of IAS 36 on measuring value in use.
- BC77 Respondents to the Exposure Draft were generally supportive of the additional guidance. Those that were not varied in their views, suggesting that:
- (a) limiting the guidance to a brief appendix to IAS 36 is insufficient.
 - (b) although the guidance is useful, it detracts from the main purpose of IAS 36, which is to establish accounting principles for impairment testing assets. Therefore, the guidance should be omitted from the Standard.
 - (c) entities should be required to use an expected cash flow approach to measure value in use.
 - (d) an expected cash flow approach is not consistent with how transactions are priced by management and should be prohibited.
- BC78 In considering (a) and (b) above, the Board noted that the respondents that commented on the additional guidance generally agreed that it is useful and sufficient.
- BC79 In considering (c) and (d) above, the Board observed that the previous version of IAS 36 did not require value in use to be calculated using an expected cash flow approach, nor did it prohibit such an approach. The Board could see no justification for requiring or prohibiting the use of an expected cash flow approach, particularly given the Board's inclination to avoid modifying the requirements in the previous version of IAS 36 for determining recoverable amount until it considers and resolves the broader measurement issues in accounting. Additionally, in relation to (d), some field visit participants said that they routinely undertake sensitivity and statistical analysis as the basis for using an expected value approach to budgeting/forecasting and strategic decision-making.
- BC80 Therefore, the Board decided to include in the revised Standard the application guidance on using present value techniques that was proposed in the Exposure Draft.

Income taxes

Consideration of future tax cash flows

- BCZ81 Future income tax cash flows may affect recoverable amount. It is convenient to analyse future tax cash flows into two components:
- (a) the future tax cash flows that would result from any difference between the tax base of an asset (the amount attributed to it for tax purposes) and its carrying amount, after recognition of any impairment loss. Such differences are described in IAS 12 *Income Taxes* as 'temporary differences'.
 - (b) the future tax cash flows that would result if the tax base of the asset were equal to its recoverable amount.
- BCZ82 For most assets, an enterprise recognises the tax consequences of temporary differences as a deferred tax liability or deferred tax asset in accordance with IAS 12. Therefore, to avoid double-counting, the future tax consequences of those temporary differences—the first component referred to in paragraph BCZ81—are not considered in determining recoverable amount (see further discussion in paragraphs BCZ86–BCZ89).
- BCZ83 The tax base of an asset on initial recognition is normally equal to its cost. Therefore, net selling price²⁷ implicitly reflects market participants' assessment of the future tax cash flows that would result if the tax base of the asset were equal to its recoverable amount. Therefore, no adjustment is required to net selling price to reflect the second component referred to in paragraph BCZ81.

²⁷ In IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations*, issued by the IASB in 2004, the term 'net selling price' was replaced in IAS 36 by 'fair value less costs to sell'.

BCZ84 In principle, value in use should include the present value of the future tax cash flows that would result if the tax base of the asset were equal to its value in use—the second component referred to in paragraph BCZ81. Nevertheless it may be burdensome to estimate the effect of that component. This is because:

- (a) to avoid double-counting, it is necessary to exclude the effect of temporary differences; and
- (b) value in use would need to be determined by an iterative and possibly complex computation so that value in use itself reflects a tax base equal to that value in use.

For these reasons, IASC decided to require an enterprise to determine value in use by using pre-tax future cash flows and, hence, a pre-tax discount rate.

Determining a pre-tax discount rate

BCZ85 In theory, discounting post-tax cash flows at a post-tax discount rate and discounting pre-tax cash flows at a pre-tax discount rate should give the same result, as long as the pre-tax discount rate is the post-tax discount rate adjusted to reflect the specific amount and timing of the future tax cash flows. The pre-tax discount rate is not always the post-tax discount rate grossed up by a standard rate of tax.

Example					
<i>This example illustrates that a post-tax discount rate grossed-up by a standard rate of tax is not always an appropriate pre-tax discount rate.</i>					
At the end of 20X0, the carrying amount of an asset is 1,757 and its remaining useful life is 5 years. The tax base in 20X0 is the cost of the asset. The cost is fully deductible at the end of 20X1. The tax rate is 20%. The discount rate for the asset can be determined only on a post-tax basis and is estimated to be 10%. At the end of 20X0, cash flow projections determined on a pre-tax basis are as follows:					
	20X1	20X2	20X3	20X4	20X5
(1) Pre-tax cash flows (CF)	800	600	500	200	100
<i>Value in use determined using post-tax cash flows and a post-tax discount rate</i>					
End of 20X0	20X1	20X2	20X3	20X4	20X5
(2) Deduction of the cost of the asset	(1,757)	–	–	–	–
(3) Tax CF $[(1) - (2)] \times 20\%$	(191)	120	100	40	20
(4) Post-tax CF $[(1) - (3)]$	991	480	400	160	80
(5) Post-tax CF discounted at 10%	901	396	301	109	50
Value in use $[\Sigma(5)] =$					<u>1,757</u>
<i>Value in use determined using pre-tax cash flows and a pre-tax discount rate (determined by grossing-up the post-tax discount rate)</i>					
Pre-tax discount rate (grossed-up) $[10\% / (100\% - 20\%)]$ 12.5%					
End of 20X0	20X1	20X2	20X3	20X4	20X5
(6) Pre-tax CF discounted at 12.5%	711	745	351	125	55
Value in use $[\Sigma(6)] =$					<u>1,717</u>
<i>continued...</i>					

...continued

Determination of the 'real' pre-tax discount rate

A pre-tax discount rate can be determined by an iterative computation so that value in use determined using pre-tax cash flows and a pre-tax discount rate equals value in use determined using post-tax cash flows and a post-tax discount rate. In the example, the pre-tax discount rate would be 11.2%.

End of 20X0	20X1	20X2	20X3	20X4	20X5
(7) Pre-tax CF discounted at 11.2%	718	485	364	131	59
Value in use [$\Sigma(7)$] =					<u>1,757</u>

The 'real' pre-tax discount rate differs from the post-tax discount rate grossed-up by the standard rate of tax depending on the tax rate, the post-tax discount rate, the timing of the future tax cash flows and the useful life of the asset. Note that the tax base of the asset in this example has been set equal to its cost at the end of 20X0. Therefore, there is no deferred tax to consider in the balance sheet.

Interaction with IAS 12

- BCZ86 IAS 36 requires that recoverable amount should be based on present value calculations, whereas under IAS 12 an enterprise determines deferred tax assets and liabilities by comparing the carrying amount of an asset (a present value if the carrying amount is based on recoverable amount) with its tax base (an undiscounted amount).
- BCZ87 One way to eliminate this inconsistency would be to measure deferred tax assets and liabilities on a discounted basis. In developing the revised version of IAS 12 (approved in 1996), there was not enough support to require that deferred tax assets and liabilities should be measured on a discounted basis. IASC believed there was still not consensus to support such a change in existing practice. Therefore, IAS 36 requires an enterprise to measure the tax effects of temporary differences using the principles set out in IAS 12.
- BCZ88 IAS 12 does not permit an enterprise to recognise certain deferred tax liabilities and assets. In such cases, some believe that the value in use of an asset, or a cash-generating unit, should be adjusted to reflect the tax consequences of recovering its pre-tax value in use. For example, if the tax rate is 25 per cent, an enterprise must receive pre-tax cash flows with a present value of 400 in order to recover a carrying amount of 300.
- BCZ89 IASC acknowledged the conceptual merit of such adjustments but concluded that they would add unnecessary complexity. Therefore, IAS 36 neither requires nor permits such adjustments.

Comments by field visit participants and respondents to the December 2002 Exposure Draft

- BC90 In revising IAS 36, the Board considered the requirement in the previous version of IAS 36 for:
- income tax receipts and payments to be excluded from the estimates of future cash flows used to measure value in use; and
 - the discount rate used to measure value in use to be a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the future cash flow estimates have not been adjusted.
- BC91 The Board had not considered these requirements when developing the Exposure Draft. However, some field visit participants and respondents to the Exposure Draft stated that using pre-tax cash flows and pre-tax discount rates would be a significant implementation issue for entities. This is because typically an entity's accounting and strategic decision-making systems are fully integrated and use post-tax cash flows and post-tax discount rates to arrive at present value measures.
- BC92 In considering this issue, the Board observed that the definition of value in use in the previous version of IAS 36 and the associated requirements on measuring value in use were not sufficiently precise to give a definitive answer to the question of what tax attribute an entity should reflect in value in use. For example, although IAS 36 specified discounting pre-tax cash flows at a pre-tax discount rate—with the pre-tax discount rate being the post-tax discount rate adjusted to reflect the specific amount and timing of the future tax cash flows—it did not specify *which* tax effects the pre-tax rate should include. Arguments could be mounted for various approaches.

- BC93 The Board decided that any decision to amend the requirement in the previous version of IAS 36 for pre-tax cash flows to be discounted at a pre-tax discount rate should be made only after the Board has resolved the issue of what tax attribute should be reflected in value in use. The Board decided that it should not try to resolve this latter issue as part of the Business Combinations project—decisions on the treatment of tax in value in use calculations should be made only as part of its conceptual project on measurement. Therefore, the Board concluded it should not amend as part of the current revision of IAS 36 the requirement to use pre-tax cash flows and pre-tax discount rates when measuring value in use.
- BC94 However, the Board observed that, conceptually, discounting post-tax cash flows at a post-tax discount rate and discounting pre-tax cash flows at a pre-tax discount rate should give the same result, as long as the pre-tax discount rate is the post-tax discount rate adjusted to reflect the specific amount and timing of the future tax cash flows. The pre-tax discount rate is generally not the post-tax discount rate grossed up by a standard rate of tax.

Recognition of an impairment loss (paragraphs 58–64)

- BCZ95 IAS 36 requires that an impairment loss should be recognised whenever the recoverable amount of an asset is below its carrying amount. IASC considered various criteria for recognising an impairment loss in the financial statements:
- recognition if it is considered that the impairment loss is permanent (‘permanent criterion’);
 - recognition if it is considered probable that an asset is impaired, ie if it is probable that an enterprise will not recover the carrying amount of the asset (‘probability criterion’); and
 - immediate recognition whenever recoverable amount is below the carrying amount (‘economic criterion’).

Recognition based on a ‘permanent’ criterion

- BCZ96 Supporters of the ‘permanent’ criterion argue that:
- this criterion avoids the recognition of temporary decreases in the recoverable amount of an asset.
 - the recognition of an impairment loss refers to future operations; it is contrary to the historical cost system to account for future events. Also, depreciation (amortisation) will reflect these future losses over the expected remaining useful life of the asset.

This view was supported by only a few commentators on E55 *Impairment of Assets*.

- BCZ97 IASC decided to reject the ‘permanent’ criterion because:
- it is difficult to identify whether an impairment loss is permanent. There is a risk that, by using this criterion, recognition of an impairment loss may be delayed.
 - this criterion is at odds with the basic concept that an asset is a resource that will generate future economic benefits. Cost-based accrual accounting cannot reflect events without reference to future expectations. If the events that led to a decrease in recoverable amount have already taken place, the carrying amount should be reduced accordingly.

Recognition based on a ‘probability’ criterion

- BCZ98 Some argue that an impairment loss should be recognised only if it is considered probable that the carrying amount of an asset cannot be fully recovered. Proponents of a ‘probability’ criterion are divided between:
- those who support the use of a recognition trigger based on the sum of the future cash flows (undiscounted and without allocation of interest costs) as a practical approach to implementing the ‘probability’ criterion; and
 - those who support reflecting the requirements in IAS 10 (reformatted 1994) *Contingencies and Events Occurring After the Balance Sheet Date*.²⁸

²⁸ The requirements relating to contingencies in the 1994 version of IAS 10 were replaced in 1998 with the requirements in IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*.

Sum of undiscounted future cash flows (without interest costs)

- BCZ99 Some national standard-setters use the ‘probability’ criterion as a basis for recognition of an impairment loss and require, as a practical approach to implementing that criterion, that an impairment loss should be recognised only if the sum of the future cash flows from an asset (undiscounted and without allocation of interest costs) is less than the carrying amount of the asset. An impairment loss, when recognised, is measured as the difference between the carrying amount of the asset and its recoverable amount measured at fair value (based on quoted market prices or, if no quoted market prices exist, estimated considering prices for similar assets and the results of valuation techniques, such as the sum of cash flows discounted to their present value, option-pricing models, matrix pricing, option-adjusted spread models and fundamental analysis).²⁹
- BCZ100 One of the characteristics of this approach is that the bases for recognition and measurement of an impairment loss are different. For example, even if the fair value of an asset is lower than its carrying amount, no impairment loss will be recognised if the sum of undiscounted cash flows (without allocation of interest costs) is greater than the asset’s carrying amount. This might occur, especially if an asset has a long useful life.
- BCZ101 Those who support using the sum of undiscounted future cash flows (without allocation of interest costs) as a recognition trigger argue that:
- (a) using a recognition trigger based on undiscounted amounts is consistent with the historical cost framework.
 - (b) it avoids recognising temporary impairment losses and creating potentially volatile earnings that may mislead users of financial statements.
 - (c) net selling price³⁰ and value in use are difficult to substantiate—a price for the disposal of an asset or an appropriate discount rate is difficult to estimate.
 - (d) it is a higher threshold for recognising impairment losses. It should be relatively easy to conclude that the sum of undiscounted future cash flows will equal or exceed the carrying amount of an asset without incurring the cost of allocating projected cash flows to specific future periods.

This view was supported by a minority of commentators on *E55 Impairment of Assets*.

- BCZ102 IASC considered the arguments listed above but rejected this approach because:
- (a) when it identifies that an asset may be impaired, a rational enterprise will make an investment decision. Therefore, it is relevant to consider the time value of money and the risks specific to an asset in determining whether an asset is impaired. This is particularly true if an asset has a long useful life.
 - (b) IAS 36 does not require an enterprise to estimate the recoverable amount of each [depreciable] asset every year but only if there is an indication that an asset may be materially impaired. An asset that is depreciated (amortised) in an appropriate manner is unlikely to become materially impaired unless events or changes in circumstances cause a sudden reduction in the estimate of recoverable amount.
 - (c) probability factors are already encompassed in the determination of value in use, in projecting future cash flows and in requiring that recoverable amount should be the higher of net selling price and value in use.
 - (d) if there is an unfavourable change in the assumptions used to determine recoverable amount, users are better served if they are informed about this change in assumptions on a timely basis.

Probability criterion based on IAS 10 (reformatted 1994)

- BCZ103 IAS 10 required the amount of a contingent loss to be recognised as an expense and a liability if:
- (a) it was probable that future events will confirm that, after taking into account any related probable recovery, an asset had been impaired or a liability incurred at the balance sheet date; and
 - (b) a reasonable estimate of the amount of the resulting loss could be made.

²⁹ IFRS 13, issued in May 2011, contains the requirements for measuring fair value.

³⁰ In IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations*, issued by the IASB in 2004, the term ‘net selling price’ was replaced in IAS 36 by ‘fair value less costs to sell’.

BCZ104 IASC rejected the view that an impairment loss should be recognised based on the requirements in IAS 10 because:

- (a) the requirements in IAS 10 were not sufficiently detailed and would have made a ‘probability’ criterion difficult to apply.
- (b) those requirements would have introduced another unnecessary layer of probability. Indeed, as mentioned above, probability factors are already encompassed in estimates of value in use and in requiring that recoverable amount should be the higher of net selling price and value in use.

Recognition based on an ‘economic’ criterion

BCZ105 IAS 36 relies on an ‘economic’ criterion for the recognition of an impairment loss—an impairment loss is recognised whenever the recoverable amount of an asset is below its carrying amount. This criterion was already used in many International Accounting Standards before IAS 36, such as IAS 9 *Research and Development Costs*, IAS 22 *Business Combinations*, and IAS 16 *Property, Plant and Equipment*.

BCZ106 IASC considered that an ‘economic’ criterion is the best criterion to give information which is useful to users in assessing future cash flows to be generated by the enterprise as a whole. In estimating the time value of money and the risks specific to an asset in determining whether the asset is impaired, factors, such as the probability or permanence of the impairment loss, are subsumed in the measurement.

BCZ107 The majority of commentators on E55 supported IASC’s view that an impairment loss should be recognised based on an ‘economic’ criterion.

Revalued assets: recognition in the income statement versus directly in equity

BCZ108 IAS 36 requires that an impairment loss on a revalued asset should be recognised as an expense in the income statement³¹ immediately, except that it should be recognised directly in equity³² to the extent that it reverses a previous revaluation on the same asset.

BCZ109 Some argue that, when there is a clear reduction in the service potential (for example, physical damage) of a revalued asset, the impairment loss should be recognised in the income statement.

BCZ110 Others argue that an impairment loss should always be recognised as an expense in the income statement. The logic of this argument is that an impairment loss arises only where there is a reduction in the estimated future cash flows that form part of the business’s operating activities. Indeed, according to IAS 16, whether or not an asset is revalued, the depreciation charge is always recognised in the income statement. Supporters of this view question why the treatment of an impairment loss on a revalued asset should be different to depreciation.

BCZ111 IASC believed that it would be difficult to identify whether an impairment loss is a downward revaluation or a reduction in service potential. Therefore, IASC decided to retain the treatment used in IAS 16 and to treat an impairment loss of a revalued asset as a revaluation decrease (and similarly, a reversal of an impairment loss as a subsequent revaluation increase).

BCZ112 For a revalued asset, the distinction between an ‘impairment loss’ (‘reversal of an impairment loss’) and another ‘revaluation decrease’ (‘revaluation increase’) is important for disclosure purposes. If an impairment loss that is material to the enterprise as a whole has been recognised or reversed, more information on how this impairment loss is measured is required by IAS 36 than for the recognition of a revaluation in accordance with IAS 16.

Cash-generating units (paragraphs 66–73)

BCZ113 Some support the principle of determining recoverable amount on an individual asset basis only. This view was expressed by a few commentators on E55. They argued that:

- (a) it would be difficult to identify cash-generating units at a level other than the business as a whole and, therefore, impairment losses would never be recognised for individual assets; and

³¹ IAS 1 *Presentation of Financial Statements* (as revised in 2007) requires an entity to present all income and expense items in one statement of comprehensive income or in two statements (a separate income statement and a statement of comprehensive income).

³² As a consequence of the revision of IAS 1 (revised 2007) an impairment loss is recognised in other comprehensive income.

- (b) it should be possible to recognise an impairment loss, regardless of whether an asset generates cash inflows that are independent from those of other assets or groups of assets. Commentators quoted examples of assets that have become under-utilised or obsolete but that are still in use.

BCZ114 IASC acknowledged that identifying the lowest level of independent cash inflows for a group of assets would involve judgement. However, IASC believed that the concept of cash-generating units is a matter of fact: assets work together to generate cash flows.

BCZ115 In response to requests from commentators on E55, IAS 36 includes additional guidance and examples for identifying cash-generating units and for determining the carrying amount of cash-generating units. IAS 36 emphasises that cash-generating units should be identified for the lowest level of aggregation of assets possible.

Internal transfer pricing (paragraph 70)

BC116 The previous version of IAS 36 required that if an active market exists for the output produced by an asset or a group of assets:

- (a) that asset or group of assets should be identified as a cash-generating unit, even if some or all of the output is used internally; and
- (b) management's best estimate of the future market prices for the output should be used in estimating:
 - (i) the future cash inflows that relate to the internal use of the output when determining the value in use of this cash-generating unit; and
 - (ii) the future cash outflows that relate to the internal use of the output when determining the value in use of the entity's other cash-generating units.

BC117 The requirement in (a) above has been carried forward in the revised Standard. However, some respondents to the Exposure Draft asked for additional guidance to clarify the role of internal transfer pricing versus prices in an arm's length transaction when developing cash flow forecasts. The Board decided to address this issue by amending the requirement in (b) above to deal more broadly with cash-generating units whose cash flows are affected by internal transfer pricing, rather than just cash-generating units whose internally consumed output could be sold on an active market.

BC118 Therefore, the Standard clarifies that if the cash inflows generated by *any* asset or cash-generating unit are affected by internal transfer pricing, an entity should use management's best estimate of future prices 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 other assets or cash-generating units affected by the internal transfer pricing.

Testing indefinite-lived intangibles for impairment

BC119 As part of the first phase of its Business Combinations project, the Board concluded that:

- (a) an intangible asset should be regarded as having an indefinite useful life when, based on an analysis of all relevant factors (eg legal, regulatory, contractual, competitive and economic), there is no foreseeable limit on the period over which the asset is expected to generate net cash inflows for the entity; and
- (b) an indefinite-lived intangible should not be amortised, but should be tested regularly for impairment.

An outline of the Board's deliberations on each of these issues is provided in the Basis for Conclusions on IAS 38 *Intangible Assets*.

BC120 Having reached these conclusions, the Board then considered the form that the impairment test for indefinite-lived intangibles should take. The Board concluded that:

- (a) an indefinite-lived intangible should be tested for impairment annually, or more frequently if there is any indication that it may be impaired; and
- (b) the recoverable amounts of such assets should be measured, and impairment losses (and reversals of impairment losses) in respect of those assets should be accounted for, in accordance with the requirements in IAS 36 for assets other than goodwill.

Paragraphs BC121–BC126 outline the Board's deliberations in reaching its conclusion about the frequency and timing of impairment testing indefinite-lived intangibles. Paragraphs BC129 and BC130 outline the

Board's deliberations in reaching its conclusions about measuring the recoverable amount of such assets and accounting for impairment losses and reversals of impairment losses.

