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TCFDs – is climate scenario analysis telling us what we really need to hear?

RADAR

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FOR PROFESSIONAL INVESTORS ONLY

Key points

- Current scenario analysis tends to narrowly frame company risks with little consideration of more systemic risks presented by climate change.
- Aggregating company risks in order to understand portfolio risks will serve to amplify this issue.
- Systemic and interdependency risks can be difficult to identify, and model, but acknowledging these limitations is important when reviewing TCFD analysis.
- Scenario analysis seeks to confirm the scenarios under which a company's operations remain viable. A more useful exercise may be to identify the inflexion points under which profitability is compromised.

Introduction

The Task Force on Climate-related Financial Disclosures (TCFD) was established to develop recommendations for more effective climate-related disclosures to help businesses, investors, lenders and regulators understand the risks posed by climate change. A cornerstone component is its recommendation that organisations "describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2° C or lower scenario."

Since its establishment in 2017, many businesses have started voluntarily making TCFD disclosures. Progress has been rapid — a task force survey of 1,400 large global companies found 80 per cent disclosed in line with at least one of the 11 recommended disclosures in FY2021.[1] This is set to increase as mandated disclosures become more commonplace in many jurisdictions.

While this is encouraging, there are question marks emerging about whether the regime is generating genuinely useful information.

Conceptually, aggregating each company's disclosure creates a total system picture of the risks posed by the changing climate.

But Regnan's assessment of disclosures indicates companies are taking a narrow view of climate risks — assessing the direct effects of climate change on their physical assets or transition requirements for Paris alignment - but failing to properly understand the underlying, system-wide interdependencies that climate change will impact.

More frequent extreme weather events are likely to affect businesses' access to critical infrastructure outside their direct control, damage community resilience, and drive changes in consumer behaviour.

Source: [1]www.fsb.org

All of these impacts make a reduced underlying level of global economic growth a real prospect.

These are risks faced by all businesses that in our view are not accurately captured within scenario analysis.

There are good reasons for this.

- Macro-economic scenario analysis is beyond the internal capabilities of many businesses and comes with its own uncertainties, especially over long-term forecasting periods.
- The market preferences confirmation of an organisation's viability within a range of scenarios. A more useful framing, however, might be under what conditions is the organisation no longer resilient
- Interdependencies can be difficult to identify, quantify and model, often seeing them left out of the scope of most scenario analysis, despite the obvious implications of issues such as supply chain disruption, resilience of critical infrastructure and broader impacts on the economy more generally.

There are several ways in which producers and users of climate disclosures can begin to address these issues.

Governments and regulators have an opportunity to take the lead in developing an agreed set of economic scenarios that take account of the systems-wide effects of climate change and can be incorporated into businesses' TCFD disclosures.

To truly understand the financial risks posed by climate change, businesses must consider system-wide interdependencies and different potential economic scenarios to truly understand the financial and operational risks posed by climate change. This will allow better analysis of the capital investment commitments and the long term prospect for returns on invested capital and revenues.

By incorporating a top-down approach and incorporating guidance from government, businesses can provide more effective TCFD disclosures that better inform investors, lenders and regulators.

Importantly, this can inform effective decision-making, taking into account a broad set of risks, to build resilient organisations and, in turn, a financial system that can withstand the challenges of a changing climate.

While scenario analysis can still be a useful exercise, its users should be aware of its limitations and treat the results as conservative in the absence of these challenges being addressed.

Case study

In 2021, a power outage in Texas left more than 4 million homes and businesses without electricity during a series of severe winter storms and record low temperatures dubbed The Great Texas Freeze.

Many employees were unable to get to their workplaces and power outages meant they were also unable to work from home.

Regnan spoke to one company that relocated its employees and their families from their homes into hotel rooms to keep business operating.

The operation was successful, but costly, and raises important questions about the viability of this kind of crisis management if weather events like the Texas freeze occur more frequently.

Assessing TCFD disclosures

Regnan has been assessing early voluntary TCFD disclosures to better understand how they present investment risk.

An emerging observation is that companies with large tangible asset bases are more likely to document physical risks to their operations than companies that rely on intellectual capital.

