



# IFRS IN PRACTICE

IAS 36 *Impairment of Assets* (December 2013)



# INTRODUCTION

IAS 36 *Impairment of Assets* sets out requirements for impairment which cover a range of assets (and groups of assets, termed 'cash generating units' or CGUs). A number of assets are excluded from its scope (e.g. financial instruments and inventories) and IAS 36 is therefore predominately applicable to property, plant and equipment, intangible assets and goodwill. It should be noted however that all the excluded items effectively have their own equivalent impairment tests within the relevant standards.

For certain assets, impairment tests are required to be carried out on an annual basis irrespective of whether any indicators of impairment have been identified. These assets include:

- Goodwill
- Intangible assets with an indefinite life
- Intangible assets not yet available for use (i.e. 'work in progress').

For other assets or cash generating units, in circumstances in which indicators of impairment are identified, a formal impairment test is required to be carried out. The impairment test compares the asset's or (CGU's) carrying amount with its recoverable amount. The recoverable amount is the higher of the amounts calculated under the fair value less cost of disposal and value in use approaches.

The accuracy of an impairment test will be affected by the extent and subjectivity of estimates, and judgments in respect of the inputs and parameters that are used to determine the recoverable amount. Therefore the application of the (sometimes complex) requirements of IAS 36 need careful consideration.

The current economic climate, both globally and in more specific regions and jurisdictions, increases the likelihood that assets will be subject to impairment (because an asset's or CGU's carrying amount is greater than it's recoverable amount). A number of regulators and enforcers have recently announced that the impairment of non-financial assets will be one of the key focus areas in their future review of entities' financial statements.

In early 2013, the European Securities and Markets Authority (ESMA) released a report outlining the findings of its 2011 financial statement review of impairment testing of goodwill and other intangible assets – refer to BDO *IFR Bulletin* 2013/07

<http://www.bdointernational.com/Services/Audit/IFRS/IFR-Bulletins-2011/IFRB%202013/IFRB-2013-07.pdf>.

This report raised several areas of concern that ESMA plans to revisit as part of its 2012 financial statement review. While ESMA is a European regulator, companies in other jurisdictions that apply IFRS (and their auditors) should be aware of, and take into account, the enforcement priorities raised by ESMA, as they relate to financial reporting issues that are not isolated to the European financial reporting environment. It is also relevant that enforcers worldwide are increasingly sharing information that they collect in the process of their activities.

Key areas of ESMA's report, as well as observations from other regulators, have been considered and incorporated where applicable in the drafting of this publication.



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# 1. SCOPE

## 1.1. Assets and CGUs within the scope of IAS 36 *Impairment of Assets*

Assets and cash generating units (CGUs<sup>1</sup>) included within the scope of IAS 36 are:

- Property, Plant and Equipment (IAS 16)
- Intangible assets (IAS 38)
- Cash generating units (CGUs), including those to which goodwill arising from a business combination has been allocated (IFRS 3)
- Investment property measured at cost (IAS 40)
- An investor's interest in the following entities for which the entity accounts for its interest in accordance with the equity method under IAS 28 (2011):
  - Associates (IAS 28 (2011))
  - Joint ventures (IFRS 11).
- An investor's interest in the following entities in its separate financial statements (unless the entity has opted to measure these in accordance with IFRS 9, or IAS 39 if IFRS 9 has not been adopted early):
  - Subsidiaries (IFRS 10)
  - Associates (IAS 28 (2011))
  - Joint ventures (IFRS 11).

## 1.2. Scope exclusions

Assets that are excluded from the scope of IAS 36 *Impairment of Assets* are (IAS 36.2):

- Inventories (IAS 2)
- Assets arising from construction contracts (IAS 11)
- Deferred tax assets (IAS 12)
- Assets arising from employee benefits (IAS 19)
- Financial assets (within the scope of IFRS 9, or IAS 39 if IFRS 9 has not been adopted early)
- Investment property measured at fair value (IAS 40)
- Biological assets at fair value less costs to sell (IAS 41)
- Insurance contracts (IFRS 4)
- Non-current assets or disposal groups classified as held for sale (IFRS 5).

### **BDO comment**

*All of the items excluded from the scope of IAS 36 are covered by other IFRSs which contain requirements that are equivalent to impairment in some form.*

*For example, IAS 2 Inventories requires inventories to be measured after initial recognition 'at the lower of cost and net realisable value'. It is therefore unnecessary to test inventories for further impairment in accordance with IAS 36 as the recoverability of these assets has already been determined through the subsequent measurement requirements of IAS 2.*

## 2. GOODWILL AND CASH GENERATING UNITS – AN INTRODUCTION

### 2.1. Goodwill – introduction

Many of the complexities regarding impairment testing in practice relate to goodwill. Key aspects of goodwill are:

- Goodwill is only recognised from a business combination (accounted for in accordance with IFRS 3 *Business Combinations*)
- When a business combination is effected through the acquisition of a controlling interest in another entity (typically the purchase of the acquiree's share capital), goodwill is only recognised and presented in the acquirer's consolidated financial statements
- When a business combination is not effected through the acquisition of a controlling interest in another entity, instead being through the purchase of some or all of the acquiree's trading activities and net assets, goodwill is recognised and presented in both the acquirer's separate and consolidated financial statements (if the acquirer has subsidiaries and, in addition, is required to (or chooses to) prepare separate financial statements)
- At the date of a business combination, goodwill is required to be allocated to the appropriate cash generating units (CGUs) (the CGUs associated with the acquiree, and also the acquirer's existing CGUs that are expected to benefit from the synergies of the business combination)
- Subsequent to initial recognition:
  - Goodwill may be reallocated between CGUs only in very limited circumstances
  - Goodwill is tested for impairment on an annual basis
  - If impairment is identified in a CGU to which goodwill has been allocated, the impairment is always first attributed to the carrying value of the goodwill before the carrying amounts of any other assets are reduced.
- Goodwill impairment can never be reversed
- Once the carrying value of goodwill has been reduced to nil, any further impairment of the CGU is allocated to the other assets of the CGU (within the scope of IAS 36 *Impairment of Assets*) on a systematic basis (such as being based on relative values).



The diagram below illustrates the 'goodwill life-cycle':

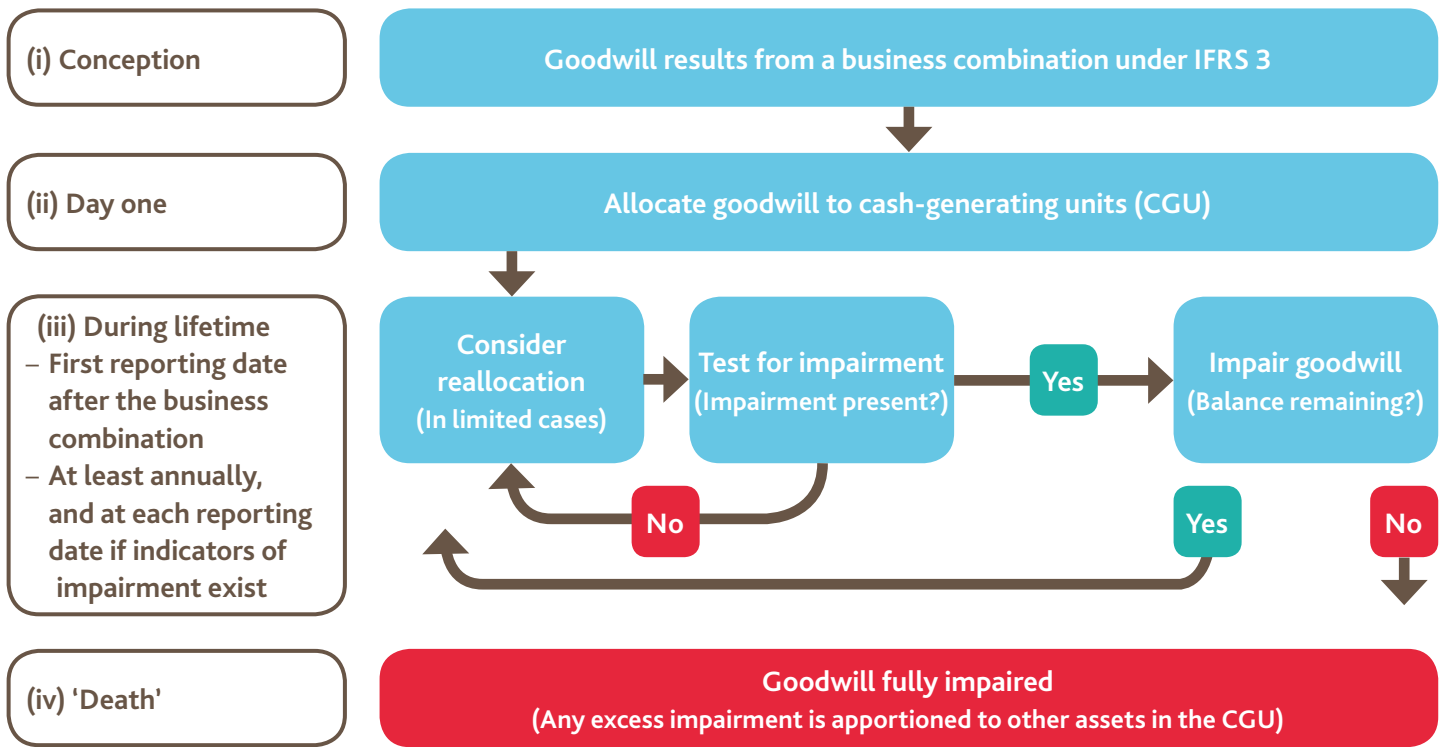


Figure 1: 'Goodwill life-cycle'

**BDO comment**

In practice, even at this initial stage, errors can arise which have a direct effect on the amount of goodwill which is recognised and on subsequent impairment tests. Some of these are summarised in the following table:

### Common errors in practice

1. Goodwill is recognised from a transaction that is not a business combination.

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2. Goodwill is recognised in an entity's separate/individual financial statements when the business combination is effected through the acquisition of a control over another entity.

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3. Business combination accounting (IFRS 3) is not applied correctly, causing the amount of goodwill calculated to be over or understated, including:
  - Not all assets and liabilities being identified (e.g. not considering the lower recognition threshold for intangibles, and failing to recognise amounts for contingent liabilities)
  - Values of net identifiable assets not being measured as required by IFRS 3 (at fair value – with certain limited exceptions)
  - The consequent effect of the above in respect of the calculation of deferred tax assets/liabilities
  - Deferred tax assets and liabilities not being recognised in respect of temporary differences between the carrying amounts of certain assets (i.e. now at fair value) and their tax base (which remains unchanged). This applies in particular to intangible assets such as customer relationships which are recognised in accordance with IFRS 3 which are typically not tax deductible and therefore have a tax base of zero
  - Calculating goodwill before determining the above deferred tax balances (goodwill represents the absolute residual in a business combination)
  - Failure to revalue previously held interests (in the case of a step acquisition) and incorrect calculation of non-controlling interests
  - Incorrect subsequent accounting for contingent consideration (taking changes in the carrying amount of contingent consideration to goodwill instead of profit or loss).

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4. Allocation of goodwill to CGUs with no synergies arising from the business combination.

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5. No allocation of goodwill to those CGUs that have synergies arising from the business combination.

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## 2.2. Cash generating units - introduction

A cash generating unit is defined by IAS 36.6 as:

*'...the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets.'*

The composition and nature of CGUs varies from entity to entity, and is determined largely by entity specific factors.

In practice, CGUs could represent:

- An entire entity (parent or subsidiary entities within a group)
- Departments or business units within an entity
- Production lines within a department, or within an entity
- Groups of items of property, plant and equipment within a production line, within a department, or within an entity.

For the purposes of the allocation of goodwill, CGUs to which goodwill is to be allocated must (IAS 36.80):

- a) Represent the lowest level within the entity at which the goodwill is monitored for internal management purposes, and
- b) Not be larger than an operating segment, as defined by paragraph 5 of IFRS 8 *Operating Segments* before aggregation.

This means that goodwill is allocated separately to CGUs that are no larger than individual operating segments before any operating segments are considered for aggregation for the purposes of the segmental disclosures (such aggregation is permitted by IFRS 8.12).

It is important to note that even though an entity may be outside of the scope of IFRS 8 (e.g. because it is not listed on a public market), the references to operating segments as defined in IFRS 8.5 still apply for the purposes of the application of IAS 36.

