

Insights into IAS 36

Value in use: estimating future cash inflows and outflows

IAS 36 'Impairment of Assets' prescribes the accounting for impairment reviews. There are some detailed requirements of IAS 36 that are complex and challenging for the preparers of financial statements to apply.

The articles in our 'Insights into IAS 36' series have been written to assist preparers of financial statements and those charged with the governance of reporting entities understand the requirements set out in IAS 36, and revisit some areas where confusion has been seen in practice.

This article is the second in a three-part series on Step 4 of the impairment review on estimating the recoverable amount and discusses estimating future cash inflows and outflows in value in use (VIU) calculations.

Estimating VIU involves the following:

Estimating the future cash inflows and outflows to be derived from continuing to use the asset and from its ultimate disposal, and

[Refer to this article](#)

Applying the appropriate discount rate to those future cash flows.

[Refer to 'Insights into IAS 36 – Value in use: applying the appropriate discount rate'](#)

The VIU estimate incorporates the following risk factors, either as adjustments to the cash flows or as adjustments to the discount rate, but not both:

- expectations about possible variations in the amount or timing of those future cash flows
- the price for bearing the uncertainty inherent in the asset, and
- other factors, such as illiquidity, that market participants would reflect in pricing the future cash flows that the entity expects to derive from the asset.



Approaches to incorporating risk in present value

Appendix A to IAS 36 discusses two broad approaches to incorporating risk in the present value estimate:

- the traditional approach, and
- the expected cash flow approach.

The ultimate objective set out in IAS 36 is to reflect the expected present value of the future cash flows, while incorporating possible variations in the amount or timing of future cash flows. The table below describes each approach at a high level.

Traditional approach

The traditional approach uses the single most likely cash flow projection and assumes that a single discount rate can incorporate all the expectations about the future cash flows and the appropriate risk premium. Therefore, the traditional approach places its emphasis on the selection of a discount rate.

Expected cash flow approach

The expected cash flow approach uses all expectations about possible cash flows (instead of a single most likely cash flow) and applies probabilities to the estimated cash flows. As some risk assessment is incorporated into the cash flows using the expected cash flow approach, generally, a lower discount is applied when compared to the traditional approach.

The rest of this article considers the elements (estimating future cash flows and determining the appropriate discount rate) required to estimate VIU.

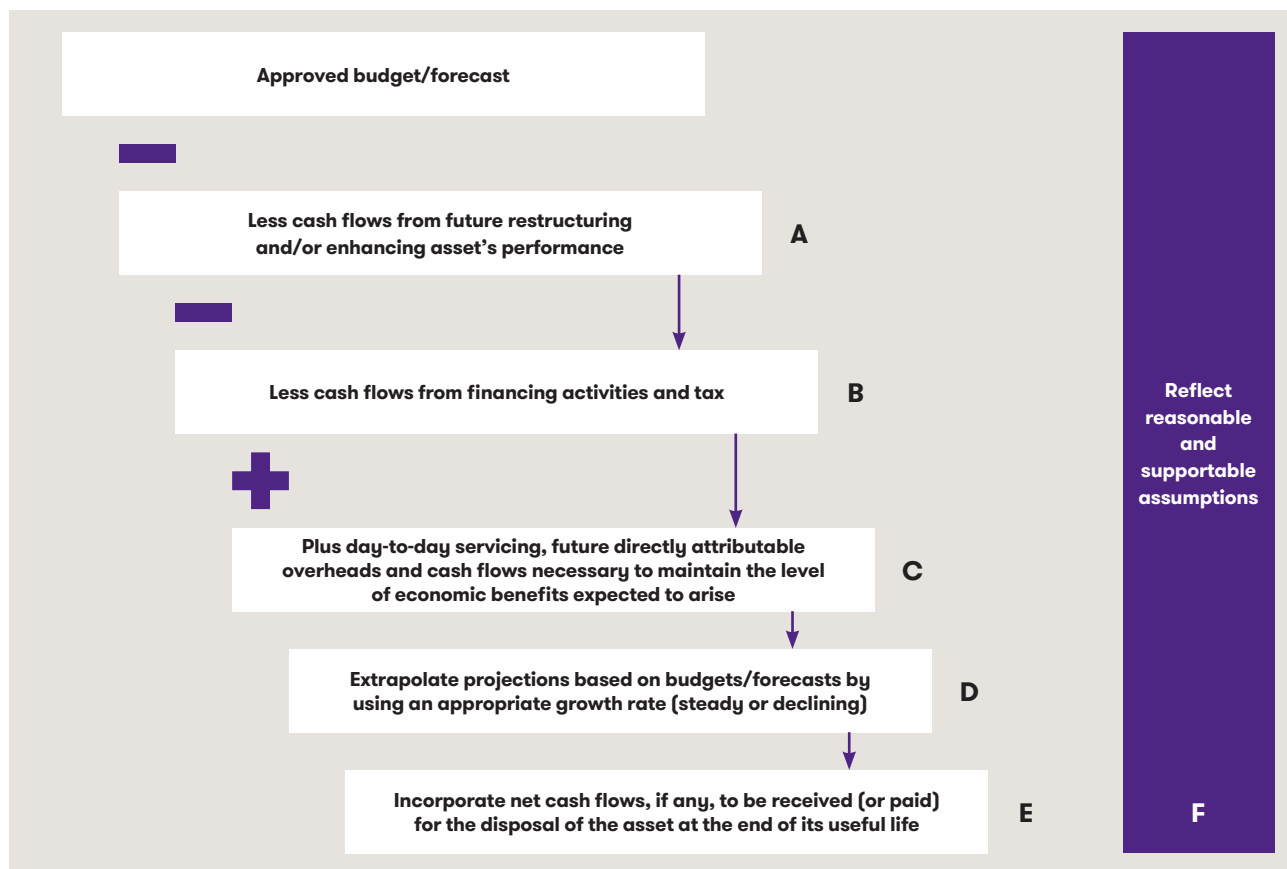
Estimating the future cash inflows and outflows