Frequency and timing of impairment testing (paragraphs 9 and 10(a))

- BC121 In developing the Exposure Draft, the Board observed that requiring assets to be remeasured when they are impaired is a valuation concept rather than one of cost allocation. This concept, which some have termed 'the recoverable cost concept', focuses on the benefits to be derived from the asset in the future, rather than on the process by which the cost or other carrying amount of the asset should be allocated to particular accounting periods. Therefore, the purpose of an impairment test is to assess whether the carrying amount of an asset will be recovered through use or sale of the asset. Nevertheless, allocating the depreciable amount of an asset with a limited useful life on a systematic basis over that life provides some assurance against the asset's carrying amount exceeding its recoverable amount. The Board acknowledged that non-amortisation of an intangible asset increases the reliance that must be placed on impairment reviews of that asset to ensure that its carrying amount does not exceed its recoverable amount.
- BC122 Accordingly, the Exposure Draft proposed that indefinite-lived intangibles should be tested for impairment at the end of each annual reporting period. The Board concluded, however, that testing such assets annually for impairment is not a substitute for management being aware of events occurring or circumstances changing between annual tests that indicate a possible impairment. Therefore, the Exposure Draft also proposed that an entity should be required to test such assets for impairment whenever there is an indication of possible impairment, and not wait until the next annual test.
- BC123 The respondents to the Exposure Draft generally supported the proposal to test indefinite-lived intangibles for impairment annually and whenever there is an indication of possible impairment. Those that disagreed argued that requiring an annual impairment test would be excessively burdensome, and recommended requiring an impairment test only when there is an indication that an indefinite-lived intangible might be impaired. After considering these comments the Board:
- (a) reaffirmed its view that non-amortisation of an intangible asset increases the reliance that must be placed on impairment reviews of that asset to ensure that its carrying amount does not exceed its recoverable amount.
 - (b) concluded that IAS 36 should require indefinite-lived intangibles to be tested for impairment annually and whenever there is an indication of possible impairment.
- BC124 However, as noted in paragraph BC122, the Exposure Draft proposed that the annual impairment tests for indefinite-lived intangibles should be performed at the end of each annual period. Many respondents to the Exposure Draft disagreed that IAS 36 should mandate the timing of the annual impairment tests. They argued that:
- (a) it would be inconsistent with the proposal (now a requirement) that 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. There is no justification for providing less flexibility in the timing of the annual impairment test for indefinite-lived intangibles.
 - (b) if the impairment test for an indefinite-lived intangible is linked to the impairment test for goodwill (ie if the indefinite-lived intangible is assessed for impairment at the same cash-generating unit level as goodwill, rather than individually or as part of a smaller cash-generating unit), the requirement to measure its recoverable amount at the end of the annual period could result in the cash-generating unit to which it (and the goodwill) belongs being tested for impairment at least twice each annual period, which is too burdensome. For example, assume a cash-generating unit contains goodwill and an indefinite-lived intangible, and that the indefinite-lived intangible is assessed for impairment at the same cash-generating unit level as goodwill. Assume also that the entity reports quarterly, has a December year-end, and decides to test goodwill for impairment at the end of the third quarter to coincide with the completion of its annual strategic planning/budgeting process. The proposal that the annual impairment test for an indefinite-lived intangible should be performed at the end of each annual period would mean that the entity would be required:
 - (i) to calculate at the end of each September the recoverable amount of the cash-generating unit, compare it with its carrying amount, and, if the carrying amount exceeds the recoverable amount, recognise an impairment loss for the unit by reducing the carrying amount of goodwill and allocating any remaining impairment loss to the other assets in the unit, including the indefinite-lived intangible.

- (ii) to perform the same steps again each December to test the indefinite-lived intangible for impairment.
- (iii) to perform the same steps again at any other time throughout the annual period if there is an indication that the cash-generating unit, the goodwill or the indefinite-lived intangible may be impaired.

BC125 In considering these comments, the Board indicated a preference for requiring entities to perform the recoverable amount calculations for both goodwill and indefinite-lived intangibles at the end of the annual period. However, the Board acknowledged that, as outlined in paragraph BC124(b), impairment tests for indefinite-lived intangibles will sometimes be linked to impairment tests for goodwill, and that many entities would find it difficult to perform all those tests at the end of the annual period.

BC126 Therefore, consistently with the annual impairment test for goodwill, the Standard permits the annual impairment test for an indefinite-lived intangible to be performed at any time during an annual period, provided it is performed at the same time every year.

Carrying forward a recoverable amount calculation (paragraph 24)

BC127 The Standard permits the most recent detailed calculation of the recoverable amount of an indefinite-lived intangible to be carried forward from a preceding period for use in the current period's impairment test, provided all of the criteria in paragraph 24 of the Standard are met.

BC128 Integral to the Board's decision that indefinite-lived intangibles should be tested for impairment annually was the view that many entities should be able to conclude that the recoverable amount of such an asset is greater than its carrying amount without actually recomputing recoverable amount. However, the Board concluded that this would be the case only if the last recoverable amount determination exceeded the carrying amount by a substantial margin, and nothing had happened since then to make the likelihood of an impairment loss other than remote. The Board concluded that, in such circumstances, permitting a detailed calculation of the recoverable amount of an indefinite-lived intangible to be carried forward from the preceding period for use in the current period's impairment test would significantly reduce the costs of applying the impairment test, without compromising its integrity.

Measuring recoverable amount and accounting for impairment losses and reversals of impairment losses

BC129 The Board could see no compelling reason why the measurement basis adopted for determining recoverable amount and the treatment of impairment losses and reversals of impairment losses for one group of identifiable assets should differ from those applying to other identifiable assets. Adopting different methods would impair the usefulness of the information provided to users about an entity's identifiable assets, because both comparability and reliability, which rest on the notion that similar transactions are accounted for in the same way, would be diminished. Therefore, the Board concluded that the recoverable amounts of indefinite-lived intangibles should be measured, and impairment losses and reversals of impairment losses in respect of those assets should be accounted for, consistently with other identifiable assets covered by the Standard.

BC130 The Board expressed some concern over the measurement basis adopted in the previous version of IAS 36 for determining recoverable amount (ie higher of value in use and net selling price) and its treatment of impairment losses and reversals of impairment losses for assets other than goodwill. However, the Board's intention in revising IAS 36 was *not* to reconsider the general approach to impairment testing. Accordingly, the Board decided that it should address concerns over that general approach as part of its future re-examination of IAS 36 in its entirety, rather than as part of its Business Combinations project.

Testing goodwill for impairment (paragraphs 80–99)

BC131 [Deleted]

BC131A The Board concluded that goodwill should not be amortised and instead should be tested for impairment annually, or more frequently if events or changes in circumstances indicate that it might be impaired. IAS 22 *Business Combinations* required acquired goodwill to be amortised on a systematic basis over the best estimate of its useful life. There was a rebuttable presumption that its useful life did not exceed twenty years from initial recognition. If that presumption was rebutted, acquired goodwill was required to be tested for impairment in accordance with the previous version of IAS 36 at least at each financial year-end, even if there was no indication that it was impaired.

- BC131B In considering the appropriate accounting for acquired goodwill after its initial recognition, the Board examined the following three approaches:
- (a) straight-line amortisation but with an impairment test whenever there is an indication that the goodwill might be impaired;
 - (b) non-amortisation but with an impairment test annually or more frequently if events or changes in circumstances indicate that the goodwill might be impaired; and
 - (c) permitting entities a choice between approaches (a) and (b).
- BC131C The Board concluded, and the respondents to ED 3 *Business Combinations* that expressed a clear view on this issue generally agreed, that entities should not be allowed a choice between approaches (a) and (b). Permitting such choices impairs the usefulness of the information provided to users of financial statements because both comparability and reliability are diminished.
- BC131D The respondents to ED 3 who expressed a clear view on this issue generally supported approach (a). They put forward the following arguments in support of that approach:
- (a) acquired goodwill is an asset that is consumed and replaced by internally generated goodwill. Therefore, amortisation ensures that the acquired goodwill is recognised in profit or loss and no internally generated goodwill is recognised as an asset in its place, consistently with the general prohibition in IAS 38 on the recognition of internally generated goodwill.
 - (b) conceptually, amortisation is a method of allocating the cost of acquired goodwill over the periods it is consumed, and is consistent with the approach taken to other intangible and tangible fixed assets that do not have indefinite useful lives. Indeed, entities are required to determine the useful lives of items of property, plant and equipment, and allocate their depreciable amounts on a systematic basis over those useful lives. There is no conceptual reason for treating acquired goodwill differently.
 - (c) the useful life of acquired goodwill cannot be predicted with a satisfactory level of reliability, nor can the pattern in which that goodwill diminishes be known. However, systematic amortisation over an albeit arbitrary period provides an appropriate balance between conceptual soundness and operationality at an acceptable cost: it is the only practical solution to an intractable problem.
- BC131E In considering these comments, the Board agreed that achieving an acceptable level of reliability in the form of representational faithfulness while striking some balance with what is practicable was the primary challenge it faced in deliberating the subsequent accounting for goodwill. The Board observed that the useful life of acquired goodwill and the pattern in which it diminishes generally are not possible to predict, yet its amortisation depends on such predictions. As a result, the amount amortised in any given period can be described as at best an arbitrary estimate of the consumption of acquired goodwill during that period. The Board acknowledged that if goodwill is an asset, in some sense it must be true that goodwill acquired in a business combination is being consumed and replaced by internally generated goodwill, provided that an entity is able to maintain the overall value of goodwill (by, for example, expending resources on advertising and customer service). However, consistently with the view it reached in developing ED 3, the Board remained doubtful about the usefulness of an amortisation charge that reflects the consumption of acquired goodwill, when the internally generated goodwill replacing it is not recognised. Therefore, the Board reaffirmed the conclusion it reached in developing ED 3 that straight-line amortisation of goodwill over an arbitrary period fails to provide useful information. The Board noted that both anecdotal and research evidence supports this view.
- BC131F In considering respondents' comments summarised in paragraph BC131D(b), the Board noted that although the useful lives of both goodwill and tangible fixed assets are directly related to the period over which they are expected to generate net cash inflows for the entity, the expected physical utility to the entity of a tangible fixed asset places an upper limit on the asset's useful life. In other words, unlike goodwill, the useful life of a tangible fixed asset could never extend beyond the asset's expected physical utility to the entity.
- BC131G The Board reaffirmed the view it reached in developing ED 3 that if a rigorous and operational impairment test could be devised, more useful information would be provided to users of an entity's financial statements under an approach in which goodwill is not amortised, but instead tested for impairment annually or more frequently if events or changes in circumstances indicate that the goodwill might be impaired. After considering respondents' comments to the exposure draft of proposed amendments to IAS 36 on the form that such an impairment test should take, the Board concluded that a sufficiently rigorous and operational impairment test could be devised.
- BC132 Paragraphs BC133–BC177 outline the Board's deliberations on the form that the impairment test for goodwill should take:
- (a) paragraphs BC137–BC159 discuss the requirements relating to the allocation of goodwill to cash-generating units and the level at which goodwill is tested for impairment.

- (b) paragraphs BC160–BC170 discuss the requirements relating to the recognition and measurement of impairment losses for goodwill, including the frequency of impairment testing.
 - (c) paragraphs BC171–BC177 discuss the requirements relating to the timing of goodwill impairment tests.
- BC133 As a first step in its deliberations, the Board considered the objective of the goodwill impairment test and the measure of recoverable amount that should be adopted for such a test. The Board observed that recent North American standards use fair value as the basis for impairment testing goodwill, whereas the previous version of IAS 36 and the United Kingdom standard are based on an approach under which recoverable amount is measured as the higher of value in use and net selling price.
- BC134 The Board also observed that goodwill acquired in a business combination represents a payment made by an acquirer in anticipation of future economic benefits from assets that are not capable of being individually identified and separately recognised. Goodwill does not generate cash flows independently of other assets or groups of assets and therefore cannot be measured directly. Instead, it is measured as a residual amount, being the excess of the cost of a business combination over the acquirer's interest in the net fair value of the acquiree's identifiable assets, liabilities and contingent liabilities. Moreover, goodwill acquired in a business combination and goodwill generated after that business combination cannot be separately identified, because they contribute jointly to the same cash flows.³³
- BC135 The Board concluded that because it is not possible to measure separately goodwill generated internally after a business combination and to factor that measure into the impairment test for acquired goodwill, the carrying amount of goodwill will always be shielded from impairment by that internally generated goodwill. Therefore, the Board took the view that the objective of the goodwill impairment test could at best be to ensure that the carrying amount of goodwill is recoverable from future cash flows expected to be generated by both acquired goodwill and goodwill generated internally after the business combination.
- BC136 The Board noted that because goodwill is measured as a residual amount, the starting point in any goodwill impairment test would have to be the recoverable amount of the operation or unit to which the goodwill relates, regardless of the measurement basis adopted for determining recoverable amount. The Board decided that until it considers and resolves the broader question of the appropriate measurement objective(s) in accounting, identifying the appropriate measure of recoverable amount for that unit would be problematic. Therefore, although the Board expressed concern over the measurement basis adopted in IAS 36 for determining recoverable amount, it decided that it should not depart from that basis when measuring the recoverable amount of a unit whose carrying amount includes acquired goodwill. The Board noted that this would have the added advantage of allowing the impairment test for goodwill to be integrated with the impairment test in IAS 36 for other assets and cash-generating units that include goodwill.

Allocating goodwill to cash-generating units (paragraphs 80–87)

- BC137 The previous version of IAS 36 required goodwill to be tested for impairment as part of impairment testing the cash-generating units to which it relates. It employed a 'bottom-up/top-down' approach under which the goodwill was in effect tested for impairment by allocating its carrying amount to each of the smallest cash-generating units to which a portion of that carrying amount could be allocated on a reasonable and consistent basis.
- BC138 Consistently with the previous version of IAS 36, the Exposure Draft proposed that:
- (a) goodwill should be tested for impairment as part of impairment testing the cash-generating units to which it relates; and
 - (b) the carrying amount of goodwill should be allocated to each of the smallest cash-generating units to which a portion of that carrying amount can be allocated on a reasonable and consistent basis.
- However, the Exposure Draft proposed additional guidance clarifying that a portion of the carrying amount of goodwill should be regarded as capable of being allocated to a cash-generating unit on a reasonable and consistent basis only when that unit represents the lowest level at which management monitors the return on investment in assets that include the goodwill. That cash-generating unit could not, however, be larger than a segment based on the entity's primary reporting format determined in accordance with IAS 14 *Segment Reporting*.
- BC139 In developing this proposal, the Board noted that because acquired goodwill does not generate cash flows independently of other assets or groups of assets, it can be tested for impairment only as part of impairment testing the cash-generating units to which it relates. However, the Board was concerned that in the absence

³³ In the second phase of its business combinations project, the Board revised the definition and measurement of goodwill in IFRS 3. See paragraph 32 and Appendix A of IFRS 3 (as revised in 2008).

of any guidance on the precise meaning of ‘allocated on a reasonable and consistent basis’, some might conclude that when a business combination enhances the value of all of the acquirer’s pre-existing cash-generating units, any goodwill acquired in that business combination should be tested for impairment only at the level of the entity itself. The Board concluded that this should not be the case. Rather, there should be a link between the level at which goodwill is tested for impairment and the level of internal reporting that reflects the way an entity manages its operations and with which the goodwill naturally would be associated. Therefore, it was important to the Board that goodwill should be tested for impairment at a level at which information about the operations of an entity and the assets that support them is provided for internal reporting purposes.

- BC140 In redeliberating this issue, the Board noted that respondents’ and field visit participants’ comments indicated that the Board’s intention relating to the allocation of goodwill had been widely misunderstood, with many concluding that goodwill would need to be allocated to a much lower level than that intended by the Board. For example, some respondents and field visit participants were concerned that the proposal to allocate goodwill to such a low level would force entities to allocate goodwill arbitrarily to cash-generating units, and therefore to develop new or additional reporting systems to perform the test. The Board confirmed that its intention was that there should be a link between the level at which goodwill is tested for impairment and the level of internal reporting that reflects the way an entity manages its operations. Therefore, except for entities that do not monitor goodwill at or below the segment level, the proposals relating to the level of the goodwill impairment test should *not* cause entities to allocate goodwill arbitrarily to cash-generating units. Nor should they create the need for entities to develop new or additional reporting systems.
- BC141 The Board observed from its discussions with field visit participants that much of the confusion stemmed from the definition of a ‘cash-generating unit’, when coupled with the proposal in paragraph 73 of the Exposure Draft for goodwill to be allocated to each ‘smallest cash-generating unit to which a portion of the carrying amount of the goodwill can be allocated on a reasonable and consistent basis’. Additionally, field visit participants and respondents were unclear about the reference in paragraph 74 of the Exposure Draft to ‘the lowest level at which management monitors the return on investments in assets that include goodwill’, the most frequent question being ‘what level of management?’ (eg board of directors, chief executive officer, or segment management).
- BC142 The Board noted that once its intention on this issue was clarified for field visit participants, they all, with the exception of one company that believes goodwill should be tested for impairment at the entity level, supported the level at which the Board believes goodwill should be tested for impairment.
- BC143 The Board also noted the comment from a number of respondents and field visit participants that for some organisations, particularly those managed on a matrix basis, the proposal for cash-generating units to which the goodwill is allocated to be no larger than a segment based on the entity’s *primary* reporting format could result in an outcome that is inconsistent with the Board’s intention, ie that there should be a link between the level at which goodwill is tested for impairment and the level of internal reporting that reflects the way an entity manages its operations. The following example illustrates this point:
- A company managed on a matrix basis is organised primarily on a geographical basis, with product groups providing the secondary basis of segmentation. Goodwill is acquired as part of an acquisition of a product group that is present in several geographical regions, and is then monitored on an ongoing basis for internal reporting purposes as part of the product group/secondary segment. It is feasible that the secondary segment might, depending on the definition of ‘larger’, be ‘larger’ than a primary segment.
- BC144 Therefore, the Board decided:
- (a) that the Standard should require each unit or group of units to which goodwill is allocated to represent the lowest level within the entity at which the goodwill is monitored for internal management purposes.
 - (b) to clarify in the Standard that acquired goodwill should, from the acquisition date, be allocated to each of the acquirer’s cash-generating units, or groups of cash-generating units, that are expected to benefit from the combination, irrespective of whether other assets or liabilities of the acquiree are assigned to those units or groups of units.
 - (c) to replace the proposal for cash-generating units or groups of units to which goodwill is allocated to be no larger than a segment based on the entity’s *primary* reporting format, with the requirement that they be no larger than a segment based on either the entity’s primary or the entity’s secondary reporting format. The Board concluded that this amendment is necessary to ensure that entities managed on a matrix basis are able to test goodwill for impairment at the level of internal reporting that reflects the way they manage their operations.³⁴

³⁴ In 2006 IAS 14 was replaced by IFRS 8 *Operating Segments*. IFRS 8 does not require disclosure of primary and secondary segment information. See paragraph BC150A.

- BC145 Some respondents to the Exposure Draft raised the following additional concerns on the allocation of goodwill for impairment testing purposes:
- (a) mandating that goodwill should be allocated to at least the segment level is inappropriate—it will often result in arbitrary allocations, and entities would need to develop new or additional reporting systems.
 - (b) for convergence reasons, the level of the goodwill impairment test should be the same as the level in US Financial Accounting Standards Board Statement of Financial Accounting Standards No. 142 *Goodwill and Other Intangible Assets* (SFAS 142) (ie the reporting unit level).
 - (c) cash-generating units that constitute businesses with similar characteristics should, as is required by SFAS 142, be aggregated and treated as single units, notwithstanding that they may be monitored independently for internal purposes.
- BC146 In relation to (a), the Board reaffirmed the conclusion it reached when developing the Exposure Draft that requiring goodwill to be allocated to at least the segment level is necessary to avoid entities erroneously concluding that, when a business combination enhances the value of all of the acquirer’s pre-existing cash-generating units, any goodwill acquired in that combination could be tested for impairment only at the level of the entity itself.
- BC147 In relation to (b), the Board noted that SFAS 142 requires goodwill to be tested for impairment at a level of reporting referred to as a ‘reporting unit’. A reporting unit is an operating segment (as defined in SFAS 131 *Disclosures about Segments of an Enterprise and Related Information*³⁵) or one level below an operating segment (referred to as a component). A component of an operating segment is a reporting unit if the component constitutes a business for which discrete financial information is available and segment management regularly reviews the operating results of that component. However, two or more components of an operating segment must be aggregated and deemed a single reporting unit if the components have similar economic characteristics. An operating segment is deemed to be a reporting unit if all of its components are similar, if none of its components is a reporting unit, or if it comprises only a single component.
- BC148 Therefore, unlike IAS 36, SFAS 142 places a limit on how far goodwill can be ‘pushed down’ for impairment testing (ie one level below an operating segment).
- BC149 In deciding not to converge with SFAS 142 on the level of the goodwill impairment test, the Board noted the following findings from the field visits and North American round-table discussions:
- (a) most of the US registrant field visit participants stated that the Board’s proposals on the level of the goodwill impairment test would result, in practice, in goodwill being tested for impairment at the same level at which it is tested in accordance with SFAS 142. However, several stated that under the Board’s proposals, goodwill would be tested for impairment at a lower level than under SFAS 142. Nevertheless, they believe that the Board’s approach provides users and management with more useful information.
 - (b) several round-table participants stated that they (or, in the case of audit firm participants, their clients) manage and have available information about their investments in goodwill at a lower level than the level of the SFAS 142 impairment test. They expressed a high level of dissatisfaction at being prevented by SFAS 142 from recognising goodwill impairments that they knew existed at these lower levels, but which ‘disappeared’ once the lower level units were aggregated with other units containing sufficient ‘cushions’ to offset the impairment loss.
- BC150 In considering suggestion (c) in paragraph BC145, the Board observed that aggregating units that constitute businesses with similar characteristics could result in the disappearance of an impairment loss that management *knows* exists in a cash-generating unit because the units with which it is aggregated contain sufficient cushions to offset the impairment loss. In the Board’s view, if, because of the way an entity is managed, information about goodwill impairment losses is available to management at a particular level, that information should also be available to the users of the entity’s financial statements.
- BC150A In 2006 IFRS 8 replaced IAS 14 and changed the basis for identifying segments. Under IAS 14, two sets of segments were identified—one based on related products and services, and the other on geographical areas. Under IFRS 8, operating segments are identified on the basis of internal reports that are regularly reviewed by the entity’s chief operating decision maker in order to allocate resources to the segment and assess its performance. The objective of the change was to improve the disclosure of segment information, not to

³⁵ The basis for identifying ‘operating segments’ under SFAS 131 differs from the basis for identifying segments based on the entity’s primary reporting format under IAS 14. SFAS 131 defines an operating segment as a component of an enterprise (a) that engages in business activities from which it may earn revenues and incur expenses, including revenues and expenses relating to transactions with other components of the enterprise; (b) whose operating results are regularly reviewed by the enterprise’s chief operating decision maker to make decisions about resources to be allocated to the segment and assess its performance; and (c) for which discrete financial information is available. IAS 14 was replaced by IFRS 8 in 2006. See paragraph BC150A.

change the requirements of IAS 36 relating to the allocation of goodwill for impairment testing. The previous wording of the requirement in IAS 36 that each unit or group of units to which goodwill is allocated shall ‘not be larger than a segment based on either the entity’s primary or the entity’s secondary reporting format determined in accordance with IAS 14’ has been amended by IFRS 8 to ‘not be larger than an operating segment determined in accordance with IFRS 8’. The arguments set out above in support of the original requirement based on segments determined in accordance with IAS 14 support the revised requirements based on segments determined in accordance with the requirements in IFRS 8.