This is not an unexpected outcome. Having physical assets that can be directly impacted by extreme weather puts climate change front of mind.

However, having fewer physical assets does not mean companies are immune from climate risk.

All businesses face the risk of weather events such as floods or fires disrupting their value chains or preventing their employees from coming to work.

All businesses rely on the underlying infrastructure of roads, electricity, telecommunications and water that are each vulnerable to climate change.

And perhaps most importantly, all businesses are also part of a wider economy that is itself subject to climate change risks, from changes in consumption preferences and consumer behaviour to the very level of underlying economic activity and growth.

In the past few years alone, we have seen multiple business disruptions across the globe - unusually widespread and damaging fires and floods in Australia, heatwaves and wildfires in Europe, deep freezes in parts of the US and severe flooding in Asia, all creating business disruption.

This is climate risk that is foreseeable and measurable.

Another way of putting it: the background level of climate risk is not nil, but from their TCFD disclosures, many companies appear to act as if it is.

Limitations to providing an aggregate view of climate-related risks

One touted benefit of a global TCFD regime is the ability to build a comprehensive view of system risk by aggregating individual company data.

But the reality is that if each business looks at climate risk through their own narrow frame, the aggregate view becomes distorted.

It is not unexpected that individual businesses would take a narrow view on climate risk.

It is the convention of company reporting that it stops at the organisational boundary, failing to include more than the briefest references to critical dependencies or the things that can only be influenced by management, rather than directly controlled.

What's missing is an accounting for the interdependency of businesses on each other, on underlying infrastructure and on the wider community.

In relying on bottom-up aggregations of climate risk disclosures, investors are missing the opportunity to properly understand risk at a portfolio level and regulators are missing the chance to consider the full economic costs of climate change. One consequence of this is a systematic miscalculation of the scale and speed of the investment spending required to tackle climate, as well as the economic benefits that this represents.

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Interdependencies - the missing risk

The TCFD regime considers several categories of climate-related risks:

- Policy and Legal – including robust national strategy commitments, the impact of carbon pricing and reporting obligations and mandates affecting products and services
- Technology - potential for substitution of existing products with lower emissions options and unsuccessful investment in new technologies, as well as support for critical R&D to accelerate deployment of new concepts
- Market - changing customer behaviour, uncertainty in market signals and increased costs for raw materials
- Reputation - shifts in consumer preferences, stigmatisation of sectors
- Physical - extreme weather events, plus changing weather patterns, and rising mean temperatures and sea levels

What's missing from this list is the underlying system risk arising from the interdependencies between businesses, customers, suppliers and the wider community and economy that they operate in. Government incentives (or disincentives) to accelerate (or retard) the transformation of the energy system are often ignored entirely in assessing system risk.

Case study

Ongoing droughts have caused severe problems for many businesses, including resources companies, who were forced to find new water supplies to continue operating.

But in many cases, finding the water to run a business was only part of the problem.

Regnan spoke to one business operating in a rural community where the water crisis became so severe it was forced to divert water away from its operations to supply the daily needs of local households.

The case study demonstrates that businesses are ultimately dependent on the community that they draw their workforce from, despite many climate risk disclosures often making only superficial references to the importance of host communities.

There is a wide range of underlying, systems-wide interdependencies that businesses should consider when thinking about climate risk.

These include:

1. Consumer behaviour

Although addressed in market risk, often only cursory attention is paid to the fact that consumer behaviour will likely change as temperatures rise and extreme weather events become more common. This could take many forms, from changing preferences for food, clothing and holiday destinations, to the need for frequent rebuilding after natural disasters or relocation in search of more favourable climatic conditions.

2. Infrastructure dependence

Businesses are reliant on the underlying infrastructure around them, from roads, telecommunications and power, to access to water. Changes to the availability of infrastructure, even temporarily, can have profound implications for a business's operations.

3. Supply chain flexibility

Disruptions in supply chains due to extreme weather, shifting demand, interrupted transportation or restricted supply could disrupt businesses. Good advances have been made here due to the stresses of the pandemic, but climate change could further upend supply chains.

4. Community resilience

Businesses rely on the resilience of the communities they operate in to maintain their workforce and customer base. Assessing the health and resilience of host communities is critically important for climate risk disclosure.

