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für Rückfragen zu der beigefügten Publikation „In depth“ zur Thematik „Testing for impairment in the upstream industries – Top reminders“ stehen Ihnen folgende Ansprechpartner gerne zur Verfügung:



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In depth

A look at current financial reporting issues

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Testing for impairment in the upstream industries – Top reminders

At a glance

Commodities prices have declined considerably over the past year, with the most dramatic change experienced by the oil and gas industry. Crude oil prices have dropped by 60% over six months, and the fourth quarter of 2014 has seen impairment losses recognised for oil and gas assets. Canadian-based Talisman Energy recorded after-tax impairments during the fourth quarter of 2014 of approximately \$1.37 billion, primarily as a result of declining oil prices. Total took a \$6.5 billion impairment charge on its Canadian oil sands business, US shale gas and troubled European refining operations. One by one, oil and gas companies are announcing cuts in their capital spending for 2015 and onwards.

The changing economic situation in the extractive industries, both oil and gas and mining, raises concerns about potential asset impairments. This has highlighted some practical issues that arise when applying the IFRS impairment model. This publication looks at some of those key issues.

1. Can discounted cash flow models be used to calculate fair value less costs of disposal?

Yes, discounted cash flow models can be used to calculate fair value less costs of disposal. IAS 36, 'Impairment of assets', requires the carrying amount of a cash-generating unit (CGU) to be compared with the higher of its value in use (VIU) and fair value less costs of disposal (FVLCD). VIU and FVLCD often provide different results:

- VIU is a pre-tax concept and reflects entity-specific synergies. However, there are significant restrictions on what can be included in the forecast cash flows. Future capital expenditure that enhances the CGU's performance, and the resulting increases expected in net cash flows, cannot be included in the calculation, even if budgeted by management. The costs and benefits of a restructuring plan cannot be included unless the IAS 37 criteria have been met.
- FVLCD is a post-tax concept that reflects a market participant's view of the value of the CGU.

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The cash flows used in the VIU calculation are based on management's most recent approved financial budgets/forecasts. The assumptions used to prepare the cash flows should be based on reasonable and supportable assumptions. Assessing whether the assumptions are reasonable and supportable is best achieved by benchmarking against market data.

FVLCD is based, ideally, on transaction prices observed in the market for comparable assets. Where transaction prices are not available, a discounted cash flow (DCF) calculation is used to determine FVLCD. The assumptions and other inputs used in a DCF model for FVLCD should incorporate observable market inputs as much as possible. The valuation technique used in determining FVLCD should incorporate assumptions that market participants would use in estimating the asset's fair value, such as revenue growth, profit margins, and exchange rates.

The assumptions used by management should usually be supported by market evidence, and it might be necessary to adjust the assumptions where they cannot be supported by market evidence. They should also be the assumptions that are applicable at the date of assessment (typically the balance sheet date).

FVLCD in many cases will provide a higher recoverable amount than VIU, because FVLCD does not have the automatic prohibition on including enhancement capital expenditure and restructurings in the DCF. The cash flow projections can include the effect of future restructurings only if market participants would be expected to undertake these in order to extract the best value from the purchase.

2. What impact do taxes have on impairment testing?

Taxes might have an impact on both the discount rate used in the test and the carrying value of the CGU. VIU should be calculated using pre-tax cash flows and a pre-tax discount rate. In many cases, however, the only observable market rate of return is a post-tax rate. This is the case, for example, where the discount rate is derived from an entity's weighted average cost of capital (WACC), which is a post-tax rate. When only the post-tax rate is known, management should adjust the post-tax rate to estimate a pre-tax rate. An iterative process, which can be complex, is needed to obtain a pre-tax rate.

Value in use calculated using post-tax cash flows and a post-tax discount rate would not necessarily give the same result as if the pre-tax rate had been applied to pre-tax cash flows. They would be equal only if there is no deferred tax – that is, the tax base and carrying amount of all assets and liabilities are equal, and no growth is projected. This is a very unlikely scenario. VIU calculated using this approach is only a proxy for a VIU calculation under IAS 36. This might be adequate when there is substantial headroom. However, if there is little headroom, the proxy method might not be sufficient and further work will be required.

The amount calculated for FVLCD is a post-tax recoverable amount. It is therefore compared against the carrying amount of the CGU on an after-tax basis – that is, after deducting deferred tax liabilities relating to the CGU/group of CGUs. This is particularly relevant in upstream businesses when testing goodwill for impairment. A major driver of goodwill in upstream acquisitions is the calculation of deferred tax on the reserves and resources acquired. Consequently, the use of FVLCD as the recoverable amount often alleviates the natural tension that otherwise arises when

using VIU¹ as the recoverable amount for testing goodwill for impairment in upstream businesses.