**BDO comment**

*IFRS 8.5 defines an operating segment as being a component of an entity:*

- that engages in business activities that generate revenues and incur expenses (including business activities with other components within the same entity)*
- whose operating results are regularly reviewed by the entity's chief operating decision maker (CODM) to make decisions about resources to be allocated to the segment and assess its performance*
- for which discrete financial information is available.'*

*Note: the CODM does not have to be a single person. The CODM could represent a group of people (such as the Board of Directors of a company, or the Trustees of a charitable organisation).*

*In most cases, provided the CGU represents the lowest level within the entity at which the goodwill is monitored for internal management purposes (IAS 36.80(a)), the three requirements set out above should be met.*

*In practice, over aggregation (grouping) of CGUs to the extent that the groups are larger than an entity's operating segments is a common error made by entities.*

*Example:*

*A parent entity considers that a particular subsidiary represents a single CGU. However, the parent entity has not taken into account that the subsidiary has three separate and distinct departments/business units for which disaggregated financial information is presented in the internal management reports that are provided to and reviewed by the CODM.*

*Therefore the parent entity is incorrect in its analysis that subsidiary represents a single CGU, and in fact its subsidiary has (at least) three CGUs, being the three separate and distinct departments/business units.*

*In practice, when a parent entity initially determines that a subsidiary represents a single CGU, the parent entity needs to ensure that this conclusion is consistent with the internal management reports that are presented to the CODM.*

## 2.3. Cash generating units – introduction

IAS 36 permits the reallocation of goodwill between CGUs after to its initial recognition and allocation to CGUs in only three limited circumstances, detailed below.

### **(i) The goodwill allocation has not been finalised at the reporting date**

IAS 36 anticipates circumstances in which an entity completes a business combination shortly before its reporting date and is unable to finalise the accounting and goodwill allocations (due to practical constraints) before its financial statements are required to be authorised.

To address this, IAS 36.84 permits an entity to finalise its allocation of goodwill no later than the end of the annual period beginning after the acquisition date, with the unallocated amount of provisionally calculated goodwill in the current period being disclosed.

### **(ii) An operation with attributable goodwill within a CGU is disposed of**

IAS 36.86 requires an entity to include a portion of a CGU's goodwill in the carrying amount of an operation that has been disposed when calculating the gain/loss on sale.

Such an allocation is carried out either on:

- A specific basis (if such an allocation can be determined reliably), or
- An apportionment based on relative values (see example below).

### **EXAMPLE**

Assume an operation within a CGU is disposed of for CU10m, and the recoverable amount of the CGU that remains after the disposal is assessed as CU30m.

Therefore, the entity has disposed of 25% of the recoverable amount of the CGU.

Therefore, 25% of the goodwill within the CGU would be required to be allocated to the carrying amount of the disposed operation (assuming the entity was unable specifically to allocate the goodwill to the retained and disposed of portions).

### **(iii) The entity reorganises its structure**

There may be instances where an entity reorganises its structure in such a way that the composition of the CGUs to which goodwill has been previously allocated is altered.

IAS 36.87 requires that an entity undertaking such a restructuring apportions the goodwill based on relative values (unless another method is more appropriate).

#### **BDO comment**

*IAS 36 does not define or expand on relative values. In practice this is taken to mean that a valuation technique should be applied consistently across the CGU's, and therefore fair value or a measure of the recoverable amount is often used.*

*The example below uses the recoverable amount of the old and new CGUs as a proxy for their relative values.*

**EXAMPLE**

Assume an entity is structured as follows:

Old CGUs	Goodwill Allocated	Relative Value (Recoverable Amount)
CGU <sub>A</sub>	CU2.0m	CU5.0m
CGU <sub>B</sub>	CU1.0m	CU3.0m
CGU <sub>C</sub>	CU3.0m	CU8.0m
<b>Total</b>	<b>CU6.0m</b>	<b>CU16.0m</b>

Assume the entity then reorganises its three existing CGUs (A, B and C) into three new CGUs (D, E and F).

The table below sets out the effect on the entity's recoverable amount allocation per CGU. That is, it shows how the recoverable amounts of each of the old CGUs has been allocated based on the assets and liabilities that have been restructured into the new CGUs.

Old CGUs	New CGUs			Total Recoverable Amount
	CGU <sub>D</sub>	CGU <sub>E</sub>	CGU <sub>F</sub>	
CGU <sub>A</sub>	CU1.5m	CU2.5m	CU1.0m	CU5.0m
CGU <sub>B</sub>	CU0.5m	CU1.0m	CU1.5m	CU3.0m
CGU <sub>C</sub>	CU2.0m	CU1.0m	CU5.0m	CU8.0m
<b>Total Recoverable Amount</b>	<b>CU4.0m</b>	<b>CU4.5m</b>	<b>CU7.5m</b>	<b>CU16.0m</b>

The reallocation of the CU6.0m of goodwill would be calculated as follows (determined on an apportionment based on the relative values of the recoverable amounts of the new and old and new CGUs)

The formula to split the goodwill allocated to an old CGU between each of the three new CGU's is detailed below

$$GW_{CGU\ New} = GW_{CGU\ Old} \times \left[ \frac{RA_{Allocated\ to\ CGU\ New}}{RA_{CGU\ Old}} \right]$$

GW = Goodwill

RA = Recoverable Amount

Old CGUs	New CGUs		
	CGU <sub>D</sub>	CGU <sub>E</sub>	CGU <sub>F</sub>
CGU <sub>A</sub>	CU0.6m CU2.0m x (CU1.5m/CU5.0m)	CU1.0m CU2.0m x (CU2.5m/CU5.0m)	CU0.4m CU2.0m x (CU1.0m/CU5.0m)
CGU <sub>B</sub>	CU0.2m CU1.0m x (CU0.5m/CU3.0m)	CU0.3m CU1.0m x (CU1.0m/CU3.0m)	CU0.5m CU1.0m x (CU1.5m/CU3.0m)
CGU <sub>C</sub>	CU0.8m CU3.0m x (CU2.0m/CU8.0m)	CU0.4m CU3.0m x (CU1.0m/CU8.0m)	CU1.9m CU3.0m x (CU5.0m/CU8.0m)
<b>Total reallocated goodwill (per CGU)</b>	<b>CU1.5m</b>	<b>CU1.7m</b>	<b>CU2.8m</b>
<b>Total reallocated goodwill</b>			<b>CU6.0m</b>

### Common errors in practice

1. There is a reallocation of goodwill for reasons other than the three limited circumstances set out above.
2. A portion of a CGU's goodwill is not included in the carrying amount of an operation which has been disposed of.
3. Following a reorganisation, an entity does not correctly reallocate its goodwill:
  - An appropriate basis is not used (not based on relative values)
  - Goodwill is allocated to newly created CGUs that have no synergies arising from the original business combination
  - Goodwill is not allocated to newly created CGUs that have synergies arising from the original business combination.
4. Goodwill is reallocated on a specific basis when this approach cannot be justified.

## 3. INDICATORS/TIMING OF IMPAIRMENT TESTS

### 3.1. Mandatory impairment test

The following assets are required to be tested for impairment annually (IAS 36 *Impairment of Assets* paragraph 10):

- Goodwill (the cash generating unit (CGU) to which goodwill has been allocated – see section 2)
- Intangible assets with an indefinite useful life
- Intangible assets not yet available for use.

This means that these assets are tested for impairment each year, regardless of whether there are any indications of impairment.

In respect of the two categories of intangible assets noted above, IAS 36.11 notes that an annual test is required as there is greater uncertainty regarding the ability of these assets to generate sufficient future economic benefits to recover their carrying amounts.



## 3.2. Timing of impairment tests

The timing of impairment tests for goodwill and the two classes of intangible assets does not need to be at the financial year end. This may permit impairment tests to be carried out at a different time of year when more internal resources may be available. However, an entity is also required to reassess goodwill for impairment at its reporting date if an annual impairment test has already been carried out during period and carry out an additional test if there are indicators of impairment as at that date (IAS 36.9).

- Goodwill (i.e. the cash generating unit (CGU) to which goodwill has been allocated to)
- Intangible assets with an indefinite useful life
- Intangible assets not yet available for use

### *Timing of impairment test*

Must be tested annually, and also at any point when indicators of impairment are present.

The mandatory annual impairment test can be at any time during an annual period, provided the test is performed at the same time of the year.

There is no requirement for an entity to test all these assets at the same time (including individual CGU's).

Assets in this category which are initially recognised during the current period must be tested for impairment before, or at, the end of the current period.

If tested for impairment before the end of the reporting period, an additional test is required if there are indicators of impairment at the reporting date.

- All other non-financial assets (within the scope of IAS 36)

### *Timing of impairment test*

Required to be tested for impairment at any point when indicators of impairment are present.

Figure 2: Differences in timing of impairment tests

## Common errors in practice

1. Impairment testing is not carried out when required by IAS 36:
  - Goodwill, intangible assets with an indefinite useful life, and intangible assets not yet available for use (annually at the same time every year)
  - All assets, including goodwill and intangibles identified above (at any point at which there is an indicator of impairment).
2. Not considering the existence of indicators of impairment of goodwill at the reporting date when an annual impairment test has already been carried out during the reporting period.
3. Failing to conduct an impairment test at reporting date for goodwill, intangible assets with an indefinite useful life, or intangible assets not yet available or use, that were recognised for the first time during the period.

### 3.3. Identifying indicators of impairment

IAS 36 requires an entity to consider the following internal and external indicators when assessing whether there are indicators of impairment:

#### (i) External indicators

External indicators of impairment include (IAS 36.12(a)-(d)):

- A significant and more than unexpected decline in market value of the entity (or CGU)
- Changes with an adverse effect on the technological, market, economic or legal environment in which the entity operates, such as:
  - Increases in levies
  - The entry of a major competitor into the market
  - A change in consumer demand that the entity is unable to respond to.
- Increases in interest rates, changes in foreign exchange rates, and/or commodity prices
- The carrying amount of the entity's net assets is more than its market capitalisation.

#### **BDO comment**

*The European Securities and Markets Authority (ESMA) noted in its 2013 report (refer to introduction) that it is sceptical when an entity states that it has determined that no impairment exists when its market capitalisation is lower than the carrying amount of its listed equity instruments.*

*The market capitalisation of an entity represents strong external evidence of the value that market participants place on an entity, and therefore its fair value. Consequently, an entity would need to be able to assert that its value in use exceeds its fair value, or otherwise have an appropriate argument, to avoid recording an impairment.*

#### (ii) Internal indicators

Internal indicators of impairment include (IAS 36.12(e)-(g) and 14):

- Evidence of obsolescence or physical damage
- Changes in the extent to which an asset is used or is expected to be used, such as:
  - An asset becoming idle
  - Plans to discontinue or restructure the operation to which an asset belongs
  - Plans to dispose of an asset before the previously expected date
  - A reassessment of the useful economic life of an asset as finite rather than indefinite.
- Evidence from internal reporting that the economic performance of an asset is, or will be, worse than expected, such as:
  - Cash flows for acquiring the asset, or subsequent cash needs for operating or maintaining it, being significantly higher than originally budgeted
  - Actual net cash flows or operating profit or loss flowing from the asset are significantly worse than budgeted
  - There is a significant decline in budgeted net cash flows or operating profit expected to be generated by the asset
  - Operating losses or net cash outflows are expected for the asset, when current period amounts are aggregated with budgeted amounts for the future.
- An increase in the cost of capital (note, this can also be caused by external factors)
- Changes to the entity's business model and/or plans to restructure/discontinue operations
- Shelving or deferral of previously committed capital investment.

**(iii) Indicators in respect of dividends received from a subsidiary, joint venture or associate ('investee')**

An indicator of impairment exists when an investor recognises a dividend from its investee and evidence is available that either (IAS 36.12(h)):

- The carrying amount of the investee in the investor's separate financial statements exceeds the carrying amount in the consolidated financial statements of the investee's net assets, including associated goodwill, or
- The dividend from the investee exceeds the total comprehensive income of the investee in the period that the dividend is declared.

**(iv) Materiality and previous calculations**

IAS 36.15 emphasises that the concept of materiality also applies to impairment testing for assets that are only subject to impairment testing when indicators arise. For example, if previous calculations show that an asset's recoverable amount is significantly greater than its carrying amount (commonly referred to as 'headroom'), the entity need not re-estimate the asset's recoverable amount if no events have occurred that would eliminate that difference.

However, this does not apply to those assets listed in section 3.1. above, as they are subject to a mandatory annual impairment test irrespective of whether any indicators of impairment exist:

- Goodwill (i.e. the cash generating unit (CGU) to which goodwill has been allocated – see section 2)
- Intangible assets with an indefinite useful life
- Intangible assets not yet available for use.

It should also be noted that in carrying out the current period impairment test for a CGU containing goodwill, IAS 36.99 permits the use of the recoverable amount that was determined in the most recent detailed calculation in the preceding period, if, and only if, all of the following criteria are met:

- i. There has been no significant change in the assets and liabilities that make up the CGU since the most recent recoverable amount calculation
- ii. The recoverable calculated the most recent recoverable amount calculation substantially exceeded the carrying amount of the CGU
- iii. The likelihood that a current recoverable amount determination would be less than the current carrying amount of the unit (after considering all the facts, circumstances, and events since the most recent recoverable amount calculation) is remote.

