



# Accounting for the climate horizon

A study of TCFD implementation



THE UNIVERSITY OF  
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# Foreword to the research report by Dr Martin Farrar from CIMA's Research and Development Department.

Accounting for climate change risk: a study of TCFD implementation.

The task force on climate-related financial disclosures (TCFD) recommendations are a recent framework (published, June 2017) designed to ignite interest in organisations to the growing demand for decision-useful, climate-related financial information from investors and wider society.<sup>i</sup> Currently the framework remains a voluntary, market-led initiative, but as it evolves and demand grows, there will be increasing government and regulator calls to incorporate this kind of disclosure into their own reporting requirements.

This research highlights the realities and pitfalls of organisations trying to implement the TCFD recommendations, from a study of the Australian market between June 2018 to July 2019. It is a must read for anybody starting their TCFD recommendations journey.

Currently the supply of quality climate-financial disclosure, as this report emphasises, is not meeting the demands from the investor community. This is due, in part, to there being a lack of specification and guidance available for organisations trying to implement the recommendations. It is however, encouraging to note the increasing international recognition of the need to integrate climate and environmental factors into mainstream financial decision-making.

It is also gratifying to note that key conclusions in this study, of the Australia market, are being experienced by organisations in other markets across the globe. These have been acknowledged in the TCFD 2019 status report.<sup>ii</sup>

Since the launch of the TCFD recommendations, in June 2017, 785 companies and other organisations are now committed to using the recommendations to report on their climate-related financial disclosure. The TCFD recommendations have been instrumental in developing a framework for disclosing climate-related financial risks and opportunities.

In a speech at the Accounting for Sustainability Summit 2018, Mark Carney, Governor of the Bank of England, remarked on the growing impact of TCFD adoption,

*TCFD's voluntary disclosure is creating a virtuous circle by encouraging learning by doing: as companies apply the recommendations, investors are increasingly differentiating between firms based on the information they receive. As good practice emerges, adoption will continue to spread, disclosure will become more decision-useful and efficient, and its impact will grow.*

*As climate disclosure moves into the mainstream, it is increasingly seen as necessary in and of itself, and as informative about which companies are focused on long-term value creation.*

The point here, is that the implementation of the recommendations is still evolving and has not become a full linear, tick box, framework process. Implementation specifications and guidance will continue to evolve, falling out of learning and innovation from experimenting with the recommendations. Some organisations thrive in this type of environment and others will need a more structured approach.

<sup>i</sup> TCFD, Recommendations of the Task Force on Climate-related Financial Disclosures (June, 2017).

<sup>ii</sup> TCFD, 2019 Status Report: Task Force on Climate-Related Financial Disclosures (June, 2019).

## When to start your TCFD journey?

The question now for organisations isn't whether to adopt the recommendations. Growing investor and regulator demands for increased disclosure means that the debate has moved on. The question has become, when should you start your organisation's disclosure reporting journey.

Of course, there are risks in being the first to report on climate-related financial disclosure, just as there are risks associated with turning up to the party too late and being left behind. It's an age-old dilemma, where the innovators and early adopters can gain competitive advantage from scenario planning and understanding how the risks of climate change will impact their strategies and business model. As Steven Johnson points out,

*Innovative environments thrive on useful mistakes, and suffer when the demands of quality control over-whelm them.*<sup>iii</sup>

Of course, there is a balance between the proverbs of 'the early bird catches the worm', contrasting with 'the second mouse gets the cheese'. Whether you are an innovator or part of the late majority, knowing the challenges represented in this report will inform your organisation's appetite for when to go for full TCFD recommendations adoption.

For those working for listed companies in the UK, the time to start your TCFD recommendations journey is now. In the UK Government's Green Finance Strategy paper, issued in July 2019, the UK Government has an ambitious goal on the TCFD recommendations.<sup>iv</sup> Their expectation is that by 2022, all listed companies and large asset owners are disclosing in line with the TCFD recommendations. This expectation only gives those working for UK listed companies two years to get to grips with and gain the skills to implement. You need to experiment and learn by doing, especially if you are unfamiliar with scenario analysis.