Another question is whether deferred tax assets should be included in the carrying value of a CGU. IAS 36 excludes deferred tax assets from its scope, which means that they are usually not included in the carrying value. In some cases, a deferred tax asset arises from a tax allowance which is specifically linked to, and transferable with, the underlying asset. The entitlement to the allowance and related deferred tax asset might go with the asset on sale and would no longer exist after the sale. Under these circumstances, it might be appropriate to include the deferred tax assets in the carrying value of a CGU when an FVLCD is being performed. Calculating the impairment charge may be complex, as temporary differences will change once the impairment charge has been recognised.

3. At what level should goodwill be tested for impairment?

IAS 36 requires goodwill to be tested for impairment at least annually and tested at the lowest level at which management monitors it. The lowest level cannot be higher than the operating segment (before aggregation) that it belongs to under IFRS 8, 'Operating segments'.

The grouping of CGUs for the testing of impairment should reflect the lowest level at which management monitors the goodwill. If that is on an individual CGU basis, testing goodwill for impairment should be performed on that individual basis. However, where management monitors goodwill on the basis of a larger group of CGUs, the impairment testing of the goodwill should reflect this.

Goodwill is tested for impairment annually and when there are impairment indicators. Those indicators might be specific to an individual CGU or group of CGUs. When testing for impairment for annual purposes (that is, when there is no impairment indicator), the group of CGUs to which the goodwill is allocated is tested for impairment on a combined basis, including the goodwill. If the recoverable amount of the group of CGUs exceeds the carrying amount of that group of CGUs (including goodwill), there is no impairment to recognise. However, if the recoverable amount is less than the combined carrying value, the group of CGUs – and the goodwill allocated to it – is impaired. The impairment charge is allocated first to the goodwill balance to reduce it to zero, and then pro rata to the carrying amount of the other assets within the group of CGUs.

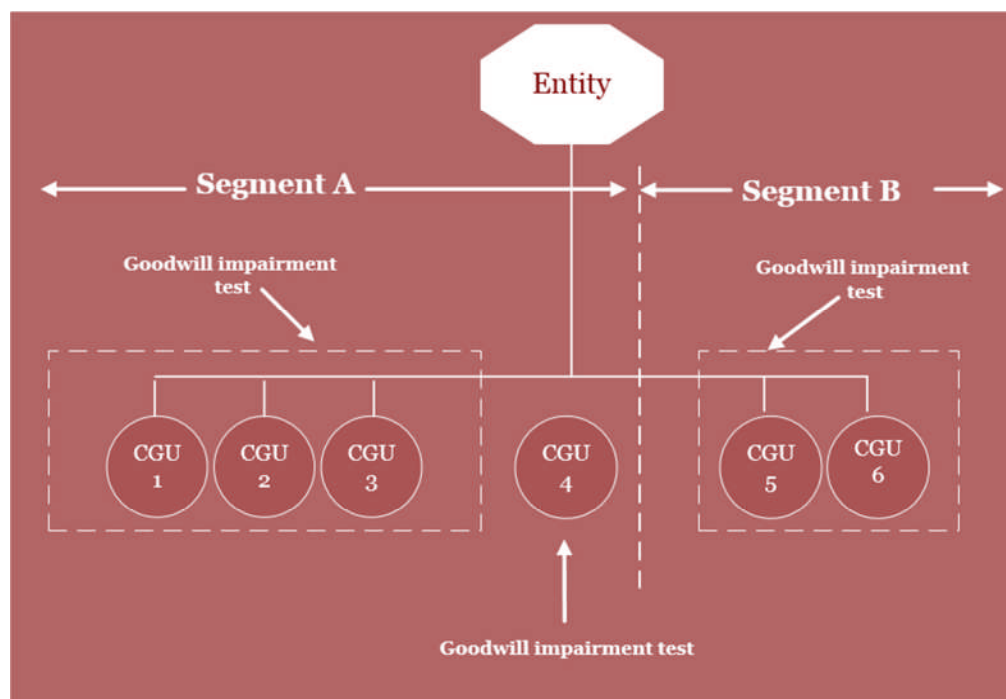
Goodwill is also tested for impairment when there is an indicator that it is impaired, or when there is an indicator that the CGU(s) to which it is allocated is impaired. When the impairment indicator relates to specific CGUs, those CGUs are tested for impairment separately before testing the group of CGUs and the goodwill together.