**(v) Events after Reporting Date**

Entities also need to assess whether events after their reporting date provide any indication that CGUs (assets) may have been impaired as at the reporting date.

**Common errors in practice**

1. Incorrect assessment of the internal and external indicators of impairment (i.e. not identifying indicators when these are in fact present).

## 4. INDICATORS/TIMING OF IMPAIRMENT TESTS

The impairment test required by IAS 36 Impairment of Assets compares an asset's (or cash generating unit's (CGU's)) carrying amount (see section 4.1) with its recoverable amount (see section 4.2).

An asset's (or CGU's) recoverable amount is determined as being the higher of the asset's (or CGU's):

- Fair value less costs of disposal (see section 4.3)
- Value in use (see section 4.4).

An impairment is recognised when an asset's (CGU's) recoverable amount is lower than the asset's (CGU's) carrying amount.

No adjustment is required when the recoverable amount calculated is higher than the asset's (or CGU's) carrying amount, unless there has been an impairment loss recognised in previous periods and the recoverable amount has increased in comparison with its recoverable amount at the end of the previous reporting period (see section 6).

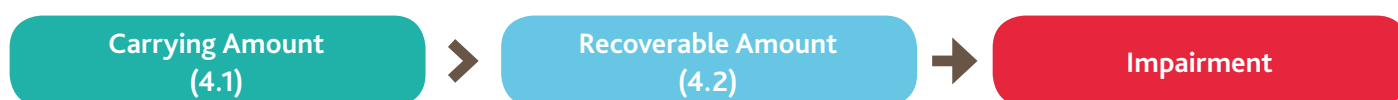


Figure 3: Impairment recognition

### 4.1. Carrying amount

IAS 36.6 defines an asset's or CGU's carrying amount as:

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

The identification of the carrying amount for an individual asset (i.e. an item of property, plant and equipment) will usually be straight forward.

However, IAS 36 requires that an item assessed for impairment must generate cash inflows that are largely independent from other assets. For many individual assets, this is unlikely to be the case. Therefore, in most cases, individual assets (including goodwill) are required by IAS 36 to be grouped into cash generating units (CGUs). CGUs are defined as being:

*'the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets'.*

Accordingly, the determination of the carrying amount of a CGU requires the consideration of more factors than would apply to an individual asset.

IAS 36.75 requires that the carrying amount of a CGU is determined on a basis consistent with the determination of the recoverable amount.

Figure 4 below illustrates how the carrying amount of a CGU is calculated (each of the elements is discussed in more detail below):

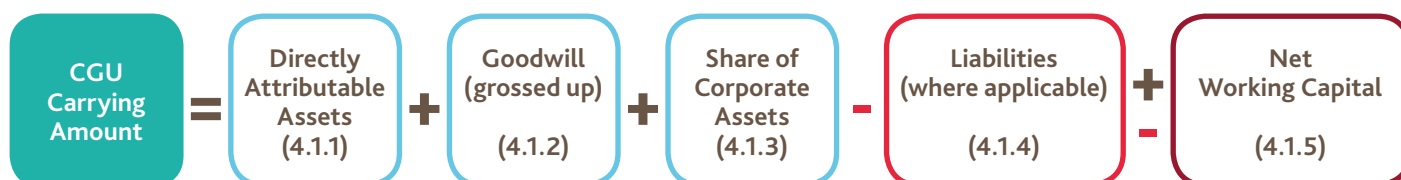


Figure 4: Illustration of the determination of an asset's (or CGU's) carrying amount

### 4.1.1. Directly attributable assets

Assets are allocated to a CGU if either:

- They can be directly attributed to the CGU, or
- They can be allocated to the CGU on a reasonable and consistent basis.

In practice, this is not always a simple process for items such as goodwill and corporate assets (refer to 4.1.2. and 4.1.3.).

It is acceptable to include cash flows that result from assets that are excluded from the scope of IAS 36 if these assets form part of working capital (see section 4.1.5). However, other financial assets are excluded from the scope of IAS 36 and impairment is dealt with in accordance with the requirements of IAS 39 *Financial Instruments: Recognition and Measurement*. Examples of such balances include:

- Intercompany receivables
- Amounts advanced to related parties (and or third parties)
- Available-for-sale financial assets.

#### Common errors in practice

1. Incorrect allocation of directly attributable assets to a CGU:
  - Assets omitted
  - Assets allocated on an unreasonable and/or inconsistent basis
  - Assets included that produce largely independent cash flows from the CGU that have no practical reason to be allocated to the CGU.

### 4.1.2. Allocating goodwill to CGUs

IAS 36 requires that goodwill is allocated at the lowest level at which it is monitored internally. Accordingly, a CGU must not be larger than an operating segment<sup>1</sup> prior to applying aggregation criteria (<sup>1</sup> as defined in IFRS 8 *Operating Segments*). This links to the requirement in IFRS 8 that operating segments are identified on the basis of financial information provided internally to the Chief Operating Decision Maker (CODM).

This means that goodwill is allocated separately to individual operating segments (CGUs) before any operating segments are aggregated together into reportable segments (such aggregation is permitted by IFRS 8.12).

It is important to note that even though an entity may be outside of the scope of IFRS 8, it is still necessary to apply and refer to IFRS 8 for the purposes of impairment tests to be carried out in accordance with IAS 36.

#### (i) Goodwill determined on proportionate share of net assets

IFRS 3 Business Combinations permits two methods to determine the initial carrying value of goodwill:

- Fair value (including any goodwill attributable to non-controlling interests)
- The excess of purchase consideration over the investor's proportionate share of net assets.

An entity that elects to determine the initial carrying value of goodwill as the excess of purchase consideration over the investor's proportionate share of net assets is required to gross up goodwill to reflect 100% of the investee (meaning that goodwill attributable to non-controlling interests is included in the carrying amount). This is logical, as it results in 100% of the net cash inflows being compared to 100% of the net assets in each CGU.

#### (ii) Unallocated goodwill

Goodwill must be initially allocated to the appropriate cash generating units, unless it is impractical to do so at the end of the reporting period during which an acquisition giving rise to goodwill took place (see section 2.3).

Where goodwill relates to a CGU, but has not yet been allocated to that CGU, the CGU is tested for impairment whenever there is an indication of impairment (IAS 36.88).

### Common errors in practice

1. Incorrect determination of an entity's CGUs and/or operating segments:
  - In practice, care is required to ensure that an entity's CGUs are not too large (i.e. that they are appropriately disaggregated, and are not larger than the operating segments identified for the purposes of internal reporting).

### 4.1.3. Corporate assets

Corporate assets are (IAS 36.6):

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

In practice, corporate assets typically comprise the assets of an entity that do not themselves generate independent cash inflows, but instead act to 'support' the entity's other CGUs (which represent assets that do generate independent cash inflows).

There is no specific guidance that sets out what corporate assets include and exclude, as the nature and form of corporate assets differ among entities based on a number of factors, including the structure of an entity itself.

Common examples would include many assets that would be seen as 'group' or 'divisional' assets, such as:

- The building that houses the headquarters of an entity or division
- IT infrastructure
- Research centres.

Corporate assets are normally allocated to CGUs on a reasonable and consistent basis for the purposes of impairment testing (IAS 36.102(a)).

#### **BDO comment**

*Usually, allocation based on the relative values of the CGU's may be considered to be reasonable and consistent. However, where there are significant differences in the remaining useful lives of the CGUs it may be necessary to incorporate some form of 'weighting' to ensure the allocation better reflects the reality of the entity's operations.*

**EXAMPLE**

- Entity A operates from a single centrally located headquarters
- The carrying value of the single centrally located headquarters is CU1,000
- Entity A has identified that it has 2 CGUs (X and Y, as set out below):

	CGU <sub>x</sub>	CGU <sub>y</sub>	Total
<b>Carrying amount</b>	CU13,000	CU25,000	<b>CU38,000</b>
<b>Remaining operational life</b>	5 years	15 years	

Because there is significant difference in the remaining operational lives of CGU<sub>x</sub> and CGU<sub>y</sub>, the entity incorporates 'weighting' based on the relative amounts.

Using CGU<sub>x</sub> as the benchmark weighting of 1.0, the weightings would be as follows:

	CGU <sub>x</sub>	CGU <sub>y</sub>	Total
<b>Weighting</b>	1.0	3.0 (= 15 years / 5 years)	<b>4.0</b>
<b>Weighted relative amount</b>	CU13,000 (= CU13,000 × 1.0)	CU75,000 (= CU25,000 × 3.0)	<b>CU88,000</b>

The allocation of the CU1,000 corporate asset would then be determined based on the weighted relative amount as follows:

CGU	Calculation	Allocation
CGU <sub>x</sub>	= CU1,000 × 1.0 (CU13,000 / CU88,000)	<b>CU148</b>
CGU <sub>y</sub>	= CU1,000 × 3.0 (CU75,000 / CU88,000)	<b>CU852</b>
		<b>CU1,000</b>



In circumstances in which an entity determines that the allocation of corporate assets cannot be performed on a reasonable and consistent basis, the corporate assets are excluded from the carrying amount of a CGU(s). However, in such cases the entity is then required to (IAS 36.102(b)):

1. Test all CGUs with no allocation of corporate assets for impairment, and recognise any impairment
2. Aggregate CGUs to the lowest level at which corporate assets can be allocated, and allocate corporate assets at that level
3. Test the aggregated group (or groups) of CGUs, as a whole, for impairment, and if impairment exists, allocate the impairment loss pro-rata to all assets in the aggregated group of CGUs (including the corporate assets).

IAS 36 notes that corporate assets cannot be tested individually for impairment, because they do not generate separate cash flows and so their individual recoverable amounts cannot be determined on the basis of value in use.

#### **BDO comment**

*We would expect that it would only be in rare cases that it is not possible to allocate corporate assets on a reasonable and consistent basis, and there is a relatively high hurdle to entities making such claims.*

*In practice, an allocation based on the (weighted) relative amounts is usually a straightforward approach.*

*An entity must still assess corporate assets (within the scope of IAS 36) individually for indicators of impairment, particularly if individually material.*

*In instances where indicators of impairment exist, an individual impairment test would be required in accordance with IAS 36 or the applicable IFRS if scoped out of IAS 36.*

When an entity allocates corporate assets to a CGU, it must ensure that the estimated future cash flow's related to those corporate assets are used in determining the CGU's value in use (refer to section 4.4.1.).

#### **Common errors in practice**

1. Incorrect allocation of corporate assets to a CGU:
  - Corporate assets omitted
  - Corporate assets allocated on an unreasonable and/or inconsistent basis
  - Corporate assets not allocated to CGUs by the entity on the basis that:
    - The corporate assets themselves are not individually impaired
    - Allocation cannot be done on a reasonable and consistent basis, when in fact it can.
2. Corporate assets that have correctly not been allocated to individual CGUs by the entity (i.e. because this cannot be done on a reasonable and consistent basis) are subsequently not allocated at an aggregated CGU level and tested for impairment.

#### 4.1.4. *Attributable liabilities*

Liabilities are only included in the carrying amount of a CGU when the recoverable amount a CGU cannot be determined without consideration of the liability.

In practice this would be the case if, for example, a potential the buyer of a CGU would be required to assume the liability. This may be the case in certain circumstances to items including payables, pensions and other provisions.

##### **BDO comment**

*It is important to note that liabilities that relate to the CGU's financing activities (i.e. interest bearing debt) are **excluded** from the carrying amount of the CGU. This is because cash flows from such activities (i.e. interest) are specifically excluded from value in use calculations (this is because the effect of financing activities is incorporated in determining the discount rate – refer section 4.4.1. for further discussion).*

*Where liabilities are attributed to a CGU's carrying amount, the entity must adjust the cash flow from these liabilities in determining the CGU's value in use calculation (e.g. the inclusion of cash outflows from payables that have subsequently been settled). This results in a lower net asset recoverable amount being impairment tested against the (lower) net cash flows that relate to those net assets (i.e. due to the cash outflow associated with the settlement of the allocated liability).*

##### **(i) Deferred tax liabilities**

Significant deferred tax liabilities may be recognised on separately identifiable intangible assets (and other assets, such as investment property) in a business combination. As a consequence, these deferred tax liabilities increase the amount of goodwill recognised (i.e. they reduce the net identifiable assets assumed).

The general requirements of IAS 36 require that impairment tests are carried out on a pre-tax basis (i.e. **exclusive** of tax effects). However, if the deferred tax liability balance on the individual assets within a CGU were excluded, there would (mathematically) be an immediate impairment of goodwill allocated to that CGU – as the carrying amount of the CGU suddenly increases.

Consequently, in practice, these deferred tax liabilities are often included in the carrying amount of the related CGU, meaning that there is no immediate impairment loss.