Allocating goodwill to cash-generating units (paragraphs 80-87)

BC150B Entities adopting IFRS 8 must reconsider the allocation of goodwill to cash-generating units because of the definition of operating segment introduced by IFRS 8. That definition affects the determination of the largest unit permitted by paragraph 80 for testing goodwill for impairment. In 2008 the Board was made aware that divergent views had developed regarding the largest unit permitted by IAS 36 for impairment testing of goodwill. One view was that the unit is the operating segment level as defined in paragraph 5 of IFRS 8 before the aggregation permitted by paragraph 12 of IFRS 8. The other view was that the unit is the operating segment level as defined in paragraph 5 of IFRS 8 after the aggregation permitted by paragraph 12 of IFRS 8. The Board noted that the lowest level of the entity at which management monitors goodwill as required in paragraph 80(a) is the same as the lowest level of operating segments at which the chief operating decision maker regularly reviews operating results as defined in IFRS 8. The Board also noted that the linkage of the entity’s goodwill monitoring level with the entity’s internal reporting level is intentional, as described in paragraph BC140. The Board noted that aggregating operating segments for goodwill impairment testing into a unit larger than the level at which goodwill is monitored contradicts the rationale underlying IAS 36, as set out in paragraphs BC145–BC150. In addition, meeting the aggregation criteria of similar economic characteristics permitted in IFRS 8 does not automatically result in groups of cash-generating units that are expected to benefit from the synergies of allocated goodwill. Similarly, the aggregated segments do not necessarily represent business operations that are economically interdependent or work in concert to recover the goodwill being assessed for impairment. Therefore, in *Improvements to IFRSs* issued in 2009, the Board decided to amend paragraph 80(b) to state that the required unit for goodwill impairment in this standard is not larger than the operating segment level as defined in paragraph 5 of IFRS 8 before the permitted aggregation.

Completing the initial allocation of goodwill (paragraphs 84 and 85)

BC151 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, the Exposure Draft proposed, and the revised Standard requires, that the initial allocation should be completed before the end of the first annual period beginning after the acquisition date. In contrast, ED 3 proposed, and IFRS 3 requires, that 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 should:

- (a) account for the combination using those provisional values; and
- (b) recognise any adjustments to those provisional values as a result of completing the initial accounting within twelve months of the acquisition date.³⁶

BC152 Some respondents to the Exposure Draft questioned why the period to complete the initial allocation of goodwill should differ from the period to complete the initial accounting for a business combination. The Board’s view is that acquirers should be allowed a longer period to complete the goodwill allocation, because that allocation often might not be able to be performed until after the initial accounting for the combination is complete. This is because the cost of the combination or the fair values at the acquisition date of the acquiree’s identifiable assets, liabilities or contingent liabilities, and therefore the amount of goodwill acquired in the combination, would not be finalised until the initial accounting for the combination in accordance with IFRS 3 is complete.

³⁶ In the second phase of its business combinations project, the Board clarified that adjustments to provisional values should be made only to reflect new information obtained about facts and circumstances that existed as of the acquisition date that, if known, would have affected the measurement of the amounts recognised as of that date. Such adjustments should be made within the measurement period, which shall not exceed one year from the acquisition date.

Disposal of a portion of a cash-generating unit containing goodwill (paragraph 86)

- BC153 The Exposure Draft proposed that when an entity disposes of an operation within a cash-generating unit to which goodwill has been allocated, the goodwill associated with that operation should 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.
- BC154 This proposal has been carried forward in the Standard with one modification. The Standard requires the goodwill associated with the operation disposed of to be 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.
- BC155 In developing the Exposure Draft, the Board concluded that the proposed level of the impairment test would mean that goodwill could not be identified or associated with an asset group at a level lower than the cash-generating unit to which the goodwill is allocated, except arbitrarily. However, the Board also concluded that when an operation within that cash-generating unit is being disposed of, it is appropriate to presume that some amount of goodwill is associated with that operation. Thus, an allocation of the goodwill should be required when the part of the cash-generating unit being disposed of constitutes an operation.
- BC156 Some respondents to the Exposure Draft suggested that although in most circumstances goodwill could not be identified or associated with an asset group at a level lower than the cash-generating unit or group of cash-generating units to which it is allocated for impairment testing, there may be some instances when this is not so. For example, assume an acquiree is integrated with one of the acquirer's pre-existing cash-generating units that did not include any goodwill in its carrying amount. Assume also that almost immediately after the business combination the acquirer disposes of a loss-making operation within the cash-generating unit. The Board agreed with respondents that in such circumstances, it might reasonably be concluded that no part of the carrying amount of goodwill has been disposed of, and therefore no part of its carrying amount should be derecognised by being included in the determination of the gain or loss on disposal.

Reorganisation of reporting structure (paragraph 87)

- BC157 The Exposure Draft proposed that when an entity reorganises its reporting structure in a way that changes the composition of cash-generating units to which goodwill has been allocated, the goodwill should be reallocated to the units affected using a relative value approach similar to that used when an entity disposes of an operation within a cash-generating unit.
- BC158 In developing the Exposure Draft, the Board concluded that a reorganisation that changes the composition of a cash-generating unit to which goodwill has been allocated gives rise to the same allocation problem as disposing of an operation within that unit. Therefore, the same allocation methodology should be used in both cases.
- BC159 As a result, and consistently with the Board's decision to modify its proposal on allocating goodwill when an entity disposes of an operation, the revised Standard requires an entity that reorganises its reporting structure in a way that changes the composition of one or more cash-generating units to which goodwill has been allocated:
- (a) to reallocate the goodwill to the units affected; and
 - (b) to perform this reallocation using a relative value approach similar to that used when an entity disposes of an operation within a cash-generating unit (group of cash-generating units), unless the entity can demonstrate that some other method better reflects the goodwill associated with the reorganised units (groups of units).

Recognition and measurement of impairment losses (paragraphs 88–99 and 104)

Background to the proposals in the Exposure Draft

- BC160 The Exposure Draft proposed a two-step approach for impairment testing goodwill. The first step involved using a screening mechanism for identifying potential goodwill impairments, whereby goodwill allocated to a cash-generating unit would be identified as potentially impaired only when the carrying amount of the unit

exceeded its recoverable amount. If an entity identified the goodwill allocated to a cash-generating unit as potentially impaired, an entity would then determine whether the goodwill allocated to the unit was impaired by comparing its recoverable amount, measured as the ‘implied value’ of the goodwill, with its carrying amount. The implied value of goodwill would be measured as a residual, being the excess of:

- (a) the recoverable amount of the cash-generating unit to which the goodwill has been allocated, over
- (b) the net fair value of the identifiable assets, liabilities and contingent liabilities the entity would recognise if it acquired the cash-generating unit in a business combination on the date of the impairment test (excluding any identifiable asset that was acquired in a business combination but not recognised separately from goodwill at the acquisition date).

BC161 In developing the Exposure Draft, the Board’s discussion focused first on how the recoverable amount of goodwill allocated to a cash-generating unit could be separated from the recoverable amount of the unit as a whole, given that goodwill generated internally after a business combination could not be measured separately. The Board concluded that a method similar to the method an acquirer uses to allocate the cost of a business combination to the net assets acquired could be used to measure the recoverable amount of goodwill after its initial recognition. Thus, the Board decided that some measure of the net assets of a cash-generating unit to which goodwill has been allocated should be subtracted from the recoverable amount of that unit to determine a current implied value for the goodwill. The Board concluded that the measure of the net assets of a cash-generating unit described in paragraph BC160(b) would result in the best estimate of the current implied value of the goodwill, given that goodwill generated internally after a business combination could not be measured separately.

BC162 Having decided on the most appropriate measure of the recoverable amount of goodwill, the Board then considered how often an entity should be required to test goodwill for impairment. Consistently with its conclusions about indefinite-lived intangibles, the Board concluded that non-amortisation of goodwill increases the reliance that must be placed on impairment tests to ensure that the carrying amount of goodwill does not exceed its recoverable amount. Accordingly, the Board decided that goodwill should be tested for impairment annually. However, the Board also concluded that the annual test is not a substitute for management being aware of events occurring or circumstances changing between annual tests indicating a possible impairment of goodwill. Therefore, the Board decided that an entity should also be required to test goodwill for impairment whenever there is an indication of possible impairment.

BC163 After the Board decided on the frequency of impairment testing, it expressed some concern that the proposed test would not be cost-effective. This concern related primarily to the requirement to determine the fair value of each identifiable asset, liability and contingent liability within a cash-generating unit that would be recognised by the entity if it had acquired the cash-generating unit in a business combination on the date of the impairment test (to estimate the implied value of goodwill).

BC164 Therefore, the Board decided to propose as a first step in the impairment test for goodwill a screening mechanism similar to that in SFAS 142. Under SFAS 142, goodwill is tested for impairment by first comparing the fair value of the reporting unit to which the goodwill has been allocated for impairment testing purposes with the carrying amount of that unit. If the fair value of the unit exceeds its carrying amount, the goodwill is regarded as not impaired. An entity need estimate the implied fair value of goodwill (using an approach consistent with that described in paragraph BC160) only if the fair value of the unit is less than its carrying amount.

The Board’s redeliberations

BC165 Many respondents disagreed with the proposal to adopt a two-step approach to impairment testing goodwill. In particular, the second step of the proposed impairment test and the method for measuring any impairment loss for the goodwill caused considerable concern. Respondents provided the following conceptual arguments against the proposed approach:

- (a) by drawing on only some aspects of the SFAS 142 two-step approach, the result is a hybrid between fair values and value in use. More particularly, not measuring goodwill’s implied value as the difference between the unit’s fair value and the net fair value of the identifiable net assets in the unit, but instead measuring it as the difference between the unit’s recoverable amount (ie higher of value in use and fair value less costs to sell) and the net fair value of the identifiable net assets in the unit, results in a measure of goodwill that conceptually is neither fair value nor recoverable amount. This raises questions about the conceptual validity of measuring goodwill impairment losses as the difference between goodwill’s implied value and carrying amount.
- (b) it seems inconsistent to consider goodwill separately for impairment testing when other assets within a unit are not considered separately but are instead considered as part of the unit as a whole, particularly given that goodwill, unlike many other assets, cannot generate cash inflows

independently of other assets. The previous version of IAS 36 is premised on the notion that if a series of independent cash flows can be generated only by a group of assets operating together, impairment losses should be considered only for that group of assets as a whole—individual assets within the group should not be considered separately.

- (c) concluding that the recoverable amount of goodwill—which cannot generate cash inflows independently of other assets—should be measured separately for measuring impairment losses makes it difficult to understand how the Board could in the future reasonably conclude that such an approach to measuring impairment losses is also not appropriate for other assets. In other words, if it adopts the proposed two-step approach for goodwill, the Board could in effect be committing itself to an ‘individual asset/fair value’ approach for measuring impairments of all other assets. A decision on this issue should be made only as part of a broad reconsideration of the appropriate measurement objective for impairment testing generally.
- (d) if goodwill is considered separately for impairment testing using an implied value calculation when other assets within a unit are considered only as part of the unit as a whole, there will be asymmetry: unrecognised goodwill will shield the carrying value of other assets from impairment, but the unrecognised value of other assets will not shield the carrying amount of goodwill from impairment. This seems unreasonable given that the unrecognised value of those other assets cannot then be recognised. Additionally, the carrying amount of a unit will be less than its recoverable amount whenever an impairment loss for goodwill exceeds the unrecognised value of the other assets in the unit.

BC166 Additionally, respondents, field visit participants and North American round-table participants raised the following concerns about the practicability and costs of applying the proposed two-step approach:

- (a) many companies would be required regularly to perform the second step of the impairment test, and therefore would need to determine the fair values of each identifiable asset, liability and contingent liability within the impaired unit(s) that the entity would recognise if it acquired the unit(s) in a business combination on the date of the impairment test. Although determining these fair values would not, for some companies, pose significant practical challenges (because, for example, fair value information for their significant assets is readily available), most would need to engage, on a fairly wide scale and at significant cost, independent valuers for some or all of the unit’s assets. This is particularly the case for identifying and measuring the fair values of unrecognised internally generated intangible assets.
- (b) determining the fair values of each identifiable asset, liability and contingent liability within an impaired unit is likely to be impracticable for multi-segmented manufacturers that operate multi-product facilities servicing more than one cash-generating unit. For example, assume an entity’s primary basis of segmentation is geographical (eg Europe, North America, South America, Asia, Oceania and Africa) and that its secondary basis of segmentation is based on product groups (vaccinations, over-the-counter medicines, prescription medicines and vitamins/dietary supplements).³⁷ Assume also that:
 - (i) the lowest level within the entity at which the goodwill is monitored for internal management purposes is one level below primary segment (eg the vitamins business in North America), and that goodwill is therefore tested for impairment at this level;
 - (ii) the plants and distribution facilities in each geographical region manufacture and distribute for all product groups; and
 - (iii) to determine the carrying amount of each cash-generating unit containing goodwill, the carrying amount of each plant and distribution facility has been allocated between each product group it services.

If, for example, the recoverable amount of the North American vitamins unit were less than its carrying amount, measuring the implied value of goodwill in that unit would require a valuation exercise to be undertaken for *all* North American assets so that a portion of each asset’s fair value can then be allocated to the North American vitamins unit. These valuations are likely to be extremely costly and virtually impossible to complete within a reasonable time period (field visit participants’ estimates ranged from six to twelve months). The degree of impracticability will be even greater for those entities that monitor, and therefore test, goodwill at the segment level.

³⁷ In 2006 IAS 14 was replaced by IFRS 8 *Operating Segments* which does not require disclosure of primary and secondary segment information. See paragraph BC150A.

BC167 In considering the above comments, the Board noted that:

- (a) all of the US registrant field visit participants and North American round-table participants that have had to perform the second step of the SFAS 142 impairment test were compelled to engage, at significant cost, independent valuers.
- (b) the impairment model proposed in the Exposure Draft, although based on the two-step approach in SFAS 142, differed from the SFAS 142 test and would be unlikely to result in convergence for the following reasons:
 - (i) the recoverable amount of a unit to which goodwill is allocated in accordance with IAS 36 would be the higher of the unit's value in use and fair value less costs to sell, rather than fair value. Many of the US registrant field visit participants stated that the measure of recoverable amount they would use under IAS 36 would differ from the fair value measure they would be required to use under SFAS 142.
 - (ii) the level at which goodwill is tested for impairment in accordance with SFAS 142 will often be higher than the level at which it would be tested under IAS 36. Many of the US registrant field visit participants stated that goodwill would be tested for impairment in accordance with IAS 36 at a lower level than under SFAS 142 because of either: (1) the limit SFAS 142 places on how far goodwill can be 'pushed down' for impairment testing (ie one level below an operating segment); or (2) the requirement in SFAS 142 to aggregate components with similar economic characteristics. Nevertheless, these participants unanimously agreed that the IAS 36 approach provides users and management with more useful information. The Board also noted that many of the North American round-table participants stated that they (or, in the case of audit firm participants, their clients) manage and have available information about their investments in goodwill at a level lower than a reporting unit as defined in SFAS 142. Many of these participants expressed a high level of dissatisfaction at being prevented by SFAS 142 from recognising goodwill impairments that they knew existed at these lower levels, but 'disappeared' once the lower level units were aggregated with other units containing sufficient 'cushions' to offset the impairment loss.

BC168 The Board also noted that, unlike SFAS 142, it had as its starting point an impairment model in IAS 36 that integrates the impairment testing of *all* assets within a cash-generating unit, including goodwill. Unlike US generally accepted accounting principles (GAAP), which use an undiscounted cash flow screening mechanism for impairment testing long-lived assets other than goodwill, IAS 36 requires the recoverable amount of an asset or cash-generating unit to be measured whenever there is an indication of possible impairment. Therefore, if at the time of impairment testing a 'larger' unit to which goodwill has been allocated there is an indication of a possible impairment in an asset or 'smaller' cash-generating unit included in that larger unit, an entity is required to test that asset or smaller unit for impairment first. Consequently, the Board concluded that it would be reasonable in an IAS 36 context to presume that an impairment loss for the larger unit would, after all other assets and smaller units are assessed for impairment, be likely to relate to the goodwill in the unit. Such a presumption would not be reasonable if an entity were following US GAAP.

BC169 The Board considered converging fully with the SFAS 142 approach. However, although supporting convergence, the Board was concerned that the SFAS 142 approach would not provide better information than an approach under which goodwill is tested for impairment at a lower level (thereby removing many of the 'cushions' protecting the goodwill from impairment) but with the amount of any impairment loss for goodwill measured in accordance with the one-step approach in the previous version of IAS 36.

BC170 The Board concluded that the complexity and costs of applying the two-step approach proposed in the Exposure Draft would outweigh the benefits of that approach. Therefore, the Board decided to retain the approach to measuring impairments of goodwill included in the previous version of IAS 36. Thus, the Standard requires any excess of the carrying amount of a cash-generating unit (group of units) to which goodwill has been allocated over its recoverable amount to be recognised first as an impairment loss for goodwill. Any excess remaining after the carrying amount of goodwill has been reduced to zero is then recognised by being allocated to the other assets of the unit pro rata with their carrying amounts.

Changes as a result of 2008 revisions to IFRS 3 (Appendix C)

BC170A As a result of the changes to IFRS 3 (as revised in 2008), the requirements in Appendix C of the Standard and the related illustrative examples have been amended to reflect the two ways of measuring non-controlling interests: at fair value and as a proportion of the identifiable net assets of the acquiree. Appendix C has also been modified to clarify the requirements of the Standard.

Timing of impairment tests (paragraphs 96–99)

- BC171 To reduce the costs of applying the test, and consistently with the proposals in the Exposure Draft, the Standard permits the annual impairment test for a cash-generating unit (group of units) to which goodwill has been allocated to be performed at any time during an annual period, provided the test is performed at the same time every year. Different cash-generating units (groups of units) may be tested for impairment at different times. However, if some or all of the goodwill allocated to a unit (group of units) was acquired in a business combination during the current annual period, that unit (group of units) must be tested for impairment before the end of the current annual period.
- BC172 The Board observed that acquirers can sometimes ‘overpay’ for an acquiree, resulting in the amount initially recognised for the business combination and the resulting goodwill exceeding the recoverable amount of the investment. The Board concluded that the users of an entity’s financial statements are provided with representationally faithful, and therefore useful, information about a business combination if such an impairment loss is recognised by the acquirer in the annual period in which the business combination occurs.
- BC173 The Board was concerned that it might be possible for entities to delay recognising such an impairment loss until the annual period after the business combination if the Standard included only a requirement to impairment test cash-generating units (groups of units) to which goodwill has been allocated on an annual basis at any time during a period. Therefore, the Board decided to include in the Standard the added requirement that if some or all of the goodwill allocated to a unit (group of units) was acquired in a business combination during the current annual period, the unit (group of units) should be tested for impairment before the end of that period.

Sequence of impairment tests (paragraph 97)

- BC174 The Standard requires that if the assets (cash-generating units) constituting the cash-generating unit (group of units) to which goodwill has been allocated are tested for impairment at the same time as the unit (group of units) containing the goodwill, those other assets (units) should be tested for impairment before the unit (group of units) containing the goodwill.
- BC175 The Board observed that assets or cash-generating units making up a unit or group of units to which goodwill has been allocated might need to be tested for impairment at the same time as the unit or group of units containing the goodwill when there is an indication of a possible impairment of the asset or smaller unit. The Board concluded that to assess whether the unit or group of units containing the goodwill, and therefore whether the goodwill, is impaired, the carrying amount of the unit or group of units containing the goodwill would need first to be adjusted by recognising any impairment losses relating to the assets or smaller units within that unit or group of units.

Carrying forward a recoverable amount calculation (paragraph 99)

- BC176 Consistently with the impairment test for indefinite-lived intangibles, the Standard permits the most recent detailed calculation of the recoverable amount of a cash-generating unit (group of units) to which goodwill has been allocated to be carried forward from a preceding period for use in the current period’s impairment test, provided all of the criteria in paragraph 99 are met.
- BC177 Integral to the Board’s decision that goodwill should be tested for impairment annually was the view that many entities should be able to conclude that the recoverable amount of a cash-generating unit (group of units) to which goodwill has been allocated is greater than its carrying amount without actually recomputing recoverable amount. However, again consistently with its conclusions about indefinite-lived intangibles, the Board concluded that this would be the case only if the last recoverable amount determination exceeded the carrying amount of the unit (group of units) by a substantial margin, and nothing had happened since that last determination to make the likelihood of an impairment loss other than remote. The Board concluded that in such circumstances, permitting a detailed calculation of the recoverable amount of a cash-generating unit (group of units) to which goodwill has been allocated to be carried forward from the preceding period for use in the current period’s impairment test would significantly reduce the costs of applying the impairment test, without compromising its integrity.