5. Reduced economic growth

Extreme weather is no longer an infrequent, temporary phenomenon. A world where mean temperatures rise beyond the agreed limits of the Paris Agreement is unlikely to enjoy the same level of economic growth as one where temperatures are kept within 2 degrees or lower. Businesses should reflect this base level reduction in demand in their planning.

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Economic forecasting

The frequency of climate-change related weather events is posing a challenge for economic forecasting.

Current traditional economic models, predominantly, consider a weather-related shock as causing only a temporary dislocation in supply and prices. A cyclone destroying crops sees them sourced elsewhere or substituted by consumers. Rainfall that interrupts mine production means higher output in subsequent quarters.

The argument assumes that these events are sufficiently infrequent and temporary where lost production can be made up elsewhere.

However, in our view, this assumption is problematic, because as physical impacts of climate change materialise extreme weather events are projected to increase in frequency and intensity. Climate projections need to be considered in economic forecasting. Additionally, it is noteworthy that, there could be limits to adaptation, a resiliency barrier somewhere in the future beyond which the exponential impact of climate change results in complete reconfiguration of the economic system.

It is the identification of these breakage or inflexion points that might well be the most useful insights from climate scenario analysis.

At a business level, even relatively benign macro-economic effects from weather events, can have profound impacts on an individual business.

A hospitality chain that manages to reopen after a flood is not likely to see strong sales while everyone else is rebuilding around them.

Bushfires that spare a business's key manufacturing site may have had a devastating impact on the homes of its employees.

A top-down view

Businesses are individually ill-equipped to consider these underlying economy-wide interdependencies when thinking about climate risk.

In our view, there is a role for governments and central banks to take the lead in providing formal guidance on the system-wide impact of climate change on the economy and to correctly incentivise behaviour to change outcomes.

Businesses, and their investors, can then incorporate this guidance into their risk planning and TCFD disclosures.

TCFD disclosures are already reliant on information from outside sources — from emissions measurement methods to forecasts for temperatures and sea levels.

Benchmarks on the likely effects of climate change on national economies — including scenarios that consider economic growth, consumer behaviour and weather-related disruptions to the community - would be a valuable addition to current analysis.

Such an approach would broaden businesses' views of the costs of adaptation and the degree to which business planning needs to take these interdependencies and broader economic conditions into account, challenging the scenarios under which business as usual, or slightly modified approaches are adequate.

Companies should be considering how much they will have to spend to increase their resilience to natural disasters adding to direct losses and the effects on their customers, workers and suppliers.

The key to more effective TCFD disclosures is in businesses more fully exploring their interdependencies and looking beyond their organisational boundaries.

In our experience, companies are doing an increasingly good job of projecting and analysing site by site impacts to their physical locations, but it is very rare to see a more fulsome consideration of other assets on which they rely. Ideally, this should also consider impacts on the broader economic environment in which business will find itself.

There is a role for government-developed inputs to help businesses model these likely economic impacts