##### **(ii) Finance leases**

Entities have a choice of how to treat CGUs that contain assets held under finance lease. The choice is either to:

- Exclude the finance lease liability from the carrying amount of the CGU, and also exclude the lease payments from the value in use calculation (see section 4.3) to determine the recoverable amount of the CGU, or
- Deduct the finance lease liability from the assets held under the finance lease and include the cash outflows associated with the lease payments in the value in use calculation (see section 4.3) when determining the recoverable amount of the CGU. In this case, care is needed to ensure that the appropriate discount rate is used.

**(iii) Restoration provisions**

Provisions that result from a legal or contractual obligation to restore, rehabilitate, or 'make-good', that are directly attributable to a CGU, must be included in the CGU's carrying amount.

Examples of such provisions include:

- Environmental restoration costs that are required to be paid or incurred during and/or upon the completion of activities undertaken by the CGU (e.g. in the mining industry, it is a common legal requirement for an entity to either pay a fee or incur at its own cost amounts related to the environmental restoration of the mine site)
- Dilapidated building levies
- 'Make-good' provisions to buildings (or other assets) rented under an operating lease (off balance sheet leases) or finance lease (on balance sheet leases).

**BDO comment**

*The cash flows related to these balances are equally relevant to determining the recoverable amount under fair value less costs of disposal and value in use methods (refer to section 4.3 and 4.4 respectively).*

**(iv) Pension liabilities (assets)**

Entities need to consider whether pension liabilities (assets) would need to be attributed to the carrying amount of a CGU, with the associated estimated future cash flows being included in the calculation to determine the CGU's recoverable amount.

**BDO comment**

*There are practical difficulties when pension liabilities (assets) are allocated to a CGU.*

*In particular, differences (often significant) exist between:*

- *The measurement base of a pension liability (asset)*
- *Cash flows related to the pension liability (asset).*

*As a result it is often difficult to distinguish the cash flows that relate to each CGU, and therefore entities that allocate pension liabilities (assets) to the carrying amount of a CGU would need to devise a robust and reasonable allocation of the estimated future cash flows from the pension liabilities (assets) in determining the CGU's recoverable amount.*

**Common errors in practice**

1. Incorrect allocation of liabilities to a CGU:
  - Liabilities omitted even when a potential buyer of a CGU would be required to assume the liability (note that these can include items which are technically outside the scope of IAS 36, such as employee benefit obligations)
  - Liabilities included even though a potential the buyer of a CGU would not be required to assume the liability
  - Inconsistent treatment in respect to finance lease balances included/excluded in the carrying amount of the CGU and treatment of the finance leases payments included/excluded in the future estimated cash flow projects.

### 4.1.5. Net working capital

Entities have a choice as to whether to include or exclude working capital balances from the carrying amounts of a CGU, so long as there is a consistent application to the inclusion or exclusion of cash flows from working capital items in determining the CGU's recoverable amount (refer to section 4.4.1.(f)).

#### **BDO comment**

##### **(i) Discounting**

Working capital items are usually settled in the short term and therefore discounting is unlikely to have a significant effect on their carrying amounts.

However, should any of the entity's working capital items not be due for settlement in the short term, and the effect of discounting is material, then this would need to be included.

##### **(ii) Working capital items outside the scope of IAS 36**

IAS 36 scopes out a number of items that may be included within an entity's working capital balance (such as inventories). However for the purposes of determining the carrying amount of the CGU and related cash flows, it may be appropriate to include such (scoped out) items. This links to the way in which the recoverable amount of the CGU is determined.

Provided the entity is consistent in including or excluding net working capital, the outcome of the impairment test will be the same.

#### **EXAMPLE**

Entity A has a single CGU with a carrying value of CU350,000, excluding working capital net liability of CU(2,800).

The pre-tax cash flows (excluding working capital cash flows), and working capital balances over the 5 year forecast period are presented in the table below:

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
(a) Pre-tax cash flows (excluding working capital cash flows)	CU35,000	CU70,000	CU105,000	CU140,000	CU175,000	-
(b) Working Capital (Opening)	CU(2,800)	CU(5,250)	CU(10,500)	CU(15,750)	CU(21,000)	CU(26,250) <sup>a</sup>
(c) Working Capital (Closing)	CU(5,250)	CU(10,500)	CU(15,750)	CU(21,000)	CU(26,250) <sup>a</sup>	-
(d) Working Capital (Movement [= (b) - (c)])	CU2,450	CU5,250	CU5,250	CU5,250	CU5,250	CU(26,250)

<sup>a</sup> The closing working capital balance in year 5 is accounted for as a cash (out)flow in year 6.

##### **(i) Calculation where opening working capital is included from the carrying value of the CGU**

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Pre-tax cash flows	CU37,450	CU75,250	CU110,250	CU145,250	CU180,250	CU(26,250)
Discounted pre-tax cash flows [at 10%]	CU34,045	CU62,190	CU82,832	CU99,208	CU111,921	CU(14,817)
<b>Recoverable amount</b> [sum of discounted pre-tax cash flows]	<b>CU375,379</b>					
<b>Carrying amount</b> [= CU350,000 + (2,800)]	<b>CU347,200</b>					
<b>Surplus (Deficit)</b>	<b>CU28,179</b>					

**(ii) Calculation where opening working capital is included from the carrying value of the CGU**

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Pre-tax cash flows	CU40,250	CU75,250	CU110,250	CU145,250	CU180,250	CU(26,250)
Discounted pre-tax cash flows [at 10%]	CU36,591	CU62,190	CU82,832	CU99,208	CU111,921	CU(14,817)
<b>Recoverable amount</b> [sum of discounted pre-tax cash flows]	<b>CU377,925</b>					
<b>Carrying amount</b> [= CU350,000]	<b>CU350,000</b>					
<b>Surplus (Deficit)</b>	<b>CU27,925</b>					

Note: There is an insignificant (less than 1%) difference of CU254 between the surplus calculated in (i) and (ii) above. This is due to the effect of timing and discounting of the cash flows.

## 4.2. Recoverable amount

IAS 36.6 defines an asset's or CGU's recoverable amount as:

*'... the higher of its fair value less costs of disposal and its value in use.'*

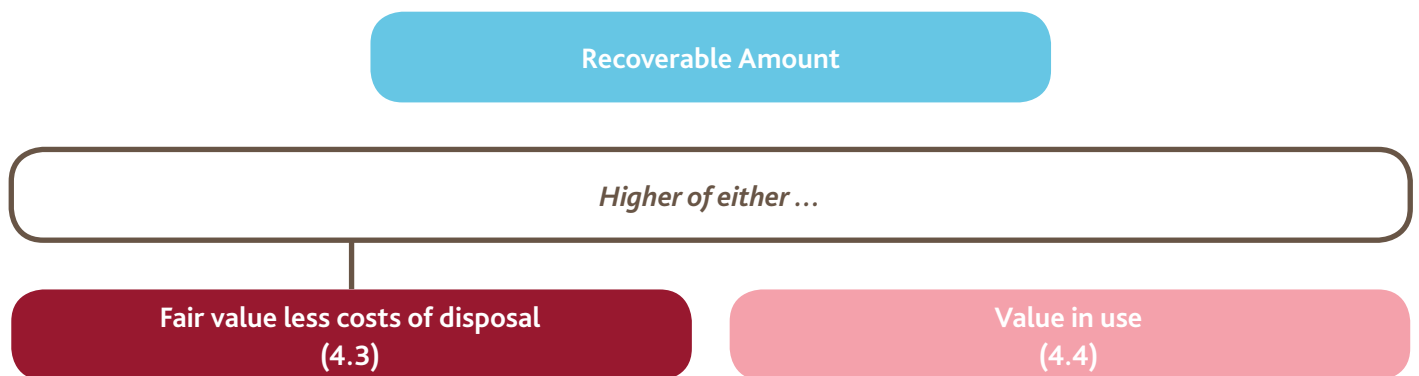


Figure 5: Illustration of the determination of an asset's (or CGU's) recoverable amount

IAS 36 does not require both *fair value less costs of disposal* and *value in use* to be calculated. It is sufficient to calculate only one of the above amounts (i.e. either *fair value less costs of disposal*, or, *value in use*) so long as that amount exceeds the carrying amount.

### **BDO comment**

*In practice, it is not always the case that adequate information will be available for an entity to reliably measure fair value less costs of disposal.*

*In these instances, an entity would then be required to determine an asset's (CGU's) recoverable amount by calculating its value in use (which in the vast majority of cases will require a discounted cash flow approach to be followed).*

### 4.3. Fair value less costs of disposal

Previously, this measure was termed '*fair value less costs to sell*'.

The change in terminology was introduced at the same time as the introduction of IFRS 13 *Fair Value Measurement* (effective for periods beginning on or after 1 January 2013).

Prior to the effective date of IFRS 13, IAS 36 provided a hierarchy upon which fair value less costs to sell was determined. In descending order, this comprised:

- A binding sales agreement (in an arms-length transaction – i.e. not distressed sales or 'fire' sales)
- An active market in which the asset is traded (including recent transactions for similar assets). The fair value would usually be determined as the current bid price, however if this were unavailable the most recent transaction may provide a starting point from which to determine fair value
- The best information available to reflect the amount that the entity could obtain from the sale of the asset (i.e. this would require the use of discounted cash flow (DCF) computations based on market assumptions).

For periods beginning on or after 1 January 2013 fair value is determined in accordance with the requirements of IFRS 13. Accordingly, the definition of fair value less costs of disposal in IAS 36 now reads as:

*'Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. (See IFRS 13 Fair Value Measurement.)'*

#### **BDO comment**

*It might appear that an entity would obtain a higher present value through a DCF under the fair value less costs of disposal approach, than through (the more traditional) value in use route where IAS 36 includes many restrictions on which case flows can be included (refer to section 4.4.).*

*However, the preparation of a DCF under the fair value less costs of disposal route contains a number of specific requirements of its own which need to be considered, including:*

- *The recoverable amount determined must be a reliable estimate of the amount at which the entity would be able to sell the asset (CGU) to a third party*
- *A DCF should only be used when this reflects a valuation technique that is common to the industry/jurisdiction in which the asset (CGU) is operated*
- *The entity must be able to demonstrate that the DCF fully incorporates all relevant market factors that would be considered by market participants in valuing the asset (CGU). This includes both the type and amount of cash inflows and outflows to be included.*

**BDO comment**

While it is not anticipated that the introduction of IFRS 13 will result in a significant change to the determination of fair value less cost of disposal, there are a number new concepts introduced by IFRS 13 that entities will need to consider when it is applied. In summary, these include:

<b>Concept</b>	<b>Description/Impact</b>
<b>Highest and best use</b>	<p>Fair value (of a non-financial asset) takes into account either:</p> <ul style="list-style-type: none"> <li>– The entity's own use of the asset in its highest and best use, or</li> <li>– The sale of the asset to a party that would use the asset in its highest and best use.</li> </ul> <p>Highest and best use is defined as the use of a non-financial asset by market participants that would maximise the value of the asset or the group of assets and liabilities (e.g. a CGU) within which the asset would be used.</p> <p>IFRS 13 provides considerable guidance and requirements in determining highest and best use. Key points for entities to note are that highest and best use:</p> <ul style="list-style-type: none"> <li>– Must be physically possible</li> <li>– Must be legally permissible</li> <li>– Must be financially feasible</li> <li>– Considers the use in combination of other assets and liabilities</li> <li>– May be different to the way in which the entity is currently using the asset.</li> </ul> <p>As an example, an entity might acquire a competitor's brand in order that the brand can be eliminated from the market. The asset would not be measured on the basis of the entity's own (lack of) use of the asset, and would instead be on the basis of the value of the brand in the open market. Consequently, the fair value of the brand might be substantial at least during the initial period after it has been acquired.</p>
<b>Principal or most advantageous market</b>	<p>Fair value assumes the sale of the asset takes place in the principal market for the asset (the market that the entity uses in practice), or in the absence of a principal market, in the most advantageous market for the asset (the market that maximises the amount that would be obtained for the asset).</p> <p>If there is no principal market, transport costs (if applicable) must be deducted to arrive at the price that the asset could be sold in the most advantageous market.</p>
<b>Valuation techniques</b>	<p>Valuation techniques must maximise the use of observable inputs and minimise the use of unobservable inputs.</p>

## Common errors in practice

### For those entities with reporting periods beginning before 1 January 2013

1. Incorrect application of the fair value hierarchy set out above, such as:
  - Applying a DCF even though there may be a binding sales agreement and/or an active market from which fair values can be reliably determined
  - Using sources of information not within the hierarchy.

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2. Using sources of information that give a volatile and/or wide range of values. This might indicate that there are 'outliers' in the inputs to the valuation inputs.

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3. For circumstances in which a DCF is used to determine the recoverable amount under fair value less cost of disposal, the DCF is not computed based on market assumptions.

