

IAS 36 Impairment testing: practical issues





Contents

Introduction	2
Executive summary	3
Testing for impairment at the end of each reporting period	4
A special impairment indicator: market capitalisation	5
Allocating and reallocating goodwill	6
IAS 36 valuation issues	8
Goodwill impairment disclosures	17

Introduction

IAS 36 *Impairment of Assets* (the standard) sets out the procedures that entities must apply to ensure that their assets are carried at no more than the amounts expected to be recovered through the use or sale of the assets.

Although the main principles of IAS 36 are very clear, the practical application of IAS 36 has always been challenging and problems have been brought into focus during the recent economic uncertainty.

This publication discusses some of the main complexities for those who want to better understand the requirements of IAS 36 and its practical consequences. It provides guidance on a range of application issues that have emerged as common problems across a broad range of entities and industries.



Executive summary

The main issues addressed in more detail in this publication have been summarised below:

- ▶ *Testing for impairment at the end of each interim reporting period.* All assets, including goodwill and intangible assets have to be tested for impairment at the end of each reporting period, if there are indicators of impairment. Changes in circumstances between the date of the impairment test and the next reporting period end may give rise to impairment indicators. If so, more than one impairment test may be required in an annual period.
- ▶ *Market capitalisation as a special impairment indicator.* Some entities have a market capitalisation that is lower than their net assets. Although this situation does not necessarily mean that an entity has to write down its assets to the extent of the shortfall, it is a trigger to perform an impairment test.
- ▶ *Allocating and reallocating goodwill to cash generating unit (CGU).* Acquired goodwill is allocated to each of the acquirer's CGUs, or to a group of CGUs, that are expected to benefit from the synergies of the combination. If CGUs are subsequently revised or operations disposed of IAS 36 requires goodwill to be reallocated, based on relative values, to the units affected.
- ▶ *Valuation issues.* IAS 36 requires the recoverable amount of an asset or CGU to be measured as the higher of the asset's or CGU's Fair Value Less Costs to Sell (FVLCS) and Value in Use (VIU). Measuring the FVLCS and VIU of an asset or CGU requires the use of assumptions and estimates.
The following issues are proving particularly troublesome:
 - ▶ The use of a discounted cash flow (DCF) methodology to estimate FVLCS
 - ▶ Determining the types of future cash flows that should be included in the measurement of VIU, in particular, those relating to restructuring programmes
 - ▶ Determining the appropriate discount rate to apply
 - ▶ The impact of taxation on the impairment test, given the requirement in IAS 36 to measure VIU using pre-tax cash flows and discount rates
 - ▶ Ensuring that the recoverable amount and carrying amount that are being compared are consistently determined
 - ▶ The incorporation of corporate assets into the impairment test
- ▶ *Goodwill impairment disclosures.* Disclosure is not just a compliance exercise; it is a key communication to investors by management. Disclosures that describe the factors that could result in impairment become even more important when the headroom has been eroded.



Testing for impairment at the end of each reporting period

When does an impairment test need to be performed?

Individual assets or CGUs need to be tested for impairment (that is, by estimating the recoverable amount):

- ▶ When there is an indication that the asset or CGU may be impaired. Entities are required to consider at the end of each reporting period whether any indicators of potential impairment exist.

The only exception is where there was sufficient headroom in a previous impairment calculation that would not have been eroded by subsequent events or the asset or CGU is not sensitive to a particular indicator.

- ▶ At least annually if the asset is, or the CGU contains, an intangible asset with an indefinite useful life or an intangible asset that is not yet available for use.
These assets or CGUs must also be tested for impairment when there is an indicator of potential impairment.
- ▶ At least annually when goodwill, acquired in a past business combination, has been allocated to the CGU or group of CGUs.

The only limited exception to this requirement applies where there has been a business combination during the period and the entity was unable to complete the initial allocation of the goodwill to CGUs or group of CGUs for impairment purposes before the end of the period. In such cases, IAS 36 does not require the entity to provisionally allocate goodwill and perform an impairment test on this provisional basis. Instead, the entity is allowed to disclose the unallocated amount. However, entities must be convinced that they really are unable to complete the allocation, especially when there are clear indicators of an impairment. In many cases, it could be straightforward to perform a reliable allocation and impairment test.

The annual impairment test

Where an annual impairment test is required for goodwill and certain other intangible assets, IAS 36 allows the impairment test to be performed at any time during the period, provided it is performed at the same time every year. Different CGUs or groups of CGUs may be tested for impairment at different times.

Many entities test goodwill at an interim period in the year. In unstable times with high uncertainty, goodwill may have to be tested for impairment at year end and at a subsequent interim reporting date as well, if indicators of impairment arise after the annual test has been performed.

When a group of CGUs to which goodwill has been allocated is tested for impairment, there may also be an indication of impairment of an asset or a CGU within the group. IAS 36 requires the entity to test the asset or the CGU for impairment first and to recognise any impairment loss on the asset or CGU before carrying out the impairment test for goodwill. In practice, this means that, in many situations, the impairment test of the asset or CGU needs to be performed on the same date as the annual goodwill impairment test.

If an entity has to test for impairment at the end of the reporting date as well as at the scheduled annual date, it does not necessarily mean that the whole budget process needs to be re-done, which would be a very time consuming process for most entities. If updated bottom-up forecasts are not yet available, top-down adjustments may be sufficient to assess how much headroom has been affected by changes in the period since the latest (goodwill) impairment review.