The starting point for estimating future cash flows is the most recent financial budget or forecast approved by management. From this starting point, the budget or forecast typically needs to be both adjusted and extrapolated. IAS 36 specifically requires that these budgets/forecasts are adjusted to:

- exclude any estimated future cash inflows/outflows expected to arise from future restructuring or improving or enhancing the asset's performance
- exclude cash inflows or outflows from financing activities or income tax receipts/payments
- include costs for day-to-day servicing, future directly attributable overheads and cash flows necessary to maintain the level of economic benefits expected to arise from the asset in its current condition
- cover a maximum period of five years (unless a longer period can be justified). Cash flow projections needed beyond the period covered must be estimated by extrapolating the budget/forecast projections using a steady or declining growth rate for subsequent years (unless an increasing rate can be justified), and
- incorporate net cash flows, if any, to be received (or paid) for the disposal of the asset at the end of its useful life.

This list of adjustments is not exhaustive. The specific adjustments required in each case will naturally vary depending upon the basis of the budgets or projections used as a starting point and the nature of expected cash flows. As an overarching principle, it is essential to ensure the estimates and projections are based on reasonable and supportable assumptions.

The flowchart below summarises how to estimate future cash flows. Each consideration is discussed in further detail below.



A. Exclude restructuring and anticipated cash flows from improving or enhancing asset performance

Cash flows should be estimated for an asset based on the asset's current condition. Therefore, the estimated future cash flows should not incorporate:

- cash flows related to future restructuring to which an entity is not yet committed (eg cost savings for reductions in staff costs), or
- cash flows related to improving or enhancing the asset's performance.

Restructuring

Estimates of future cash inflows and outflows should include any projected cost savings and other benefits of a future restructuring only when the entity becomes committed to the restructuring.

Once the entity is committed to the restructuring, it will meet the requirements in IAS 37 'Provisions, Contingent Liabilities and Contingent Assets' to recognise a provision (see our article '[Insights into IAS 36 – Other impairment issues](#)' for discussion of the interaction between IAS 36 and IAS 37). The estimates of future cash outflows for restructuring will, at that time, be included in the restructuring provision in accordance with IAS 37.

Guidance note – Effects of future restructuring when estimating VIU

Example 5 in the Illustrative Examples accompanying IAS 36 explains how a restructuring affects the VIU calculation for a cash generating unit (CGU). It shows the effects of the restructuring (costs and benefits) being excluded from the cash flow estimates prior to the entity being committed to it. Once the entity is committed, which is itself a potential indicator of impairment reversal, the benefits expected from the restructuring are considered in forecasting the future cash flows. A provision is also recognised for any costs attributable to the restructuring.

Improving or enhancing an asset's performance

Until an entity actually incurs cash outflows that improve or enhance the asset's performance, estimates of future cash flows do not include the estimated future cash inflows expected to arise from the enhancement.

Example 1 – Improving or enhancing an asset's performance

At the reporting period-end date (31 December 20X0), there is an indication that asset A may be impaired. Management estimates asset A's recoverable amount on the basis of a value in use (VIU) calculation. Management's approved budgets reflect:

- estimated cash flows necessary to maintain the level of economic benefit expected to arise from asset A in its current condition, and
- that in 20X2, management plans to incur CU50,000 to enhance asset A's performance.

Should Management include both (a) and (b) in its estimation of VIU in 20X0?

Analysis

No. At 31 December 20X0, the future cash flows used to determine VIU should include estimated costs necessary to maintain the level of economic benefit expected to arise from asset A in its current condition but exclude any estimated costs to enhance asset A's performance and the estimated benefits anticipated from enhancing its performance.