Allocating an impairment loss between the assets of a cash-generating unit (paragraphs 104–107)

BCZ178 IAS 36 includes requirements for the allocation of an impairment loss for a cash-generating unit that differ from the proposals in E55. In particular, E55 proposed that an impairment loss should be allocated:

- (a) first, to goodwill;
- (b) secondly, to intangible assets for which no active market exists;
- (c) thirdly, to assets whose net selling price³⁸ is less than their carrying amount; and
- (d) then, to the other assets of the unit on a pro-rata basis based on the carrying amount of each asset in the unit.

BCZ179 The underlying reasons for making this proposal were that:

- (a) an impairment loss for a cash-generating unit should be allocated, in priority, to assets with the most subjective values. Goodwill and intangible assets for which there is no active market were considered to be in that category. Intangible assets for which there is no active market were considered to be similar to goodwill (IASB was thinking of brand names, publishing titles etc).
- (b) if the net selling price of an asset is less than its carrying amount, this was considered a reasonable basis for allocating part of the impairment loss to that asset rather than to other assets.

BCZ180 Many commentators on E55 objected to the proposal on the grounds that:

- (a) not all intangible assets for which no active market exists are similar to goodwill (for example, licences and franchise rights). They disagreed that the value of intangible assets is always more subjective than the value of tangible assets (for example, specialised plant and equipment).
- (b) the concept of cash-generating units implies a global approach for the assets of the units and not an asset-by-asset approach.

In response to these comments, IASB decided to withdraw E55's proposal for the allocation of an impairment loss to intangible assets and assets whose net selling price is less than their carrying amount.

BCZ181 IASB rejected a proposal that an impairment loss for a cash-generating unit should be allocated first to any obviously impaired asset. IASB believed that if the recoverable amount of an obviously impaired asset can be determined for the individual asset, there is no need to estimate the recoverable amount of the asset's cash-generating unit. If the recoverable amount of an individual asset cannot be determined, it cannot be said that the asset is obviously impaired because an impairment loss for a cash-generating unit relates to all of the assets of that unit.

Reversing impairment losses for assets other than goodwill (paragraphs 110–123)

BCZ182 IAS 36 requires that an impairment loss for an asset other than goodwill should be reversed if, and only if, there has been a change in the estimates used to determine an asset's recoverable amount since the last impairment loss was recognised.

BCZ183 Opponents of reversals of impairment losses argue that:

- (a) reversals of impairment losses are contrary to the historical cost accounting system. When the carrying amount is reduced, recoverable amount becomes the new cost basis for an asset. Consequently, reversing an impairment loss is no different from revaluing an asset upward. Indeed, in many cases, recoverable amount is similar to the measurement basis used for the revaluation of an asset. Hence, reversals of impairment losses should be either prohibited or recognised directly in equity as a revaluation.
- (b) reversals of impairment losses introduce volatility in reported earnings. Periodic, short-term income measurements should not be affected by unrealised changes in the measurement of a long-lived asset.
- (c) the result of reversals of impairment losses would not be useful to users of financial statements since the amount of a reversal under IAS 36 is limited to an amount that does not increase the carrying amount of an asset above its depreciated historical cost. Neither the amount reversed nor the revised carrying amount have any information content.

³⁸ In IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations*, issued by the IASB in 2004, the term 'net selling price' was replaced in IAS 36 by 'fair value less costs to sell'.

- (d) in many cases, reversals of impairment losses will result in the implicit recognition of internally generated goodwill.
- (e) reversals of impairment losses open the door to abuse and income ‘smoothing’ in practice.
- (f) follow-up to verify whether an impairment loss needs to be reversed is costly.

BCZ184 IASC’s reasons for requiring reversals of impairment losses were the following:

- (a) it is consistent with the *Framework*³⁹ and the view that future economic benefits that were not previously expected to flow from an asset have been reassessed as probable.
- (b) a reversal of an impairment loss is not a revaluation and is consistent with the historical cost accounting system as long as the reversal does not result in the carrying amount of an asset exceeding its original cost less amortisation/depreciation, had the impairment loss not been recognised. Accordingly, the reversal of an impairment loss should be recognised in the income statement and any amount in excess of the depreciated historical cost should be accounted for as a revaluation.
- (c) impairment losses are recognised and measured based on estimates. Any change in the measurement of an impairment loss is similar to a change in estimate. IAS 8 *Net Profit or Loss for the Period, Fundamental Errors and Changes in Accounting Policies*⁴⁰ requires that a change in accounting estimate should be included in the determination of the net profit or loss in (a) the period of the change, if the change affects the period only, or (b) the period of the change and future periods, if the change affects both.
- (d) reversals of impairment losses provide users with a more useful indication of the potential for future benefits of an asset or group of assets.
- (e) results of operations will be more fairly stated in the current period and in future periods because depreciation or amortisation will not reflect a previous impairment loss that is no longer relevant. Prohibition of reversals of impairment losses may lead to abuses such as recording a significant loss one year with the resulting lower amortisation/depreciation charge and higher profits in subsequent years.

BCZ185 The majority of commentators on E55 supported IASC’s proposals for reversals of impairment losses.

BCZ186 IAS 36 does not permit an enterprise to recognise a reversal of an impairment loss just because of the unwinding of the discount. IASC supported this requirement for practical reasons only. Otherwise, if an impairment loss is recognised and recoverable amount is based on value in use, a reversal of the impairment loss would be recognised in each subsequent year for the unwinding of the discount. This is because, in most cases, the pattern of depreciation of an asset is different from the pattern of value in use. IASC believed that, when there is no change in the assumptions used to estimate recoverable amount, the benefits from recognising the unwinding of the discount each year after an impairment loss has been recognised do not justify the costs involved. However, if a reversal is recognised because assumptions have changed, the discount unwinding effect is included in the amount of the reversal recognised.

Reversing goodwill impairment losses (paragraph 124)

BC187 Consistently with the proposal in the Exposure Draft, the Standard prohibits the recognition of reversals of impairment losses for goodwill. The previous version of IAS 36 required an impairment loss for goodwill recognised in a previous period to be reversed when the impairment loss was caused by a specific external event of an exceptional nature that was not expected to recur, and subsequent external events had occurred that reversed the effect of that event.

BC188 Most respondents to the Exposure Draft agreed that reversals of impairment losses for goodwill should be prohibited. Those that disagreed argued that reversals of impairment losses for goodwill should be treated in the same way as reversals of impairment losses for other assets, but limited to circumstances in which the impairment loss was caused by specific events beyond the entity’s control.

BC189 In revising IAS 36, the Board noted that IAS 38 *Intangible Assets* prohibits the recognition of internally generated goodwill. Therefore, if reversals of impairment losses for goodwill were permitted, an entity would need to establish the extent to which a subsequent increase in the recoverable amount of goodwill is attributable to the recovery of the acquired goodwill within a cash-generating unit, rather than an increase in the internally generated goodwill within the unit. The Board concluded that this will seldom, if ever, be

³⁹ The reference to the *Framework* is to the IASC’s *Framework for the Preparation and Presentation of Financial Statements*, adopted by the IASB in 2001. In September 2010 the IASB replaced the *Framework* with the *Conceptual Framework for Financial Reporting*.

⁴⁰ IAS 8 *Net Profit or Loss for the Period, Fundamental Errors and Changes in Accounting Policies* was superseded in 2003 by IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors*.

possible. Because the acquired goodwill and internally generated goodwill contribute jointly to the same cash flows, any subsequent increase in the recoverable amount of the acquired goodwill is indistinguishable from an increase in the internally generated goodwill. Even if the specific external event that caused the recognition of the impairment loss is reversed, it will seldom, if ever, be possible to determine that the effect of that reversal is a corresponding increase in the recoverable amount of the acquired goodwill. Therefore, the Board concluded that reversals of impairment losses for goodwill should be prohibited.

- BC190 The Board expressed some concern that prohibiting the recognition of reversals of impairment losses for goodwill so as to avoid recognising internally generated goodwill might be viewed by some as inconsistent with the impairment test for goodwill. This is because the impairment test results in the carrying amount of goodwill being shielded from impairment by internally generated goodwill. This has been described by some as ‘backdoor’ capitalisation of internally generated goodwill.
- BC191 However, the Board was not as concerned about goodwill being shielded from the recognition of impairment losses by internally generated goodwill as it was about the direct recognition of internally generated goodwill that might occur if reversals of impairment losses for goodwill were permitted. As discussed in paragraph BC135, the Board is of the view that it is not possible to devise an impairment test for acquired goodwill that removes the cushion against the recognition of impairment losses provided by goodwill generated internally after a business combination.

Disclosures for cash-generating units containing goodwill or indefinite-lived intangibles (paragraphs 134 and 135)

Background to the proposals in the Exposure Draft

- BC192 The Exposure Draft proposed requiring an entity to disclose a range of information about cash-generating units whose carrying amounts included goodwill or indefinite-lived intangibles. That information included:
- the carrying amount of goodwill and the carrying amount of indefinite-lived intangibles.
 - the basis on which the unit’s recoverable amount had been determined (ie value in use or net selling price).
 - the amount by which the unit’s recoverable amount exceeded its carrying amount.
 - the key assumptions and estimates used to measure the unit’s recoverable amount and information about the sensitivity of that recoverable amount to changes in the key assumptions and estimates.
- BC193 If an entity reports segment information in accordance with IAS 14 *Segment Reporting*, the Exposure Draft proposed that this information should be disclosed in aggregate for each segment based on the entity’s primary reporting format. However, the Exposure Draft also proposed that the information would be disclosed separately for a cash-generating unit when:
- the carrying amount of the goodwill or indefinite-lived intangibles allocated to the unit was significant in relation to the total carrying amount of goodwill or indefinite-lived intangibles; or
 - the basis for determining the unit’s recoverable amount differed from the basis used for the other units within the segment whose carrying amounts include goodwill or indefinite-lived intangibles; or
 - the nature of, or value assigned to the key assumptions or growth rate on which management based its determination of the unit’s recoverable amount differed significantly from that used for the other units within the segment whose carrying amounts include goodwill or indefinite-lived intangibles.
- BC194 In deciding to propose these disclosure requirements in the Exposure Draft, the Board observed that non-amortisation of goodwill and indefinite-lived intangibles increases the reliance that must be placed on impairment tests of those assets to ensure that their carrying amounts do not exceed their recoverable amounts. However, the nature of impairment tests means that the carrying amounts of such assets and the related assertion that those carrying amounts are recoverable will normally be supported only by management’s projections. Therefore, the Board decided to examine ways in which the reliability of the impairment tests for goodwill and indefinite-lived intangibles could be improved. As a first step, the Board considered including a subsequent cash flow test in the revised Standard, similar to that included in UK Financial Reporting Standard 11 *Impairment of Fixed Assets and Goodwill* (FRS 11).

Subsequent cash flow test

- BC195 FRS 11 requires an entity to perform a subsequent cash flow test to confirm, ex post, the cash flow projections used to measure a unit’s value in use when testing goodwill for impairment. Under FRS 11, for

five years following each impairment test for goodwill in which recoverable amount has been based on value in use, the actual cash flows achieved must be compared with those forecast. If the actual cash flows are so much less than those forecast that use of the actual cash flows in the value in use calculation could have required recognition of an impairment in previous periods, the original impairment calculations must be re-performed using the actual cash flows, but without revising any other cash flows or assumptions (except those that change as a direct consequence of the occurrence of the actual cash flows, for example where a major cash inflow has been delayed for a year). Any impairment identified must then be recognised in the current period, unless the impairment has reversed and the reversal of the loss satisfies the criteria in FRS 11 regarding reversals of impairment losses for goodwill.

- BC196 The Board noted the following arguments in support of including a similar test in the revised Standard:
- (a) it would enhance the reliability of the goodwill impairment test by preventing the possibility of entities avoiding the recognition of impairment losses by using over-optimistic cash flow projections in the value in use calculations.
 - (b) it would provide useful information to users of an entity's financial statements because a record of actual cash flows continually less than forecast cash flows tends to cast doubt on the reliability of current estimates.
- BC197 However, the subsequent cash flow test is designed only to prevent entities from avoiding goodwill write-downs. The Board observed that, given current trends in 'big bath' restructuring charges, the greater risk to the quality of financial reporting might be from entities trying to write off goodwill without adequate justification in an attempt to 'manage' the balance sheet. The Board also observed that:
- (a) the focus of the test on cash flows ignores other elements in the measurement of value in use. As a result, it does not produce representationally faithful results in a present value measurement system. The Board considered incorporating into the recalculation performed under the test corrections of estimates of other elements in the measurement of value in use. However, the Board concluded that specifying which elements to include would be problematic. Moreover, adding corrections of estimates of those other elements to the test would, in effect, transform the test into a requirement to perform a comprehensive recalculation of value in use for each of the five annual reporting periods following an impairment test.
 - (b) the amount recognised as an impairment loss under the test is the amount of the impairment that would have been recognised, provided changes in estimates of remaining cash flows and changes in discount and growth rates are ignored. Therefore, it is a hypothetical amount that does not provide decision-useful information—it is neither an estimate of a current amount nor a prediction of ultimate cash flows.
 - (c) the requirement to perform the test for each of the five annual reporting periods following an impairment test could result in an entity having to maintain as many as five sets of 5-year computations for each cash-generating unit to which goodwill has been allocated. Therefore, the test is likely to be extremely burdensome, particularly if an entity has a large number of such units, without producing understandable or decision-useful information.
- BC198 Therefore, the Board decided not to propose a subsequent cash flow test in the Exposure Draft. However, the Board remained committed to finding some way of improving the reliability of the impairment tests for goodwill and indefinite-lived intangibles, and decided to explore improving that reliability through disclosure requirements.

Including disclosure requirements in the revised Standard

- BC199 In developing the Exposure Draft, the Board observed that the *Framework*⁴¹ identifies reliability as one of the key qualitative characteristics that information must possess to be useful to users in making economic decisions. To be reliable, information must be free from material error and bias and be able to be depended upon to represent faithfully that which it purports to represent. The *Framework* identifies relevance as another key qualitative characteristic that information must possess to be useful to users in making economic decisions. To be relevant, information must help users to evaluate past, present or future events, or confirm or correct their past evaluations.
- BC200 The Board observed that information that assists users in evaluating the reliability of other information included in the financial statements is itself relevant, increasing in relevance as the reliability of that other information decreases. For example, information that assists users in evaluating the reliability of the amount recognised for a provision is relevant because it helps users to evaluate the effect of both a past event (ie the

⁴¹ The references to the *Framework* are to IASC's *Framework for the Preparation and Presentation of Financial Statements*, adopted by the IASB in 2001. In September 2010 the IASB replaced the *Framework* with the *Conceptual Framework for Financial Reporting*.

economic consequences of the past event giving rise to the present obligation) and a future event (ie the amount of the expected future outflow of economic benefits required to settle the obligation). Accordingly, IAS 37 *Provisions, Contingent Liabilities and Contingent Assets* requires an entity to disclose, for each class of provision, information about the uncertainties surrounding the amount and timing of expected outflows of economic benefits, and the major assumptions concerning future events that may affect the amount required to settle the obligation and have been reflected in the amount of the provision.

- BC201 The Board concluded that because information that assists users in evaluating the reliability of other information is itself relevant, an entity should disclose information that assists users in evaluating the reliability of the estimates used by management to support the carrying amounts of goodwill and indefinite-lived intangibles.
- BC202 The Board also concluded that such disclosures would provide users with more useful information for evaluating the reliability of the impairment tests for goodwill and indefinite-lived intangibles than the information that would be provided by a subsequent cash flow test.
- BC203 The Board then considered how some balance might be achieved between the objective of providing users with useful information for evaluating the reliability of the estimates used by management to support the carrying amounts of goodwill and indefinite-lived intangibles, and the potential magnitude of those disclosures.
- BC204 The Board decided that a reasonable balance might be achieved between the objective of the disclosures and their potential magnitude by requiring:
- (a) information to be disclosed on an aggregate basis for each segment based on the entity's primary reporting format that includes in its carrying amount goodwill or indefinite-lived intangibles; but
 - (b) information for a particular cash-generating unit within that segment to be excluded from the aggregate information and disclosed separately when either:
 - (i) the basis (ie net selling price or value in use), methodology or key assumptions used to measure its recoverable amount differ from those used to measure the recoverable amounts of the other units in the segment; or
 - (ii) the carrying amount of the goodwill or indefinite-lived intangibles in the unit is significant in relation to the total carrying amount of goodwill or indefinite-lived intangibles.

The Board's redeliberations

- BC205 After considering respondents' and field visit participants' comments, the Board confirmed its previous conclusion that information that assists users in evaluating the reliability of other information is itself relevant, increasing in relevance as the reliability of that other information decreases. Therefore, entities should be required to disclose information that assists users in evaluating the reliability of the estimates used by management to support the carrying amounts of goodwill and indefinite-lived intangibles. The Board noted that almost all field visit participants and many respondents expressed explicit support of its conclusion that, because non-amortisation of goodwill and indefinite-lived intangibles increases the reliance that must be placed on impairment tests of those assets, some additional disclosure is necessary to provide users with information for evaluating the reliability of those impairment tests.
- BC206 However, it was clear from field visit participants' responses that the proposed disclosures could not be meaningfully aggregated at the segment level to the extent the Board had hoped might be the case. As a result, the proposal to require the information to be disclosed on an aggregate basis for each segment, but with disaggregated disclosures for cash-generating units in the circumstances set out in paragraph BC193 would not result in a reasonable balance between the objective of the disclosures and their potential magnitude.
- BC207 The Board was also sympathetic to field visit participants' and respondents' concerns that the proposed disclosures went beyond their intended objective of providing users with relevant information for evaluating the reliability of the impairment tests for goodwill and indefinite-lived intangibles. For example, field visit participants and respondents argued that:
- (a) it would be extremely difficult to distil the recoverable amount calculations into concise but meaningful disclosures because those calculations typically are complex and do not normally result in a single point estimate of recoverable amount—a single value for recoverable amount would normally be determined only when the bottom-end of the recoverable amount range is less than a cash-generating unit's carrying amount. These difficulties make it doubtful that the information, particularly the sensitivity analyses, could be produced on a timely basis.

- (b) disclosing the proposed information, particularly the values assigned to, and the sensitivity of, each key assumption on which recoverable amount calculations are based, could cause significant commercial harm to an entity. Users of financial statements might, for example, use the quantitative disclosures as the basis for initiating litigation against the entity, its board of directors or management in the highly likely event that those assumptions prove less than accurate. The increased litigation risk would either encourage management to use super-conservative assumptions, thereby resulting in improper asset write-downs, or compel management to engage independent experts to develop all key assumptions and perform the recoverable amount calculations. Additionally, many of the field visit participants expressed concern over the possible impact that disclosing such information might have on their ability to defend themselves in various legal proceedings.

BC208 Therefore, the Board considered the following two interrelated issues:

- (a) if the proposed disclosures went beyond their intended objective, what information *should* be disclosed so that users have sufficient information for evaluating the reliability of impairment tests for goodwill and indefinite-lived intangibles?
- (b) how should this information be presented so that there is an appropriate balance between providing users with information for evaluating the reliability of the impairment tests, and the potential magnitude of those disclosures?

BC209 As a result of its redeliberations, the Board decided:

- (a) not to proceed with the proposal to require information for evaluating the reliability of the impairment tests for goodwill and indefinite-lived intangibles to be disclosed in aggregate for each segment and separately for cash-generating units within a segment in specified circumstances. Instead, the Standard requires this information to be disclosed only for each cash-generating unit (group of units) for which the carrying amount of goodwill or indefinite-lived intangibles allocated to that unit (group of units) is significant in comparison with the entity's total carrying amount of goodwill or indefinite-lived intangibles.
- (b) not to proceed with the proposal to require an entity to disclose the amount by which the recoverable amount of a cash-generating unit exceeds its carrying amount. Instead, the Standard requires an entity to disclose this information only 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.
- (c) not to proceed with the proposal to require an entity to disclose the value assigned to each key assumption on which management based its recoverable amount determination, and the amount by which that value 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 recoverable amount to be equal to its carrying amount. Instead, the Standard requires an entity to disclose a description of each key assumption on which management has based its recoverable amount determination, 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. However, if a reasonably possible change in a key assumption would cause the unit's (group of units') carrying amount to exceed its recoverable amount, the entity is also required to disclose the value assigned to the key assumption, and the amount by which that value 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.
- (d) to require information about key assumptions to be disclosed also for any key assumption that is relevant to the recoverable amount determination of multiple cash-generating units (groups of units) that individually contain insignificant amounts of goodwill or indefinite-lived intangibles, but contain, in aggregate, significant amounts of goodwill or indefinite-lived intangibles.

Changes as a result of *Improvements to IFRSs (2008)*⁴²

BC209A The Board noted that the disclosures that IAS 36 requires when value in use is used to determine recoverable amount differ from those required when fair value less costs to sell is used. These differing requirements appear inconsistent when a similar valuation methodology (discounted cash flows) has been used. Therefore,

⁴² This heading and paragraph BC209A were added by *Improvements to IFRSs* issued in May 2008.

as part of *Improvements to IFRSs* issued in May 2008, the Board decided to require the same disclosures for fair value less costs to sell and value in use when discounted cash flows are used to estimate recoverable amount.