A special impairment indicator: market capitalisation

An impairment test must be undertaken if there are indications of impairment. Consequently, the identification of indicators of impairment becomes a crucial stage in the process.

IAS 36 provides guidance in the form of a list of internal and external indicators of impairment. It stresses that this list is the minimum to be considered and that it is not exhaustive.

One factor specifically noted by IAS 36 as an external indicator of impairment is that the carrying amount of the net assets of the entity exceeds its market capitalisation.

Market capitalisation is, potentially, a powerful indicator as, if it shows a lower figure than the book value of net assets, it inescapably suggests the market considers that the business is overvalued. However, the market may have taken account of factors other than the return that the entity is generating on its assets. An individual entity may have a high level of debt that the market doubts it will be able to service fully; a financial crisis may have led to a general collapse in market prices. A market capitalisation below book equity will not necessarily lead to an equivalent impairment loss.

What an entity has to do in response to this indicator depends very much on the specific facts and circumstances. Most entities cannot avoid examining their CGUs in these circumstances and may have to test goodwill for impairment unless there was sufficient headroom in a previous impairment calculation, providing that the headroom has not been eroded by subsequent events. Some assets or CGUs may not be sensitive to market capitalisation as an indicator.

IAS 36 does not require a formal reconciliation between market capitalisation of the entity, FVLCS and VIU. However, entities need to be able to understand the reason for the shortfall. If the recoverable amount exceeds market capitalisation, entities need to consider whether they have made sufficient disclosures to indicate why this is so as well as describing those factors that could result in impairment in future periods.



Allocating and reallocating goodwill

Acquired goodwill is allocated to each of the acquirer's CGUs, or to a group of CGUs, that are expected to benefit from the synergies of the combination. This is irrespective of whether other assets or liabilities of the acquiree are assigned to those CGUs, or group of CGUs.

IAS 36 recognises that sometimes there is no basis for allocating goodwill to an individual CGU that is not arbitrary, so it permits goodwill to be allocated to a group of CGUs. However, each CGU or group of CGUs to which the goodwill is so allocated must:

- ▶ Represent the lowest level within the entity at which the goodwill is monitored for internal management purposes

And

- ▶ Not be larger than an operating segment as defined by paragraph 5 of IFRS 8 *Operating Segments* before aggregation.

What happens to the allocation of goodwill if the business is reorganised or partially disposed of?

There are many reasons why entities might reorganise their businesses. There may be growth or contraction, acquisitions or disposals, efficiency moves or technological change.

An entity may reorganise its reporting structure in a way that changes the composition of one or more CGUs to which goodwill has been allocated or dispose of an operation within a CGU (or dispose of a CGU within a group of CGUs). The approach used to reallocate goodwill is similar in both cases.

IAS 36 requires goodwill to be reallocated on the basis of relative values to the units affected, i.e., to the revised CGUs or to the operations disposed of.

- ▶ If a CGU or group of CGUs is being reallocated to other CGUs or group of CGUs as part of a reorganisation, then its goodwill must be reallocated based on the relative value of those parts that are to be integrated
- ▶ For a disposal, goodwill is allocated between the operation disposed of (thereby affecting the gain or loss on disposal) and the portion of the CGU retained, based on their relative values

In both cases, the relative value approach is used unless the entity can demonstrate that some other method better reflects the goodwill associated with the reallocated operations or operations disposed of.

Example

An entity sells for CU100 an operation that was part of a CGU, to which goodwill of CU60 has been allocated.

Analysis

The goodwill allocated to the CGU cannot be identified or associated with an asset group at a level lower than that CGU, except arbitrarily.

The recoverable amount of the portion of the CGU retained is CU300. Because the goodwill allocated to the CGU cannot be non-arbitrarily identified or associated with an asset group at a level lower than that CGU, the goodwill associated with the operation disposed of is measured on the basis of the relative values of the operation disposed of and the portion of the CGU retained.

Therefore, 25% of the goodwill allocated to the CGU, i.e., CU15 is included in the carrying amount of the operation that is sold.¹

¹ This example illustrates a situation where the entity cannot demonstrate that another method better reflects the goodwill associated with the operation disposed of.



What is meant by 'relative value'?

The standard does not expand on what is meant by relative value. It does not mandate FVLCS as the basis, but it might still mean that the entity has to carry out some sort of valuation process on the part retained. Clearly it ought to be a measure that can be applied equally to both the part retained and the part disposed of; VIU has the obvious problem that it will be much the same as FVLCS for the operations disposed of, but there could be significant differences between VIU and FVLCS for the part retained. There could be reasonable ways of estimating relative value by using an appropriate industry or business surrogate (e.g., revenue, profits, industry KPIs).

Example

Goodwill of CU160 had previously been allocated to CGU A. A is to be divided and integrated into three other CGUs, B, C and D.

Analysis

The goodwill allocated to A cannot be non-arbitrarily identified or associated with an asset group at a level lower than A. Therefore, it is reallocated to CGUs B, C and D on the basis of the relative values of the three portions of A before those portions are integrated with B, C and D. The recoverable amounts of these portions of A before integration with the other CGUs are CU200, CU300 and CU500 respectively.