The finance sustainability space has been a confused one with many competing frameworks, but there is some encouraging news. A Corporate Reporting Dialogue (CRD) report, 'Driving Alignment in Climate-related Reporting', published in September 2019, recognises the high level of alignment between major global reporting frameworks and the TCFD recommendations.<sup>v</sup> The report mapped the alignment between participant frameworks and standards to the disclosure principles, recommended disclosures and illustrative example metrics of the Task Force on

Climate-related Financial Disclosures.<sup>vi</sup> Therefore, if your organisation is already following a sustainability framework or standard, the TCFD recommendations can be amalgamated into your current reporting practice.

Key learning from this CIMA sponsored research, is that the finance function cannot be the lone voice in your organisation when it comes to implementing the recommendations. The complex nature of the measurements involved will require the contribution of multiple functions and scientific expertise across your organisation, or possibly your industry sector and supply chain partners. This means starting the TCFD conversations first within your organisation and building the cultural engagement before moving to full reporting.

## Time to upskill

Now is the perfect time to engage your curiosity in the recommendations, question your long-held assumptions, and upgrade your skills so you are climate-related financial disclosure scenario analysis savvy and implementation ready. Start here, by using the main findings of this research report to inform your organisation's TCFD implementation journey, and be ready for when climate-related financial disclosure becomes a mandatory regulatory reporting process.

If this is the first time you have come across the TCFD recommendations I have included a brief overview which is included in the additional practitioner resources at the end of the report. This will help add context to the findings of Wai Fong Chua and Tanya Fiedler's research report.

**Dr Martin Farrar**

Associate Technical Director

Research and Development – Management Accounting  
AICPA-CIMA

[Martin.Farrar@aicpa-cima.com](mailto:Martin.Farrar@aicpa-cima.com)

iii S Johnson, *Where Good Ideas Come From: The Seven Patterns of Innovation* (Penguin, London, 2011). p.148.

iv HM Government, *Green Finance Strategy: Transforming Finance For a Greener Future* (July, 2019).

v Corporate Reporting Dialogue, *Driving Alignment in Climate-related Reporting* (July, 2019).

vi The participants included, Corporate Reporting Dialogue (CRD), the Climate Disclosure Standards Board (CDSB); the Global Reporting Initiative (GRI); the International Integrated Reporting Council (IIRC); and the Sustainability Accounting Standards Board (SASB).

# Introduction

In his address to Lloyd's of London, governor of the Bank of England, Mark Carney (2015), described climate change as "The Tragedy of the Horizon", in the sense that "the catastrophic impacts of climate change will be felt beyond the traditional horizons of most actors ... beyond: the business cycle; the political cycle; and the horizon of technocratic authorities, like central banks." In considering the financial risks climate change impacts pose, Carney highlights the need for better information that allows investors to "take a view". In this, Carney appeals directly to accounting, concluding that "by managing what gets measured, we can break the "Tragedy of the Horizon".

In 2017, the Financial Stability Board's Task Force on *Climate-Related Financial Disclosures* (TCFD) (TCFD, 2017) responded directly to those concerns, in its recommendations and framework for the measurement and disclosure of climate-related financial information.

## Climate risks and opportunities

Climate-related financial information relates to:

1. Transitional risks and opportunities arising from changes in policy, technology and consumer preference;
2. Physical risks arising from chronic and acute climate and weather-related events on physical assets such as property and infrastructure; as well as, increasingly; and
3. Legal risks increasingly faced by investors, directors of companies, and public authorities, when it can be shown that they have been negligent in not taking these climate risks into account.

## The TCFD framework for climate-related disclosures

The task force provided a framework of 11 disclosures that were configured around the areas of governance, strategy, risk management and metrics and targets (TCFD, 2017).