Changes as a result of IFRS 13 *Fair Value Measurement*

- BC209B In developing IFRS 13, issued in May 2011, the Board was asked by users of financial statements to minimise the differences between the disclosures made about impaired assets in IFRSs and in US GAAP (which requires assets to be tested for impairment by comparing their carrying amount with their fair value). The Board noted that the disclosure requirements in IAS 36 were developed specifically to ensure consistency in the disclosure of information about impaired assets so that the same type of information is provided whether the recoverable amount was determined on the basis of value in use or fair value less costs of disposal. Consequently, the Board did not think it would be appropriate to require an entity to provide information when the recoverable amount is determined on the basis of fair value less costs of disposal (ie those required in IFRS 13) that is significantly different from what the entity would provide when the recoverable amount is determined on the basis of value in use.
- BC209C Although IFRSs and US GAAP have different impairment models, the Board concluded that requiring the following information (in addition to what IAS 36 currently requires) about impaired assets measured at fair value less costs of disposal would improve comparability between entities applying IFRSs and those applying US GAAP as well as increase the convergence of IFRSs and US GAAP:
- (a) the fair value less costs of disposal;
 - (b) the level of the fair value hierarchy within which the fair value less costs of disposal is categorised in its entirety (Level 1, 2 or 3);
 - (c) if applicable, changes to valuation techniques and reasons for those changes; and
 - (d) quantitative information about significant inputs used when measuring fair value less costs of disposal (along with a conforming amendment to the disclosures about value in use).
- BC209D In addition, those disclosures are consistent with the disclosures required for non-recurring fair value measurements in IFRS 13 and in US GAAP.

Recoverable Amount Disclosures for Non-Financial Assets

- BC209E As a consequence of issuing IFRS 13, the IASB amended some of the disclosure requirements in IAS 36 for the recoverable amount of impaired assets. As described in paragraphs BC209B–BC209D, those amendments resulted from the IASB’s decision to require the disclosure of the recoverable amount of impaired assets and additional disclosures about the measurement of the recoverable amount of impaired assets when the recoverable amount was based on fair value less costs of disposal. The IASB also intended to retain a balance between the disclosures about fair value less costs of disposal and the disclosures about value in use.
- BC209F After issuing IFRS 13, the IASB was made aware that one of the amendments that that Standard had made to IAS 36 resulted in the disclosure requirements being more broadly applicable than the IASB had intended. Instead of requiring the disclosure of the recoverable amount for impaired assets, that amendment required the disclosure of the recoverable amount of each cash-generating unit for which the carrying amount of goodwill or intangible assets with indefinite useful lives allocated to that unit is significant when compared to an entity’s total carrying amount of goodwill or intangible assets with indefinite useful lives.
- BC209G Consequently, the IASB decided to publish, in January 2013, the Exposure Draft ED/2013/1 *Recoverable Amount Disclosures for Non-Financial Assets* (‘Exposure Draft ED/2013/1’), which proposed to amend paragraphs 130 and 134 of IAS 36 to make clear its intention about the scope of the disclosure requirements. For the same reason, the IASB also proposed to amend paragraph 130(f) to require additional information about the fair value measurement when the recoverable amount of impaired assets is based on fair value less costs of disposal, consistently with the disclosure requirements for impaired assets in US GAAP. As mentioned in paragraph BC209C, although IFRS and US GAAP have different impairment models, the IASB had concluded that requiring that additional information about impaired assets measured at fair value less costs of disposal would improve comparability between the disclosures presented in the financial statements of entities applying IFRS and the disclosures presented in the financial statements of those applying US GAAP.
- BC209H One of the consequential amendments made by IFRS 13 amended paragraph 134(e) of IAS 36 that relates to fair value less costs of disposal for each cash-generating unit for which the carrying amount of goodwill or intangible assets with indefinite useful lives allocated to that unit is significant in comparison with an

- entity's total carrying amount of goodwill or intangible assets with indefinite useful lives. That amendment required the disclosure of the level of the fair value hierarchy in which the measurement is categorised, and whether (and if so why) there has been a change in the valuation technique used to measure fair value less costs of disposal for such cash-generating units. In developing Exposure Draft ED/2013/1, the IASB did not consider it necessary to amend those disclosure requirements because they were consistent with its intention of aligning the disclosures about fair value less costs of disposal in IAS 36 with the fair value disclosures in IFRS 13. Consequently, the IASB decided to retain the disclosure requirements in paragraph 134(e) and to add, as mentioned in paragraph BC209G, requirements for similar disclosures in paragraph 130(f).
- BC209I When developing Exposure Draft ED/2013/1, the IASB considered whether there should be consistency between the wording of the disclosure requirements in IAS 36 (which uses the term 'assumptions') with the wording of the measurement requirements in IFRS 13 (which uses the term 'inputs'). The IASB concluded that it was unlikely that those terms could have different meanings because IFRS 13 defines 'inputs' as "the assumptions that market participants would use when pricing the asset or liability...". In addition, the IASB wanted to make clear that the proposed amendments did not change the meaning of the information that is required to be disclosed in accordance with IAS 36. On the basis of that analysis and given that the use of the term 'assumptions' was not questioned by the respondents to Exposure Draft ED/2013/1, the IASB decided to retain that term in the final amendments.
- BC209J When developing Exposure Draft ED/2013/1, the IASB also noted that its proposed amendments overlapped with an amendment to paragraph 130(f) of IAS 36 that had been proposed in the Exposure Draft ED/2012/1 *Annual Improvements to IFRSs 2010–2012 Cycle* ('Exposure Draft ED/2012/1') published in May 2012. The intention behind the proposal in Exposure Draft ED/2012/1 was to harmonise the disclosure requirements for fair value less costs of disposal and value in use by adding to paragraph 130(f) the requirement to disclose the discount rates that were used in the current and previous measurements if the recoverable amount of impaired assets, determined on the basis of fair value less costs of disposal, was measured using a present value technique. A total of 64 respondents commented on that proposal, with nearly all of those respondents supporting it. Consequently, the IASB decided to incorporate that proposal into Exposure Draft ED/2013/1, but did not request comments in response to this topic.
- BC209K A total of 74 respondents commented on Exposure Draft ED/2013/1. Even though the vast majority of the respondents supported the proposed amendments, a few respondents believed that, when impairment losses were calculated by reference to the recoverable amount determined on the basis of fair value less costs of disposal, the amendments would result in the disclosure requirements being broader than the disclosures that would be required if the same impairment losses were calculated by reference to the recoverable amount determined on the basis of value in use. The IASB noted that it had already taken the decision to require this incremental disclosure when it first amended IAS 36 as a result of issuing IFRS 13. As mentioned in paragraph BC209G, that decision had been taken on the grounds that those amendments would improve comparability between the disclosures presented in the financial statements of entities applying IFRS and the disclosures presented in the financial statements of those applying US GAAP.
- BC209L During the development of IFRS 13, the IASB also noted that not all of the additional disclosure requirements for the recoverable amount determined on the basis of fair value less costs of disposal would be applicable for the recoverable amount determined on the basis of value in use. The requirement of disclosing the level of the fair value hierarchy within which the fair value measurement of the impaired asset is categorised would, for example, not be applicable to a measurement based on value in use. In addition, the IASB noted that the amendments to paragraph 130(f) would help to align the disclosure requirements for fair value less costs of disposal for impaired assets with the disclosure requirements in paragraph 134(e) for fair value less costs of disposal for each cash-generating unit for which the carrying amount of goodwill or intangible assets with indefinite useful lives allocated to that unit is significant in comparison with an entity's total carrying amount of goodwill or intangible assets with indefinite useful lives.
- BC209M Exposure Draft ED/2013/1 also proposed to remove the term 'material' from paragraph 130. When developing these proposals, the IASB concluded that it was unnecessary to state explicitly that the disclosure requirements in paragraph 130 relate to assets (including goodwill) or cash-generating units, for which a material impairment loss has been recognised or reversed during the period, because all IFRSs are governed by the concept of materiality as described in IAS 1 *Presentation of Financial Statements* (see paragraph 31 of IAS 1) and IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors*. Some respondents to Exposure Draft ED/2013/1 were opposed to removing this term because they thought that, by removing it, it would become unclear whether the disclosure requirements in paragraph 130 apply only when a material impairment loss has been recognised or reversed during the period. They were also concerned that the elimination of the term 'material' in paragraph 130 could impact the understanding of the requirements in paragraph 131 that deal with the disclosure of immaterial items on an aggregate basis.
- BC209N The IASB had not intended to change the scope of the disclosure requirements in paragraph 130. In addition, the IASB concluded that the removal of the term 'material' in paragraph 130 should not impact the disclosure requirements in paragraph 131. Consequently, the IASB concluded that the rationale for

removing the term ‘material’, as presented in Exposure Draft ED/2013/1, was still valid and, as a result, the IASB confirmed the removal of that term in the final amendments.

- BC209O The IASB decided not to retain in the final amendments the last sentence of paragraph 130(f), as proposed in Exposure Draft ED/2013/1. That sentence stated that an “... entity is not required to provide the disclosures required by IFRS 13”. The IASB noted that IFRS 13 already excludes from the scope of its disclosure requirements assets for which the recoverable amount is fair value less costs of disposal in accordance with IAS 36. As a result, the IASB concluded that that sentence in paragraph 130(f) was redundant and could cause confusion and therefore decided to remove it from the final amendments.
- BC209P Exposure Draft ED/2013/1 proposed to include an illustrative example of the requirements in paragraph 130(b) and the proposed requirements in paragraph 130(f)(ii). Some respondents questioned the usefulness of that illustrative example, which did not illustrate all of the disclosures that are required for the recoverable amount of impaired assets based on fair value less costs of disposal. In their view, such an illustrative example could be misleading rather than helpful, because it might suggest that no other disclosures are required. On the basis of these comments, and because the IASB noted that Illustrative Example 15 to IFRS 13 includes similar disclosures to the ones included in the proposed illustrative example, it decided not to incorporate the proposed example in the final amendments.
- BC209Q On the basis of the respondents’ comments, the IASB decided to proceed with the final amendments subject to only minor drafting modifications.

Transitional provisions (paragraphs 138–140)

- BC210 If an entity elects to apply IFRS 3 from any date before the effective dates outlined in IFRS 3, it is also required to apply IAS 36 from that same date. Paragraphs BC181–BC184 of the Basis for Conclusions on IFRS 3 outline the Board’s deliberations on this issue.⁴³
- BC211 Otherwise, IAS 36 is applied:
- (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.
- BC212 In developing the requirements set out in paragraph BC211, the Board considered whether entities should be required:
- (a) to apply retrospectively the revised impairment test for goodwill; and
 - (b) to apply retrospectively the requirement prohibiting reversals of impairment losses for goodwill and therefore eliminate any reversals recognised before the date the revised Standard was issued.
- BC213 The Board concluded that retrospective application of the revised impairment test for goodwill would be problematic for the following reasons:
- (a) it was likely to be impossible in many cases because the information needed may not exist or may no longer be obtainable.
 - (b) it would require the determination of estimates that would have been made at a prior date, and therefore would raise the problem of how the effect of hindsight could be separated from the factors existing at the date of the impairment test.
- BC214 The Board also noted that the requirement for goodwill to be tested for impairment annually, irrespective of whether there is any indication that it may be impaired, will ensure that by the end of the first period in which the Standard is effective, all recognised goodwill acquired before its effective date would be tested for impairment.
- BC215 In the case of reversals of impairment losses for goodwill, the Board acknowledged that requiring the elimination of reversals recognised before the revised Standard’s effective date might seem appropriate, particularly given the Board’s reasons for prohibiting reversals of impairment losses for goodwill (see paragraphs BC187–BC191). The Board concluded, however, that the previous amortisation of that goodwill, combined with the requirement for goodwill to be tested for impairment at least annually, ensures that the carrying amount of the goodwill does not exceed its recoverable amount at the end of the reporting period in which the Standard is effective. Therefore, the Board concluded that the Standard should apply on a prospective basis.

⁴³ The Board issued a revised IFRS 3 in 2008. This paragraph relates to IFRS 3 as issued in 2004.

Transitional impairment test for goodwill

- BC216 Given that one of the objectives of the first phase of the Business Combinations project was to seek international convergence on the accounting for goodwill, the Board considered whether IAS 36 should include a transitional goodwill impairment test similar to that included in SFAS 142. SFAS 142 requires goodwill to be tested for impairment annually, and between annual tests if an event occurs or circumstances change and would be more likely than not to reduce the fair value of a reporting unit below its carrying amount. The transitional provisions in SFAS 142 require the impairment test for goodwill to be applied prospectively. However, a transitional goodwill impairment test must be performed as of the *beginning* of the fiscal year in which SFAS 142 is applied in its entirety. An impairment loss recognised as a result of a transitional test is recognised as the effect of a change in accounting principle, rather than as an impairment loss. In addition to the transitional test, SFAS 142 requires an entity to perform the required annual goodwill impairment test in the year that SFAS 142 is initially applied in its entirety. In other words, the transitional goodwill impairment test may not be regarded as the initial year's annual test unless an entity designates the beginning of its fiscal year as the date for its annual goodwill impairment test.
- BC217 The FASB concluded that goodwill that was not regarded as impaired under US GAAP before SFAS 142 was issued could be determined to be impaired if the SFAS 142 impairment test was applied to that goodwill at the date an entity initially applied SFAS 142. This is because, under previous US GAAP, entities typically tested goodwill for impairment using undiscounted estimates of future cash flows. The FASB further concluded that:
- (a) the preponderance of any transitional impairment losses was likely to result from the change in methods and treating those losses as stemming from changes in accounting principles would therefore be more representationally faithful.
 - (b) given that a transitional impairment loss should be reported as a change in accounting principle, the transitional goodwill impairment test should ideally apply as of the date SFAS 142 is initially applied.
- BC218 The Board observed that under the previous version of IAS 36, goodwill that was amortised over a period exceeding 20 years was required to be tested for impairment at least at each financial year-end. Goodwill that was amortised over a period not exceeding 20 years was required to be tested for impairment at the balance sheet date if there was an indication that it might be impaired. The revised Standard requires goodwill to be tested for impairment annually or more frequently if there is an indication the goodwill might be impaired. It also carries forward from the previous version of IAS 36 (a) the indicators of impairment, (b) the measure of recoverable amount (ie higher of value in use and fair value less costs to sell), and (c) the requirement for an impairment loss for a cash-generating unit to be allocated first to reduce the carrying amount of any goodwill allocated to the unit.
- BC219 Therefore, goodwill tested for impairment in accordance with the previous version of the revised Standard immediately before the beginning of the reporting period in which the revised Standard becomes effective (because it was being amortised over a period exceeding 20 years or because there was an indicator of impairment) could not be identified as impaired under IAS 36 at the beginning of the period in which it becomes effective. This is because application of the Standard results in a goodwill impairment loss being identified only if the carrying amount of the cash-generating unit (group of units) to which the goodwill has been allocated exceeds its recoverable amount, and the impairment test in the previous version of IAS 36 ensures that this will not be the case.
- BC220 The Board concluded that there would be only one possible situation in which a transitional impairment test might give rise to the recognition of an impairment loss for goodwill. This would be when goodwill being amortised over a period not exceeding 20 years was, immediately before the beginning of the period in which the revised Standard becomes effective, impaired in the absence of any indicator of impairment that ought reasonably to have been considered by the entity. The Board concluded that this is likely to be a rare occurrence.
- BC221 The Board observed that any such impairment loss would nonetheless be recognised as a consequence of applying the requirement in IAS 36 to test goodwill for impairment at least annually. Therefore, the only benefit of applying a transitional impairment test would be, in those rare cases, to separate the impairment loss arising before the period in which the revised Standard is effective from any impairment loss arising after the beginning of that period.
- BC222 The Board concluded that given the rare circumstances in which this issue would arise, the benefit of applying a transitional goodwill impairment test would be outweighed by the added costs of the test. Therefore, the Board decided that the revised Standard should not require a transitional goodwill impairment test.

Transitional impairment test for indefinite-lived intangibles

- BC223 SFAS 142 also requires a transitional impairment test to be applied, as of the beginning of the fiscal year in which that Standard is initially applied, to intangible assets recognised before the effective date of SFAS 142 that are reassessed as having indefinite useful lives. An impairment loss arising from that transitional impairment test is recognised as the effect of a change in accounting principle rather than as an impairment loss. As with goodwill:
- (a) intangible assets that cease being amortised upon initial application of SFAS 142 are tested for impairment in accordance with SFAS 142 using a different method from what had previously applied to those assets. Therefore, it is possible that such an intangible asset not previously regarded as impaired might be determined to be impaired under SFAS 142.
 - (b) the FASB concluded that the preponderance of any transitional impairment losses would be likely to result from the change in impairment testing methods. Treating those losses as stemming from changes in accounting principles is therefore more representationally faithful.
- BC224 The Board considered whether IAS 36 should include a transitional impairment test for indefinite-lived intangibles similar to that in SFAS 142.
- BC225 The Board observed that the previous version of IAS 38 *Intangible Assets* required an intangible asset being amortised over a period exceeding 20 years to be tested for impairment at least at each financial year-end in accordance with the previous version of IAS 36. An intangible asset being amortised over a period not exceeding 20 years was required, under the previous version of IAS 36, to be tested for impairment at the balance sheet date only if there was an indication the asset might be impaired. The revised Standard requires an indefinite-lived intangible to be tested for impairment at least annually. However, it also requires that the recoverable amount of such an asset should continue to be measured as the higher of the asset's value in use and fair value less costs to sell.
- BC226 As with goodwill, the Board concluded that the revised Standard should not require a transitional impairment test for indefinite-lived intangibles because:
- (a) the only circumstance in which a transitional impairment test might give rise to the recognition of an impairment loss would be when an indefinite-lived intangible previously being amortised over a period not exceeding 20 years was, immediately before the beginning of the period in which the revised Standard is effective, impaired in the absence of any indicator of impairment that ought reasonably to have been considered by the entity.
 - (b) any such impairment loss would nonetheless be recognised as a consequence of applying the requirement in the Standard to test such assets for impairment at least annually. Therefore, the only benefit of such a test would be to separate the impairment loss arising before the period in which the revised Standard is effective from any impairment loss arising after the beginning of that period.
 - (c) given the extremely rare circumstances in which this issue is likely to arise, the benefit of applying a transitional impairment test is outweighed by the added costs of the test.

Early application (paragraph 140)

- BC227 The Board noted that the issue of any Standard demonstrates its opinion that application of the Standard will result in more useful information being provided to users about an entity's financial position, performance or cash flows. On that basis, a case exists for permitting, and indeed encouraging, entities to apply IAS 36 before its effective date. However, the Board also considered that permitting a revised Standard to be applied before its effective date potentially diminishes comparability between entities in the period(s) leading up to that effective date, and has the effect of providing entities with an option.
- BC228 The Board concluded that the benefit of providing users with more useful information about an entity's financial position, performance and cash flows by permitting early application of IAS 36 outweighs the disadvantages of potentially diminished comparability. Therefore, entities are encouraged to apply the requirements of IAS 36 before its effective date. However, given that the revision of IAS 36 is part of an integrated package, IAS 36 requires IFRS 3 and IAS 38 (as revised in 2004) to be applied at the same time.

Transitional provisions (paragraphs 138-140)

Transitional provision for *Improvements to IFRSs (2009)*

BC228A The Board considered the transition provisions and effective date of the amendment to paragraph 80(b). The Board noted that the assessment of goodwill impairment might involve the use of hindsight in determining the fair values of the cash-generating units at the end of a past reporting period. Considering practicability, the Board decided that the effective date should be for annual periods beginning on or after 1 January 2010 although the Board noted that the effective date of IFRS 8 is 1 January 2009. Therefore, the Board decided that an entity should apply the amendment to paragraph 80(b) made by *Improvements to IFRSs* issued in 2009 prospectively for annual periods beginning on or after 1 January 2010.

Transition provisions for *Recoverable Amount Disclosures for Non-Financial Assets*

BC228B In Exposure Draft ED/2013/1, the IASB proposed retrospective application and to permit earlier application of the amendments. The vast majority of the respondents supported those proposals.

BC228C The IASB decided to retain in the final amendments the transition requirements proposed in Exposure Draft ED/2013/1 that meant that entities should not provide comparative information for the prior period if they are not also applying IFRS 13 in that period. The objective of such transition requirements is to make these amendments have the same effect as if they had been issued when the IASB issued IFRS 13.

Summary of main changes from the Exposure Draft

BC229 The following are the main changes from the Exposure Draft:

- (a) the Exposure Draft proposed that an intangible asset with an indefinite useful life should be tested for impairment at the end of each annual period by comparing its carrying amount with its recoverable amount. The Standard requires such an intangible asset to be tested for impairment annually by comparing its carrying amount with its recoverable amount. The impairment test may be performed at any time during an annual period, provided it is performed at the same time every year, and 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, the Standard requires that intangible asset to be tested for impairment before the end of the current annual period.
- (b) the Exposure Draft proposed that the cash flow projections used to measure value in use should be based on reasonable and supportable assumptions that take into account both past actual cash flows and management's past ability to forecast cash flows accurately. This proposal has not been included in the Standard. Instead, the Standard includes guidance clarifying that management:
 - (i) should assess 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; and
 - (ii) should 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.
- (c) the Exposure Draft proposed that if an active market exists for the output produced by an asset or a group of assets, that asset or group of assets should be identified as a cash-generating unit, even if some or all of the output is used internally. In such circumstances, management's best estimate of future market prices for the output should be used in estimating the future cash flows used to determine the unit's value in use. The Exposure Draft also proposed that when estimating future cash flows to determine the value in use of cash-generating units using the output, management's best estimate of future market prices for the output should be used. The Standard similarly requires that if an active market exists for the output produced by an asset or a group of assets, that asset or group of assets should be identified as a cash-generating unit, even if some or all of the output is used internally. However, the Standard clarifies that if the cash inflows generated by *any* asset or cash-generating unit are affected by internal transfer pricing, an entity should use management's best estimate of future price(s) that could be achieved in arm's length transactions in estimating:

- (i) the future cash inflows used to determine the asset's or cash-generating unit's value in use; and
 - (ii) the future cash outflows used to determine the value in use of other assets or cash-generating units affected by the internal transfer pricing.
- (d) the Exposure Draft proposed that goodwill acquired in a business combination should be allocated to one or more cash-generating units, with each of those units representing the smallest cash-generating unit to which a portion of the carrying amount of the goodwill could be allocated on a reasonable and consistent basis. The Exposure Draft also proposed that:
- (i) a portion of the carrying amount of goodwill should be regarded as capable of being allocated to a cash-generating unit on a reasonable and consistent basis only when that unit represents the lowest level at which management monitors the return on investment in assets that include the goodwill.
 - (ii) each cash-generating unit should not be larger than a segment based on the entity's primary reporting format determined in accordance with IAS 14 *Segment Reporting*.