**Note: There are key differences between the DCF calculations under fair value less costs to sell and value in use.**

As most DCF's are prepared for value in use calculations it is these requirements that are most widely understood in practice. However, it is important to note that:

- The estimated future cash flows in fair value less costs to sell DCF are based on **market assumptions** (i.e. not those specific to the entity)
- The estimated future cash flows in a value in use DCF are based on management's best estimate, and specifically **exclude**:
  - Any future cash flows that arise from a future restructuring to which issuer is not yet committed, and/or
  - Any cash flows that arise from improving the asset (CGU).

However, the market may in fact consider such cash flows when determining fair value less costs of disposal and, in such cases, these cash flows would be included.

### For those entities with reporting periods beginning after 1 January 2013

4. Errors in the application of IFRS 13 in determining fair value, such as:
  - Incorrectly determining the asset's (CGU's) highest and best use
  - Incorrectly determining the principal or most advantageous market
  - Incorrectly using the principal or most advantageous market to determine fair value, resulting in the inappropriate inclusion or exclusion of transport costs
  - Using a valuation technique that uses unobservable inputs (Level 2 or 3 in the hierarchy) when observable inputs are available (Level 1 or 2 in the hierarchy).



**(i) Costs of disposal and Costs to sell**

Both 'Costs of disposal' and 'Costs to sell' have the same definition in the pre and post IFRS 13 versions of IAS 36, being:

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

Examples include:

- Legal costs
- Stamp duty (and similar charges)
- Costs of removing the asset
- Direct incremental costs to bring an asset into condition for its sale.

However, termination benefits and costs associated with curtailing or restructuring a business following the disposal of an asset are not direct incremental costs to dispose of the asset.

**BDO comment**

*For the purposes of an impairment test carried out in accordance with IAS 36 which involves the determination of fair value less costs of disposal, the measurement requirements are set out in IFRS 13. However, the disclosure requirements remain located in IAS 36.*

**4.4. Value in use**

Value in use is defined in IAS 36.6 as:

*'... the present value of the future cash flows expected to be derived from an asset or cash-generating unit.'*

Value in use is determined through the calculation of an asset's (CGU's) estimated discounted future cash flows (more commonly referred to as a discounted cash flow, or DCF).

At a high-level, DCFs utilised for a value in use calculation incorporate:

- An estimate of expected future cash flows
- Expectations about possible variations of the above cash flows
- The time value of money (that is, the discount rate)
- Uncertainty inherent in the price of the asset
- Other relevant factors that market participants would reflect in pricing the future cash flows (such as illiquidity).

The general principles of DCF calculations are set out in IFRS 13 *Fair Value Measurement*. However in practice, DCF calculations are more complex than the guidance in IFRS 13 suggests.

**(i) Basic mechanics of a DCF**

A discounted cash flow is commonly split into two distinct periods:

1. *Forecast period:*

- The period where the cash flows are estimated by an entity (entity specific forecasts)
- Each period within the forecast period is discounted back at the discount rate
- Under IAS 36, the maximum entity specific forecast period is 5 years, unless a longer period can be justified.

2. *Terminal period:*

- The period beyond the forecast period
- The terminal value is an estimate of the present value all the cash flows in the terminal period, as at the end of the forecast period, based on the final cash flow in the forecast period.

For example, assume that an entity has a 5 year forecast period, the formula to determine the terminal value (TV) as at the end of year 5 is:

$$TV_5 = \left( \frac{\text{Cash Flow}_5 \times (1 + g^*)}{(\text{WACC} - g^*)} \right)$$

Cash Flow<sub>5</sub> = the forecasted cash flow in year 5

g\* = the estimated long-term growth rate

WACC = Weighted Average Cost of Capital (see 4.4.2 below)

- The terminal value (TV<sub>5</sub>) is discounted back from the end of the forecast period at the applicable discount rate.

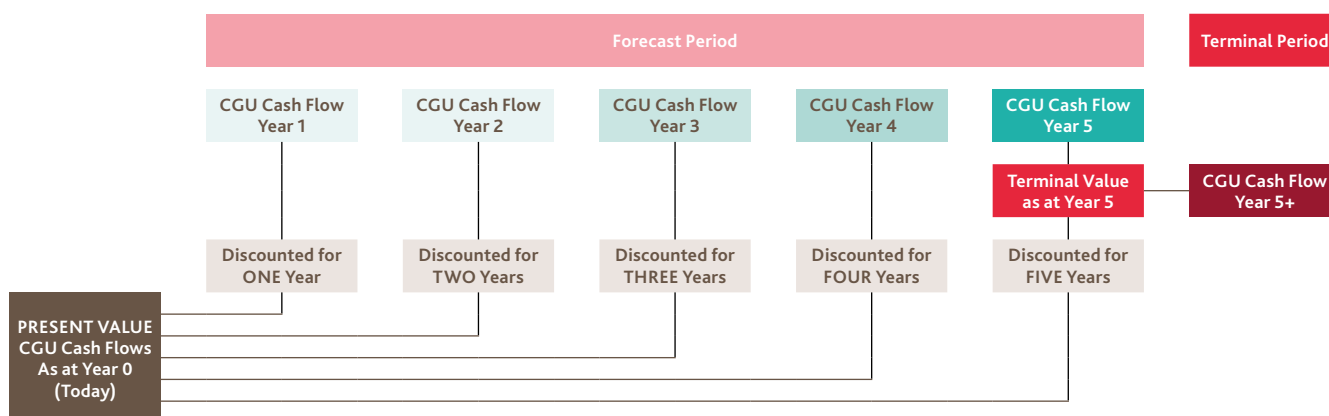


Figure 6: Illustration of the mechanics of a discounted cash flow (DCF) calculation

**Assumptions and judgements**

Entities are required to make assumptions and judgements regarding:

- Estimated future cash flows (4.4.1)
- Discount rate(s) (4.4.2).

Within each of these, there are a number of further parameters for which additional assumptions and judgements must be made. This is particularly the case for the discount rate (discussed below).

Because estimates of future cash flows and the determination of discount rate(s) often require significant estimates, judgements, and assumptions to be made, they are vulnerable to potential misstatement.

### 4.4.1. Estimated future cash flows

At a high-level, IAS 36 requires that the cash flows in a value in use DCF include:

- Only cash inflows from continuing use
- Only cash outflows that are necessary to generate the cash inflows and can directly attributed, or allocated on a reasonable and consistent basis (such as management fees, executive salaries etc.), including cash outflows to prepare the asset for use
- Any net cash flows upon disposal.

Estimated future cash flows should be based on appropriately detailed underlying assumptions, which include changes in working capital and capital expenditure.

Overhead costs relating to the day-to-day servicing of asset, as well as future overheads costs, are only included to the extent that they can be attributed directly, or allocated on a reasonable and consistent basis.

The sub-sections below go into further detail regarding assumptions and judgements in respect to estimated future cash flows, including:

- a) Basis (on budgets)
- b) Specifically prohibited cash flows
- c) Growth rate ( $g^*$ )
- d) Periods covered
- e) Current condition
- f) Movement in net working capital
- g) Corporate assets
- h) Restoration provisions (refer section 4.1.4(iii) for a detailed discussion)
- i) Internal transfer pricing.

#### a) Basis (on budgets)

The cash flows used in a value in use calculation should be based on budgets formally approved by management.

However some adjustments might be required in order to comply with the requirements of IAS 36, for example, adjustments to make the cash flows represent **pre-tax** amounts.

An underpinning principle of IAS 36 is that cash flows are based on reasonable and supportable assumptions that represent management's best estimate of about future cash flows.

However, where an entity has a history of not achieving budgets prepared for internal management purposes, additional work may be needed in order to determine whether the most recent budgets represent realistic forecasts of future cash flows.

**b) Specifically prohibited cash flows**

There are a number of cash flows that are specifically prohibited by IAS 36 from being included in value in use calculations.

These include cash flows relating to:

- A future restructuring to which an entity is not yet committed
- Improving or enhancing the asset's performance
- Financing activities<sup>1</sup>
- Income tax receipts or payments
- Non-cash items (such as depreciation and amortisation).

<sup>1</sup> Cash flows relating to financing activities are excluded because borrowing costs are reflected in the discount rate that is used to discount future cash flows. Therefore including cash flows from financing activities would double-count their effect on the present value of future cash flows.

In addition, cash flows from activities such as the receipt or repayment of funds are not included in a DCF as they are not related to the CGU's capacity to generate future cash flows.

**BDO comment**

*In practice, it can be difficult to distinguish between cash flows that are related to future uncommitted restructurings (which are prohibited cash flows – see above) and efficiency improvements (refer to e) below).*

*As a general rule, if an entity is unable to recognise costs in accordance with IAS 37 Provisions, Contingent Liabilities and Contingent Assets, the cash flows should be excluded from value in use calculations.*

**c) Growth rate****Forecast period**

Entities are allowed to apply different/specific growth rates to the each year during the forecast period (refer to d) below). Like all judgements and assumptions used in the DCF, these rates must be reasonable and supportable.

**Terminal period**

The growth rate used to calculate the terminal value in the terminal period ( $g^*$ ) is termed the 'long-term growth rate'. This rate **must not exceed** the long-term average growth rate for the products, industries, or country (or countries) in which the entity operates, or for the market in which the asset is used (unless a higher rate can be justified).

The long-term growth rate used is required to be assessed individually for each CGU, and reflect the various considerations and risks noted above. In practice, the long-term growth rate should be steady or declining. Depending on the circumstances, it would also be possible to use a growth rate that is zero or negative.

**d) Periods covered**

As discussed above, the forecast period for entity specific cash flow projections is not permitted to exceed five years, unless a longer period can be justified. This is based on the premise that if, for example, an entity earns above average returns, others will enter the market and drive returns down to the industry average.

However, an entity may be able to justify a longer forecast period if it is involved in a limited life project (such as a mine with a 7 year forecast period of operations before it is abandoned).

An entity is required to disclose:

- The period over which management has projected cash flows in the forecast period
- Why it has used a forecast period that is longer than five years, if it chooses to do so.

**e) Current condition**

Future cash flows are projected on the basis of an asset (or CGU) in its current condition at the reporting date. Cash outflows that are necessary to keep an asset (or CGU) in its current condition (e.g. day to day serving, maintenance or repair costs) are included in the cash flow projections.

Future expected reductions in cash outflows relating to a future restructuring (such as cost savings related to a reduction in staff numbers) to which an entity is not yet committed are not included. Cash outflows that will result from investments to improve the performance of an asset, as well as the increased inflows as a consequence of the improvements, are also specifically excluded.

However, cost savings from efficiency improvements can be included in cash flow projections.

Judgement is required to distinguish between a restructuring program and an efficiency improvement.

Efficiency improvements will usually be implemented on an on-going basis and do not change an entity's business model significantly, whereas restructuring programs will result in more significant change at a certain point.

Cost savings and other benefits as a result of a restructuring program are reflected in the cash flow projection only if an entity is committed (based on the guidance set out in IAS 37) to a future restructuring at its reporting date.

**f) Movements in net working capital**

As discussed in section 4.1.5., the movements in net working capital are included in a CGU's estimated future cash flows if the net working capital balance has been included in the carrying amount of the CGU.

**BDO comment**

*In practice, many entities (for simplicity) assume that the change in working capital will be negligible year on year.*

*However there may be instances in which specific facts, circumstances, and/or assumption may result in changes in net working capital needing to be factored into the estimated future cash flows of a CGU.*

*Where an entity estimates increases to revenue and/or cost of goods sold, these would be expected to flow through on a consistent basis to the carrying amounts of the associated working capital items, for example:*

- *An increase or decrease in sales will affect the carrying amount of trade receivables at period end*
- *An increase or decrease in cost of sales/goods sold would affect the carrying amount of trade creditors and inventory at period end.*

*The cumulative effect of these may affect net working capital.*

**g) Corporate Assets**

When an entity allocates corporate assets to a CGU (refer to section 4.1.3.), it must ensure that the estimated future cash flows related to those corporate assets are used in determining the CGU's value in use.

If the corporate assets have been apportioned across several CGU's on a reasonable and consistent basis, the estimated future cash outflows from the corporate assets must similarly be apportioned.

**h) Restoration provisions**

These relate to provisions that result from a legal or contractual obligations to restore, rehabilitate, or 'make-good' certain assets or sites – see section 4.1.4(iii) for further details.

Depending on the specific legal or contractual terms attached to these provisions, the balance will either be accrued over time as damage is caused (more common) or recognised in one single period as soon as the first sign of damage occurs (less common).

If amounts have been included in the carrying amount of the CGU (i.e. they meet the recognition criteria of IAS 37), the cash (out)flows associated with these balances are not included in the CGU's estimated future cash flows for the purposes of the value in use test, because a liability has already been recognised.

