

What's the impact on useful lives and residual values of PP&E and intangible assets?

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Climate-related risks may have a substantive financial or strategic impact on a company's business, affecting the useful lives and residual values of its assets. In some cases, useful lives may need to be shortened and depreciation and amortisation accelerated.

What's the issue?

Climate-related risks, in particular those arising from transitioning to a lower-carbon economy, could significantly impact a company's business and its strategic plans. The useful lives and residual values of the company's assets may change, as well as the depreciation or amortisation methods. So, when reviewing estimates of useful life and residual value, what factors do management need to consider?

Getting into more detail

Useful life of PP&E and intangibles

Factors to consider

An asset's useful life¹ is defined in terms of its expected utility to the company. It is the period of time over which the company expects to use it, or the number of production (or similar) units that it expects to obtain from it. [\[IAS 16.6, 38.8\]](#)

Because it is an estimate, management is required to review useful life at each annual reporting date as a minimum. [\[IAS 16.51, 57, 38.104\]](#)

Management considers all of the following factors when determining or reviewing the useful life of an item of property, plant and equipment (PP&E):

- expected use of the asset – many companies have an asset management policy that may involve disposing of the asset before the end of its economic life;
- expected wear and tear;
- technical obsolescence arising from changes or improvements in production. Expected future reductions in the selling prices of items produced using an asset could also be an indicator of that asset's technical obsolescence;
- commercial obsolescence arising from a change in market demand for the product or service output of the asset. Expected future reductions in the selling prices of items produced using an asset could also be an indicator of that asset's commercial obsolescence; and
- legal or similar limits on the use of the asset. [\[IAS 16.56–57\]](#)

When assessing the useful life of an intangible asset, management considers many internal and external factors similar to those for PP&E. [\[IAS 38.88, 90\]](#)

¹ An intangible asset has an indefinite useful life when there is no foreseeable limit to the period over which the asset is expected to generate net cash inflows for the company. [\[IAS 38.88\]](#)

Impact of climate-related risks on these factors

Climate-related risks may impact the estimated useful lives of assets as well as the depreciation or amortisation method. For example, in considering the factors mentioned above, the impacts of transitioning to a lower-carbon economy need to be taken into account, such as the following.

- **Climate-related regulations** – e.g. the introduction of legal restrictions on the use of certain assets, such as licences for exploration of minerals or the introduction of taxes, which increase the production cost of non-renewable energy.
- **Technological advances** – e.g. the development or emergence of new environmentally friendly technologies may require companies to replace their production-related assets earlier than originally expected.
- **Changes in the market** – e.g. shifts in consumer preferences towards green products may accelerate the commercial obsolescence of assets producing non-green products.
- **Reputational damage** – e.g. damage to a company's brand due to its use of **polluting assets**.

The useful lives of assets will be impacted by the decisions that a company makes in its response to climate-related matters – e.g. management may decide to change the company's strategy or asset management policies.

For example, a transport company with a fleet of old diesel trucks is performing its annual review of the trucks' useful lives. It considers how its future business may be impacted by climate-related risks and opportunities. In particular, it considers newly introduced restrictions on the use of diesel vehicles in several large cities in its country of operation. Management expects that many more cities will introduce similar restrictions in the future, which will create significant difficulties for transporting goods using its current diesel fleet. Consequently, it decides to revise its existing policy – it will dispose of all of its diesel trucks after three rather than 10 years of service, and revises the useful lives of its diesel trucks accordingly.

Other accounting implications of a decrease in an asset's useful life

A decrease in the useful life of an asset may also indicate that:

- its carrying amount is impaired. For more information, see our article on the impact of climate change on **asset impairment**; and
- when applicable, the carrying amount of any related provision for decommissioning that asset could also be affected. For more information, see our article on the impact of climate change on **provisions**. [\[IAS 36.12\(ff\)\]](#)

Reassessment of indefinite useful life of intangibles

Unlike PP&E, intangible assets can have an indefinite useful life¹. Climate-related matters could affect management's assessment of indefinite useful life – i.e. the useful life of an intangible asset (e.g. a brand) could become finite.

[\[IAS 38.109, Insights 3.3.190.90\]](#)

Residual values of PP&E and intangibles

PP&E and intangible assets that have a finite useful life are depreciated to their residual values. 'Residual value' is the amount that could currently be received from disposal of the asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition that it will be in at the end of its useful life. [\[IAS 16.6, 38.8\]](#)

Similar to useful life, because residual value is an estimate, management is required to review it at each annual reporting date as a minimum. Residual values are typically reviewed in conjunction with the review of useful lives.

[\[IAS 16.51, 38.102\]](#)

A change in an asset's residual value affects its depreciation expense. Continuing the example of the transport company above, management also reviews the residual values of its diesel trucks and finds that prices for similar used diesel trucks have decreased significantly following the new restrictions. However, because the trucks' mileage in three years' time is now expected to be lower under the new policy, the residual values have decreased only by 10%. Together, the decrease in the trucks' estimated useful lives and residual values has resulted in a significant increase in the depreciation expense.

Disclosures

If management re-estimates an asset's useful life and/or residual value, then it discloses the nature and amount of the change in that estimate. It provides this disclosure for a change in estimate that either affects the current period or is expected to impact future periods. [\[IAS 8.39\]](#)

In cases of significant exposure to climate-related risks, management's estimates of useful lives and residual values are likely to be subject to higher estimation uncertainty. If there is a significant risk of a material adjustment to the carrying amounts of PP&E and/or intangible assets within the next financial year, then a company also discloses information about:

- the assumptions that it has used to estimate the useful lives or residual values of those assets (and other major sources of estimation uncertainty at the reporting date); and
- the nature and carrying amount of those assets. [\[IAS 1.125\]](#)

Actions for management to take now

Consider whether:

- the impact of climate-related matters is reflected in the useful lives and residual values of the company's assets;
- the assessment of the indefinite useful life of an intangible asset is appropriate, considering the impact of climate change;
- the estimates of useful lives and residual values in the financial statements are consistent as appropriate with the information provided on climate-related risks and opportunities elsewhere in the annual report;
- any change to the useful life of an asset is an indicator of impairment; and
- to provide clear and meaningful disclosures about significant judgements and estimates made.

References to 'Insights' mean our publication [Insights into IFRS](#)

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