The 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, that are 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. The Standard also requires each unit or group of units to which the goodwill is so allocated: (1) to represent the lowest level within the entity at which the goodwill is monitored for internal management purposes; and (2) to be not larger than a segment based on either the entity's primary or the entity's secondary reporting format determined in accordance with IAS 14.

- (e) the Exposure Draft proposed that when an entity disposes of an operation within a cash-generating unit to which goodwill has been allocated, the goodwill associated with that operation should be:
- (i) included in the carrying amount of the operation when determining the gain or loss on disposal; and
 - (ii) measured on the basis of the relative values of the operation disposed of and the portion of the cash-generating unit retained.

This proposal has been included in the Standard with one modification. The Standard requires the goodwill associated with the operation disposed of to be 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.

- (f) the Exposure Draft proposed that when an entity reorganises its reporting structure in a way that changes the composition of cash-generating units to which goodwill has been allocated, the goodwill should be reallocated to the units affected using a relative value approach similar to that used when an entity disposes of an operation within a cash-generating unit. The Standard similarly requires an entity that reorganises its reporting structure in a way that changes the composition of one or more cash-generating units to which goodwill has been allocated to reallocate the goodwill to the units (groups of units) affected. However, the Standard requires this reallocation to 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 (groups of units).
- (g) the Exposure Draft proposed a two-step approach for impairment testing goodwill. The first step involved using a screening mechanism for identifying potential goodwill impairments, whereby goodwill allocated to a cash-generating unit would be identified as potentially impaired only when the carrying amount of the unit exceeded its recoverable amount. If an entity identified the goodwill allocated to a cash-generating unit as potentially impaired, an entity would then determine whether the goodwill allocated to the unit was impaired by comparing its recoverable amount, measured as the implied value of the goodwill, with its carrying amount. The implied value of goodwill would be measured as a residual, being the excess of the recoverable amount of the cash-generating unit to which the goodwill has been allocated, over the net fair value of the identifiable assets, liabilities and contingent liabilities the entity would recognise if it acquired the cash-generating unit in a business combination on the date of the impairment test. The Standard requires any excess of the carrying amount of a cash-generating unit (group of units) to which goodwill has been allocated over its recoverable amount to be recognised first as an impairment loss for goodwill. Any excess remaining after the carrying amount of goodwill has been reduced to zero is then recognised by being allocated to the other assets of the unit pro rata with their carrying amounts.

- (h) the Exposure Draft proposed requiring an entity to disclose information about cash-generating units whose carrying amounts included goodwill or indefinite-lived intangibles. That information included the carrying amount of goodwill and the carrying amount of indefinite-lived intangibles, the basis on which the unit's recoverable amount had been determined (ie value in use or net selling price), the amount by which the unit's recoverable amount exceeded its carrying amount, the key assumptions and estimates used to measure the unit's recoverable amount and information about the sensitivity of that recoverable amount to changes in the key assumptions and estimates. If an entity reports segment information in accordance with IAS 14, the Exposure Draft proposed that this information should be disclosed in aggregate for each segment based on the entity's primary reporting format. However, the Exposure Draft also proposed that the information would be disclosed separately for a cash-generating unit if specified criteria were met. The Standard:
- (i) does not require information for evaluating the reliability of the impairment tests for goodwill and indefinite-lived intangibles to be disclosed in aggregate for each segment and separately for cash-generating units within a segment when specified criteria are met. Instead, the Standard requires this information to be disclosed for each cash-generating unit (group of units) for which the carrying amount of goodwill or indefinite-lived intangibles allocated to that unit (group of units) is significant in comparison with the entity's total carrying amount of goodwill or indefinite-lived intangibles.
 - (ii) does not require an entity to disclose the amount by which the recoverable amount of a cash-generating unit exceeds its carrying amount. Instead, the Standard requires an entity to disclose this information only 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.
 - (iii) does not require an entity to disclose the value assigned to each key assumption on which management has based its recoverable amount determination, and the amount by which that value 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 recoverable amount to be equal to its carrying amount. Instead, the Standard requires an entity to disclose a description of each key assumption on which management has based its recoverable amount determination, 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. However, if a reasonably possible change in a key assumption would cause the unit's (group of units') carrying amount to exceed its recoverable amount, the entity is also required to disclose the value assigned to the key assumption, and the amount by which that value 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.
 - (iv) requires information about key assumptions to be disclosed for any key assumption that is relevant to the recoverable amount determination of multiple cash-generating units (groups of units) that individually contain insignificant amounts of goodwill or indefinite-lived intangibles, but which contain, in aggregate, significant amounts of goodwill or indefinite-lived intangibles.

History of the development of a standard on impairment of assets

BCZ230 In June 1996, IASC decided to prepare an International Accounting Standard on Impairment of Assets. The reasons for developing a Standard on impairment of assets were:

- (a) to combine the requirements for identifying, measuring, recognising and reversing an impairment loss in one Standard to ensure that those requirements are consistent;
- (b) the previous requirements and guidance in International Accounting Standards were not detailed enough to ensure that enterprises identified, recognised and measured impairment losses in a similar way, eg there was a need to eliminate certain alternatives for measuring an impairment loss, such as the former option not to use discounting; and
- (c) IASC decided in March 1996 to explore whether the amortisation period of intangible assets and goodwill could, in certain rare circumstances, exceed 20 years if those assets were subject to detailed and reliable annual impairment tests.

- BCZ231 In April 1997, IASC approved Exposure Draft E55 *Impairment of Assets*. IASC received more than 90 comment letters from over 20 countries. IASC also performed a field test of E55's proposals. More than 20 companies from various business sectors and from 10 different countries participated in the field test. About half of the field test participants prepared their financial statements using International Accounting Standards and the other half reported using other Standards. Field test participants completed a detailed questionnaire and most of them were visited by IASC staff to discuss the results of the application of E55's proposals to some of their assets. A brief summary of the comment letters received on E55 and the results of the field test was published in IASC *Insight* in December 1997.
- BCZ232 In October 1997, IASC, together with the Accounting Standards Boards in Australia, Canada, New Zealand, the United Kingdom and the United States, published a discussion paper entitled *International Review of Accounting Standards Specifying a Recoverable Amount Test for Long-Lived Assets* (Jim Paul, from the staff of the Australian Accounting Research Foundation, was the principal author). This discussion paper resulted from the discussions of a 'working group' consisting of some Board members and senior staff members from the standard-setting bodies listed above and IASC. The paper:
- (a) noted the key features of the working group members' existing or proposed accounting standards that require an impairment test, and compared those standards; and
 - (b) proposed the views of the working group on the major issues.
- BCZ233 In April 1998, after considering the comments received on E55 and the results of the field test, IASC approved IAS 36 *Impairment of Assets*.

Dissenting Opinions

Dissent of Anthony T Cope, James J Leisenring and Geoffrey Whittington

- DO1 Messrs Cope and Leisenring and Professor Whittington dissent from the issue of IAS 36.
- DO2 Messrs Cope and Leisenring and Professor Whittington dissent because they object to the impairment test that the Standard requires for goodwill.
- DO3 Messrs Cope and Leisenring agree with the prohibition, in paragraph 54 of IFRS 3 *Business Combinations*, of amortisation of goodwill.⁴⁴ Research and experience have demonstrated that the amortisation of goodwill produces data that is meaningless, and perhaps even misleading. However, if goodwill is not amortised, its special nature mandates that it should be accounted for with caution. The Basis for Conclusions on IAS 36 (paragraph BC131F) states that ‘if a rigorous and operational impairment test [for goodwill] could be devised, more useful information would be provided to users of an entity’s financial statements under an approach in which goodwill is not amortised, but instead tested for impairment annually or more frequently if events or changes in circumstances indicate that the goodwill might be impaired.’ Messrs Cope and Leisenring agree with that statement. However, they believe that the impairment test to which a majority of the Board has agreed lacks the rigour to satisfy that condition.
- DO4 Messrs Cope and Leisenring share the reservations of some Board members, as noted in paragraph BC130 of the Basis for Conclusions on IAS 36, about an impairment test based on measuring the recoverable amount of an asset, and particularly an asset with an indefinite life, as the higher of fair value less costs to sell or value in use. Messrs Cope and Leisenring are content, however, for the time being to defer consideration of that general measurement issue, pending more research and debate on measurement principles. (They note that the use of fair value would achieve significant convergence with US GAAP.) But a much more rigorous effort must be made to determine the recoverable amount of goodwill, however measured, than the Board’s revised impairment test. The ‘two-step’ method originally proposed by the Board in the Exposure Draft of Proposed Amendments to IAS 36 and IAS 38 was a more useful approach to determining the ‘implied value’ of goodwill. That test should have been retained.
- DO5 Messrs Cope and Leisenring recognise that some constituents raised objections to the complexity and potential cost of the requirements proposed in the Exposure Draft. However, they believe that many commentators misunderstood the level at which the Board intended impairment testing to be undertaken. This was demonstrated during the field-testing of the Exposure Draft. Furthermore, the provisions of paragraph 99 of IAS 36, specifying when impairment testing need not be undertaken, provide generous relief from the necessity of making frequent calculations. They would have preferred to meet those objections by specifying that the goodwill impairment test should be at the level set out in US Financial Accounting Standards Board’s Statement of Financial Accounting Standards No. 142 *Goodwill and Other Intangible Assets*.
- DO6 Professor Whittington believes that there are two aspects of the proposed impairment test that are particularly unsatisfactory. First, the failure to eliminate the shield from impairment provided by the internally generated goodwill of the acquiring entity at acquisition. This is discussed in paragraph DO7. Second, the lack of a subsequent cash flow test. This is discussed in paragraphs DO8–DO10. The inability to eliminate the shield from impairment provided by internally generated goodwill accruing after the acquisition date is also a problem. However, there is no obvious practical way of dealing with this problem within the framework of conventional impairment tests.
- DO7 When an acquired business is merged with an acquirer’s existing operations, the impairment test in IAS 36 does not take account of the acquirer’s pre-existing internally generated goodwill. Thus, the pre-existing internally generated goodwill of the acquirer provides a shield against impairment additional to that provided by subsequent internally generated goodwill. Professor Whittington believes that the impairment test would be more rigorous if it included a requirement similar to that in UK Financial Reporting Standard 11 *Impairment of Fixed Assets and Goodwill*, which recognises, for purposes of impairment testing, the implied value of the acquirer’s goodwill existing at the time of acquisition.
- DO8 The subsequent cash flow test is discussed in paragraphs BC195–BC198 of the Basis for Conclusions on IAS 36. A subsequent cash flow test substitutes in past impairment tests the cash flows that actually occurred for those that were estimated at the time of the impairment tests, and requires a write-down if the

⁴⁴ The Board issued a revised IFRS 3 in 2008. The amortisation of goodwill is prohibited, but the paragraph reference no longer exists in IFRS 3 (as revised in 2008).

revised estimates would have created an impairment loss for goodwill. It is thus a correction of an estimate. Such a test is incorporated in FRS 11.

- DO9 The Board's reasons for rejecting the subsequent cash flow test are given in paragraph BC197(a)–(c). The preamble to paragraph BC197 claims that the subsequent cash flow test is misdirected because excessive write-downs of goodwill may be a problem that should be prevented. However, the subsequent cash flow test requires only realistic write-downs (based on actual outcomes), not excessive ones. If the statement in paragraph BC197 is correct, this may point to another deficiency in the impairment testing process that requires a different remedy.
- DO10 Paragraph BC197(a) asserts that 'it does not produce representationally faithful results' because it ignores other elements in the measurement of value in use. As explained above, it merely substitutes the outcome cash flow for the estimate, which should have a clear meaning and provides a safeguard against over-optimism in the estimation of cash flows. If corrections of estimates of other elements, such as variations that have occurred in interest rates, were considered important in this context, they could be incorporated in the calculation. Paragraph BC197(b) seems to raise the same point as paragraph BC197(a), as to the meaning of the impairment loss under the test. Paragraph BC197(c) complains about the excessive burden that a subsequent cash flow test might impose. Professor Whittington notes that the extent of the burden depends, of course, upon the frequency with which the test is applied. He also notes that the extensive disclosure requirements currently associated with the impairment test might be reduced if the subsequent cash flow test were in place.

CONTENTS

ILLUSTRATIVE EXAMPLES

	<i>from paragraph</i>
1 IDENTIFICATION OF CASH-GENERATING UNITS	IE1
A – Retail store chain	IE1
B – Plant for an intermediate step in a production process	IE5
C – Single product entity	IE11
D – Magazine titles	IE17
E – Building half-rented to others and half-occupied for own use	IE20
2 CALCULATION OF VALUE IN USE AND RECOGNITION OF AN IMPAIRMENT LOSS	IE23
3 DEFERRED TAX EFFECTS	IE33
A – Deferred tax effects of the recognition of an impairment loss	IE33
B – Recognition of an impairment loss creates a deferred tax asset	IE36
4 REVERSAL OF AN IMPAIRMENT LOSS	IE38
5 TREATMENT OF A FUTURE RESTRUCTURING	IE44
6 TREATMENT OF FUTURE COSTS	IE54
7 IMPAIRMENT TESTING CASH-GENERATING UNITS WITH GOODWILL AND MINORITY INTERESTS	IE62
8 ALLOCATION OF CORPORATE ASSETS	IE69
9 DISCLOSURES ABOUT CASH-GENERATING UNITS WITH GOODWILL OR INTANGIBLE ASSETS WITH INDEFINITE USEFUL LIVES	IE80

IAS 36 *Impairment of Assets* Illustrative Examples

These examples accompany, but are not part of, IAS 36. All the examples assume that the entities concerned have no transactions other than those described. In the examples monetary amounts are denominated in 'currency units' (CU).

Example 1 Identification of cash-generating units

The purpose of this example is:

- (a) *to indicate how cash-generating units are identified in various situations; and*
- (b) *to highlight certain factors that an entity may consider in identifying the cash-generating unit to which an asset belongs.*

A – Retail store chain

Background

IE1 Store X belongs to a retail store chain M. X makes all its retail purchases through M's purchasing centre. Pricing, marketing, advertising and human resources policies (except for hiring X's cashiers and sales staff) are decided by M. M also owns five other stores in the same city as X (although in different neighbourhoods) and 20 other stores in other cities. All stores are managed in the same way as X. X and four other stores were purchased five years ago and goodwill was recognised.

What is the cash-generating unit for X (X's cash-generating unit)?

Analysis

IE2 In identifying X's cash-generating unit, an entity considers whether, for example:

- (a) internal management reporting is organised to measure performance on a store-by-store basis; and
- (b) the business is run on a store-by-store profit basis or on a region/city basis.

IE3 All M's stores are in different neighbourhoods and probably have different customer bases. So, although X is managed at a corporate level, X generates cash inflows that are largely independent of those of M's other stores. Therefore, it is likely that X is a cash-generating unit.

IE4 If X's cash-generating unit represents the lowest level within M at which the goodwill is monitored for internal management purposes, M applies to that cash-generating unit the impairment test described in paragraph 90 of IAS 36. If information about the carrying amount of goodwill is not available and monitored for internal management purposes at the level of X's cash-generating unit, M applies to that cash-generating unit the impairment test described in paragraph 88 of IAS 36.

B – Plant for an intermediate step in a production process

Background

IE5 A significant raw material used for plant Y's final production is an intermediate product bought from plant X of the same entity. X's products are sold to Y at a transfer price that passes all margins to X. Eighty per cent of Y's final production is sold to customers outside of the entity. Sixty per cent of X's final production is sold to Y and the remaining 40 per cent is sold to customers outside of the entity.

For each of the following cases, what are the cash-generating units for X and Y?

Case 1: X could sell the products it sells to Y in an active market. Internal transfer prices are higher than market prices.

Case 2: There is no active market for the products X sells to Y.

Analysis

Case 1

- IE6 X could sell its products in an active market and, so, generate cash inflows that would be largely independent of the cash inflows from Y. Therefore, it is likely that X is a separate cash-generating unit, although part of its production is used by Y (see paragraph 70 of IAS 36).
- IE7 It is likely that Y is also a separate cash-generating unit. Y sells 80 per cent of its products to customers outside of the entity. Therefore, its cash inflows can be regarded as largely independent.
- IE8 Internal transfer prices do not reflect market prices for X's output. Therefore, in determining value in use of both X and Y, the entity adjusts financial budgets/forecasts to reflect management's best estimate of future prices that could be achieved in arm's length transactions for those of X's products that are used internally (see paragraph 70 of IAS 36).

Case 2

- IE9 It is likely that the recoverable amount of each plant cannot be assessed independently of the recoverable amount of the other plant because:
- (a) the majority of X's production is used internally and could not be sold in an active market. So, cash inflows of X depend on demand for Y's products. Therefore, X cannot be considered to generate cash inflows that are largely independent of those of Y.
 - (b) the two plants are managed together.
- IE10 As a consequence, it is likely that X and Y together are the smallest group of assets that generates cash inflows that are largely independent.

C – Single product entity

Background

- IE11 Entity M produces a single product and owns plants A, B and C. Each plant is located in a different continent. A produces a component that is assembled in either B or C. The combined capacity of B and C is not fully utilised. M's products are sold worldwide from either B or C. For example, B's production can be sold in C's continent if the products can be delivered faster from B than from C. Utilisation levels of B and C depend on the allocation of sales between the two sites.

For each of the following cases, what are the cash-generating units for A, B and C?

Case 1: There is an active market for A's products.

Case 2: There is no active market for A's products.

Analysis

Case 1

- IE12 It is likely that A is a separate cash-generating unit because there is an active market for its products (see Example B - Plant for an intermediate step in a production process, Case 1).
- IE13 Although there is an active market for the products assembled by B and C, cash inflows for B and C depend on the allocation of production across the two sites. It is unlikely that the future cash inflows for B and C can be determined individually. Therefore, it is likely that B and C together are the smallest identifiable group of assets that generates cash inflows that are largely independent.
- IE14 In determining the value in use of A and B plus C, M adjusts financial budgets/forecasts to reflect its best estimate of future prices that could be achieved in arm's length transactions for A's products (see paragraph 70 of IAS 36).

Case 2

- IE15 It is likely that the recoverable amount of each plant cannot be assessed independently because:
- (a) there is no active market for A's products. Therefore, A's cash inflows depend on sales of the final product by B and C.
 - (b) although there is an active market for the products assembled by B and C, cash inflows for B and C depend on the allocation of production across the two sites. It is unlikely that the future cash inflows for B and C can be determined individually.
- IE16 As a consequence, it is likely that A, B and C together (ie M as a whole) are the smallest identifiable group of assets that generates cash inflows that are largely independent.

D – Magazine titles**Background**

- IE17 A publisher owns 150 magazine titles of which 70 were purchased and 80 were self-created. The price paid for a purchased magazine title is recognised as an intangible asset. The costs of creating magazine titles and maintaining the existing titles are recognised as an expense when incurred. Cash inflows from direct sales and advertising are identifiable for each magazine title. Titles are managed by customer segments. The level of advertising income for a magazine title depends on the range of titles in the customer segment to which the magazine title relates. Management has a policy to abandon old titles before the end of their economic lives and replace them immediately with new titles for the same customer segment.

What is the cash-generating unit for an individual magazine title?

Analysis

- IE18 It is likely that the recoverable amount of an individual magazine title can be assessed. Even though the level of advertising income for a title is influenced, to a certain extent, by the other titles in the customer segment, cash inflows from direct sales and advertising are identifiable for each title. In addition, although titles are managed by customer segments, decisions to abandon titles are made on an individual title basis.
- IE19 Therefore, it is likely that individual magazine titles generate cash inflows that are largely independent of each other and that each magazine title is a separate cash-generating unit.

E – Building half-rented to others and half-occupied for own use**Background**

- IE20 M is a manufacturing company. It owns a headquarters building that used to be fully occupied for internal use. After down-sizing, half of the building is now used internally and half rented to third parties. The lease agreement with the tenant is for five years.

What is the cash-generating unit of the building?

Analysis

- IE21 The primary purpose of the building is to serve as a corporate asset, supporting M's manufacturing activities. Therefore, the building as a whole cannot be considered to generate cash inflows that are largely independent of the cash inflows from the entity as a whole. So, it is likely that the cash-generating unit for the building is M as a whole.
- IE22 The building is not held as an investment. Therefore, it would not be appropriate to determine the value in use of the building based on projections of future market related rents.

Example 2 Calculation of value in use and recognition of an impairment loss

In this example, tax effects are ignored.

Background and calculation of value in use

IE23 At the end of 20X0, entity T acquires entity M for CU10,000. M has manufacturing plants in three countries.

Schedule 1. Data at the end of 20X0

End of 20X0	Allocation of purchase price CU	Fair value of identifiable assets CU	Goodwill CU ^a
Activities in Country A	3,000	2,000	1,000
Activities in Country B	2,000	1,500	500
Activities in Country C	5,000	3,500	1,500
Total	10,000	7,000	3,000

(a) Activities in each country represent the lowest level at which the goodwill is monitored for internal management purposes (determined as the difference between the purchase price of the activities in each country, as specified in the purchase agreement, and the fair value of the identifiable assets).