Accordingly, the amounts of goodwill reallocated to CGUs B, C and D are CU32, CU48 and CU80, respectively.²

When might an alternative to relative value be used?

When considering the circumstances in which another method might better reflect the goodwill associated with the operation disposed of, the IASB had in mind a scenario in which an entity buys a business, integrates it with an existing CGU that does not include any goodwill in its carrying amount and immediately sells a loss-making part of the combined CGU.

In these circumstances, it may be reasonable to conclude that no part of the carrying amount of the goodwill has been disposed of. The loss-making business being disposed of could have been owned by the entity before the acquisition, or it could be part of the acquired business.

There may be other circumstances in which a basis other than relative value is more appropriate, although care should be taken to justify any alternative bases as they may indicate that goodwill has been inappropriately allocated in the first place.

This allocation process is not the same as an impairment test of the goodwill. This means, for example, that it is not relevant if the retained operations can support all of the goodwill. There is a presumption that, in most cases, some goodwill will be allocated to the operation disposed of.

² This example illustrates a situation where the entity cannot demonstrate that another method better reflects the goodwill associated with the operation disposed of.



IAS 36 valuation issues

IAS 36 requires the recoverable amount of an asset or CGU to be measured at the higher of its FVLCS and VIU. If either of these is higher than the carrying amount of the asset or CGU, then there is no impairment.

FVLCS is the amount that could be obtained from the sale of an asset or CGU in an arm's length transaction between a willing buyer and a willing seller. If an entity uses FVLCS, it need not have an intention to sell the asset or CGU. IAS 36 assumes a perfectly rational economic environment.

VIU is the present value of the entity-specific future cash flows expected from the future use and eventual sale of the asset at the end of its useful life. Calculating the VIU of an asset or CGU involves estimating the expected cash inflows and outflows from continuing use of the asset or CGU, excluding estimated cash inflows and outflows from future restructurings or improvements in the asset's performance. Cash flows, if any, associated with the ultimate disposal of an asset or CGU are also included. The cash flows are discounted to present value using the pre-tax discount rate that reflects current market assessments of the time value of money and the risk specific to the asset or CGU. When an asset-specific rate is not directly available from the market, an entity uses surrogates to estimate the discount rate.

Measuring the recoverable amount of an asset or CGU gives rise to many valuation issues, on which the standard provides little guidance.

Measuring recoverable amount

The recoverable amount of an asset or CGU is measured under IAS 36 at the higher of its FVLCS and VIU.

Is there a requirement to calculate recoverable amount using both FVLCS and VIU?

IAS 36 states that as long as one of these amounts exceeds the carrying amount of an asset or CGU, then the asset is not impaired and it is not necessary to calculate the other amount.

Whilst the information needed to calculate VIU should always be available, it may not always be possible to estimate FVLCS with sufficient reliability for impairment testing purposes. In these circumstances, the recoverable amount of the asset or CGU needs to be based on its VIU.

Determining fair value less costs to sell

IAS 36 sets out the following hierarchy of evidence for FVLCS:

- ▶ The price in a binding sale agreement. This is likely to exist only when the asset is held for sale. A decision to sell an asset is a triggering event for an impairment review.
If this is not available then:
- ▶ The current market price determined by reference to an active market.
If this is not available then:
- ▶ FVLCS is based on the best information available to reflect the amount that an entity could obtain from the disposal of the asset or CGU in an arm's length transaction between knowledgeable, willing parties.

In determining this amount, an entity is required to consider 'the outcome of recent transactions for similar assets within the same industry'. In our view, for such recent transactions to be relevant, they must meet the following conditions:

- ▶ The transactions should be in the same industry, unless the asset is generic and its fair value would not be affected by the industry in which the purchaser operates.
- ▶ The assets concerned must be shown to be substantially the same as to their nature and condition.
- ▶ The economic environment of the entity must be similar to the environment in which the previous sales occurred (e.g., no circumstances have arisen since the earlier transaction that affects the value of the asset).



It would be unusual to be able to estimate FVLCS reliably from a *single* market transaction. However, IAS 36 permits the fair value of an asset for which there is no active market to be estimated using valuation techniques. It is more likely that a recent market transaction would be one of the factors taken into account when calculating FVLCS so it would be used together with values estimated using valuation techniques.

Can management estimate FVLCS based on a DCF model when there is no active market?

Entities may be tempted to estimate FVLCS using a DCF model because these calculations do not necessarily have to take account of the restrictions that are built into a VIU calculation.

Valuation experts have techniques that allow them to estimate the FVLCS in most circumstances. The key question is whether an estimated FVLCS is a reliable estimate of the amount at which the entity could currently sell the asset or CGU to a third party. In this respect, more weight needs to be given to market evidence than management judgment. Therefore, the onus is on the entity to demonstrate that it has correctly estimated the extent to which the market would take particular factors into account.

DCF models may only be used to measure FVLCS if they reflect common valuation practice in the industry in which the asset or CGU operates. The cash flows used when applying the model should reflect only the cash flows that market participants would take into account when assessing fair value. This includes both the *type* of cash flows (e.g., future capital expenditure) and the estimated *amount* of cash flows.