B. Exclude financing activities or income tax receipts/payments

Cash flows related to financing activities are excluded from calculations of the enterprise value under both the VIU and fair value less cost of disposal (FVLCD) calculations. This is because the valuation of an asset is independent of the way that the entity has financed it. For the same reason, the discount rate should be based on the target, or optimal, debt-to-capital from a market participant perspective.

Similarly, because the VIU and discount rate are determined on a pre-tax basis, future cash flows are estimated on a pre-tax basis. In practice, post-tax cash flows may be used if it is not possible to calculate the pre-tax discount rate directly. Refer to our article 'Insights into IAS 36 – Value in use: applying the appropriate discount rate' for more discussion on pre-tax vs. post-tax cash flows and discount rates.

C. Include day-to-day servicing and cash flows to maintain the level of economic benefit from the asset in its current condition

The premise underlying VIU is the carrying value of the asset will be recovered through its continued use and ultimate disposal. Therefore, all cash outflows necessary to maintain the level of economic benefits expected to arise from the asset in its current condition should be included. These future cash outflows include day-to-day servicing of the asset, as well as overheads that can be directly attributed, or allocated on a reasonable and consistent basis, to the asset.

When a CGU consists of assets with different estimated useful lives (all of which are essential to the ongoing operation of the unit), the replacement of assets with shorter lives and the replacement of a component of a single asset are considered to be part of the day-to-day servicing of the unit/asset when estimating the future cash flows associated with the unit/asset.

Example 2 – Day-to-day servicing and the consideration of the ‘core’ asset

IAS 36 requires that the replacement of component parts necessary to maintain the cash inflows from the continued use of an asset are treated as cash outflows when estimating VIU. These components could include items that might be treated as separate depreciable components in accordance with IAS 16 ‘Property, Plant and Equipment’ (eg the lining of a furnace, the seating of an aircraft, the roof of a building). When estimating the VIU of a single asset, identifying the ‘core’ asset is straightforward (eg the furnace, aircraft or entire building). For example, when estimating the VIU of an airplane with an estimated useful life of 30 years, the entity would include the cash outflows for the day-to-day servicing and replacement of the components of the aircraft that have shorter useful lives such as the seating and engines.

The application of IAS 36 requires more judgement when estimating VIU for a group of CGUs, if goodwill is being tested. If goodwill is treated as the core asset, the CGU’s future life might be considered indefinite and the cash flows would include the replacement of the other assets within the CGU (in order to maintain the goodwill). If a particular identifiable asset is considered the core asset then the cash flows and useful life would be based on the useful life of that asset.

In our view, the appropriate approach will depend on the entity’s business model and the particular facts and circumstances of the impairment test in question. For example, when assessing a hotel for impairment as part of a CGU with goodwill, the entity may deem the hotel to be the core asset as the cash flows from the hotel presumably support the assessed life of the goodwill (there would not be goodwill without the core asset of the hotel).

In practice, when calculating the VIU of a CGU that includes goodwill, it is common to include a terminal value at the end of the specific projection period. This terminal value should be based on the ‘normalised’ forecast cash flows in the final period of the detailed budget or projection period, extrapolated using the long-term steady or declining growth rate and discounted to present value. The terminal value therefore takes account of a normalised level of cash flows for day-to-day servicing including replacement parts.

Practical insight – Including directly attributable (or reasonably allocated) future overheads

IAS 36 requires that projections of cash outflows include those for ‘...future overheads that can be attributed directly, or allocated on a reasonable and consistent basis, to the use of the asset’. The Standard does not expand on what ‘future overheads’ may be included. In our view, the key objective should be to ensure the projections include all estimated outflows necessary to generate the estimated inflows. For example, a magazine company may identify two CGUs for impairment testing purposes (an online segment and a hard copy (ie printing) segment). It is likely to be appropriate to allocate central marketing costs to the relevant CGUs where such costs are directly attributable or reasonably allocated. Also, when a portion of a corporate asset is allocated to a CGU then this typically indicates a portion of the cash outflows associated with the corporate asset should also be allocated.

However, applying this guidance requires judgement and will always depend on the facts and circumstances.

Cash outflows incurred before the asset is ready for use or sale

IAS 36 requires an entity to include an estimate of any further cash outflow that is expected to be incurred before the asset is ready for use or sale when the carrying amount of the asset does not yet include all the cash outflows to be incurred before it is ready for use or sale (eg building under construction or development project that is not yet completed).

Practical insight – Considerations for capitalised development projects

IAS 36 requires that intangible assets not yet ready for use are tested for impairment at least annually and at the end of the current annual period if initially recognised during the current annual period. Capitalised development projects/assets require further development before they are ready for commercial use.