Key amongst these, was the requirement to stress-test the resilience of organisational strategies, against a range of 'transitional' as well as 'physical' scenarios. Transition scenarios are scenarios compatible with different pathways transitioning to a low-carbon future.

Physical scenarios are those compatible with different levels of global warming.

It also developed seven principles for effective disclosures, that included the need for disclosures to be (TCFD, 2017):

- Relevant
- Specific and complete
- Clear, balanced and understandable
- Consistent over time
- Comparable among companies within a sector, industry or portfolio
- Reliable, verifiable, and objective
- Timely

## Issues associated with the supply of climate-related information

The disclosure framework, recommendations and principles for effective disclosures the task force developed and discussed in the above, place clear demands on the accounting profession.

Specifically, assets impacted by the transitional, physical or legal effects of climate change, will become impaired, while contingent liabilities will need to be reported or provisions raised to cover exposure to climate risks. Measurement of impairments, contingent liabilities or provisions, for climate effects likely to occur at some future point in time will, however, rely on the transition and physical scenarios described in the above for the purpose of developing the assumptions that underlay them. The specification and standardisation of such scenarios is something that has, however, only recently begun and only for certain sectors (Bank of England, 2019). Moreover, the task force are themselves reluctant to provide such specifications, for the reason that:

*"Existing, publicly available climate-related scenarios are not structured or defined in such a way that they can be easily applied consistently across different industries or across organizations within an industry".* (TCFD, 2017)

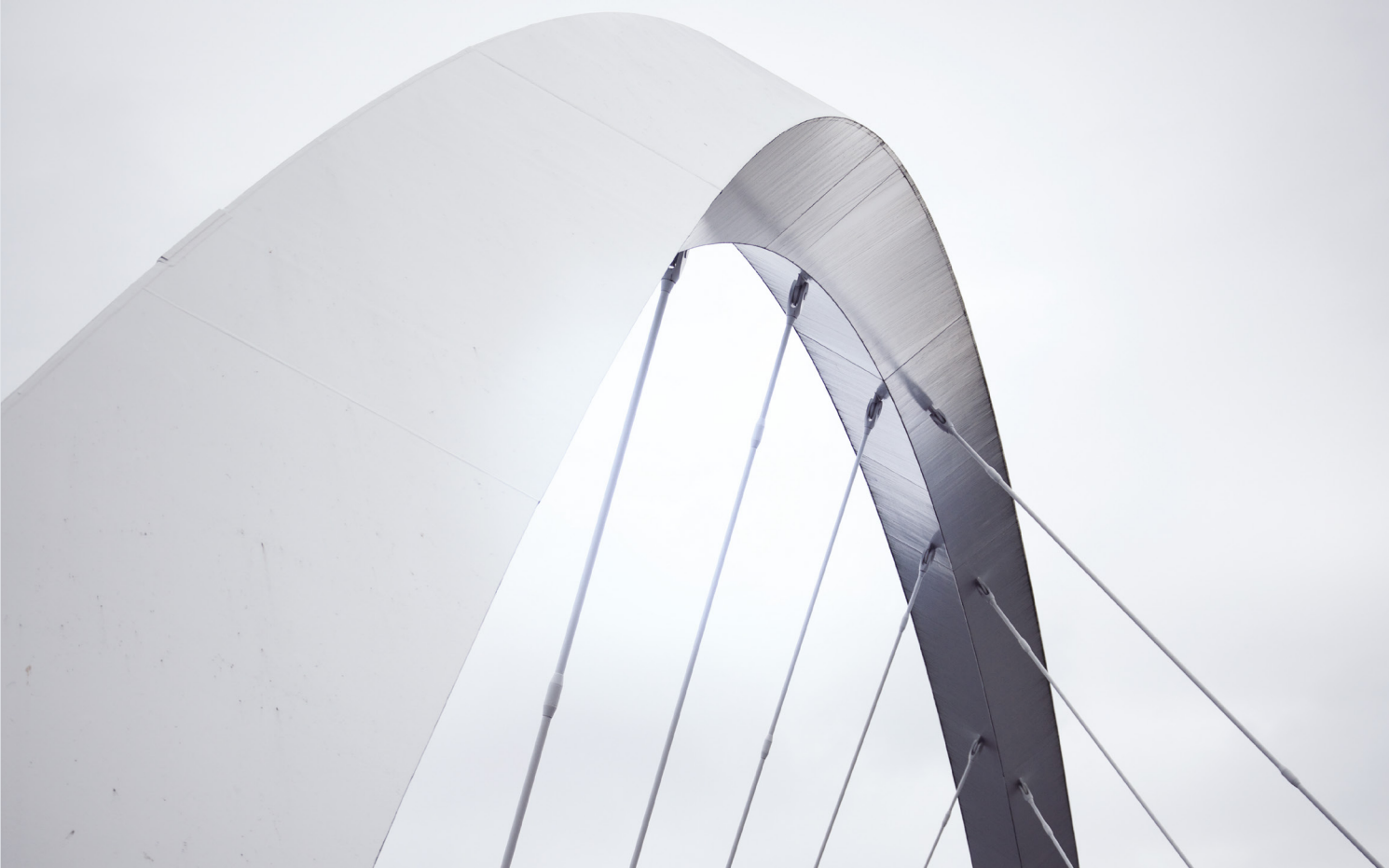
The task force accordingly encourages firms to "learn [scenario analysis] by doing" (TCFD, 2017).

