

Investment perspectives

TCFD: Supporting clients in understanding and reporting on climate change risk



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With the government having just published its consultation response alongside the final TCFD regulations and statutory guidance for pension schemes, this article explores some of the analysis that can be carried out to support TCFD reporting requirements.

Metrics

The requirements under the Taskforce for Climate-related Financial Disclosures (TCFD) means that trustees will need to calculate their scheme's greenhouse gas (GHG) emissions, disclosing:

- the total GHG emissions of the scheme's assets;
- the total carbon dioxide emissions per unit of currency invested by the scheme;
- one additional climate metric that is neither an absolute nor an intensity metric.

The extract below shows an example of analysis that we have produced for clients through MSCI's ESG Manager, a leading provider of ESG data and analytics. This allows us to understand in detail the environmental (as well as social and governance) characteristics of any portfolio of listed assets. While this generates the required TCFD emissions metrics, climate and wider ESG metrics are increasingly being used by investors seeking ways to manage risk and capitalise upon opportunities.

	Total Carbon Emissions (000s Tons)	Carbon Footprint (tCO ₂ /\$m invested)	Low Carbon Transition Score	Sustainable Development Goal 13 Alignment	% Of Portfolio with Ties to Fossil Fuels
Fund A	154	154.2	7.5	7.2	21%
Fund B	164	174.8	8.0	7.2	18%
<i>Fund A relative to Fund B</i>	-10	-20.6	-0.5	0.0	3.0%

This type of analysis helps trustees understand both the absolute and intensity metrics and compare and evaluate the risks exposures at Fund level and across individual mandates. In this instance the emissions performance of Fund B is worse than Fund A at this point – though these metrics tell us nothing about future emissions performance.

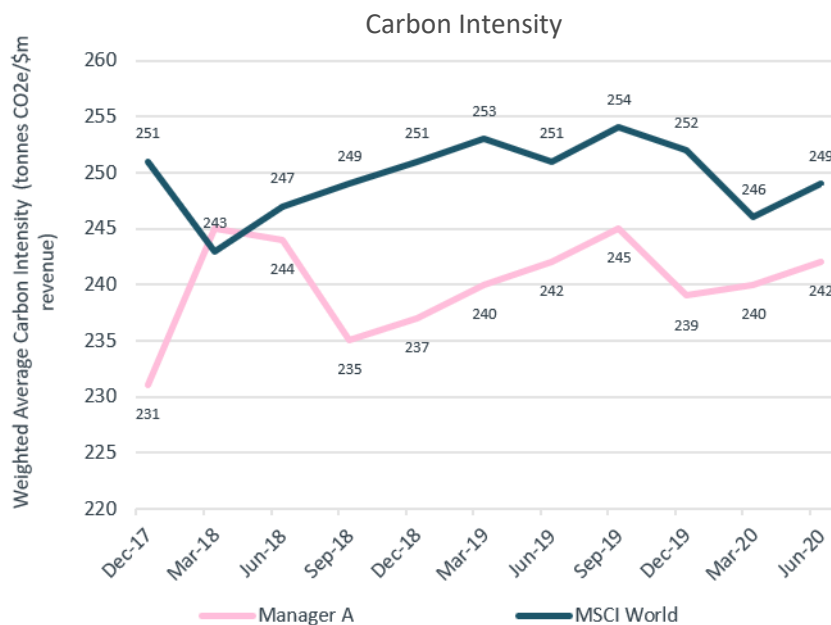
As well as backward-looking metrics, the analysis can compare more forward-looking risk factors such as a low carbon transition score. This seeks to identify leaders (and laggards) by measuring companies' exposure to and management of risks and opportunities related to the low-carbon transition. A company with significant exposure to fossil fuels, and making no attempt to de-carbonise, is likely to be vulnerable to carbon taxes and stranded assets. This will be reflected in a less favourable score than a similar company that is adapting its business model to a lower-carbon economy.

Armed with such information, trustees can engage with investment managers to understand more about individual company scores; and investment managers can challenge the management of companies with poor climate or wider ESG-related scores.