IAS 36 requires an entity to include an estimate of any further cash outflow that is expected to be incurred before the asset is ready for use (or sale) when the carrying amount of the asset does not yet include all the cash outflows to be incurred before it is ready for use (or sale) (eg a development project that is not yet completed). This is an exception to the general principle that an asset is tested for impairment in its current condition.

When estimating VIU, in our view, estimated future expenditure (including expenditure that does not yet meet the capitalisation criteria) and estimated cash inflows from potentially successful projects should be included in the cash flow estimates. When there is uncertainty about a project ultimately reaching commercialisation (as may be the case for acquired research and development costs, for example) this risk should be taken into account.

Risk and uncertainty can be factored in either by adjusting the cash flows or by adjusting the discount rate.

In some cases the projections used for testing capitalised development project assets may (appropriately) extend beyond the normal five year period that IAS 36 sets as a benchmark for the availability of detailed, explicit and reliable financial budgets/forecasts.

(In estimating FVLCOF for a capitalised development project, the entity's objective should be to use assumptions consistent with a market participant perspective. These would normally include a market-based perspective on the probability of the project reaching commercialisation).

D. Extrapolate projections based on budget/forecast information beyond the period covered

IAS 36 asserts that detailed and reliable budget/forecast information for periods longer than five years is not usually available. Estimates of future cash flows should therefore normally be based on the most recent budgets/forecasts covering no longer than this, and then extrapolated if necessary (see below). An exception to the five year limit applies if management can demonstrate its ability to forecast cash flows accurately over a longer period.

Assets with useful lives longer than the budget/forecast cash flows should be extrapolated using a growth rate for subsequent years. This rate is steady or declining, unless an increase in the rate matches objective information about patterns over a product or industry lifecycle. A growth rate of zero, or a negative rate, might also be appropriate.

IAS 36 notes that entities will generally have difficulty exceeding the average historical growth rate over the long term, so this factor should, in our view, always be taken into account.

Practical insight – Extrapolating future cash flows

IAS 36 implies, but does not state explicitly, the final period covered by a detailed budget or forecast (normally up to five years in duration) should be used as the ‘baseline’ for extrapolating cash flows into the future. This approach is reasonable for projecting future cash flows for an established, ‘going concern’ CGU in a reasonably stable state. In other scenarios, such as start-ups or limited life projects or assets, other approaches may be more appropriate. It is also important to ensure the baseline used for extrapolation is not affected by non-recurring factors (eg a planned shutdown that occurs less than annually). The approach taken will require judgement based on the particular facts and circumstances.

E. Incorporate disposal proceeds

An estimate of the net cash flow to be received (or paid) for the disposal of an asset at the end of its useful life should be included in determining the estimated future cash flows. This estimate is determined in a similar manner to determining FVLCD, except that, in estimating those net cash flows, the entity:

- uses prices at the date of the estimate for similar assets that have reached the end of their useful life and operated under similar conditions, and
- adjusts prices for general inflation and specific future price increases or decreases (although general inflation is not taken into account if the future cash flows from continuing use and discount rate exclude the effect of general inflation).

F. Reflect reasonable and supportable assumptions

It is an overarching principle of the VIU estimate that assumptions should be ‘reasonable and supportable’. IAS 36 includes a requirement under which management should compare past projections with actual cash flows to ensure the assumptions on which current projections are based are consistent with past actual outcomes.

IAS 36 requires consideration of whether the budget/forecast information used as the basis for the cash flow estimates reflects reasonable and supportable assumptions and management’s best estimate of the set of economic conditions that will exist over the remaining useful life of the asset.

Practical insight – Reflecting reasonable and supportable assumptions

A budget is of course a management tool and not simply a prediction about the future. A budget may therefore incorporate stretch targets or similar aspirational features. In using such a budget for VIU purposes, management should carefully consider whether these types of assumptions are reasonable and supportable in the context of IAS 36.

Supporting the assumptions in a budget is more challenging in situations such as start-ups and development projects. Budgets may be less reliable and past projections can vary greatly compared to actual cash flows. Sometimes different budgets may be prepared (one being highly aggressive while another incorporates more realistic expectations and assumptions). In such cases the more realistic budget should be the basis used for future cash flow projections in accordance with IAS 36.

Finally, IAS 36 requires management to ‘examine the causes of differences between past projections with actual cash flows’ to ensure the assumptions on which current projections are based are consistent with past actual outcomes. In our view, this examination is not limited to actual and projected outcomes for the past 12 months (ie the current period). Management should also consider the longer-term track record of projecting cash flows over its specific forecasting period (as used for IAS 36 purposes – eg 5 years).

How we can help

We hope you find the information in this article helpful in giving you some insight into IAS 36. If you would like to discuss any of the points raised, please speak to your usual Grant Thornton contact or visit www.grantthornton.global/locations to find your local member firm.

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