# Objectives

We aim, in this study, to generate an in-depth understanding of the demand for, and supply of, information pertaining to climate-related financial risks.

To this end, we seek to examine:

- ▶ How firms are measuring climate risk, including the limitations and challenges associated with collecting and using relevant datasets, as well as with quantification and valuation; and
- ▶ How investors view existing climate risk disclosures, including the quality of these and any improvements that can be made





# Research methodology

We undertook a study of the Australian market in the period June 2018 to July 2019. In this way, we were able to study the developments in a range of reporting entities over a 12-month period, as well as undertake a full analysis of the reports published for the Australian Stock Exchange (ASX) 50 over the reporting cycle.

As part of our field study, we conducted 40 interviews with 48 stakeholders, including asset managers and owners, representatives from the banking, insurance, electricity generation, materials, industrials, consumer staples, oil and gas and professional services industries, as well as climate and other types of scientists, financial regulators, industry bodies and standard setters.

While conducting the interviews, we also collected 66 annual, sustainability or stand-alone climate reports for the ASX50, as well as 53 independent reports, speech transcripts and articles providing analysis, commentary, legal opinions and guidance from financial regulators, standard setters, think tanks and lawyers.



# Main findings and their implications for practice

The findings presented draw upon the data sources described in the previous “methodology” section. We have themed the data around the overarching aim of the research, as well as the two key research objectives

## 1. The demand for information pertaining to the climate-related financial risks of publicly listed entities is increasing.

There is the sense from our interviewees that demand for climate-related financial disclosures is increasing at an exponential rate.

One of our interviewees for example, with responsibility for climate change reporting at an ASX50 listed entity, described this demand as:

“... [starting] as a trickle and it’s turning into a flood of investors and investor groups ..., all requesting meetings and they don’t want to talk about anything but climate change.”

An adviser to institutional investors we spoke to similarly stated:

“... the impression you might be getting is tsunami, and that’s an accurate impression of the external pressures at the moment”.

This “trickle”, which has since “turned into a flood”, can be traced to a shift in the rhetoric used to describe climate change by ‘trusted’ sources in the financial system. These include those already outlined above, as well as an influential legal opinion on “Climate Change and Directors’ Duties” (Hutley SC & Hartford-Davis, 2016); speeches made by representatives from APRA – Australian Prudential Regulation Authority, the Australian Securities and Investment Commission (ASIC) and the Reserve Bank of Australia (RBA); and a review carried out by ASIC, in 2018, of climate risk disclosures made across the ASX300.