Investment Strategy and Targets

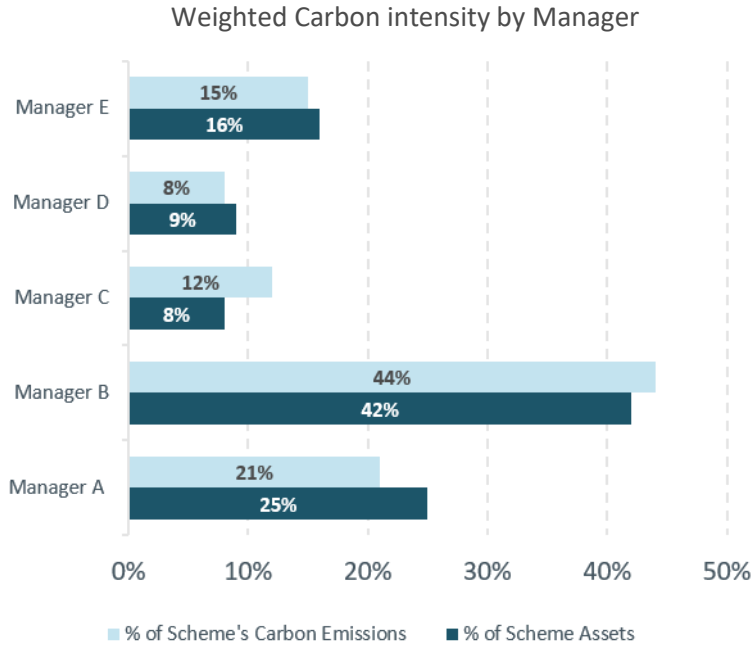
Considering a range of climate metrics not only supports disclosure requirements but supports decisions on strategy and target-setting. TCFD requires trustees to assess the impact of the climate-related risks and opportunities they have identified in the scheme's investment strategy, and, for DB schemes, their funding strategy.

Trustees must recognise climate-related risks and opportunities in the context of their strategic asset allocation; and how climate change might impact investments over time. Climate metrics play an important role in supporting this requirement.



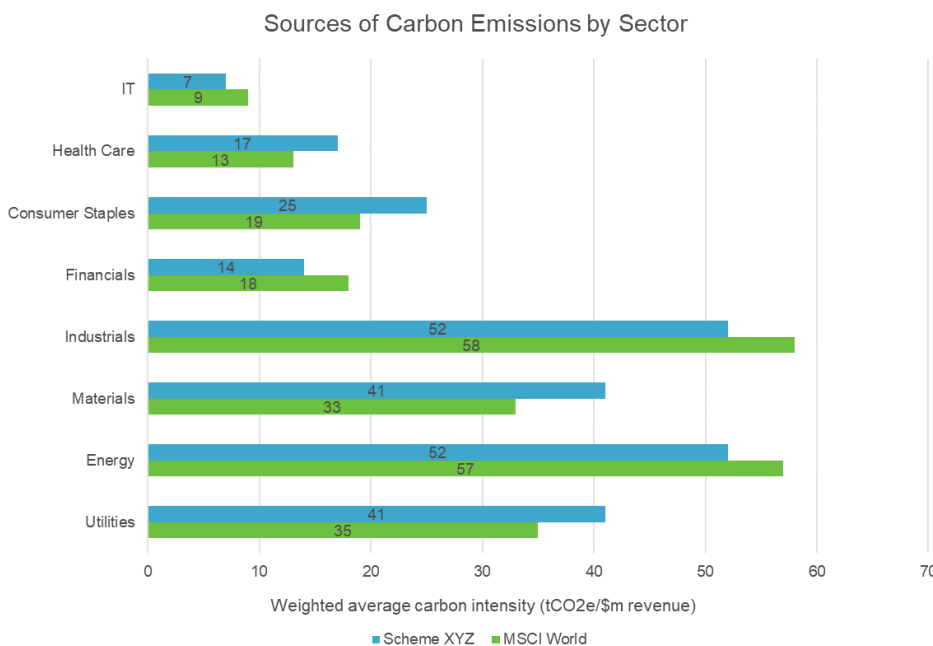
The graph above shows the evolution of a hypothetical scheme's carbon intensity relative to that of the MSCI World Index. This type of analysis can help to monitor a Fund or manager's progression in reducing carbon intensity but also how this compares to the wider index, which we would expect to decarbonise in the coming years.

We can also explore the contribution to the scheme’s total investment emissions from each portfolio manager, as shown in the following example:



In this case, Manager C contributes 12% of total emissions, despite representing only 8% of scheme assets. This information can underpin discussions with investment managers to understand why that might be. Perhaps, for example, the manager is of the view that some of the companies they hold, while high emitters at present, are leaders in supporting a green energy transition – and, as such, are worth retaining.

This sort of analysis can also be explored at a more granular level, as shown in the sector breakdown chart below, which highlights that four sectors contribute around 75% of this scheme’s total emissions. We also observe that stock selection decisions are resulting in higher emissions (relative to benchmark) in 4 out of the 8 sectors. This helps identify the largest sources of emissions, which can be monitored over time. It also addresses TCFD requirements for setting and measuring performance against at least one of the metrics described above.



Scenario Analysis

Inextricably linked with investment strategy, scenario analysis is a useful tool in understanding and managing risk. We have been conducting climate scenario analysis for clients for some time and are launching further enhancements to our modelling in 2021.

For TCFD reporting, pension schemes must consider at least two scenarios where there is an increase in the global average temperature; in one of these scenarios, the temperature increase must be within the range 1.5 degrees up to and including 2 degrees above pre-industrial levels.