Example

The diagram below illustrates the levels at which impairment testing might be required. The entity has two operating segments, A and B. Segment A comprises four CGUs, and segment B comprises two CGUs. There is goodwill allocated to each CGU. The goodwill within segment A is monitored in two parts. The goodwill allocated to CGUs 1, 2 and 3 is monitored on a collective basis; the goodwill allocated to CGU 4 is

¹ VIU is a pre-tax calculation and is compared against the pre-tax carrying amount of a CGU/group of CGUs to calculate impairment – that is, without deducting the deferred tax liability balance from the carrying amount.

monitored separately. The goodwill within segment B is monitored at the segment B level – that is, goodwill allocated to CGUs 5 and 6 is monitored on a combined basis.



If there is an impairment indicator for CGU 2, the CGU is tested for impairment separately, excluding the goodwill allocated to it. Any impairment loss calculated in this impairment test is allocated against the assets within the CGU. This allocation of the impairment charge is made on a pro rata basis to the carrying value of the assets within the CGU. The testing of CGU 2 at this level excludes goodwill, so no impairment is allocated against goodwill in this part of the impairment test.

After recording any impairment arising from testing CGU 2 for impairment, CGUs 1, 2 and 3 and the goodwill allocated to them are tested for impairment on a combined basis. Any impairment loss calculated in this impairment test is allocated first to the goodwill. If the impairment charge in this test exceeds the value of goodwill allocated to CGUs 1, 2 and 3, the remaining impairment charge is allocated against the assets of CGUs 1, 2 and 3 pro rata to the carrying value of the assets within those CGUs.

A similar approach is taken for CGU 4. However, because no other CGU is combined with CGU 4 for goodwill impairment testing, there is no need to test CGU 4 for impairment separately from the goodwill allocated to it.

4. How should commodity prices and foreign currencies be reflected in DCF models for VIU?

IAS 36 prescribes in detail how value in use should be calculated. The specific requirements might produce odd effects, particularly in respect of how commodity prices and foreign currencies are treated in the VIU calculation.

Commodity prices in the VIU test

Upstream businesses are exposed to movements in the price of the commodity that they produce. Management usually takes a longer-term approach to the commodity price; this is not always consistent with the VIU rules. Published prices should be used in a VIU calculation rather than management's own forecast. Spot prices for

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commodities should be used in the VIU cash flow projections, unless there is a forecast price available from a published forward price curve as at the impairment test date. The price from the forward curve should be used for the future periods covered by the VIU calculation. Where the forward price curve does not extend far enough into the future, the price at the end of the forward curve is generally held steady, unless there is a compelling reason to adjust it.

Contracted prices in the VIU test

The future cash flows relating to the purchase or sale of commodities might be known from forward purchase or sales contracts. Use of these contracted prices in place of the spot price or forward curve price will generally be appropriate.

However, some forward purchase and sales contracts will be accounted for on the balance sheet as derivative contracts. These contracts are accounted for as derivatives at fair value in accordance with IAS 39 (or IFRS 9) and are recognised as current assets or liabilities. They are therefore excluded from the IAS 36 impairment test. The cash flow projections used for the VIU calculation should not reflect the pricing terms of the sales and purchase contracts accounted for in accordance with IAS 39 (or IFRS 9).

Foreign currencies in the VIU test

Foreign currencies might be relevant to impairment testing in two situations:

1. Where all the cash flows of a CGU are denominated in a single currency that is not the reporting entity's functional currency; and
2. Where the cash flows of the CGU are denominated in more than one currency.

a. Currency of the CGU cash flows differs from entity's functional currency

All future cash flows of a CGU might be denominated in a single currency, but one that is different from the reporting entity's functional currency. The cash flows used to determine the recoverable amount are forecast in the foreign currency and discounted using a discount rate appropriate for that currency. The resulting recoverable amount is translated into the entity's functional currency at the spot exchange rate at the date of the impairment test. [IAS 36 para 54].

b. CGU cash flows are denominated in more than one currency

Some of the forecast cash flows might arise in a currency that is different from the entity's functional currency. Impairment testing involving multiple-currency cash flows can be complex and might require consultation with specialists.

Cash flows in multiple currencies can create a number of practical and conceptual challenges in a VIU model because of the requirement to translate the end result using the spot rate into the entity's functional currency. A number of entities use FVLCD rather than wrestle with those complexities.

The use of the spot rate can generate an inconsistency, to the extent that future commodity prices denominated in a foreign currency reflect long-term price assumptions but these are translated into the functional currency using a spot rate. This is likely to have the greatest impact for operations in countries for which the strength of the local currency is significantly affected by commodity prices. Where this inconsistency has a pronounced effect, the use of FVLCD may be appropriate.