For example, net cash flows arising from future capital expenditure would be included only if other market participants would consider them in evaluating the asset or CGU. It would not be appropriate to include assumptions about cash flows or benefits from the asset or CGU that would not be available to or considered by a typical market participant in arriving at the amount for which such a participant would be willing to purchase the asset or CGU. IAS 36 acknowledges that there may be circumstances in which it is not possible to obtain reliable evidence regarding the assumptions and techniques that market participants would use, so it would be difficult to conclude that FVLCS could be estimated with sufficient reliability for impairment testing purposes. In such a situation, the recoverable amount of the asset or CGU will be based on its VIU.

VIU cash flow composition: restructuring programmes

IAS 36 requires an asset or CGU to be tested in its current status, not the status that management wishes it was in or hopes to get it into in the near future. Therefore, the standard requires VIU to be measured at the net present value of the future cash flows the entity expects to derive from the asset or CGU in its current condition over its remaining useful life. This means ignoring many management plans for enhancing the performance of the asset or CGU.

What types of cash flows relating to restructuring programmes should be included in the forecast cash flows?

When entities plan to significantly restructure their businesses, they usually include those plans in their management forecasts, although they are not yet committed to them. IAS 36 specifically states that future cash inflows or outflows that are expected to arise from a future restructuring to which an entity is not yet committed should be *excluded* from the forecast cash flows. This means that unless the entity can provide for the costs under IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*, it cannot include the related cash flows in the impairment test. A similar requirement applies for the effects of improving or enhancing the asset's performance. Such effects can only be included when the entity incurs the respective cash outflows.

It is not always easy to distinguish restructurings or improvements that cannot be taken into account, from efficiency improvements (which may be taken into account) and capital maintenance that must be reflected.

Capital maintenance must be reflected in cash flows unless the CGU is in inevitable decline. If any CGU is to continue indefinitely, then it must invest enough to maintain its capital base and this must be reflected in the cash flows.

Entities may also take account of efficiency improvements. These are a normal part of any business and the effects of such ongoing improvements should be included. On the other hand, step changes, whether downward or upward, must be excluded unless the entity is in a position to provide for the costs under IAS 37 for restructuring or the capital enhancements have actually been effected. To this extent, the cash flows for impairment testing may be different to those in management's forecasts.



An entity that is not 'committed' in the IAS 37 sense to a closure plan may have to reflect an impairment loss in the current period and then, in the subsequent period, reflect the cost of the restructuring.

Asset impairments need to be reversed if economic circumstances improve, e.g., as a result of the restructuring actions being undertaken; if not, the entity's results will 'benefit' from reduced depreciation charges. The exception is goodwill impairment, which cannot be reversed. In the latter situation, this may have the counter-intuitive effect that first a goodwill impairment loss is recognised and, in the subsequent period, a restructuring expense is recognised, while both losses effectively result from one and the same economic event.

Appropriate discount rates

Unlike the cash flows used in an impairment test that are entity-specific, the discount rate is supposed to appropriately reflect the current market assessment of the time value of money and the risks specific to the asset or CGU.

When a specific rate for an asset or CGU is not directly available from the market, which is usually the case, the entity's Weighted Average Cost of Capital (WACC), the entity's incremental borrowing rate or other market rates can be used as a starting point. While not prescribed, WACC is by far the most commonly used base for the discount rate.

The appropriate way to calculate the WACC is a complex subject, and one about which there is much academic literature and no general consensus. The selection of the rate is obviously a crucial part of the impairment testing process and, in practice, it will probably not be possible to obtain a theoretically perfect rate. Therefore, the objective must be to obtain a rate which is sensible and justifiable.

Cost of debt

Where companies in the sector typically have quoted debt, the cost of such debt can be determined directly.

In order to calculate the cost of debt for bank loans and borrowings more generally, one method is to take the rate implicit in fixed interest government bonds – with a period to maturity similar to the expected life of the assets being reviewed for impairment – and add to this rate a bank's margin, i.e., the commercial premium that would be added to the risk-free rate by a bank lending to a hypothetical entity with a similar risk profile as the asset or CGU being tested.

Choosing an appropriate bank margin to add is a matter of judgment. However, it is likely to vary depending on how easily the sector under review is able to obtain bank finance. Sectors that invest significantly in tangible assets, such as properties that are readily available as security for borrowings, may require a lower margin than other sectors where such security could not be found so easily.

In some cases, the margin being charged on existing borrowings to the entity itself will provide evidence when estimating a bank margin. Obviously, the appropriateness of this will depend upon the extent to which the risks facing the CGU being tested are similar to the risks facing the entity or group as a whole.

Cost of equity

The cost of equity is the most difficult component of the cost of capital to determine and one that is subject to considerable debate by experts.

One issue that has been raised recently, but without a general conclusion, is whether the financial crisis and recession has increased equity risk. This is an element of the WACC for which it is advisable to obtain expert advice while trying to ensure consistency with the other assumptions in the impairment test.

Capital structure (debt-equity ratio)

Gearing can best be obtained by reviewing quoted entities operating predominantly in the same industry as the CGU and identifying an average level of gearing for such entities. The entities need to be quoted so that the market value of equity can be readily determined.

For example, at the height of the financial crisis, while there had been a general fall in market values, it was not uncommon to find sectors where most participants' market capitalisations had fallen by 80% or 90%. Any entity that attempted to recalculate a discount rate using its historical borrowing rates (as there was no other evidence) and the year end debt-equity ratio would be very likely to understate its discount rate because debt usually has a lower cost than equity. However, this 'reduction' would have come about because of a fundamental mismatch.