**i) Internal transfer pricing**

The cash inflows for some CGUs may be affected by internal transfer pricing. However, the determination of a CGU's (assets) recoverable amount is an 'outward looking' assessment.

This means that for the purposes of its impairment test, an entity is required use management's best estimate of the estimated future cash flows that could be achieved in arms-length transactions (i.e. with external market participants), rather than the amounts used for any internal transfer pricing purposes specific to the CGU. This is consistent with the recoverable amount being determined from the perspective of a general market participant, and not from an entity specific perspective.

## Common errors in practice

1. Not basing cash flows on management approved budgets.
2. Basing cash flows on management approved budgets that historically have not been an accurate representation of actual results (meaning that current budgets do not represent the best estimate of future cash flows).
3. Using an entity specific forecast period of greater than 5 years with no reasonable justification.
4. Not basing cash flows on continuing use.
5. Using overly optimistic growth rates, or growth rates that are inconsistent with the long-term average growth rate relating to the products, industries, or country (or countries) in which the entity operates, or for the market in which the asset is used (in the absence of any reasonable justification).
6. Not linking expected future cash outflows with those that would be necessary to generate the expected cash inflows. For example, this could be projecting revenue growth, with no corresponding increase in expenditure and capital investment.
7. Inconsistent assumptions in respect to cash inflows and outflows that are linked. For example, cash outflows relating to cost of sales would normally be expected to move in line with cash inflows from sales.
8. Under or over estimating net cash flows on disposal of an asset.
9. Including cash flows that are not reflective of the asset (CGU) in its current condition as at the date of the impairment test.
10. Including any of the prohibited cash flows in IAS 36 (refer to b) above).
11. Over optimistic revenue assumptions.
12. Understated expenditure assumptions.
13. Aggregating cash flows at too high a level when applying growth trends. Not all cash flows will respond in the same way to projected growth – some may increase, decrease, or stay constant (e.g. cost of sales, employee benefits and overheads).
14. Over simplistic and/or inconsistent assumptions related to capital expenditure.  

In practice, many entities simply assume that the level of capital expenditure is equal to (and offsets) the amount of depreciation and/or amortisation during each period. However, this may not be consistent with forecast growth or other factors.

It is also necessary to ensure that capital expenditure cash outflows reconcile to amounts reported in management approved budgets.
15. Over simplistic and/or inconsistent assumptions related to changes in working capital.  

In practice, many entities simply assume that the change in working capital will be nil (or insignificant). However, this may not be consistent with forecast growth rates.
16. Overstated (or understated) terminal value (TV), as a result of:
  - An over estimated cash flow in the final year of the forecast period
  - Inclusion of one-off cash inflows (outflows) relating to the sale (purchase) of capital expenditure.

The effect of not excluding these one-off cash flows from the final forecast year, is that the terminal value calculation will assume that cash inflow (outflow) from the sale (purchase) will occur every year.
17. Use of internal transfer pricing amounts rather than management's best estimate of the estimated future cash flows that could be achieved in an arms-length transaction.

### 4.4.2. Discount rate

Although estimated future cash flows (see above) are specific to the entity, the discount rate is not. Instead, the discount rate reflects the return that market participants would expect from the asset (CGU) based on its specific risks and the time value of money.

However, there must be consistency between the assumptions used in determining the estimated future cash flows (above) and the discount rate. For example, if an aggressive growth rate is included in the cash flows, the discount rate should be adjusted to reflect the risk of not achieving such growth.

The discount rate is usually not observable in the market meaning that a model or formula needs to be used. One of the more common models that is used in practice is the weighted average cost of capital (WACC).

#### **Weighted average cost of capital (WACC)**

An entity is typically funded from a mixture of debt and equity:

- Instruments held by debt funders (banks, financial institutions, debenture holders etc.) are usually secured against the entity's assets and have contractual payment streams of interest and principal
- Equity shareholders have no contractual payment streams, and are only entitled to discretionary distributions and a proportionate share of the net assets of the entity once all liabilities have been settled (dividends are not contractual payments, instead being distributions at the discretion of the entity).

Equity shareholders are therefore exposed to higher risk than debt funders, and therefore demand a higher rate of return on their investment.

An entity's WACC represents the minimum return that must be earned from its asset base to satisfy both its debt funders and equity shareholders. For the purposes of IAS 36, the rate is 'weighted' based on the typical market levels of debt and equity for the entity. This may differ from an entity's own balance of debt and equity funding, and is designed to ensure that impairment testing is carried out on a consistent basis from a market participant, rather than entity specific, perspective.

$$\text{WACC} = [r_d \times (D / (D + E))] + [r_e \times (E / (D + E))]$$

$r_d$  = Cost of debt

$r_e$  = Cost of equity

$D$  = Debt

$E$  = Equity

#### **Cost of equity ( $r_e$ )**

While the cost of debt ( $r_d$ ) is usually observable (or easily determinable) from the market, this is not usually the case for the cost of equity ( $r_e$ ). This is because the rate of return demanded by equity shareholders varies significantly among different companies, industries and jurisdictions. Therefore, a model usually needs to be used to determine the cost of equity ( $r_e$ ).



In practice, these models determine the cost of equity ( $r_e$ ) based on the interaction of other parameters, such as:

- The risk free rate ( $r_f$ )
- Entity beta ( $\beta$ ) (i.e. the systematic risk of the entity's shares)
- Market risk premium (MRP) (i.e. the difference between the expected market return and the risk free rate).

One of the more common models utilised in practice to determine the cost of equity ( $r_e$ ) is the Capital Asset Pricing Model (CAPM).

$$r_e = r_f + [\beta \times \text{MRP}] \qquad [\text{MRP} = r_m - r_f]$$

$r_e$  = Cost of equity       $r_m$  = Expected market return  
 $r_f$  = Risk free rate      **MRP** = Market risk premium  
 $\beta$  = Entity beta

In practice, the above parameters are not usually available or easily determinable for small and medium-sized entities (SMEs). Therefore, SMEs typically need to engage with valuation experts to determine their cost of equity ( $r_e$ ).

Parameters and other considerations used in the application of WACC, CAPM, and DCF in general are described in more detail below, including:

- a) Risk free rate ( $r_f$ )
- b) Market risk premium (MRP)
- c) Beta ( $\beta$ )
- d) Cost of debt ( $r_d$ )
- e) Capital structure (debt (D) and equity (E))
- f) Other considerations.

### **a) Risk free rate ( $r_f$ )**

This rate can usually be observed from long-term government bonds issued in the jurisdiction of the asset (CGU). Entities with CGUs that operate in jurisdictions with a deep market for high quality corporate bonds are also permitted to use these rates as their risk free rate ( $r_f$ ).

In all cases, an entity is required to use a risk free rate that applies to the jurisdiction in which it operates. This is because government bond rates (and corporate bond rates) differ between jurisdictions (e.g. due to different expectations about future inflation and other market pressures). In addition, the term (maturity) of the risk free rate used must match the term of the estimated future cash flows.

Therefore, in practice, when an entity estimates its cash flows for an infinite period (which is the approach followed when the DCF incorporates a terminal value), a bond with a long-term maturity (at least 10-years) should be used.

Where applicable, the risk free rate ( $r_f$ ) used to calculate the cost of equity ( $r_e$ ) and cost of debt ( $r_d$ ) must be consistent.

### **b) Market risk premium (MRP)**

As with the risk free rate ( $r_f$ ) above, the market risk premium (MRP) must also match the term of the estimated future cash flows. Therefore the MRP must be based on a long-term perspective when the DCF is based on long-term estimated future cash flows (i.e. where the DCF incorporates a terminal value).

**c) Beta ( $\beta$ )**

Beta measures systematic risk in terms of the magnitude and direction of movements in an entity's share price compared to movements in the market as a whole. A summary of this is illustrated in the table below:

Value of $\beta$ (decending)	Movement direction	Movement magnitude	Common example (shares and other instruments)
$\beta > 1$	Same as the market	Greater than the market	Volatile share prices influenced by daily market news (i.e. start-up companies, entities in certain industries such as technology etc.).
$\beta = 1$	Same as the market	Same as the market	Shares in larger mature entities that are a significant contributor to the market.
$0 < \beta < 1$	Same as the market	Less than the market	Shares in stable entities producing staple goods and services that are not as susceptible to day to day market fluctuations.
$\beta = 0$	Movements in share prices are uncorrelated with the market		Any form of a fixed-yield instrument whose return is independent of market movements.
$\beta < 0$ ( <b>'negative beta'</b> )	Movements in share prices are in the opposite direction to movements in the market		Certain 'investment' commodities (such as gold) typically move in the opposite direction to the market (i.e. when the share market falls, participants typically move to interests in these 'investment' commodities as they are seen as a more stable and appreciating investment).

Figure 7: Table illustrating the meanings of various beta ( $\beta$ ) values and common examples

There is a distinction between a leveraged and an unleveraged beta:

- Leveraged beta ( $\beta_l$ ) includes the financial effects from leverage (i.e. where an entity is funded by both debt and equity) when this can be observed from markets
- Unleveraged beta ( $\beta_u$ ) does not include leverage. (i.e. it represents the beta for an entity that is has no debt funding and is instead fully funded by equity shareholders).

An entity must apply a leveraged beta ( $\beta_l$ ) based on the typical market levels of debt and equity for an equivalent entity in the same industry sector if this factor is available.

However, in many cases, an entity may be comprised of numerous CGUs. In such cases, when the entity has access to an entity-level unleveraged beta ( $\beta_u$ ), the entity must, depending on the level at which impairment is being assessed:

- Apply leverage to the entity-level market unleveraged beta
- Apply leverage to the market unleveraged beta based on the typical market levels of debt and equity for each individual CGU (i.e. apply separate CGU-level leveraged betas to each CGU).

**d) Cost of debt ( $r_d$ )**

Although some entities have debt instruments that are traded in a market (such as debentures), the majority of entities do not. In practice a common method of determining the cost of debt ( $r_d$ ) is to use the risk free rate ( $r_f$ ) of the jurisdiction in which the entity (or certain of its CGUs) operates, and then adjust to take account of the market risk premium that would apply to a similar entity or CGU.

In addition, an entity could also use the borrowing rate that applied to a loan that had recently been taken out with a third party at arm's length as a proxy for the current cost of debt ( $r_d$ ). However, it would not be appropriate to use a borrowing rate (or a credit spread) for borrowings that had not been taken out recently. This is because, during the period since those borrowings had been taken out, there might have been changes to:

- The overall credit market
- The entity's credit quality.

One or both of the above could mean that the entity would pay a different rate of interest for the same amount of borrowings, if a new arrangement was entered into on the date of the impairment test (the entity could be subject to a higher or lower borrowing rate).

The requirement to determine a current borrowing rate applies in all cases, including where the entity has no need for additional financing and/or has no need to repay any of the existing loans within the forecast and terminal period.

**e) Capital structure (debt and equity)**

The WACC is calculated based on the proportions of debt (D) and equity (E) to the overall capital structure (D + E).

- The 'weighting' applied to the cost of debt ( $r_d$ ) is equal to  $[ D / ( D + E ) ]$
- The 'weighting' applied to the cost of equity ( $r_e$ ) is equal to  $[ E / ( D + E ) ]$ .

IAS 36 is clear that the discount rate used in a value in use calculation must be independent of the entity's actual capital structure. Where WACC is used as a proxy for the discount rate, this requirement extends to the amounts of debt (D) and equity (E) used in calculating the 'weightings'.

Consequently, the amounts and weightings of debt (D) and equity (E) must be based on those of a peer group of entities that are reflective of the capital structure that an investor would apply when investing in the entity or CGU (i.e. the 'market capital structure'). This requirement is based on the fact that future cash flows generated by an entity or CGU are not affected by the way an entity or CGU is funded (i.e. whether funded by debt or equity, or a various mixture of the two).

To illustrate, assume a CGU was funded in full by equity. If the WACC were determined on the entity's specific capital structure (rather than the market capital structure), the entity:

- Would have a higher discount rate (WACC) than an identical company with a different capital structure (a 'comparable leveraged entity'), due to more weight being placed on the higher cost of equity ( $r_e$ ) demanded by equity shareholders.
- Would calculate a lower recoverable amount compared to a comparable leveraged entity due to the use of a higher discount rate (WACC).
- Would be subject to impairment at an earlier point than a CGU for a comparable leveraged entity.