Conclusion

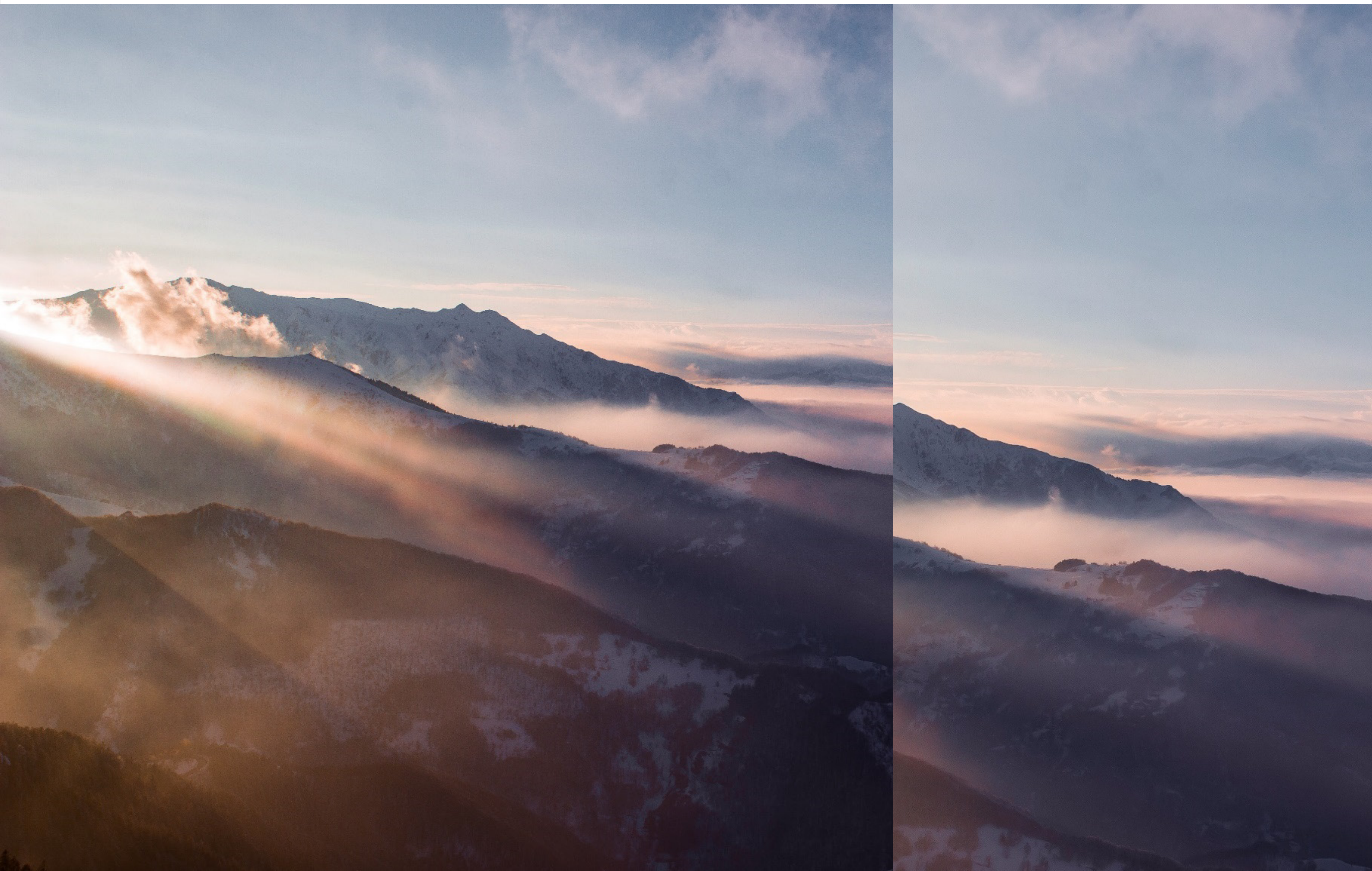
The Task Force on Climate-related Financial Disclosures (TCFD) has made significant progress in encouraging businesses to disclose their climate-related risks. However, there are still limitations to the current TCFD regime, as companies tend to take a narrow view of climate risks and fail to fully understand the underlying, system-wide interdependencies that climate change will impact, including on the broader economy.

While some of these interdependencies can be identified by companies themselves, governments can play a crucial role in this process by providing formal guidance on the system-wide impact of climate change on the broader economy.

This guidance can be incorporated into businesses' scenario analysis and subsequent TCFD disclosures, allowing investors, lenders, and regulators to better understand and aggregate the financial risks posed by climate change.

While there are very real challenges to identifying, quantifying, and modelling these risks, their active consideration can provide more effective TCFD disclosures that better inform company decision making, better inform stakeholders and help build a financial system that can better weather the challenges of a changing climate.

At the very least, by acknowledging their absence we can apply appropriate levels of conservatism to current disclosures.



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At Regnan, we focus on delivering innovative sustainable and impact investment solutions, by drawing on over 20 years of experience at the frontier of responsible investment. Regnan's roots trace back to Monash University, Melbourne in 1996, when it was established to investigate and address ESG-related sources of risk and value for long-term shareholders.

Regnan is the specialist sustainable and impact brand. Driving positive impact and investing for a sustainable future is why we exist. We want to help make responsible investment the standard way to invest by making it more nuanced, intellectually robust and effective.