An entity needs to consider the appropriate cost of debt at a particular debt-equity level and this is highly unlikely to be unchanged if there has been a collapse in the value of equity. In these circumstances, valuations experts often consider it to be more appropriate to use a gearing ratio based on longer-term averages and take account of changes in risk in the cost of debt.



Pre- and post-tax discount rates and cash flows

How is a pre-tax discount rate calculated?

VIU, as defined by IAS 36, is primarily an accounting concept and not necessarily a business valuation of the asset or CGU. For calculating VIU, IAS 36 requires pre-tax cash flows and a pre-tax discount rate.

WACC is a post-tax rate, as are most observable equity rates used by valuers. Because of the issues in calculating an appropriate pre-tax discount rate and because it aligns more closely with their normal business valuation approach, some entities attempt to perform a VIU calculation based on a post-tax rate and post-tax cash flows.

It is possible for a post-tax approach to give the same answer as a pre-tax approach. Indeed, IAS 36's Basis for Conclusions states that, 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, provided the pre-tax discount rate is the post-tax discount rate adjusted to reflect the specific amount and timing of the future tax flows. This means that the pre-tax discount rate is generally not the same as the post-tax discount rate grossed up by a standard rate of tax, although there are some circumstances in which a gross-up will give a reasonable approximation, discussed further below.

The general principles behind calculating a pre-tax discount rate are that:

- ▶ No account is taken of tax losses (because these are accounted for separately)

And

- ▶ The tax base of the asset is equal to its VIU, so there are no timing differences associated with the asset that will affect the entity's future tax charge

This means that an entity's actual tax cash flows may have to be replaced by notional tax cash flows reflecting these assumptions. This will also be the case if the entity is not paying tax because it is making, or has made, tax losses.

A post-tax discount rate is based on certain assumptions about the tax-deductibility of the asset and not the actual tax cash flows. Therefore, if the entity pays no tax because of its own tax losses, it is unwarranted to assume the post- and pre-tax discount rates will be the same.

The Basis for Conclusions includes an example of how to calculate a pre-tax discount rate, where the tax cash flows are irregular because of the availability of tax deductions for the asset's capital cost. This is a relatively straightforward calculation for a single asset at the inception of the relevant project.

While the principal issue with IAS 36's pre-tax test is calculating a suitable discount rate, the issue with the post-tax methodology, discussed further below, is to determine the appropriate taxation effects to be taken into account when using a post-tax discount rate.

Calculating VIU using post-tax cash flows

An entity may attempt to calculate VIU using a post-tax rate and post-tax cash flows. However, in order to calculate a VIU that is the equivalent to that required by IAS 36, an entity will probably have to make adjustments to the actual tax cash flows or otherwise adjust its actual post-tax cash flows.

There are two practical approaches that can give a VIU calculated on a post-tax basis that is equivalent to IAS 36's pre-tax calculation.

- ▶ Post-tax cash flows based on notional tax cash flows
 - The assumptions that need to be made are the same as those used in calculating a pre-tax discount rate. Therefore, there must be no timing differences associated with the asset, which means including only the future cash flows that would result if the tax base of the asset were equal to its VIU. In addition, no account is taken of tax losses, which may mean making appropriate notional adjustments if there is no tax charge
- ▶ Post-tax cash flows reflecting actual tax cash flows as adjusted for deferred tax

The relevant deferred tax asset or liability, discounted as appropriate, should be treated as part of the net assets of the relevant CGU

These approaches need to be applied with care and will only be acceptable if the result can be shown to be materially the same as a pre-tax impairment calculation as required by IAS 36.



Examples demonstrating these approaches are complex and beyond the scope of this publication, but it can be shown that if an entity does not make these adjustments then the 'VIU' that it calculates will be under- or overstated by reference to IAS 36's pre-tax calculation. It is very important to note that a post-tax calculation should not give a different answer to pre-tax VIU required as per IAS 36.

Finally, if an entity uses a post-tax discount rate, it must be able to extrapolate from that rate to the relevant pre-tax rate. Disclosure of the pre-tax rate is an explicit requirement of IAS 36.

This calculation may not be straightforward. If inappropriate assumptions are made about taxation, the pre-tax rate may appear to vary significantly year on year. The calculation is a particular problem for assets with finite lives, where solving for the pre-tax rate using prospective pre- and (actual) post-tax cash flows is likely to lead to an increase in apparent pre-tax rates over the lifetime of the asset. Neither of these effects is consistent with the requirements of IAS 36 regarding the relevant pre-tax rate.

Grossing up post-tax discount rates at the standard rate of tax

When testing a CGU for impairment, the circumstances may be such that grossing up the post-tax rate at the standard rate of tax will give an adequate discount rate.

If there is no growth in cash flows, a perpetuity calculation and tax cash flows that are a constant percentage of total cash flows then the pre-tax discount rate can be calculated by grossing up the post-tax rate at the appropriate rate of taxation. The cash flows of some CGUs may be sufficiently close to this for a gross up at the standard rate of tax to give a suitable discount rate.

As long as these conditions remain unchanged, it should be straightforward to determine the discount rate for an impairment review at either the pre- or post-tax level.