IE23A Because goodwill has been allocated to the activities in each country, each of those activities must be tested for impairment annually or more frequently if there is any indication that it may be impaired (see paragraph 90 of IAS 36).

IE24 The recoverable amounts (ie higher of value in use and fair value less costs of disposal) of the cash-generating units are determined on the basis of value in use calculations. At the end of 20X0 and 20X1, the value in use of each cash-generating unit exceeds its carrying amount. Therefore the activities in each country and the goodwill allocated to those activities are regarded as not impaired.

IE25 At the beginning of 20X2, a new government is elected in Country A. It passes legislation significantly restricting exports of T's main product. As a result, and for the foreseeable future, T's production in Country A will be cut by 40 per cent.

IE26 The significant export restriction and the resulting production decrease require T also to estimate the recoverable amount of the Country A operations at the beginning of 20X2.

IE27 T uses straight-line depreciation over a 12-year life for the Country A identifiable assets and anticipates no residual value.

IE28 To determine the value in use for the Country A cash-generating unit (see Schedule 2), T:

- prepares cash flow forecasts derived from the most recent financial budgets/forecasts for the next five years (years 20X2–20X6) approved by management.
- estimates subsequent cash flows (years 20X7–20Y2) based on declining growth rates. The growth rate for 20X7 is estimated to be 3 per cent. This rate is lower than the average long-term growth rate for the market in Country A.
- selects a 15 per cent discount rate, which represents a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the Country A cash-generating unit.

Recognition and measurement of impairment loss

IE29 The recoverable amount of the Country A cash-generating unit is CU1,360.

IE30 T compares the recoverable amount of the Country A cash-generating unit with its carrying amount (see Schedule 3).

IE31 Because the carrying amount exceeds the recoverable amount by CU1,473, T recognises an impairment loss of CU1,473 immediately in profit or loss. The carrying amount of the goodwill that relates to the Country A

operations is reduced to zero before reducing the carrying amount of other identifiable assets within the Country A cash-generating unit (see paragraph 104 of IAS 36).

IE32 Tax effects are accounted for separately in accordance with IAS 12 *Income Taxes* (see Illustrative Example 3A).

Schedule 2. Calculation of the value in use of the Country A cash-generating unit at the beginning of 20X2

Year	Long-term growth rates	Future cash flows	Present value factor at 15% discount rate ^a	Discounted future cash flows
		CU		CU
20X2 (n=1)		230 ^b	0.86957	200
20X3		253 ^b	0.75614	191
20X4		273 ^b	0.65752	180
20X5		290 ^b	0.57175	166
20X6		304 ^b	0.49718	151
20X7	3%	313 ^c	0.43233	135
20X8	(2)%	307 ^c	0.37594	115
20X9	(6)%	289 ^c	0.32690	94
20Y0	(15)%	245 ^c	0.28426	70
20Y1	(25)%	184 ^c	0.24719	45
20Y2	(67)%	61 ^c	0.21494	13
Value in use				<u>1,360</u>

- (a) The present value factor is calculated as $k = 1/(1+a)^n$, where a = discount rate and n = period of discount.
- (b) Based on management's best estimate of net cash flow projections (after the 40% cut).
- (c) Based on an extrapolation from preceding year cash flow using declining growth rates.

Schedule 3. Calculation and allocation of the impairment loss for the Country A cash-generating unit at the beginning of 20X2

Beginning of 20X2	Goodwill	Identifiable assets	Total
	CU	CU	CU
Historical cost	1,000	2,000	3,000
Accumulated depreciation (20X1)	–	(167)	(167)
Carrying amount	1,000	1,833	2,833
Impairment loss	(1,000)	(473)	(1,473)
Carrying amount after impairment loss	–	1,360	1,360

Example 3 Deferred tax effects

A – Deferred tax effects of the recognition of an impairment loss

Use the data for entity T as presented in Example 2, with supplementary information as provided in this example.

IE33 At the beginning of 20X2, the tax base of the identifiable assets of the Country A cash-generating unit is CU900. Impairment losses are not deductible for tax purposes. The tax rate is 40 per cent.

IE34 The recognition of an impairment loss on the assets of the Country A cash-generating unit reduces the taxable temporary difference related to those assets. The deferred tax liability is reduced accordingly.

<i>Beginning of 20X2</i>	<i>Identifiable assets before impairment loss</i>	<i>Impairment loss</i>	<i>Identifiable assets after impairment loss</i>
	CU	CU	CU
Carrying amount (Example 2)	1,833	(473)	1,360
Tax base	900	–	900
Taxable temporary difference	<u>933</u>	<u>(473)</u>	<u>460</u>
Deferred tax liability at 40%	<u>373</u>	<u>(189)</u>	<u>184</u>

IE35 In accordance with IAS 12 *Income Taxes*, no deferred tax relating to the goodwill was recognised initially. Therefore, the impairment loss relating to the goodwill does not give rise to a deferred tax adjustment.

B – Recognition of an impairment loss creates a deferred tax asset

IE36 An entity has an identifiable asset with a carrying amount of CU1,000. Its recoverable amount is CU650. The tax rate is 30 per cent and the tax base of the asset is CU800. Impairment losses are not deductible for tax purposes. The effect of the impairment loss is as follows:

	<i>Before impairment</i>	<i>Effect of impairment</i>	<i>After impairment</i>
	CU	CU	CU
Carrying amount	1,000	(350)	650
Tax base	800	–	800
Taxable (deductible) temporary difference	<u>200</u>	<u>(350)</u>	<u>(150)</u>
Deferred tax liability (asset) at 30%	<u>60</u>	<u>(105)</u>	<u>(45)</u>

IE37 In accordance with IAS 12, the entity recognises the deferred tax asset to the extent that it is probable that taxable profit will be available against which the deductible temporary difference can be utilised.

Example 4 Reversal of an impairment loss

Use the data for entity T as presented in Example 2, with supplementary information as provided in this example. In this example, tax effects are ignored.

Background

IE38 In 20X3, the government is still in office in Country A, but the business situation is improving. The effects of the export laws on T's production are proving to be less drastic than initially expected by management. As a result, management estimates that production will increase by 30 per cent. This favourable change requires T to re-estimate the recoverable amount of the net assets of the Country A operations (see paragraphs 110 and 111 of IAS 36). The cash-generating unit for the net assets of the Country A operations is still the Country A operations.

IE39 Calculations similar to those in Example 2 show that the recoverable amount of the Country A cash-generating unit is now CU1,910.

Reversal of impairment loss

IE40 T compares the recoverable amount and the net carrying amount of the Country A cash-generating unit.

Schedule 1. Calculation of the carrying amount of the Country A cash-generating unit at the end of 20X3

	<i>Goodwill</i>	<i>Identifiable assets</i>	<i>Total</i>
	CU	CU	CU
<i>Beginning of 20X2 (Example 2)</i>			
Historical cost	1,000	2,000	3,000
Accumulated depreciation	–	(167)	(167)
Impairment loss	<u>(1,000)</u>	<u>(473)</u>	<u>(1,473)</u>
Carrying amount after impairment loss	<u>–</u>	<u>1,360</u>	<u>1,360</u>
<i>End of 20X3</i>			
Additional depreciation (2 years) ^a	<u>–</u>	<u>(247)</u>	<u>(247)</u>
Carrying amount	<u>–</u>	<u>1,113</u>	<u>1,113</u>
Recoverable amount			<u>1,910</u>
Excess of recoverable amount over carrying amount			<u>797</u>

- (a) After recognition of the impairment loss at the beginning of 20X2, T revised the depreciation charge for the Country A identifiable assets (from CU166.7 per year to CU123.6 per year), based on the revised carrying amount and remaining useful life (11 years).

IE41 There has been a favourable change in the estimates used to determine the recoverable amount of the Country A net assets since the last impairment loss was recognised. Therefore, in accordance with paragraph 114 of IAS 36, T recognises a reversal of the impairment loss recognised in 20X2.

IE42 In accordance with paragraphs 122 and 123 of IAS 36, T increases the carrying amount of the Country A identifiable assets by CU387 (see Schedule 3), ie up to the lower of recoverable amount (CU1,910) and the identifiable assets' depreciated historical cost (CU1,500) (see Schedule 2). This increase is recognised immediately in profit or loss.

IE43 In accordance with paragraph 124 of IAS 36, the impairment loss on goodwill is not reversed.

Schedule 2. Determination of the depreciated historical cost of the Country A identifiable assets at the end of 20X3

<i>End of 20X3</i>	<i>Identifiable assets</i>
	CU
Historical cost	2,000
Accumulated depreciation (166.7 × 3 years)	<u>(500)</u>
Depreciated historical cost	<u>1,500</u>
Carrying amount (Schedule 1)	<u>1,113</u>
Difference	<u>387</u>

Schedule 3. Carrying amount of the Country A assets at the end of 20X3

	<i>Goodwill</i>	<i>Identifiable assets</i>	<i>Total</i>
	CU	CU	CU
Gross carrying amount	1,000	2,000	3,000
Accumulated amortisation	–	(414)	(414)
Accumulated impairment loss	<u>(1,000)</u>	<u>(473)</u>	<u>(1,473)</u>
Carrying amount	<u>–</u>	<u>1,113</u>	<u>1,113</u>
Reversal of impairment loss	<u>0</u>	<u>387</u>	<u>387</u>
Carrying amount after reversal of impairment loss	<u>–</u>	<u>1,500</u>	<u>1,500</u>

Example 5 Treatment of a future restructuring

In this example, tax effects are ignored.

Background

- IE44 At the end of 20X0, entity K tests a plant for impairment. The plant is a cash-generating unit. The plant's assets are carried at depreciated historical cost. The plant has a carrying amount of CU3,000 and a remaining useful life of 10 years.
- IE45 The plant's recoverable amount (ie higher of value in use and fair value less costs of disposal) is determined on the basis of a value in use calculation. Value in use is calculated using a pre-tax discount rate of 14 per cent.
- IE46 Management approved budgets reflect that:
- at the end of 20X3, the plant will be restructured at an estimated cost of CU100. Since K is not yet committed to the restructuring, a provision has not been recognised for the future restructuring costs.
 - there will be future benefits from this restructuring in the form of reduced future cash outflows.
- IE47 At the end of 20X2, K becomes committed to the restructuring. The costs are still estimated to be CU100 and a provision is recognised accordingly. The plant's estimated future cash flows reflected in the most recent management approved budgets are given in paragraph IE51 and a current discount rate is the same as at the end of 20X0.
- IE48 At the end of 20X3, actual restructuring costs of CU100 are incurred and paid. Again, the plant's estimated future cash flows reflected in the most recent management approved budgets and a current discount rate are the same as those estimated at the end of 20X2.

At the end of 20X0

Schedule 1. Calculation of the plant's value in use at the end of 20X0

Year	Future cash flows	Discounted at 14%
	CU	CU
20X1	300 ^a	263
20X2	280 ^b	215
20X3	420 ^b	283
20X4	520 ^b	308
20X5	350 ^b	182
20X6	420 ^b	191
20X7	480 ^b	192
20X8	480 ^b	168
20X9	460 ^b	141
20X10	400 ^b	108
Value in use		<u>2,051</u>

- Excludes estimated restructuring costs reflected in management budgets.
- Excludes estimated benefits expected from the restructuring reflected in management budgets.

- IE49 The plant's recoverable amount (ie value in use) is less than its carrying amount. Therefore, K recognises an impairment loss for the plant.

Schedule 2. Calculation of the impairment loss at the end of 20X0

	<i>Plant</i>
	CU
Carrying amount before impairment loss	3,000
Recoverable amount (Schedule 1)	2,051
Impairment loss	<u>(949)</u>
Carrying amount after impairment loss	<u>2,051</u>

At the end of 20X1

- IE50 No event occurs that requires the plant's recoverable amount to be re-estimated. Therefore, no calculation of the recoverable amount is required to be performed.

At the end of 20X2

- IE51 The entity is now committed to the restructuring. Therefore, in determining the plant's value in use, the benefits expected from the restructuring are considered in forecasting cash flows. This results in an increase in the estimated future cash flows used to determine value in use at the end of 20X0. In accordance with paragraphs 110 and 111 of IAS 36, the recoverable amount of the plant is re-determined at the end of 20X2.

Schedule 3. Calculation of the plant's value in use at the end of 20X2

<i>Year</i>	<i>Future cash flows</i>	<i>Discounted at 14%</i>
	CU	CU
20X3	420 ^a	368
20X4	570 ^b	439
20X5	380 ^b	256
20X6	450 ^b	266
20X7	510 ^b	265
20X8	510 ^b	232
20X9	480 ^b	192
20X10	410 ^b	144
Value in use		<u>2,162</u>

- (a) Excludes estimated restructuring costs because a liability has already been recognised.
 (b) Includes estimated benefits expected from the restructuring reflected in management budgets.

- IE52 The plant's recoverable amount (value in use) is higher than its carrying amount (see Schedule 4). Therefore, K reverses the impairment loss recognised for the plant at the end of 20X0.

Schedule 4. Calculation of the reversal of the impairment loss at the end of 20X2

	<i>Plant</i>
	CU
Carrying amount at the end of 20X0 (Schedule 2)	2,051
<i>End of 20X2</i>	
Depreciation charge (for 20X1 and 20X2–Schedule 5)	(410)
Carrying amount before reversal	<u>1,641</u>
Recoverable amount (Schedule 3)	<u>2,162</u>
Reversal of the impairment loss	<u>521</u>
Carrying amount after reversal	<u>2,162</u>
Carrying amount: depreciated historical cost (Schedule 5)	2,400 ^a

- (a) The reversal does not result in the carrying amount of the plant exceeding what its carrying amount would have been at depreciated historical cost. Therefore, the full reversal of the impairment loss is recognised.

At the end of 20X3

- IE53 There is a cash outflow of CU100 when the restructuring costs are paid. Even though a cash outflow has taken place, there is no change in the estimated future cash flows used to determine value in use at the end of 20X2. Therefore, the plant's recoverable amount is not calculated at the end of 20X3.

Schedule 5. Summary of the carrying amount of the plant

<i>End of year</i>	<i>Depreciated historical cost</i>	<i>Recoverable amount</i>	<i>Adjusted depreciation charge</i>	<i>Impairment loss</i>	<i>Carrying amount after impairment</i>
	CU	CU	CU	CU	CU
20X0	3,000	2,051	0	(949)	2,051
20X1	2,700	nc	(205)	0	1,846
20X2	2,400	2,162	(205)	521	2,162
20X3	2,100	nc	(270)	0	1,892

nc = not calculated as there is no indication that the impairment loss may have increased/decreased.

Example 6 Treatment of future costs

In this example, tax effects are ignored.

Background

- IE54 At the end of 20X0, entity F tests a machine for impairment. The machine is a cash-generating unit. It is carried at depreciated historical cost and its carrying amount is CU150,000. It has an estimated remaining useful life of 10 years.
- IE55 The machine's recoverable amount (ie higher of value in use and fair value less costs of disposal) is determined on the basis of a value in use calculation. Value in use is calculated using a pre-tax discount rate of 14 per cent.
- IE56 Management approved budgets reflect:
- estimated costs necessary to maintain the level of economic benefit expected to arise from the machine in its current condition; and
 - that in 20X4, costs of CU25,000 will be incurred to enhance the machine's performance by increasing its productive capacity.

IE57 At the end of 20X4, costs to enhance the machine's performance are incurred. The machine's estimated future cash flows reflected in the most recent management approved budgets are given in paragraph IE60 and a current discount rate is the same as at the end of 20X0.

At the end of 20X0

Schedule 1. Calculation of the machine's value in use at the end of 20X0

Year	Future cash flows	Discounted at 14%
	CU	CU
20X1	22,165 ^a	19,443
20X2	21,450 ^a	16,505
20X3	20,550 ^a	13,871
20X4	24,725 ^{ab}	14,639
20X5	25,325 ^{ac}	13,153
20X6	24,825 ^{ac}	11,310
20X7	24,123 ^{ac}	9,640
20X8	25,533 ^{ac}	8,951
20X9	24,234 ^{ac}	7,452
20X10	22,850 ^{ac}	6,164
Value in use		<u>121,128</u>

- (a) Includes estimated costs necessary to maintain the level of economic benefit expected to arise from the machine in its current condition.
- (b) Excludes estimated costs to enhance the machine's performance reflected in management budgets.
- (c) Excludes estimated benefits expected from enhancing the machine's performance reflected in management budgets.

IE58 The machine's recoverable amount (value in use) is less than its carrying amount. Therefore, F recognises an impairment loss for the machine.

Schedule 2. Calculation of the impairment loss at the end of 20X0

	Machine
	CU
Carrying amount before impairment loss	150,000
Recoverable amount (Schedule 1)	<u>121,128</u>
Impairment loss	<u>(28,872)</u>
Carrying amount after impairment loss	<u>121,128</u>

Years 20X1–20X3

IE59 No event occurs that requires the machine's recoverable amount to be re-estimated. Therefore, no calculation of recoverable amount is required to be performed.

At the end of 20X4

IE60 The costs to enhance the machine's performance are incurred. Therefore, in determining the machine's value in use, the future benefits expected from enhancing the machine's performance are considered in forecasting cash flows. This results in an increase in the estimated future cash flows used to determine value in use at the end of 20X0. As a consequence, in accordance with paragraphs 110 and 111 of IAS 36, the recoverable amount of the machine is recalculated at the end of 20X4.

Schedule 3. Calculation of the machine's value in use at the end of 20X4

Year	Future cash flows ^a	Discounted at 14%
	CU	CU
20X5	30,321	26,597
20X6	32,750	25,200
20X7	31,721	21,411
20X8	31,950	18,917
20X9	33,100	17,191
20X10	27,999	12,756
Value in use		<u>122,072</u>

(a) Includes estimated benefits expected from enhancing the machine's performance reflected in management budgets.

IE61 The machine's recoverable amount (ie value in use) is higher than the machine's carrying amount and depreciated historical cost (see Schedule 4). Therefore, K reverses the impairment loss recognised for the machine at the end of 20X0 so that the machine is carried at depreciated historical cost.

Schedule 4. Calculation of the reversal of the impairment loss at the end of 20X4

	Machine
	CU
Carrying amount at the end of 20X0 (Schedule 2)	121,128
<i>End of 20X4</i>	
Depreciation charge (20X1 to 20X4 – Schedule 5)	(48,452)
Costs to enhance the asset's performance	<u>25,000</u>
Carrying amount before reversal	<u>97,676</u>
Recoverable amount (Schedule 3)	<u>122,072</u>
Reversal of the impairment loss	<u>17,324</u>
Carrying amount after reversal	<u>115,000</u>
Carrying amount: depreciated historical cost (Schedule 5)	115,000 ^a

(a) The value in use of the machine exceeds what its carrying amount would have been at depreciated historical cost. Therefore, the reversal is limited to an amount that does not result in the carrying amount of the machine exceeding depreciated historical cost.

Schedule 5. Summary of the carrying amount of the machine

Year	Depreciated historical cost	Recoverable amount	Adjusted depreciated charge	Impairment loss	Carrying amount after impairment
	CU	CU	CU	CU	CU
20X0	150,000	121,128	0	(28,872)	121,128
20X1	135,000	nc	(12,113)	0	109,015
20X2	120,000	nc	(12,113)	0	96,902
20X3	105,000	nc	(12,113)	0	84,789
20X4	90,000		(12,113)		
enhancement	<u>25,000</u>		<u>–</u>		
	<u>115,000</u>	122,072	<u>(12,113)</u>	17,324	115,000
20X5	95,833	nc	(19,167)	0	95,833

nc = not calculated as there is no indication that the impairment loss may have increased/decreased.

Example 7 Impairment testing cash-generating units with goodwill and non-controlling interests

Example 7A Non-controlling interests measured initially as a proportionate share of the net identifiable assets

In this example, tax effects are ignored.

Background

- IE62 Parent acquires an 80 per cent ownership interest in Subsidiary for CU2,100 on 1 January 20X3. At that date, Subsidiary's net identifiable assets have a fair value of CU1,500. Parent chooses to measure the non-controlling interests as the proportionate interest of Subsidiary's net identifiable assets of CU300 (20% of CU1,500). Goodwill of CU900 is the difference between the aggregate of the consideration transferred and the amount of the non-controlling interests (CU2,100 + CU300) and the net identifiable assets (CU1,500).
- IE63 The assets of Subsidiary together are the smallest group of assets that generate cash inflows that are largely independent of the cash inflows from other assets or groups of assets. Therefore Subsidiary is a cash-generating unit. Because other cash-generating units of Parent are expected to benefit from the synergies of the combination, the goodwill of CU500 related to those synergies has been allocated to other cash-generating units within Parent. Because the cash-generating unit comprising Subsidiary includes goodwill within its carrying amount, it must be tested for impairment annually, or more frequently if there is an indication that it may be impaired (see paragraph 90 of IAS 36).
- IE64 At the end of 20X3, Parent determines that the recoverable amount of cash-generating unit Subsidiary is CU1,000. The carrying amount of the net assets of Subsidiary, excluding goodwill, is CU1,350.

Testing Subsidiary (cash-generating unit) for impairment

- IE65 Goodwill attributable to non-controlling interests is included in Subsidiary's recoverable amount of CU1,000 but has not been recognised in Parent's consolidated financial statements. Therefore, in accordance with paragraph C4 of Appendix C of IAS 36, the carrying amount of Subsidiary is grossed up to include goodwill attributable to the non-controlling interests, before being compared with the recoverable amount of CU1,000. Goodwill attributable to Parent's 80 per cent interest in Subsidiary at the acquisition date is CU400 after allocating CU500 to other cash-generating units within Parent. Therefore, goodwill attributable to the 20 per cent non-controlling interests in Subsidiary at the acquisition date is CU100.