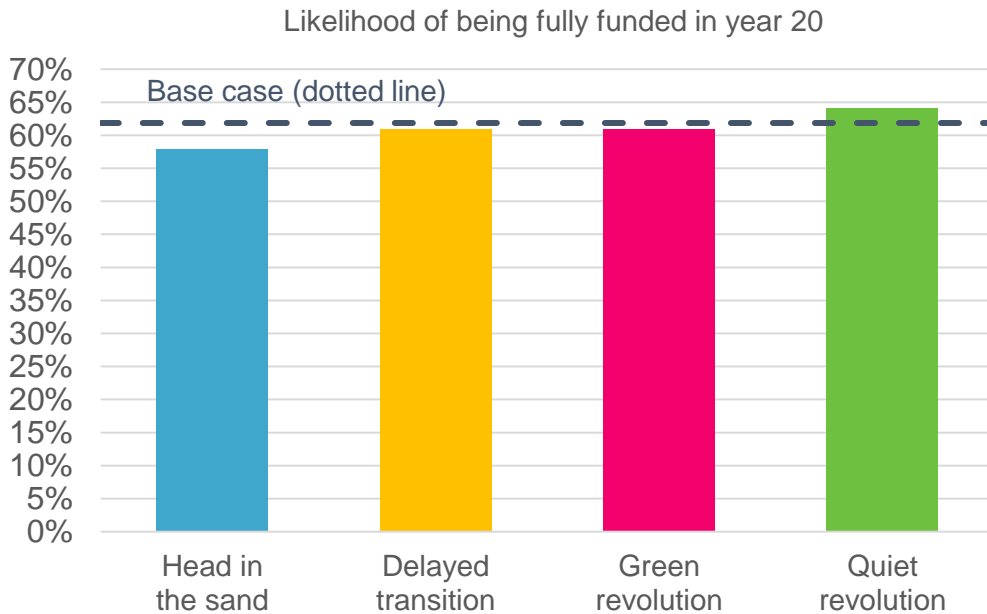
TCFD requires schemes to carry out scenario analysis to investigate the potential impact of climate risk on assets and liabilities, and to test the resilience of the investment and funding strategies. Consideration needs to be given not only to what might happen to asset prices, but also liability values, sponsor covenants, asset allocations, buy-in or buy-out plans and more.

While most trustees will be familiar with asset liability modelling, climate scenario modelling may be less familiar. We set out below an example of our enhanced modelling capabilities which allow us to carry out projections based on four climate change scenarios and explore how the likelihood of the scheme achieving its funding objective is affected, and demonstrating the resilience of any chosen strategy.

Four indicative climate scenarios that could be modelled are as follows:

- **Green revolution:** 2100 temperature pathway at or below 2 degrees higher than pre-industrial levels. Immediate, significant action from policymakers (e.g. carbon tax increases) and market participants to adapt to a lower-carbon economy. While costly to implement in the short term, longer term costs associated with climate change are reduced or avoided.
- **Delayed transition:** Shorter term inaction followed by more extreme and disruptive action than may otherwise have been needed. Carbon pricing is implemented, with prices rising higher and faster than under a smoother transition. The 2100 temperature pathway is still at or below 2 degrees.
- **Head in the sand:** No transition. 2100 temperature pathway above 2 degrees. Little government or market action until pervasive fears that the world is on track for a more than 2 degrees temperature increase sparks market uncertainty and price dislocation. Despite this, there remains a lack of co-ordinated policymaker efforts to mitigate the impacts. Accordingly, there is increased likelihood of acute physical impacts on businesses and communities.
- **Quiet revolution:** A smoother transition, achieving the same outcomes as the Green revolution, but without turmoil in financial markets.

The graph below shows the likelihood of a hypothetical scheme being fully funded after 20 years in each scenario, with the base case shown as a dotted line.



These are hypothetical examples, and no single scenario should be used in isolation to inform investment or funding strategy decisions. However, this approach helps us to answer critical questions underpinning investment and funding strategies, such as:

- How resilient is the strategy to climate stress?
- What might climate risk mean for projected deficits; is the sponsor covenant strong enough to support higher contributions?
- Can the investment strategy be adjusted to improve its resilience?

While useful from a governance perspective (and to meet TCFD requirements), we don't know what path climate change will take, so it makes sense to consider a range of scenarios.

Conclusion

Climate change is a material financial risk which should be considered by all pension schemes. The TCFD framework will become compulsory for larger pension schemes from October this year. Regardless of whether a scheme falls into scope or not, the framework provides a comprehensive means of integrating climate risk into all stages of investment decision-making.

Climate metrics and scenario modelling are a helpful way of understanding risk exposures and the potential impact that climate risk factors can have on pension funds. As such, it is worth considering what analytics can be most effective in helping your scheme understand climate risk, identify key areas of focus, as well as meeting regulatory requirements.

Contact us

If you would like to discuss this in more detail, please [get in touch](#)