Example³

An entity acquires an asset on 1 January 20X1, for CU 1,757. Its tax base on that date is equal to the cost of the asset, and the asset has a remaining useful life of five years. The cost is fully deductible for tax purposes at the end of 20X1. The tax rate is 20%. The discount rate for the asset can only be determined on a post-tax basis and is estimated to be 10%.

Cash flow projections for the asset determined on a pre-tax basis are, as follows:

	20X1	20X2	20X3	20X4	20X5
Pre-tax cash flows	800	600	500	200	100

Analysis

Value in use as per 1 January 20X1 determined using post-tax cash flows and a post-tax discount rate would be, as follows:

	20X1	20X2	20X3	20X4	20X5
Pre-tax cash flows	800	600	500	200	100
Deduction for cost of asset	(1,757)	–	–	–	–
Tax @ 20%	(191)	120	100	40	20
Post-tax cash flows	991	480	400	160	80
Discounted @ 10%	901	396	301	109	50
VIU	1,757				

In contrast, value in use determined using pre-tax cash flows and a 'pre-tax' discount rate calculated by grossing-up the post-tax rate would be, as follows:

Pre-tax discount rate (grossed-up) = 10% / (1 - 20%) = 12.5%

	20X1	20X2	20X3	20X4	20X5
Pre-tax cash flows	800	600	500	200	100
Discounted @ 12.5%	711	475	351	125	55
VIU	1,717				

The VIU determined using a pre-tax discount rate calculated by grossing up the post-tax rate by the standard rate of tax understates the true VIU of the asset by 40. This is because simply grossing up the post-tax discount rate ignores the variability in the effective tax rate caused by the entity's ability to deduct for the full cost of the asset at the end of 20X1 for tax purposes.

The 'right' pre-tax discount rate can best be arrived at by iteration; that is, by determining the effective discount rate that, applied to the undiscounted pre-tax cash flows, results in the (post-tax) VIU amount:

	20X1	20X2	20X3	20X4	20X5
Pre-tax cash flows	800	600	500	200	100
Discounted @ 11.2%	718	485	364	131	59
VIU	1,757				

The above example demonstrates that 11.2% is the 'right' pre-tax discount rate as the VIU calculated by applying this rate to the pre-tax cash flows is the same as the VIU calculated using the post-tax cash flows and post-tax discount rate.

³ Taken from Basis for Conclusions paragraph BCZ85 of IAS 36.



Recoverable amount versus carrying amount

What steps need to be taken to ensure that the recoverable amount and carrying amount are consistently determined?

IAS 36 stresses that “the carrying amount of a CGU shall be determined on a basis that is consistent with the way the recoverable amount of the CGU is determined”.

When a CGU is tested for impairment, the carrying amount of the CGU is the total of the carrying amounts of its net operating assets. The carrying amount includes only those assets that can be attributed directly, or allocated on a reasonable and consistent basis. These must be the assets that will generate the future cash inflows used in determining the CGU’s value in use and must include all assets, since an impaired CGU might otherwise appear to be unimpaired.

The CGU is not reduced by liabilities unless the recoverable amount of the CGU cannot be determined without taking them into account. This will only be the case for liabilities that would have to be assumed by any buyer.

In some cases, it is practicable to determine the recoverable amount only after taking into account assets and liabilities such as receivables or other financial assets, trade payables, pensions and other provisions. This is when the cash flows of a CGU can more easily be determined on a basis that includes the cash flows relating to these items. So, for example, if the entity includes the receipts from trade debtors in its cash flows, trade debtors must be included in the carrying amount of the CGU for the purposes of comparing recoverable amount with carrying amount. Some of these assets and liabilities have themselves been calculated using discounting techniques. But there is a danger of distortion as the cash flows for impairment purposes will be discounted using a different rate to the rate used to calculate the item itself.

Consistency is a very important principle underlying an impairment test: entities must ensure that the carrying amount of the CGU is consistent for VIU and FVLCS. In calculating VIU, or using a discounted cash flow methodology for FVLCS, entities must ensure that there is consistency between the assets and liabilities of the CGU and the cash flows taken into account, as there must also be between the cash flows and discount rate.

Environmental provisions and similar provisions and liabilities

IAS 36 illustrates liabilities that must be deducted from the carrying amount using an example of a mine in a country in which there is a legal obligation to restore the site by replacing the overburden. The restoration provision, which is the present value of the restoration costs, has been provided for and included as part of the carrying amount of the asset. It will be taken into account in the estimation of FVLCS, but must also be deducted in arriving at VIU so that both methods of estimating recoverable amount are calculated on a comparable basis.

To calculate the VIU, the cash flows essential to replace the overburden must be included whenever the restoration takes place. If the outflow does not occur within the period covered by budgets and forecasts then the costs must be built into the calculation of the terminal value.

There are other provisions for liabilities that would be taken over by the purchaser of a CGU, e.g., property dilapidations or similar contractual restoration provisions. These may relate to an off-balance sheet leasehold interest in property or equipment rather than a fixed asset.

The provision will be accrued as the ‘damage’ is incurred and hence expensed over time rather than capitalised. If the provision is deducted from the assets of the CGU, the cash outflows must reflect the amount that will be paid to settle the contractual obligation.