Schedule 1. Testing Subsidiary for impairment at the end of 20X3

<i>End of 20X3</i>	<i>Goodwill of Subsidiary</i>	<i>Net identifiable assets</i>	<i>Total</i>
	CU	CU	CU
Carrying amount	400	1,350	1,750
Unrecognised non-controlling interests	100	–	100
Adjusted carrying amount	<u>500</u>	<u>1,350</u>	1,850
Recoverable amount			<u>1,000</u>
Impairment loss			<u><u>850</u></u>

Allocating the impairment loss

- IE66 In accordance with paragraph 104 of IAS 36, the impairment loss of CU850 is allocated to the assets in the unit by first reducing the carrying amount of goodwill.
- IE67 Therefore, CU500 of the CU850 impairment loss for the unit is allocated to the goodwill. In accordance with paragraph C6 of Appendix C of IAS 36, if the partially-owned subsidiary is itself a cash-generating unit, the goodwill impairment loss is allocated to the controlling and non-controlling interests on the same basis as that on which profit or loss is allocated. In this example, profit or loss is allocated on the basis of

relative ownership interests. Because the goodwill is recognised only to the extent of Parent's 80 per cent ownership interest in Subsidiary, Parent recognises only 80 per cent of that goodwill impairment loss (ie CU400).

- IE68 The remaining impairment loss of CU350 is recognised by reducing the carrying amounts of Subsidiary's identifiable assets (see Schedule 2).

Schedule 2. Allocation of the impairment loss for Subsidiary at the end of 20X3

<i>End of 20X3</i>	<i>Goodwill</i>	<i>Net identifiable assets</i>	<i>Total</i>
	CU	CU	CU
Carrying amount	400	1,350	1,750
Impairment loss	(400)	(350)	(750)
Carrying amount after impairment loss	<u>–</u>	<u>1,000</u>	<u>1,000</u>

Example 7B Non-controlling interests measured initially at fair value and the related subsidiary is a stand-alone cash-generating unit

In this example, tax effects are ignored.

Background

- IE68A Parent acquires an 80 per cent ownership interest in Subsidiary for CU2,100 on 1 January 20X3. At that date, Subsidiary's net identifiable assets have a fair value of CU1,500. Parent chooses to measure the non-controlling interests at fair value, which is CU350. Goodwill of CU950 is the difference between the aggregate of the consideration transferred and the amount of the non-controlling interests (CU2,100 + CU350) and the net identifiable assets (CU1,500).
- IE68B The assets of Subsidiary together are the smallest group of assets that generate cash inflows that are largely independent of the cash inflows from other assets or groups of assets. Therefore, Subsidiary is a cash-generating unit. Because other cash-generating units of Parent are expected to benefit from the synergies of the combination, the goodwill of CU500 related to those synergies has been allocated to other cash-generating units within Parent. Because Subsidiary includes goodwill within its carrying amount, it must be tested for impairment annually, or more frequently if there is an indication that it might be impaired (see paragraph 90 of IAS 36).

Testing Subsidiary for impairment

- IE68C At the end of 20X3, Parent determines that the recoverable amount of cash-generating unit Subsidiary is CU1,650. The carrying amount of the net assets of Subsidiary, excluding goodwill, is CU1,350.

Schedule 1. Testing Subsidiary for impairment at the end of 20X3

<i>End of 20X3</i>	<i>Goodwill</i>	<i>Net identifiable assets</i>	<i>Total</i>
	CU	CU	CU
Carrying amount	450	1,350	1,800
Recoverable amount			<u>1,650</u>
Impairment loss			<u>150</u>

Allocating the impairment loss

- IE68D In accordance with paragraph 104 of IAS 36, the impairment loss of CU150 is allocated to the assets in the unit by first reducing the carrying amount of goodwill.

- IE68E Therefore, the full amount of impairment loss of CU150 for the unit is allocated to the goodwill. In accordance with paragraph C6 of Appendix C of IAS 36, if the partially-owned subsidiary is itself a cash-generating unit, the goodwill impairment loss is allocated to the controlling and non-controlling interests on the same basis as that on which profit or loss is allocated.

Example 7C Non-controlling interests measured initially at fair value and the related subsidiary is part of a larger cash-generating unit

In this example, tax effects are ignored.

Background

- IE68F Suppose that, for the business combination described in paragraph IE68A of Example 7B, the assets of Subsidiary will generate cash inflows together with other assets or groups of assets of Parent. Therefore, rather than Subsidiary being the cash-generating unit for the purposes of impairment testing, Subsidiary becomes part of a larger cash-generating unit, Z. Other cash-generating units of Parent are also expected to benefit from the synergies of the combination. Therefore, goodwill related to those synergies, in the amount of CU500, has been allocated to those other cash-generating units. Z's goodwill related to previous business combinations is CU800.
- IE68G Because Z includes goodwill within its carrying amount, both from Subsidiary and from previous business combinations, it must be tested for impairment annually, or more frequently if there is an indication that it might be impaired (see paragraph 90 of IAS 36).

Testing Subsidiary for impairment

- IE68H At the end of 20X3, Parent determines that the recoverable amount of cash-generating unit Z is CU3,300. The carrying amount of the net assets of Z, excluding goodwill, is CU2,250.

Schedule 3. Testing Z for impairment at the end of 20X3

<i>End of 20X3</i>	<i>Goodwill</i>	<i>Net identifiable assets</i>	<i>Total</i>
	CU	CU	CU
Carrying amount	1,250	2,250	3,500
Recoverable amount			<u>3,300</u>
Impairment loss			<u><u>200</u></u>

Allocating the impairment loss

- IE68I In accordance with paragraph 104 of IAS 36, the impairment loss of CU200 is allocated to the assets in the unit by first reducing the carrying amount of goodwill. Therefore, the full amount of impairment loss of CU200 for cash-generating unit Z is allocated to the goodwill. In accordance with paragraph C7 of Appendix C of IAS 36, if the partially-owned Subsidiary forms part of a larger cash-generating unit, the goodwill impairment loss would be allocated first to the parts of the cash-generating unit, Z, and then to the controlling and non-controlling interests of the partially-owned Subsidiary.
- IE68J Parent allocates the impairment loss to the parts of the cash-generating unit on the basis of the relative carrying values of the goodwill of the parts before the impairment. In this example Subsidiary is allocated 36 per cent of the impairment (450/1,250). The impairment loss is then allocated to the controlling and non-controlling interests on the same basis as that on which profit or loss is allocated.

Example 8 Allocation of corporate assets

In this example, tax effects are ignored.

Background

- IE69 Entity M has three cash-generating units: A, B and C. The carrying amounts of those units do not include goodwill. There are adverse changes in the technological environment in which M operates. Therefore, M conducts impairment tests of each of its cash-generating units. At the end of 20X0, the carrying amounts of A, B and C are CU100, CU150 and CU200 respectively.
- IE70 The operations are conducted from a headquarters. The carrying amount of the headquarters is CU200: a headquarters building of CU150 and a research centre of CU50. The relative carrying amounts of the cash-generating units are a reasonable indication of the proportion of the headquarters building devoted to each cash-generating unit. The carrying amount of the research centre cannot be allocated on a reasonable basis to the individual cash-generating units.
- IE71 The remaining estimated useful life of cash-generating unit A is 10 years. The remaining useful lives of B, C and the headquarters are 20 years. The headquarters is depreciated on a straight-line basis.
- IE72 The recoverable amount (ie higher of value in use and fair value less costs of disposal) of each cash-generating unit is based on its value in use. Value in use is calculated using a pre-tax discount rate of 15 per cent.

Identification of corporate assets

- IE73 In accordance with paragraph 102 of IAS 36, M first identifies all the corporate assets that relate to the individual cash-generating units under review. The corporate assets are the headquarters building and the research centre.
- IE74 M then decides how to deal with each of the corporate assets:
- the carrying amount of the headquarters building can be allocated on a reasonable and consistent basis to the cash-generating units under review; and
 - the carrying amount of the research centre cannot be allocated on a reasonable and consistent basis to the individual cash-generating units under review.

Allocation of corporate assets

- IE75 The carrying amount of the headquarters building is allocated to the carrying amount of each individual cash-generating unit. A weighted allocation basis is used because the estimated remaining useful life of A's cash-generating unit is 10 years, whereas the estimated remaining useful lives of B and C's cash-generating units are 20 years.

Schedule 1. Calculation of a weighted allocation of the carrying amount of the headquarters building

<i>End of 20X0</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>Total</i>
	CU	CU	CU	CU
Carrying amount	100	150	200	450
Useful life	10 years	20 years	20 years	
Weighting based on useful life	1	2	2	
Carrying amount after weighting	100	300	400	800
Pro-rata allocation of the building	12% (100/800)	38% (300/800)	50% (400/800)	100%
Allocation of the carrying amount of the building (based on pro-rata above)	19	56	75	150
Carrying amount (after allocation of the building)	119	206	275	600

Determination of recoverable amount and calculation of impairment losses

IE76 Paragraph 102 of IAS 36 requires first that the recoverable amount of each individual cash-generating unit be compared with its carrying amount, including the portion of the carrying amount of the headquarters building allocated to the unit, and any resulting impairment loss recognised. Paragraph 102 of IAS 36 then requires the recoverable amount of M as a whole (ie the smallest group of cash-generating units that includes the research centre) to be compared with its carrying amount, including both the headquarters building and the research centre.

Schedule 2. Calculation of A, B, C and M's value in use at the end of 20X0

Year	A		B		C		M	
	Future cash flows	Discount at 15%	Future cash flows	Discount at 15%	Future cash flows	Discount at 15%	Future cash flows	Discount at 15%
	CU	CU	CU	CU	CU	CU	CU	CU
1	18	16	9	8	10	9	39	34
2	31	23	16	12	20	15	72	54
3	37	24	24	16	34	22	105	69
4	42	24	29	17	44	25	128	73
5	47	24	32	16	51	25	143	71
6	52	22	33	14	56	24	155	67
7	55	21	34	13	60	22	162	61
8	55	18	35	11	63	21	166	54
9	53	15	35	10	65	18	167	48
10	48	12	35	9	66	16	169	42
11			36	8	66	14	132	28
12			35	7	66	12	131	25
13			35	6	66	11	131	21
14			33	5	65	9	128	18
15			30	4	62	8	122	15
16			26	3	60	6	115	12
17			22	2	57	5	108	10
18			18	1	51	4	97	8
19			14	1	43	3	85	6
20			10	1	35	2	71	4
Value in use	<u>199</u>		<u>164</u>		<u>271</u>		<u>720^a</u>	

(a) It is assumed that the research centre generates additional future cash flows for the entity as a whole. Therefore, the sum of the value in use of each individual cash-generating unit is less than the value in use of the business as a whole. The additional cash flows are not attributable to the headquarters building.

Schedule 3. Impairment testing A, B and C

End of 20X0	A	B	C
	CU	CU	CU
Carrying amount (after allocation of the building) (Schedule 1)	119	206	275
Recoverable amount (Schedule 2)	<u>199</u>	<u>164</u>	<u>271</u>
Impairment loss	<u>0</u>	<u>(42)</u>	<u>(4)</u>

IE77 The next step is to allocate the impairment losses between the assets of the cash-generating units and the headquarters building.

Schedule 4. Allocation of the impairment losses for cash-generating units B and C

Cash-generating unit	B		C	
	CU		CU	
To headquarters building	(12)	$(42 \times \frac{56}{206})$	(1)	$(4 \times \frac{75}{275})$
To assets in cash-generating unit	<u>(30)</u>	$(42 \times \frac{150}{206})$	<u>(3)</u>	$(4 \times \frac{200}{275})$
	<u>(42)</u>		<u>(4)</u>	

IE78 Because the research centre could not be allocated on a reasonable and consistent basis to A, B and C's cash-generating units, M compares the carrying amount of the smallest group of cash-generating units to which the carrying amount of the research centre can be allocated (ie M as a whole) to its recoverable amount.

Schedule 5. Impairment testing the smallest group of cash-generating units to which the carrying amount of the research centre can be allocated (ie M as a whole)

End of 20X0	A	B	C	Building	Research centre	M
	CU	CU	CU	CU	CU	CU
Carrying amount	100	150	200	150	50	650
Impairment loss arising from the first step of the test	<u>–</u>	<u>(30)</u>	<u>(3)</u>	<u>(13)</u>	<u>–</u>	<u>(46)</u>
Carrying amount after the first step of the test	<u>100</u>	<u>120</u>	<u>197</u>	<u>137</u>	<u>50</u>	<u>604</u>
Recoverable amount (Schedule 2)						<u>720</u>
Impairment loss for the 'larger' cash-generating unit						<u>0</u>

IE79 Therefore, no additional impairment loss results from the application of the impairment test to M as a whole. Only an impairment loss of CU46 is recognised as a result of the application of the first step of the test to A, B and C.

Example 9 Disclosures about cash-generating units with goodwill or intangible assets with indefinite useful lives

The purpose of this example is to illustrate the disclosures required by paragraphs 134 and 135 of IAS 36.

Background

IE80 Entity M is a multinational manufacturing firm that uses geographical segments for reporting segment information. M's three reportable segments are Europe, North America and Asia. Goodwill has been allocated for impairment testing purposes to three individual cash-generating units—two in Europe (units A and B) and one in North America (unit C)—and to one group of cash-generating units (comprising operation XYZ) in Asia. Units A, B and C and operation XYZ each represent the lowest level within M at which the goodwill is monitored for internal management purposes.

IE81 M acquired unit C, a manufacturing operation in North America, in December 20X2. Unlike M's other North American operations, C operates in an industry with high margins and high growth rates, and with the benefit of a 10-year patent on its primary product. The patent was granted to C just before M's acquisition of C. As part of accounting for the acquisition of C, M recognised, in addition to the patent, goodwill of CU3,000 and a brand name of CU1,000. M's management has determined that the brand name has an indefinite useful life. M has no other intangible assets with indefinite useful lives.

- IE82 The carrying amounts of goodwill and intangible assets with indefinite useful lives allocated to units A, B and C and to operation XYZ are as follows:

	<i>Goodwill</i>	<i>Intangible assets with indefinite useful lives</i>
	CU	CU
A	350	
B	450	
C	3,000	1,000
XYZ	<u>1,200</u>	
Total	<u><u>5,000</u></u>	<u><u>1,000</u></u>

- IE83 During the year ending 31 December 20X3, M determines that there is no impairment of any of its cash-generating units or group of cash-generating units containing goodwill or intangible assets with indefinite useful lives. The recoverable amounts (ie higher of value in use and fair value less costs of disposal) of those units and group of units are determined on the basis of value in use calculations. M has determined that the recoverable amount calculations are most sensitive to changes in the following assumptions:

<i>Units A and B</i>	<i>Unit C</i>	<i>Operation XYZ</i>
Gross margin during the budget period (budget period is 4 years)	5-year US government bond rate during the budget period (budget period is 5 years)	Gross margin during the budget period (budget period is 5 years)
Raw materials price inflation during the budget period	Raw materials price inflation during the budget period	Japanese yen/US dollar exchange rate during the budget period
Market share during the budget period	Market share during the budget period	Market share during the budget period
Growth rate used to extrapolate cash flows beyond the budget period	Growth rate used to extrapolate cash flows beyond the budget period	Growth rate used to extrapolate cash flows beyond the budget period

- IE84 Gross margins during the budget period for A, B and XYZ are estimated by M based on average gross margins achieved in the period immediately before the start of the budget period, increased by 5 per cent per year for anticipated efficiency improvements. A and B produce complementary products and are operated by M to achieve the same gross margins.
- IE85 Market shares during the budget period are estimated by M based on average market shares achieved in the period immediately before the start of the budget period, adjusted each year for any anticipated growth or decline in market shares. M anticipates that:
- market shares for A and B will differ, but will each grow during the budget period by 3 per cent per year as a result of ongoing improvements in product quality.
 - C's market share will grow during the budget period by 6 per cent per year as a result of increased advertising expenditure and the benefits from the protection of the 10-year patent on its primary product.
 - XYZ's market share will remain unchanged during the budget period as a result of the combination of ongoing improvements in product quality and an anticipated increase in competition.
- IE86 A and B purchase raw materials from the same European suppliers, whereas C's raw materials are purchased from various North American suppliers. Raw materials price inflation during the budget period is estimated by M to be consistent with forecast consumer price indices published by government agencies in the relevant European and North American countries.
- IE87 The 5-year US government bond rate during the budget period is estimated by M to be consistent with the yield on such bonds at the beginning of the budget period. The Japanese yen/US dollar exchange rate is estimated by M to be consistent with the average market forward exchange rate over the budget period.
- IE88 M uses steady growth rates to extrapolate beyond the budget period cash flows for A, B, C and XYX. The growth rates for A, B and XYZ are estimated by M to be consistent with publicly available information about the long-term average growth rates for the markets in which A, B and XYZ operate. However, the growth rate for C exceeds the long-term average growth rate for the market in which C operates. M's management is of the opinion that this is reasonable in the light of the protection of the 10-year patent on C's primary product.

IE89 M includes the following disclosure in the notes to its financial statements for the year ending 31 December 20X3.

Impairment Tests for Goodwill and Intangible Assets with Indefinite Lives

Goodwill has been allocated for impairment testing purposes to three individual cash-generating units—two in Europe (units A and B) and one in North America (unit C)—and to one group of cash-generating units (comprising operation XYZ) in Asia. The carrying amount of goodwill allocated to unit C and operation XYZ is significant in comparison with the total carrying amount of goodwill, but the carrying amount of goodwill allocated to each of units A and B is not. Nevertheless, the recoverable amounts of units A and B are based on some of the same key assumptions, and the aggregate carrying amount of goodwill allocated to those units is significant.

Operation XYZ

The recoverable amount of operation XYZ has been determined based on a value in use calculation. That calculation uses cash flow projections based on financial budgets approved by management covering a five-year period, and a discount rate of 8.4 per cent. Cash flows beyond that five-year period have been extrapolated using a steady 6.3 per cent growth rate. This growth rate does not exceed the long-term average growth rate for the market in which XYZ operates. Management believes that any reasonably possible change in the key assumptions on which XYZ's recoverable amount is based would *not* cause XYZ's carrying amount to exceed its recoverable amount.

Unit C

The recoverable amount of unit C has also been determined based on a value in use calculation. That calculation uses cash flow projections based on financial budgets approved by management covering a five-year period, and a discount rate of 9.2 per cent. C's cash flows beyond the five-year period are extrapolated using a steady 12 per cent growth rate. This growth rate exceeds by 4 percentage points the long-term average growth rate for the market in which C operates. However, C benefits from the protection of a 10-year patent on its primary product, granted in December 20X2. Management believes that a 12 per cent growth rate is reasonable in the light of that patent. Management also believes that any reasonably possible change in the key assumptions on which C's recoverable amount is based would *not* cause C's carrying amount to exceed its recoverable amount.

Units A and B

The recoverable amounts of units A and B have been determined on the basis of value in use calculations. Those units produce complementary products, and their recoverable amounts are based on some of the same key assumptions. Both value in use calculations use cash flow projections based on financial budgets approved by management covering a four-year period, and a discount rate of 7.9 per cent. Both sets of cash flows beyond the four-year period are extrapolated using a steady 5 per cent growth rate. This growth rate does not exceed the long-term average growth rate for the market in which A and B operate. Cash flow projections during the budget period for both A and B are also based on the same expected gross margins during the budget period and the same raw materials price inflation during the budget period. Management believes that any reasonably possible change in any of these key assumptions would not cause the aggregate carrying amount of A and B to exceed the aggregate recoverable amount of those units.

	<i>Operation XYZ</i>	<i>Unit C</i>	<i>Units A and B (in aggregate)</i>
Carrying amount of goodwill	CU1,200	CU3,000	CU800
Carrying amount of brand name with indefinite useful life	–	CU1,000	–
Key assumptions used in value in use calculations^a			
<ul style="list-style-type: none"> • Key assumption • Basis for determining value(s) assigned to key assumption 	<ul style="list-style-type: none"> • Budgeted gross margins • Average gross margins achieved in period immediately before the budget period, increased for expected efficiency improvements • Values assigned to key assumption reflect past experience, except for efficiency improvements. Management believes improvements of 5% per year are reasonably achievable 	<ul style="list-style-type: none"> • 5-year US government bond rate • Yield on 5-year US government bonds at the beginning of the budget period • Value assigned to key assumption is consistent with external sources of information 	<ul style="list-style-type: none"> • Budgeted gross margins • Average gross margins achieved in period immediately before the budget period, increased for expected efficiency improvements • Values assigned to key assumption reflect past experience, except for efficiency improvements. Management believes improvements of 5% per year are reasonably achievable
<ul style="list-style-type: none"> • Key assumption • Basis for determining value(s) assigned to key assumption 	<ul style="list-style-type: none"> • Japanese yen/US dollar exchange rate during the budget period • Average market forward exchange rate over the budget period • Value assigned to key assumption is consistent with external sources of information 	<ul style="list-style-type: none"> • Raw materials price inflation • Forecast consumer price indices during the budget period for North American countries from which raw materials are purchased • Value assigned to key assumption is consistent with external sources of information 	<ul style="list-style-type: none"> • Raw materials price inflation • Forecast consumer price indices during the budget period for European countries from which raw materials are purchased • Value assigned to key assumption is consistent with external sources of information
<ul style="list-style-type: none"> • Key assumption • Basis for determining value(s) assigned to key assumption 	<ul style="list-style-type: none"> • Budgeted market share • Average market share in period immediately before the budget period • Value assigned to key assumption reflects past experience. No change in market share expected as a result of ongoing product quality improvements coupled with anticipated increase in competition 	<ul style="list-style-type: none"> • Budgeted market share • Average market share in period immediately before the budget period, increased each year for anticipated growth in market share • Management believes market share growth of 6% per year is reasonably achievable due to increased advertising expenditure, the benefits from the protection of the 10-year patent on C's primary product, and the expected synergies to be achieved from operating C as part of M's North American segment 	
(a) The key assumptions shown in this table for units A and B are only those that are used in the recoverable amount calculations for both units			