**f) Other considerations**

There are a number of other considerations that an entity needs to consider when determining the discount rate to be applied in a DCF:

<i>Factor to consider</i>	<i>Description</i>
<b>Discount rate (by CGU)</b>	<p>In practice, it is common for an entity to have more than one CGU.</p> <p>It is also common for different CGUs to be exposed to different risks, due to exposure to different markets, industries, jurisdictions, products, currencies, interest rates etc.</p> <p>IAS 36 requires a discount rate to be applied to <b>each individual CGU</b> based on that CGU's exposure to specific risks.</p> <p>Therefore, for many entities, it is inappropriate to apply a single discount rate calculated at an entity level across multiple CGUs, as such a rate will not incorporate the specific risks of the cash flows of each CGU.</p>
<b>Foreign currency</b>	<p>The estimated future cash flows used in a DCF to determine value in use are required to be estimated in the currency in which they will be generated.</p> <p>As a consequence, the discount rate(s) should also reflect all the currency specific risks to which a CGU is exposed.</p> <p>A CGU, for example, may generate cash flows in two different currencies. For the purposes of an impairment test for that CGU, it would be necessary to discount the two different currency cash flow streams using two separately determined discount rates that incorporate the risks associated with each of those currencies. The present values would then be translated back into the entity's functional currency using the spot rates as at the date of the impairment test.</p>
<b>Taxation</b>	<p>IAS 36 requires a company to use a <b>pre-tax</b> discount rate in the value in use calculation. This means that interest costs which are deductible for tax purposes (commonly known as a 'tax shield') are not reflected in the discount rate.</p> <p>In theory, using a post-tax discount rate together with post tax cash flows should result in the same recoverable amount as would be determined when using a pre-tax rate discount rate with pre-tax cash flows. In practice, because management budgets and forecasts are constructed to incorporate tax, DCFs for determining value in use are usually prepared based on these post-tax discount rates and estimated future cash flows. For these purposes, it is necessary to adjust for the timing of tax cash flows.</p> <p>However, IAS 36 specifically requires the disclosure the <b>pre-tax</b> discount rate(s) used. In circumstances in which an entity has used a post-tax rate, the pre-tax rate can be determined by using an iterative computation, as set out in IAS 36.BCZ85.</p>
<b>Size premium</b>	<p>In some cases, the size of the CGU may affect the discount rate.</p>

## Common errors in practice

### General areas

1. Incorrect assessment of any of the above parameters (for more specific details refer below).
2. Not applying separate discount rates to individual CGUs, where CGUs are exposed to different markets, industries, jurisdictions, products, currencies, interest rates etc.
3. Not accounting for cash flows generated or incurred in foreign currencies appropriately:
  - Not applying separate discount rates to cash flows derived in foreign currencies
  - Not translating the discounted foreign currency cash flows at the spot rate as at the date of the impairment test.

### Specific areas relating to the use of WACC

4. Using inputs with characteristics that are inconsistent with the period (forecast or terminal) for which they are being included:
  - E.g. determining cost of debt ( $r_d$ ) on a short term basis (i.e. 1 year) when the forecast period is 5 years.
5. Basing the cost of debt ( $r_d$ ) on a rate attributable to borrowings taken out by the entity that were not:
  - Received recently
  - At arms-length.
6. Determining weightings of debt (D) and equity (E) on the entity's specific debt and equity ratios, rather than on those of a peer group of entities that are reflective of the external market capital structure that an investor would apply when investing in the CGU.
7. Using the post-tax WACC formula rather than the pre-tax formula and failing to make appropriate adjustments – see above. IAS 36 specifically requires that cash flows are exclusive of tax, and therefore for consistency, the discount rate must exclude the tax effect.

### Specific areas relating to the use of CAPM to determine the cost of equity ( $r_e$ )

8. Incorrect determination of the risk free rate ( $r_f$ ):
  - Use of a corporate bond rate when there is no deep high quality market
  - Use of a rate from a jurisdiction outside of the jurisdiction of the asset or CGU
  - Sourcing the risk free rate ( $r_f$ ) from instruments that do not have a long-term maturity.
9. Incorrect determination of the market risk premium (MRP):
  - Using an MRP that is not based on a long-term perspective
  - Over-reliance on a backwards looking MRP
  - Use of MRP from outside of the jurisdiction of the asset or CGU.
10. Incorrect determination of the entity beta ( $\beta$ ):
  - Simply assuming that the value moves in the same direction and in the same magnitude as the overall market ( $\beta = 1$ )
  - Not using a leveraged beta ( $\beta_l$ ) based on the typical market levels of debt and equity for the entity (CGU)
  - Applying an entity level leveraged beta ( $\beta_l$ ) to all CGUs within the entity.

## 5. RECOGNISING AN IMPAIRMENT

If the recoverable amount of an asset (CGU) is lower than its carrying amount, the asset (CGU) is impaired (refer to *figure 3*). The carrying amount of the asset (CGU) is then required to be reduced to its recoverable amount.

An impairment loss is recognised in profit or loss, except when the related asset is carried at its revalued amount in which case the impairment loss is recognised in other comprehensive income to the extent that the impairment loss does not exceed the revaluation surplus for that asset.

For individual assets, allocating the impairment will be straightforward. Where the impairment relates to a CGU, IAS 36 *Impairment of Assets* paragraph 104 requires that any impairment loss is first taken to reduce the carrying amount of goodwill, with any remaining impairment allocated to all other identifiable intangible assets within CGU (that are within the scope of IAS 36) based on their relative values. This allocation to all other assets must not subsequently result in the carrying amount of these assets being below the higher of (IAS 36.105):

- a) Fair value less costs of disposal (if measurable)
- b) Value in use (if determinable), and
- c) Zero.

For individual assets, if the amount estimated for an impairment loss is greater than the carrying amount of the related asset, a liability for the excess is recognised only if that is required by another IFRS.

For CGUs, after the requirements in IAS 36.104 and 105 have been applied, entities are only required to recognise any remaining amount of impairment loss if this is required by another IFRS.

### **BDO comment**

*The allocation of impairment losses attributable to a CGU that are greater than the carrying amount of goodwill may be affected by the extent to which fair value less costs of disposal and value in use can be measured for individual assets.*

*For certain items of plant and equipment, it may not be possible for an entity to measure an individual asset's fair value less costs of disposal or to determine the asset's value in use. In others, particularly for specialised equipment, fair value less costs of disposal may be low or negligible. Therefore excess impairment losses, after impairing goodwill in full, would be allocated on a relative value basis.*

*However, for certain items of property, information to measure an asset's fair value less costs of disposal will be readily available in most cases. For example, a CGU might contain the head office of an entity (as the head office does not generate separately identifiable cash flows). In most instances, the market value (which approximates fair value less costs of disposal) would be readily available.*

*Therefore, if the head office was measured in accordance with the revaluation model under IAS 16 Property, Plant and Equipment, because its carrying amount (market value) should approximate fair value less costs of disposal, there should be either no or a nominal amount of impairment allocated to the head office.*

*If however the head office is measured in accordance with the cost model under IAS 16, the market value will not be reflected in the depreciated carrying amount of the head office. Therefore:*

- *If market value was greater than the carrying amount, no impairment would be allocated*
- *If the market value was lower than the carrying amount, impairment would be allocated in accordance with paragraphs 104 and 105 above.*

**Common errors in practice**

1. Allocating impairment to assets before the carrying amount of goodwill has been reduced to nil.
  2. Allocating impairment to other assets which take their carrying value below their measurable fair value less costs of disposal (or determinable value in use).
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## 6. REVERSING AN IMPAIRMENT

Where assets (CGUs), other than goodwill, have been impaired in prior periods, IAS 36 *Impairment of Assets* requires an entity to assess at the end of each reporting period whether there are indicators that a previous impairment loss has reduced (these indicators are the same as the indicators as discussed in section 3.2). If so, the entity is required to estimate the recoverable amount of that asset (CGU) – as detailed in the sections above.

A previous impairment (other than of goodwill) is also reversed if an entity changes the estimates used to determine the recoverable amount of an asset (CGU), and this results in the recoverable amount exceeding the carrying amount.

However, the amount of the reversal is limited to the amount that brings the asset (CGU) to the current carrying amount that would have been determined (net of amortisation or depreciation) had no impairment loss been recognised for the asset (CGU) in prior years. Consequently, there is a decreasing 'cap' on the amount of potential impairment reversal for depreciable assets.

As an exception to the general approach of permitting reversal of impairments, amounts allocated against the carrying amount of goodwill are never reversed. This is because of the practical difficulty of determining whether the increase in value results from elimination of the reason for the original impairment, or whether the increase instead results from subsequent internally generated goodwill (which IFRS does not permit to be recognised as an asset).

### EXAMPLE

At the end of the current period:

- An asset (carried at cost) has a carrying amount of CU100 and a remaining useful life of 10 years
- Depreciation is charged on a straight-line basis with a residual value of nil (i.e. annual depreciation charge of CU10)
- The asset is impaired to a recoverable amount of CU60.

At the end of the subsequent period:

- The entity has charged depreciation for the year of CU6 (i.e. CU60/10yrs ), resulting in a carrying amount of CU54 (i.e. CU60 – CU6 )
- The entity identifies that there are indicators that the impairment has reversed, and determines that the recoverable amount is CU110.

The resulting treatment would be:

- Because the carrying amount of the asset would have been CU90 had the impairment never been recorded (i.e. CU100 – CU10), the entity increases the carrying amount of the asset to CU90 (i.e. the impairment reversal is CU34, not CU54).

Any reversal of impairment is recognised in profit or loss (unless the asset is carried at revalued amount in accordance with another IFRS). The reversal of an impairment loss of a revalued asset is treated as a revaluation increase in accordance with that other IFRS.

A reversal of an impairment loss for a cash-generating unit is allocated to the impairable assets of the unit, except for goodwill, based on their relative values.



**Common errors in practice**

1. Incorrectly determining that there are indicators of a reversal of impairment, when no such indicators exist.

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2. Reversing a previous impairment of the carrying amount of goodwill.

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3. Reversing an impairment to an amount that results in the carrying amount of the asset (CGU) being greater than the carrying amount that would have existed had the impairment never been recognised.

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## 7. DISCLOSURE

IAS 36 *Impairment of Assets* requires extensive disclosures for impairment regardless of whether an impairment has been recognised.

### 7.1. Assumptions used

When a CGU's recoverable amount is based on its value in use, considerable judgement has to be exercised by management. IAS 36.134 requires detailed disclosures on estimates used to measure the recoverable amount of cash-generating units (CGUs) to which significant goodwill or intangible assets with indefinite lives have been allocated. The aim of the requirements is to help users understand the approach followed by the management.

ESMA, the European Securities and Markets Authority, emphasised in a report issued towards the end of 2012 that more detailed instead of aggregated quantitative disclosures should be provided in the financial statements with a particular focus on:

- Key assumptions used
- Periods over which cash flows are forecast
- Growth rates
- Discount rates applied
- Consistency of those assumptions with past experience.

#### Common errors in practice

1. Not identifying (and therefore not disclosing) all key assumptions.

2. Disclosing assumptions that are not key assumptions (i.e. over disclosure).

3. Over aggregation of key assumptions.

For example, the discount rate (i.e. WACC) is itself made of various parameters with associated (and quite separate) assumptions.

Therefore it may be possible that the determination of a discount rate may require multiple associated key assumptions to be disclosed (rather than just one single overall key assumption).

4. Non-disclosure of specifically required items (above) for each CGU.

5. Disclosure of a post-tax discount rate(s) (rather than the required pre-tax discount rate(s)).

## 7.2. Sensitivity analysis

IAS 36 requires disclosures on the sensitivity of the recoverable amounts to reasonably possible changes in key assumptions when those changes would cause an impairment to be recognised. In the current subdued economic environment, in which the general downturn has persisted longer than many expected at its outset, these disclosures may be particularly relevant.

It may therefore be appropriate to include sensitivity analyses related to key assumptions used, which may include:

- Growth rates
- Discount rate
- Parameters within the discount rate
- Operating margin and their impact on revenues or volume of sales.

It is important that entities present the effect of a reasonably possible change in key assumption(s).

For example, an analysis that shows the effects of an increase or decrease in the discount rate of 25 basis points would not be appropriate if past experience for interest rates indicated that a reasonably possible change in interest rates was  $\pm 100$  basis points.

### Common errors in practice

1. Not identifying (and therefore disclosing a sensitivity analysis for) all reasonably possible changes in key assumptions.
2. Not presenting a reasonably possible change in the sensitivity analysis, including:
  - Over or under estimating the upper and or lower bounds of the analysis.
  - Assuming that the absolute value of the upper and lower bounds are the same.

For example, a reasonably possible change in the cost of debt ( $r_d$ ) may be an increase of 100 basis points (upper boundary) but only a decrease of 25 basis points (lower boundary).

This is the likely scenario where interest rates are at historic lows, and therefore it would be reasonably expected that they would not fall much lower.

## 7.3. Disclosures per CGU

The disclosures discussed in sections 7.1 and 7.2, as well as other information such as the carrying amount of goodwill and/or intangible assets with indefinite useful lives or the recoverable amount allocated to each CGU, are required to be presented in the notes for each CGU to which a significant proportion of the entity's total goodwill has been allocated.