Indeed, any IAS 37 provision may be reflected in the CGU’s carrying amount as long as the relevant cash flows are reflected both as to their amount and timing and care is taken with the potential distorting effect of different discount rates (rates used to discount provisions are normally much lower than those appropriate for testing for impairment).



Finance leases

A CGU may include assets held under finance leases. IAS 17 *Leases* requires an entity to apply IAS 36 in determining whether leased assets have become impaired in value.

An entity may exclude the finance lease liability from the carrying amount and also exclude the rental payments under the lease. Alternatively, it can deduct the related liabilities from the assets of the CGU and include the rental payments in the cash outflows, even though finance lease costs are charged to profit or loss as depreciation and finance costs.

The entity will have to ensure consistent treatment of the carrying value for FVLCS purposes as an acquirer of the CGU will take all payments under finance and operating leases into account.

Trade debtors and creditors

If an entity excludes trade debtors and creditors in the assets of the CGU, it must avoid double counting the cash flows that will repay the receivable or pay those liabilities. This may be tricky because cash flows do not normally distinguish between cash flows that relate to working capital items and others. In many situations, these assets and liabilities will therefore need to be included in the carrying amount being tested.

The same applies to the inclusion of any financial asset or financial liability: including the asset or deducting the liability has no significant effect as long as the relevant cash flows are included for the relevant period of time.

Pensions

Pensions are mentioned by IAS 36 as items that might be included in the recoverable amount of a CGU. In practice, this could be fraught with difficulty, especially if it is a defined benefit scheme, as there can be significant differences between the measurement basis of the pension asset or (more likely) liability and the cash flows that relate to pensions. This can make it extremely difficult to distinguish between repayment of the liability and cash flows that relate to the CGU. Nevertheless, entities will have to reflect the costs of providing pensions to employees and may need to make a pragmatic allocation to estimate a pension cost as part of the employee cost cash flows.

Cash flow hedges

It makes no significant difference if, in the case of a cash flow hedge, the hedging asset or liability and the hedging cash flows are included in the calculation of recoverable amount. The result is to gross up or net down the assets of the CGU and the relevant cash flows by an equivalent amount, except for the distorting effects of differing discount rates.

Some entities would argue that they ought to be able to take into account cash flows from instruments hedging their sales that are designated as cash flow hedges under IAS 39 *Financial Instruments: Recognition and Measurement* because not to do so would misrepresent their economic position.

In order to do this, they wish to include the cash flows from the hedges and either exclude the derivative asset or liability from the CGU or alternatively reflect the related cash flow hedge reserve in the CGU (this latter treatment would not be a perfect offset to the extent there is ineffectiveness).

Although not illogical from an income perspective, IAS 36 does not support this approach. The derivative asset or liability can only be included in the CGU as a practical expedient. The hedge reserve is neither an asset nor liability and therefore cannot be included in the carrying amount of the CGU. IAS 39 does not permit an entity to mitigate the effects of impairment by recycling the appropriate amount from the hedging reserve upon recognition of impairment either.



Corporate assets

The impairment review should, theoretically, be conducted at the level of the individual asset. However, often the review needs to be performed at the level of a CGU, i.e., the smallest identifiable group of assets which generates independent cash flows.

For corporate assets, as with goodwill, the impairment test may be performed at a higher level than a CGU, providing they are allocated on a reasonable and consistent basis.

An entity may have assets that are inherently incapable of generating cash inflows independently, such as headquarters buildings or central IT facilities that contribute to more than one CGU. These corporate assets do not generally generate cash inflows independently of other assets or groups of assets, but their carrying amount cannot be fully attributed to the CGU under review.

This presents a problem in the event of those assets showing indications of impairment. Some, but not all, of these assets may have relatively easily determinable FVLCSS. While this may be true of a headquarters building, it may not be so for a central IT facility.

For these reasons, the corporate asset's carrying amount must be allocated to CGUs. This allocation allows the recoverable amount of all of the assets involved, both CGU and corporate assets, to be considered.

If possible, the corporate assets are to be allocated to individual CGUs on a 'reasonable and consistent basis'. This is not expanded upon and affords some flexibility, but consistency is vital; the same criteria must be applied at all times. If the carrying amount of a corporate asset can be allocated on a reasonable and consistent basis between individual CGUs, each CGU has its impairment test done separately and the CGU's carrying amount includes its share of the corporate asset. See the example below.

If the corporate asset's carrying amount cannot be allocated to an individual CGU, there are three steps when testing an individual CGU for impairment:

1. The CGU is tested for impairment without the corporate asset and any impairment is recognised.
2. A group of CGUs is identified to which, as a group, all or part of the carrying amount of the corporate asset can be allocated. This group must include the CGU that was the subject of the first test.
3. This group of CGUs is tested as a whole to determine if the group's carrying amount (including the allocation of the corporate asset's carrying amount) is lower than the group's recoverable amount. If the recoverable amount is not sufficient, the impairment loss will be allocated *pro rata* to all assets in the group of CGUs and the allocated portion of the corporate asset.

Example

An entity comprises three CGUs and a headquarters building. The carrying amount of the headquarters building of 150 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.

