Impairment of Assets – Illustrative examples

Example 1 Identification of cash-generating units

A - Retail store chain

Background

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

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

Analysis

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

a) Internal management reporting is organized to measure performance on a store-by-store basis; and
b) The business is run on a store-by-store basis on a region/city basis.

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

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

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B - Plant for an intermediate step in a production process

Background

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

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

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

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

Analysis

Case 1
X could sell its products in an active market and, so, generate cash inflows that would be largely independent of the cash flows from Y. Therefore, it is likely that X is a separate cash-generating unit, although part of its production is used by Y. (see paragraph 70 of IAS 36).

It is likely that Y is also a separate cash-generating-unit. Y sells 80 per cent of its products to customers outside of the entity. Therefore, its cash inflows can be regarded as largely independent.

Internal transfer prices do not reflect market prices for X's output. Therefore in determining value in use of both X and Y, the entity adjusts financial budget/forecasts to reflect management's best estimate of future prices that could be achieved in arm's length transactions for those of X's products that are used internally (see paragraph 70 of IAS 36).

Case 2
It is likely that the recoverable amount of each plant cannot be assessed independently of the recoverable amount of the other plant because:
   a) The majority of X's production is used internally and could not be sold in an active market. So, cash inflows of X depend on demand for Y's products. Therefore, X cannot be considered to generate cash inflows that are largely independent of those of Y.
   b) The two plants are managed together

As a consequence, it is likely that X and Y together are the smallest group of assets that generates cash inflows that are largely independent.

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C – Single product entity

Background

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

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

Case 1: There is an active market for A's products.
Case 2: There is no active market for A's products.

Analysis

Case 1
It is likely that A is a separate cash-generating-unit because there is an active market for its products.

Although there is an active market for the products assembled by B and C, cash inflows for B and C depend on the allocation of production across the two sites. It is unlikely that the future cash inflows for B and C can be determined individually. Therefore, it is likely that B and C together are the smallest identifiable group of assets that generates cash inflows that are largely independent.

In determining the value in use of A and B plus C, M adjusts financial budgets/forecasts to reflect the best estimate of future prices that could be achieved in arm's length transactions for A's products.

Case 2
It is likely that the recoverable amount of each plant cannot be assessed independently because:
   a) There is no active market for A's products. Therefore A's cash inflows depend on sales of the final product by B and C.
   b) Although there is an active market for the products assembled by B and C, cash inflows for B and C depend on the allocation of production across the two sites. It is unlikely that the future cash flows for B and C can be determined individually.

As a consequence, it is likely that A, B and C together (i.e. M as a whole) are the smallest identifiable group of assets that generates cash inflows that are largely independent.

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D – Magazine titles

Background

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

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

Analysis

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

Therefore it is likely that individual magazine titles generate cash inflows that are largely independent of each other and that each magazine title is a separate cash-generating-unit.

Source: IFRS - IAS 36 Illustrative Examples

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

Background

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

What is the cash-generating-unit for the building?

Analysis

The primary purpose of the building is to serve as a corporate asset, supporting M's manufacturing activities. Therefore, the building as a whole cannot be considered to generate cash inflows that are largely independent of the cash inflows from the entity as a whole. So, it is likely that the cash-generating-unit for the building is M as a whole.

The building is not held as an investment. Therefore, it would not be appropriate to determine the value in use of the building based on projections of future market related rents.

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

Source: IFRS – IAS 36 Illustrative Examples

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

At the end of 20X0, entity T acquires entity M for CU 10,000. M has manufacturing plants in three countries.

Schedule 1. Data at end of 20X0

End of 20X0	Allocation of Purchase price	Fair value of Identifiable assets	Goodwill[a]
	CU	CU	CU
Activities in Country A	3,000	2,000	1,000
Activities in Country B	2,000	1,500	500
Activities in Country C	5,000	3,500	1,500
	10,000	7,000	3,000

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

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

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

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

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

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

To determine the value in use for the Country A cash-generating unit (see *Schedule 2*) T:
  a) Prepares cash flow forecasts derived from the most recent financial budgets/forecasts for the next five years (years 20X2 – 20X6) approved by management
  b) Estimates subsequent cash flows (years 20X7 – 20Y2) based on declining growth rates. The growth rate for 20X7 is estimated to be 3 per cent. This rate is lower than the average long-term growth rate for the market in Country A.

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c) Selects a 15 per cent discount rate, which represents a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the Country A cash-generating unit.

Recognition and measurement of impairment loss

The recoverable amount of the Country A cash-generating unit is CU 1,360.

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

Because the carrying amount exceeds the recoverable amount by CU 1,473, T recognizes an impairment loss of CU 1,473 immediately in profit or loss. The carrying amount of the goodwill that relates to Country A operations is reduced to zero before reducing the carrying amount of other identifiable assets within Country A cash-generating unit.

Tax effects are accounted for separately in accordance with IAS 12.

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

Year	Long-term Growth rates	Future cash flows	Present value Factor at 15% Discount rate[a]	Discounted Future cash flows
		CU		CU
20X2		230[b]	0,86957	200
20X3		253[b]	0,75614	191
20X4		273[b]	0,65752	180
20X5		290[b]	0,57175	166
20X6		304[b]	0,49718	151
20X7	3%	313[c]	0,43233	135
20X8	(2)%	307[c]	0,37594	115
20X9	(6)%	289[c]	0,32690	94
20Y0	(15)%	245[c]	0,28426	70
20Y1	(25)%	184[c]	0,24719	45
20Y2	(67)%	61[c]	0,2149	13
				1,360

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

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

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