



Insights

by Capital Markets & Accounting Advisory Services

October 2023

Impact of climate change on MFRS 136 impairment assessment



What is the issue?

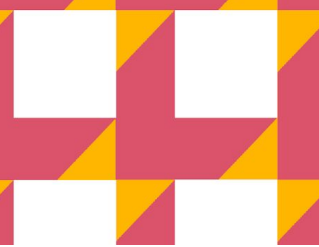
In order to achieve the aims of the Paris Agreement and limit the impact of climate change on the planet, entities worldwide are in the process of re-assessing their business models and strategy. Some business models might become unsustainable and additional investments might be needed to find new markets, repurpose assets, use alternative means of transportation and logistics or find suppliers of alternative raw materials. At the same time, climate change may present opportunities for companies offering goods and services supporting the world's transition to net zero. We would expect the changes to business models to have an impact on cash flows.

Cash flow projections affect many areas of financial statements as well as the overall viability of a business. There may be an impact on the estimate of the useful economic lives of certain assets leading to a quicker amortisation profile or on residual values. Such reassessment would be a change in estimate that is prospectively accounted for. This Insights looks at the potential impact on MFRS 136 impairment testing of assets recognised in the balance sheet.

Key principles of MFRS 136 impairment of assets

To determine whether an asset is impaired, the carrying amount is compared with the recoverable amount (i.e. higher of its value in use ('VIU') or fair value less costs of disposal ('FVLCD').) For most assets VIU or FVLCD is determined using cash flow projections that depend on assumptions derived from management budgets and actual experience or from market participants' expectations.

An entity has to test goodwill and indefinite lived intangibles annually for impairment. Other assets are tested only when there is a triggering event. Management will need to assess whether a net zero pledge or the emergence of new laws and regulations aimed at protecting the environment are triggers that would necessitate an impairment test.



How might cash flow in an impairment test be impacted?

Sales forecasts could:

- decrease if customer behaviours are expected to change, e.g. existing products can fall out of favour or greener products / technologies enter the market that could affect competitiveness or possibility to operate and generate sales
- increase if opportunities can be taken in a shift to greener products
- change depending on whether an entity will be able to pass cost increases on to its customers.

The cost base could increase:

- if green targets exist that, or are expected to, force an entity to source greener (perhaps more expensive) input factors
- due to additional carbon taxes or carbon offsetting certificates, for example if green targets are self-imposed or arise via legislation – a transition risk
- due to physical risks in the location of operations (for example flood risk) driving up insurance premium
- due to additional maintenance and repair expenditure to mitigate physical risks in the location of operations (for example flood risk)
- due to commodity and energy price rises, for example arising from government intervention or other market forces that move to discourage dirty fuels or damaging commodities
- due to the cost of repurposing certain assets – a transition risk





How could the VIU terminal value and the forecast period be impacted?

The final year of cash flow projections is generally used to extrapolate cash flows into the future when calculating the terminal value.

Projections for VIU are based on management-approved budgets which generally cover a period of three to five years taking into account the limits set out in MFRS 136. **For many businesses the expectation is that responding to climate change is likely to have a more pronounced impact beyond the initial three to five-year period; so the impact of climate change will need to be incorporated in the calculation of the terminal value as climate alone would not be enough to justify using a longer forecast period.**

Where climate change is reasonably expected to have a material impact, calculating a terminal value will require some thought – various scenarios could play out in the future after the entity's planning budget horizon. This could include scenarios on alternative laws and regulations that may or may not come into force or different possibilities on customer behaviours that may also depend on different strategic paths and outcomes that the entity may choose to follow.

To find an estimate for the steady state after the five-year horizon, the entity could probability-weight the different climate-related scenarios post the approved budget period and discount these expected-value outflows to represent the steady terminal year. Alternatively, a possible solution may be to split the terminal value calculation into two or more components. The first component may reflect increased cash outflows to bring the business to a steady state in transitioning to certain climate-related targets in the short to medium term and another component may then represent the steady state after climate-related transition expenditures have been made into perpetuity.