End of 20X0	A	B	C	Total
Carrying amount	100	150	200	450
Remaining 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	(100/800)= 12%	(300/800)= 38%	(400/800)= 50%	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



Goodwill impairment disclosures

IAS 36 requires extensive disclosures about goodwill, by CGU or group of CGUs, if the amount of goodwill allocated to a CGU, or group of CGUs, is significant in comparison with the total goodwill. This disclosure includes the carrying amount of goodwill, management's valuation approach –VIU or FVLCS– and the related key assumptions and sensitivity analysis, when valuation techniques are used.

If some or all of the carrying amount of goodwill is allocated across multiple CGUs, or groups of CGUs, and the amount so allocated to each CGU, or group of CGUs, is not significant in comparison with the entity's total carrying amount of goodwill, goodwill disclosure are made aggregated for those CGUs or groups of CGUs, but that fact must be disclosed.

Disclosing management's key assumptions

IAS 36 requires a description of each key assumption that management has used in its recoverability assessment. The key assumptions generally include the key input for the cash flow forecast, growth rate(s) and discount rate(s). These disclosures should be consistent with other market communications.

Cash flows

Cash flows used in determining VIU are normally projected for a maximum of five years in their most recent budgets. After this period, cash flows are extrapolated using an estimated growth rate. Assumptions about long-term effects are more uncertain than those about the immediate future and need to be carefully considered and disclosed.

In addition, IAS 36 requires disclosure of whether the value assigned to the key cash flow assumptions are based on previous experience or, if appropriate, are consistent with external sources. In certain circumstances, such as during financial crises and recession, previous experience may be less relevant and external sources may have to be updated. In these cases, extensive details on the estimation process will have to be included.

Growth rate

IAS 36 requires disclosure of the growth rate used to extrapolate cash flow projections and justification for using a growth rate that exceeds the long-term average for the CGU (e.g., products, industries, or country or countries in which the entity operates).

It is typical of long-term growth rates to have a wider range of potential outcomes. Accordingly, the disclosure of the basis for the management decision about which is the most sensible growth rate is relevant information to the reader.

Discount rate

IAS 36 requires disclosure of the discount rate applied to cash flow projections.

There is a wider range of possible discount rates that might materially affect the recoverability assessment. The basis for management's decision with respect to the discount rate applied is necessary for the reader.

Disclosure about headroom and reasonable possible changes of key assumptions

If a 'reasonably possible change' in a key assumption would cause a CGU's carrying amount to exceed its recoverable amount, the entity must disclose:

- ▶ The amount by which the recoverable amount exceeds its carrying amount ('headroom')
- ▶ The value assigned to each key assumption (e.g., estimated long-term growth rate of 5%)

And

- ▶ The amount by which that value must change (e.g., a reduction of 1%) in order for the CGU's recoverable amount to be equal to its carrying amount

As 'reasonably possible change' is not defined in IAS 36, judgment is needed to determine whether a change is reasonably possible.

One problem that may be faced when reporting sensitivities is that assumptions may work in combination with one another. IAS 36 requires that consequential effects on all variables be reflected in the impairment test. For example, if a lower inflation rate is assumed, the discount rate may be lower as well.



Apart from these direct effects on the impairment test, certain scenarios that could result in the erosion of the headroom may also be considered. For example, if cash flows are lower for the next five years because the recession is deeper and more prolonged than expected and there is a lower growth rate in perpetuity, these two factors taken together could erode headroom and it is reasonably possible that both could happen simultaneously.

IAS 36 requires disclosure *only* of individual assumptions, including the above mentioned consequential effects, not of their combined effect. However, it could be convenient for entities to make disclosures in addition to the requirements of IAS 36, in order that their position is properly explained.

Impairment testing is not an exact science and several outcomes may be acceptable, as long as sufficient transparency is provided about the assumptions used.

Goodwill impairment disclosures are a requirement, an opportunity and a danger. The key question is whether sufficient disclosure has been made about the uncertainty of the impairment calculation. Sensitivity disclosures about adverse situations, such as those triggered by volatile prices, provide useful information about the headroom and whether a reasonably possible change in a key assumption, such as the discount rate could lead to recoverable amount being equal to carrying amount, or result in impairment losses.

Transparency in the judgments made by management is a key element of the financial reporting.

About Ernst & Young

Ernst & Young is a global leader in assurance, tax, transaction and advisory services. Worldwide, our 141,000 people are united by our shared values and an unwavering commitment to quality. We make a difference by helping our people, our clients and our wider communities achieve their potential.

Ernst & Young refers to the global organization of member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. For more information about our organization, please visit www.ey.com

About Ernst & Young's International Financial Reporting Standards Group

The move to International Financial Reporting Standards (IFRS) is the single most important initiative in the financial reporting world, the impact of which stretches far beyond accounting to affect every key decision you make, not just how you report it. We have developed the global resources – people and knowledge – to support our client teams. And we work to give you the benefit of our broad sector experience, our deep subject matter knowledge and the latest insights from our work worldwide. It's how Ernst & Young makes a difference.

© 2011 EYGM Limited.
All Rights Reserved.

EYG no. AU0779
www.ey.com

This publication contains information in summary form and is therefore intended for general guidance only. It is not intended to be a substitute for detailed research or the exercise of professional judgment. Neither EYGM Limited nor any other member of the global Ernst & Young organization can accept any responsibility for loss occasioned to any person acting or refraining from action as a result of any material in this publication. On any specific matter, reference should be made to the appropriate advisor.