It is not appropriate to omit these disclosures for confidentiality reasons.

Entities are also required to disclose the events and circumstances that led to the recognition of an impairment separately for each CGU to which goodwill has been allocated.

## 8. CGUS WITH NON-CONTROLLING INTERESTS

Appendix C of IAS 36 *Impairment of Assets* provides guidance for testing cash generating units (CGUs) for impairment when a CGU contains both goodwill and non-controlling interest (NCI).

NCI represents the equity in a subsidiary that is not directly or indirectly attributable to the parent and arise typically when a parent does not hold 100% of the equity interests in the subsidiary.

IFRS 3 *Business Combinations* (revised in 2008) provides a choice of methods to measure NCI, for each individual business combination. This choice permits recognition of goodwill only for the parent's own (majority) holding (proportionate share of net assets), or for the entire entity including goodwill attributable to the NCI (fair value).

The table below demonstrates this difference where an entity is purchasing a business that will subsequently be treated as a single CGU.

Method	Carrying amount of goodwill and NCI
<b>Proportionate share of net assets</b>	<p>The value of the NCI is based on the level of net assets multiplied by the interest held by NCIs.</p> <p>For example, if:</p> <ul style="list-style-type: none"> <li>– Fair value of consideration = CU1,500</li> <li>– Fair value of net assets = CU1,000</li> <li>– NCI = 20%</li> </ul> <p>NCI = CU200 [CU1,000 x 20%]            Goodwill = CU700 [CU1,500 – (CU1,000 - CU200)]</p>
<b>Fair Value</b>	<p>The value of the NCI is determined based on its fair value in accordance with IFRS 13 <i>Fair Value Measurement</i>.</p> <p>In some instances, it may be appropriate to use the fair value of the consideration paid by the parent as a proxy for fair value, although care is required in respect of any control premium.</p> <p>For example:</p> <ul style="list-style-type: none"> <li>– Fair value of consideration = CU1,500</li> <li>– Fair value of net assets = CU1,000</li> <li>– NCI = 20%</li> </ul> <p>Fair value of NCI = CU375 [CU1,500 x [20%/80%]]            Goodwill = CU700 (as above) plus CU175 attributable to NCI [CU375 – CU200]: CU875</p>

Figure 8: NCI measurement methods under IFRS 3

In addition to the difference in the calculated NCI and goodwill, the way in which any impairment loss is allocated against the carrying value of the CGU differs. This is summarised in the table below.

Method	NCI share of goodwill is included in goodwill calculated	Impact on subsequent impairment of the CGU
Proportionate share of net assets	No	<ul style="list-style-type: none"> <li>– The goodwill attributable to the NCI must be calculated<sup>1</sup></li> <li>– The carrying amount of the CGU must be notionally adjusted to include the goodwill attributable to the NCI</li> <li>– Any impairment loss is prorated to the portions of goodwill based on ownership interests</li> </ul> <p><sup>1</sup> <i>This amount is not recognised in the entity's consolidated financial statements.</i></p>
Fair Value	Yes	<p>No impact.</p> <p>Any impairment loss is allocated to the goodwill calculated without any notion adjustments to the carrying amount of the CGU.</p>

Figure 9: Impact on subsequent impairment of a CGU depending on the method used to measure any NCI

**EXAMPLE – NCI CALCULATED USING PROPORTIONATE SHARE OF NET ASSET METHOD**

Using the same amounts as in *Figure 9* above, as at acquisition date

– Fair value of consideration	= CU1,500
– Net assets	= CU1,000
– NCI @ 20%	= CU 200
– Goodwill	= CU 700

Now assume as at reporting date:

– Net assets (excl. goodwill)	= CU1,200
– Recoverable amount	= CU1,300

**Calculations**

(i) *Goodwill attributable to NCI*

= CU175 (see above)

Total notional goodwill is therefore equal to CU875 [CU700 + CU175]

(ii) *Notionally adjusted carrying amount of CGU (for the purpose of impairment testing)*

= CU1,200 + CU700 + CU175

= CU2,075

(iii) *Impairment loss (based on CGU notionally adjusted carrying amount, and recoverable amount)*

= CU875 – CU775

= CU100

(iv) *Allocation of impairment loss and carrying value of goodwill*

Goodwill Portion	Allocation of Impairment	Carrying value of goodwill
Parent @80%	CU620 [= CU775 x 80%]	CU80 [= CU700 – CU620]
NCI @20%	CU155 [= CU775 x 20%]	CU20 [= CU175 – CU155]

(v) *Amounts recognised in the consolidated financial statements of the parent*

*Statement of financial position*

Net assets	CU 1,200
Goodwill	CU 80

*Statement of comprehensive income*

Impairment expense	CU 620
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*Note: The carrying amount and associated impairment loss attributable to the NCI's share of goodwill is not recognised in the parents financial statements.*

**EXAMPLE – NCI CALCULATED USING FAIR VALUE METHOD**

Using the same amounts as in *Figure 9* above, as at acquisition date

– Fair value of consideration	= CU1,500
– Net assets	= CU1,000
– NCI @ 20%	= CU 375 [including CU175 of attributed goodwill]
– Goodwill	= CU 875

Now assume as at reporting date:

– Net assets (excl. goodwill)	= CU1,200
– Recoverable amount	= CU1,300

**Calculations**

**Note:** Because the goodwill attributable to the NCI has been included in its acquisition date fair value, there is no need to calculate a notional carrying amount for the NCI's goodwill and the CGU.

(i) Carrying amount of CGU

$$= \text{CU}1,200 + \text{CU}875$$

$$= \text{CU}2,075$$

(ii) Impairment loss (based on CGU carrying amount, and recoverable amount)

$$= \text{CU}1,300 - \text{CU}2,075$$

$$= (\text{CU}775)$$

(iii) Carrying value of goodwill

$$= \text{CU}875 - \text{CU}775$$

$$= (\text{CU}100)$$

(iv) Amounts recognised in the consolidated financial statements of the parent

*Statement of financial position*

Net assets	CU 1,200
Goodwill	CU 100

*Statement of comprehensive income*

Impairment expense	CU 775
NCI share	CU (155) [i.e. CU775 x 20%]

## 9. OTHER PRACTICAL CONSIDERATIONS

### 9.1. Impairment of assets (disposal groups) held for sale in accordance with IFRS 5

Assets held for sale in accordance with the criteria of IFRS 5 *Non-current Assets Held for Sale* are outside the scope of IAS 36 *Impairment of Assets* (IAS 36.2(i)).

However, IFRS 5 requires that, immediately prior to the classification of assets (disposal groups) as held for sale, the assets (disposal groups) are required to be measured in accordance with other applicable IFRSs. As a result, and assets within the scope of IAS 36 would be required to be assessed and/or tested for impairment. Where impairment is identified, an impairment loss would be recognised.

This approach ensures that impairment losses are recognised and presented to users of the financial statements as part of the results from operations, rather than being recognised and presented as a fair value gain or loss on disposal when the assets (disposal groups) are sold.

### 9.2. Borrowing costs capitalised to qualifying assets

Entities are required to capitalise borrowing costs to qualifying assets in accordance with IAS 23 *Borrowing Costs*. A qualifying asset is an asset that necessarily takes a substantial period of time to get ready for its intended use or sale (IAS 23.5).

For the purposes of impairment testing, the carrying value of qualifying assets is not adjusted to remove capitalised borrowing costs. However, as previously discussed in section 4.1.4., the cash flows from interest bearing debt are **excluded** from value in use calculations as the effect of financing activities is incorporated in determining the discount rate.

The question which then arises is whether an entity should continue to capitalise borrowing costs as an addition to the carrying value of an impaired qualifying asset. Neither IAS 23 nor IAS 36 address this issue. However, there would not appear to be any basis for an entity to discontinue the capitalisation of borrowing costs to an impaired qualifying assets. Consequently, borrowing costs should continue to be capitalised, with an additional charge for impairment being recognised as appropriate.

### 9.3. CGUs containing plant and equipment no longer in use

Cash inflows for many items of plant and equipment are unlikely to be identifiable on an individual item basis and, therefore, the carrying amount of such assets is typically aggregated into a cash generating unit (CGU) and assessed for impairment on that basis.

However, where items of plant and equipment are no longer in use (i.e. redundant and/or abandoned), they are no longer generating cash inflows. Consequently, unless another amount can be supported through an assessment of fair value less costs of disposal, such assets should be fully impaired. This is regardless of whether the recoverable amount of the CGU can support the full carrying amount of the redundant and/or abandoned plant and equipment.



## 9.4. Interim financial statements

### (i) Impairment recognised in interim period

IFRIC 10 *Interim Financial Reporting and Impairment* requires that when an entity has recognised impairment against the carrying amount of goodwill in its interim financial statements, the impairment should not be reversed in its subsequent annual financial statements should changes in facts and circumstances result in the recoverable amount of the CGU be higher than its carrying amount as at its annual reporting date.

Therefore an entity will recognise in its annual financial statements any impairment in goodwill that was recognised during the interim period. Consequently, a difference in approach could arise for two otherwise identical entities, one of which prepares interim financial statements with the other preparing only annual financial statements. This would arise if the recoverable amount of the goodwill had recovered such that it fully supported the unimpaired carrying amount at the financial year end, with the entity that reported annually carrying out its annual impairment test at that point.

## 9.5. Recognition of goodwill - separate financial statements

Goodwill typically results from a business combinations involving the acquisition (of a controlling interest) in the equity instruments of the acquiree (i.e. the acquiree's equity share capital). In these cases, goodwill relating to the business combination is recognised only in the acquirer's consolidated financial statements, and not in its separate financial statements.

However, if a business combination does not involve the acquisition of a separate entity (i.e. a trade and net assets purchase) then goodwill will be recognised in both the entity's separate and consolidated financial statements.

Business combination facilitated through the acquisition of the acquirees equity instruments?	Consolidated financial statements	Separate financial statements
Yes	Goodwill recognised	Goodwill is <b>not</b> recognised. The entity recognises its investment in its subsidiary in accordance with IAS 27 (2011) <i>Separate Financial Statements</i> , either: <ul style="list-style-type: none"> <li>– At cost, or</li> <li>– In accordance with IAS 39 <i>Financial Instruments: Recognition and Measurement</i> (IFRS 9 <i>Financial Instruments</i>).</li> </ul>
No (acquisition of trade and net assets)	Goodwill recognised	

Figure 10: Recognition of goodwill in separate and consolidated financial statements

## 9.6. Impairment of equity accounted investees

Investments in equity accounted investees include investments in:

- Associates
- Joint arrangements classified as joint ventures.

A three-step approach needs to be adopted when dealing with impairment related to equity accounted investees:

1. Recognise the investors share of any impairment losses related to the net assets of the investee (IAS 28 (2011) *Investments in Associates and Joint Ventures* paragraph 32)
2. Assess for indicators of impairment through the application of IAS 39 *Financial Instruments: Recognition and Measurement*
3. Where indicators of impairment exist, the investment in the equity accounted investee is tested for impairment in accordance with IAS 36 (IAS 28 (2011).40).

### **BDO comment**

*The carrying amount of an equity accounted investee includes any goodwill.*

*However, for the purposes of impairment testing in accordance with IAS 36 the carrying amount of an equity accounted investee is treated as a single asset (i.e. any goodwill related to the equity accounted investee is not tested for impairment separately) and any impairment charged is capable of being reversed in full.*

## 10. DEFINITIONS

Definitions of various terms within IAS 36 *Impairment of Assets*.

<b>Carrying amount</b>	The amount at which an asset is recognised after deducting any accumulated depreciation (amortisation) and accumulated impairment losses thereon.
<b>Cash-generating unit</b>	The smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets.
<b>Corporate assets</b>	Assets other than goodwill that contribute to the future cash flows of both the cash-generating unit under review and other cash-generating units.
<b>Costs of disposal</b>	Incremental costs directly attributable to the disposal of an asset or cash-generating unit, excluding finance costs and income tax expense.
<b>Depreciable amount</b>	The cost of an asset, or other amount substituted for cost in the financial statements, less its residual value.
<b>Depreciation (Amortisation)</b>	The systematic allocation of the depreciable amount of an asset over its useful life.
<b>Fair value</b>	The price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. (See IFRS 13 <i>Fair Value Measurement</i> .)
<b>Impairment loss</b>	The amount by which the carrying amount of an asset or a cash-generating unit exceeds its recoverable amount.
<b>Recoverable amount</b>	The higher of fair value less costs of disposal and value in use.
<b>Useful life</b>	Either: a) The period of time over which an asset is expected to be used by the entity; or b) The number of production or similar units expected to be obtained from the asset by the entity.
<b>Value in use</b>	The present value of the future cash flows expected to be derived from an asset or cash-generating unit.

## CONTACT

For further information about how BDO can assist you and your organisation, please get in touch with one of our key contacts listed below.

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1312-05