In extreme cases, the viability of operations in an existing location may not last beyond a certain point if the location is increasingly unsuitable (e.g. flood risk, area of water scarcity) or due to government legislation making a product unviable; thus limiting the terminal value to a period less than perpetuity.

The long-term growth rate impacts the terminal value significantly. Typically, impairment models have tended to assume positive growth rates at the rate of long-term inflation. If entities are not able to shift to climate friendly products and processes, the growth rates may be flat or negative and an increasing growth rate cannot be justified. Assumptions that moving to a greener business model will introduce long-term growth may be challenging to support in the early stages of change.



Notion of reasonable and supportable assumptions in VIU models

VIU models should incorporate reasonable and supportable assumptions that represent management's best estimate of the range of economic conditions that will exist over the remaining useful life of the asset.

Even though, for example, insurance premium may not have risen yet, water prices may not have risen yet in water scarce areas or certain legislation may not yet have been enacted, adverse impacts would need to be included in the forecasts if they are reasonable and supportable assumptions. This is different, for example, from tax rate changes where the change has to be at least already substantially enacted to be used in tax calculations. To assess whether assumptions are reasonable and supportable, greater weight should be given to external evidence. For example, projections of how climate change is likely to impact on the sales of an entity's products or how input prices are likely to develop should be taken into account.

Carbon taxes are not income taxes within the scope of MFRS 112 'Income Taxes' so legislation on these does not have to be enacted (or substantially enacted) to be included in cash flow projections – there has to simply be a reasonable and supportable estimate.

There will be a need to monitor climate-related laws and regulations. The regulations might evolve at speed and not necessarily consistently across territories.

A challenge when using FVLCD is that very little climate risk is currently priced into assets by market participants. It is possible that market price adjustments will not be gradual, but rather abrupt when some catalyst triggers a fundamental reset.



How could the discount rate be impacted?

Despite climate risk introducing another risk factor into the modelling, the established methods for calculating the cost of capital should continue to be used. In addition, **an entity should consider that the discount rate could increase if an entity has higher exposure to climate risks than peers**, as providers of finance (via debt or equity) will demand a higher return for riskier investments. In extreme cases, financing may even become unavailable for certain entities or projects.

There are two approaches in estimating cash flows, the traditional and the expected cash flow approach. Risks around the cash flows are reflected differently in the two approaches and consequently the discount rate may also differ in each of the approaches. Care needs to be taken not to double count the risk in the cash flow projections and in the discount rate.



VIU modelling – traditional approach vs scenario analysis

An expected cash flow approach (multiple probability-weighted scenarios) might be a better way to estimate the recoverable amount than a single predicted outcome, to capture the increased risk and uncertainty. The need to consider different scenarios for narrative reporting in climate related disclosures, may be an opportunity to refresh the entity's VIU approach.

The traditional approach uses a single set of cash flows and a single discount rate. It assumes that a single discount rate can incorporate all the expectations about the future cash flows and the appropriate risk premium.

Scenario analysis uses probability-weighted expected cash flows that capture risk in probabilities rather than the discount rate.

Both approaches require the use of estimates and subjectivity, although **a scenario approach provides greater computational transparency which proves beneficial when considering how to factor climate change into the model. Scenario analysis is further useful to incorporate low probability but high impact scenarios that are significantly different from the base case.**



Capital expenditure in VIU forecast models

For the purposes of preparing a MFRS 136 impairment assessment, depending on whether the FVLCD model or the VIU model is applied, there are differences in whether outflows for restructurings and their related resulting beneficial inflows and cost savings are included in the cash flows or not.

Capital expenditure that improves or enhances performance (or future restructuring to which the entity is not yet committed) cannot be included in the VIU cash flows – related benefits also need to be excluded. Capital expenditure to maintain the CGU assets would be included.

Judgement may be needed to determine if capital expenditure on climate matters should be included in VIU cash flow or not based on the above. Examples are expenditures to make the CGU compliant with climate-specific regulations for the VIU model – it might be an area of judgement whether such costs represent maintenance or enhancement of the assets.

The FVLCD model is a market participant model; the expenditures mentioned above would be included to the extent that a market participant would incorporate them.