In 2019 Regnan expanded into responsible investment funds management.

Our strategies:

Regnan Global Equity Impact Solutions

The Regnan Global Equity Impact Solutions strategy is a solutions-first approach, focused on investing in mission-driven businesses that address underserved environmental and social challenges and deliver real, systematic change for the better. It is a high-conviction, global, multi-capitalisation portfolio with low turnover and a strong emphasis on driving impact by engaging companies to improve measurable outcomes.

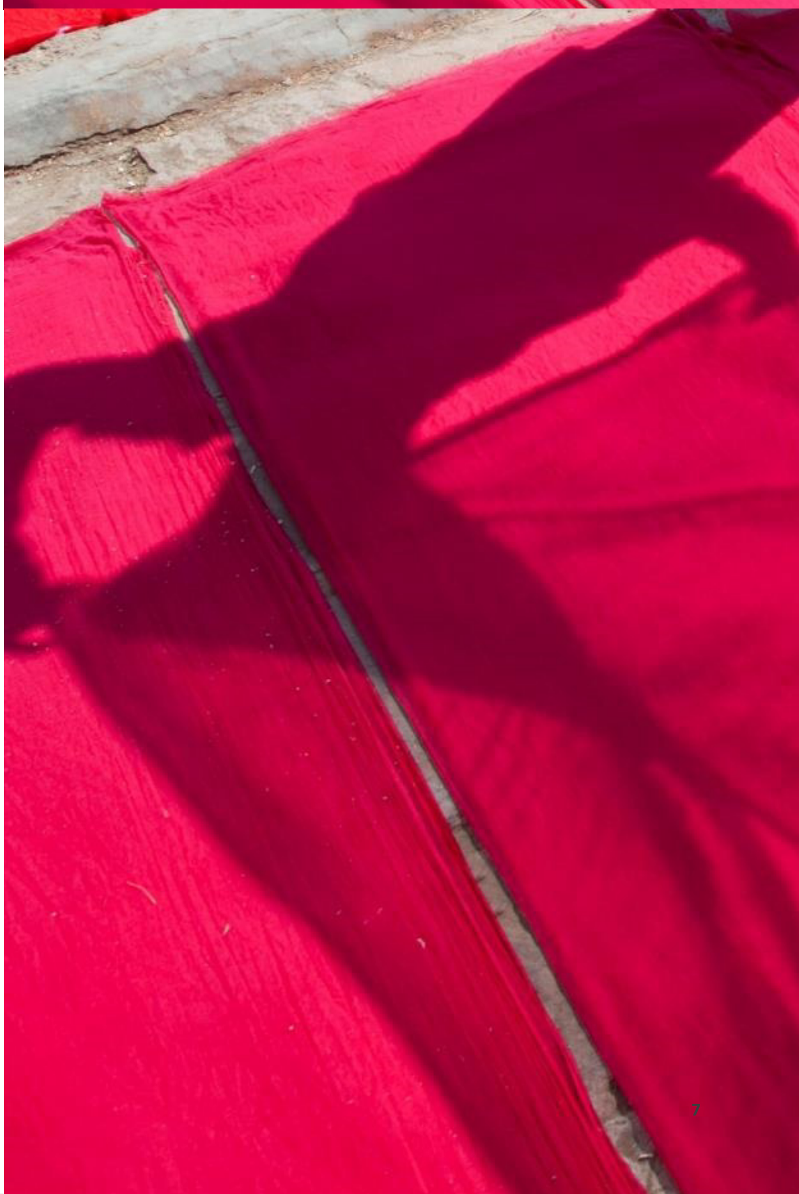
Regnan Sustainable Water and Waste

Our Thematic Investing team joined Regnan in April 2021 and launched the Regnan Sustainable Water and Waste Strategy in September 2021. Combining exposure to both water and waste-related companies makes this strategy a distinctive thematic investment proposition with diversification benefits.

Regnan Credit Impact*

The Regnan Credit Impact Strategy is an actively managed portfolio of mainly investment grade impact bonds (green/climate, social & sustainability) that support positive societal and/or environmental outcomes including advancement of the United Nations Sustainable Development Goals.

*Available to Australian investors only.



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