5. Should decommissioning provisions and the associated cash flows be included or excluded from the impairment test?

Decommissioning provisions and the associated cash flows can be either included or excluded from the impairment test, provided the carrying amount and the cash flows are treated consistently. IAS 36 requires the carrying amount of a liability to be excluded from the carrying amount of a CGU, unless the recoverable amount of the CGU cannot be determined without consideration of that liability. [IAS 36 paras 76, 78]. This typically applies when the asset/CGU cannot be separated from the associated liability. Decommissioning obligations are closely linked to the asset that needs to be decommissioned, although the cash flows associated with the asset might be independent of the cash flows of the decommissioning liability. If the carrying value of the decommissioning provision is included in the carrying amount of the CGU, the estimated future cash outflows are included in the DCF model used to determine the recoverable amount. However, if the carrying amount is excluded, the cash flows should also be excluded.

Example

Entity A incurs expenditure of C100 constructing an oil production platform. The present value of the decommissioning obligation at the date on which the platform is put into service is C25. The present value of the future cash inflows from expected production is C180. The present value of the future cash outflows from operating the platform is C50, and the present value of the future cash outflows from performing the decommissioning of the platform is C25.

The following example illustrates the inclusion of the decommissioning liability in the carrying amount of the CGU and the cash flow projections.

The net present value of future cash flows associated with operating the field is as follows:

VIU calculation	
Cash inflows from sale of oil produced	180
Operating cash outflows	(50)
Cash outflows from decommissioning at end of field life	(25) ¹
Net present value of cash flows (recoverable amount)	105
Determination of carrying amount	
Carrying amount of PPE (including cost of future decommissioning)	125
Carrying amount of decommissioning provision	(25) ¹
Net carrying value of CGU	100

¹ Cash outflows from decommissioning and the carrying amount of decommissioning provision in this example have the same value, although they are calculated using different approaches. Please see the discussion in the section 6 of this publication.

The recoverable amount of C105 exceeds the carrying amount of C100, so no impairment charge is required.

6. How is a CGU that includes a decommissioning provision measured in the impairment test?

The measurement of a CGU that includes a decommissioning or restoration obligation might seem to present a 'mismatch' because of the different discount rate used to determine the recoverable amount. There are complexities when attempting to use either a VIU or an FVLCD approach. When building the cash flow model, eventually the decommissioning obligation is paid out and is a series of cash outflows. Those cash outflows are discounted using the discount rate determined for the CGU, which is the same as the rate used for the cash inflows and all other outflows. The IAS 37 liability is often measured (initially and as the discount unwinds) using a risk-free rate.

This seems to create a mismatch; cash flows in the valuation model are always discounted using a higher rate than that used in the measurement of the liability. A lower discount rate means a larger liability. Thus a 'larger' liability might seem to give an inappropriately lower carrying value of the CGU, thus potentially masking impairment.

However, an IAS 37 provision should incorporate risk in cash flows and use a risk-free discount rate. If the IAS 37 provision was calculated with a higher discount rate, the cash flows used would need to change and not incorporate risk (or incorporate less risk). In other words, the answer would be approximately the same if risk was appropriately included in the model under both approaches.

An FVLCD or a VIU model incorporates some risk in the discount rate and should use different cash outflows for the decommissioning obligation. If the model is properly constructed and risk is properly included in either cash flows or discounts rate, the recoverable amount is determined appropriately and compared to the carrying amount of the CGU.

7. What follow-up needs to be done on last year's impairment tests?

Many companies performed impairment tests in 2014 in response to impairment indicators such as falling commodity prices. Some recognised impairment charges, while others did not. Interim reporting during 2015 should include comparing actual results in the period to the estimates made by management in their cash flow projections in 2014.

Where performance has been better than previously estimated, this might be an indicator of potential impairment reversal. [IAS 36 para 111]. Impairment charges are reversed (other than against goodwill) where the increase in recoverable amount arises from a change in the estimates used to measure the impairment. Estimates of variables, such as commodity prices, reflect the expectations of those variables over the period of the forecast cash flows, rather than changes in current spot prices. The use of medium- to long-term prices for commodities means that impairment charges and reversals tend not to reflect the same volatility as current spot prices.

Where performance has been worse than previously estimated, this is an indicator of potential impairment or further impairment. A further impairment test should be performed, using updated assumptions that reflect the additional experience of recent trading and operating conditions.

Questions?

PwC clients who have questions about this *In depth* should contact their engagement partner.

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