Interplay between financial statement disclosures and narrative reporting

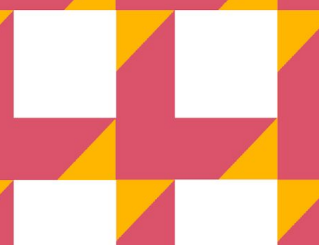
Many companies discuss climate scenarios as part of their narrative reporting. These scenarios may stem from the Paris Agreement or net zero targets. It is important to be reminded that such scenario discussions likely interact with disclosures required by MFRS 101 'Presentation of Financial Statements' or MFRS 136 but that they are not identical.

Investors are interested in how assumptions used for climate related narrative reporting correspond to assumptions used, for example, for impairment testing and sensitivity disclosures.

Under MFRS 136 an entity uses base case assumptions based on management's best estimate when determining VIU. This may or may not fully align with any particular climate change scenario. Furthermore, under MFRS 136 management needs to consider whether the assumptions made are consistent with external sources of information. An entity's narrative reporting may include statements that the business plans and strategy is to be net zero by a certain date or to be aligned with the Paris Agreement. The financial statement assumptions used for MFRS 136 purposes should not be inconsistent with such strategy or business plans.

MFRS 136 requires a sensitivity analysis if a reasonably possible change in assumptions would lead to an impairment. This might include a reasonably possible unfavourable climate change scenario. The MFRS 136 sensitivity disclosures cover the forecast period (i.e. perpetuity where a terminal value is included).

An entity should clearly explain how assumptions used for MFRS 136 correspond to assumptions used in the narrative reporting on climate change scenarios to help investors understand the linkage; this is despite there being no requirement in MFRS to align assumptions with any specific climate scenario. In addition to this, investor groups and regulators in a number of territories have also been clear that they expect entities to explain and reconcile any discrepancies in assumptions used.



What do I need to do now on MFRS 136 impairment?

- **Ensure that climate risk is considered in the development of your projections and modelling** – examples of where climate change may impact the modelling have been explained above.
- **Consider moving to a weighted average scenario model** – generally, given the potential uncertainties associated with the physical and transition risks, best practice would be to incorporate these into various scenarios in the cash flows, rather than preparing a single projection and attempting to capture potentially significant risks solely in the discount rate. Entities should remain careful that the same risks are not double counted in both the discount rate and cash flows.
- **Consider disclosure of sensitivities** – even if the carrying amount of recognised assets and liabilities is not impacted directly, climate risk can still impact and require sensitivity disclosures in the financial statements. If prior year disclosures included a statement that there was no reasonably possible change in assumptions that would cause an impairment, do these need revisiting when considering climate risk in more detail? Unfavourable, but reasonably possible, climate scenarios may require an update to such a statement and additional sensitivity disclosures may need to be provided.
- **Check consistency of disclosures and assumptions used** – Ensure that sufficient and clear information is provided that links assumptions used in narrative reporting to those used in the financial statements and that they are consistent.
- **Ensure capital expenditures that enhanced performance and future restructuring are excluded from VIU cash flows** – Not all future plans/intentions are allowed to be included within a VIU model, so care is needed when incorporating climate effects.

Do you need further information on this topic?

Contact: Capital Market & Accounting Advisory Services (CMAAS) team
Email: my_cmaas@pwc.com

Stay up to date with the latest developments in financial reporting and capital markets

CMAAS's monthly newsletter "Accounting & Capital Markets Round-Up" features hot topics written in a way that you can easily access.
Click on [this link](#) to subscribe and receive the newsletter in your inbox as soon as it is released each month. The newsletter is accessible via mobile phone as well.

This content is for general information purposes only and should not be used as a substitute for consultation with professional advisors.

© 2023 PricewaterhouseCoopers Risk Services Sdn Bhd. All rights reserved. "PricewaterhouseCoopers" and/or "PwC" refers to the individual members of the PricewaterhouseCoopers organisation in Malaysia, each of which is a separate and independent legal entity. Please see www.pwc.com/structure for further details.