Following these, the Australian Accounting Standards Board (AASB) and the Auditing and Assurance Standards Board of Australia (AuASB) published guidance on materiality judgements relating to “climate change and other emerging risk disclosures” (AASB and AUASB, 2018). Critically, this guidance argued that:

“... qualitative external factors such as the industry in which the entity operates, and investor expectations [as opposed to individual directors’ ‘beliefs’ in climate change or otherwise] may make such risks ‘material’ and warrant disclosures when preparing financial statements, regardless of their numerical impact”

The AASB/AuASB guidance continues:

“Given investor statements on the importance of climate-related risks to their decision-making, the impact of the materiality definition and APS 2 [AASB Practice Statement 2 Making Materiality Judgements] is that entities can no longer treat climate-related risks as merely a matter of corporate social responsibility and should consider them also in the context of their financial statements.” (AASB and AUASB, 2018, p. 3).

It is this guidance, that was described by a legal adviser to several listed entities and their boards as “significant”. This adviser went on to say:

“... they [boards] are really concerned about this ... because this is the hook to be able to say you cannot escape this as a financial risk issue and ... the last thing you want is for there to be a difference of opinion with your auditors about whether the assumptions that underlie your balance sheet valuations are ‘reasonable’. If auditors are asking you questions about it ... you have to engage with it and you have to respond.”

## 2. Publicly listed entities are responding to regulatory and investor pressure, with internal work being carried out and both transitional and physical climate risks disclosed.

Because of the public pronouncements and actions taken by the financial regulators, as well as the guidance provided by the AASB/AuASB, we witnessed an increasing impetus for publicly listed entities to understand the type and significance of the climate risks they were exposed to.

Specifically, we found quite early in our interviews that discussion increasingly centred on the stress-testing entities were carrying out of organisational strategies against possible future 'physical' (climate change) scenarios, as well as possible future low-carbon 'transition' scenarios. For physical climate scenarios, the sources referenced pertain to climate models that generate a range of likely outcomes under different emission pathways. A 'low-emissions' pathway, for example, might model the effects on the climate out to 2100 for an increase in carbon dioxide (CO<sub>2</sub>) concentration to 540 parts per million (ppm), while a 'high-emissions' pathway might model the effects of an increase in CO<sub>2</sub> concentrations to 940 ppm by 2100. The 'reference scenarios' used for the stress-testing of transition risk also came from a number of sources, including those built in-house, as well as some derived from the International Energy Agency (IEA), and others yet again from non-government organisations such as Greenpeace, and test for resilience to both more and less ambitious transition pathways.

The outcomes elicited from this risk work are illustrated in a variety of formats, including heatmaps, credit risk, earnings before interest, tax and depreciation (EBITDA), earnings before interest, tax, depreciation and exploration (EBITDAX) and net present value (NPV):

### Stress-testing against physical climate risks

In stress-testing against physical risk, we found entities drew on the work of scientists to understand the vulnerability of organisational strategies to different 'scenarios' of climate warming. We found vulnerability was assessed as a function of the physical location and type of asset(s) or portfolios under discussion, as well as the range of chronic or acute events climate scenarios indicate as likely for that location. Financial risk was then articulated in a number of ways as an expression of that vulnerability.

The Commonwealth Bank in their 2018 and 2019 annual reports, for example, illustrate their exposure to credit risk in their home lending and agribusiness lending portfolios respectively, by means of a series of heat maps of Australia. For the home lending portfolio, these heat maps consider the vulnerability of homes to a variety of events – including soil contraction, sea level rise and storm surge, inland flooding, wind/cyclones and bushfires – depending on the physical location of the home and according to the scenario referenced. This vulnerability, expressed as “estimated annual average losses to customers”, was then used to estimate the exposure of the Bank itself to credit risk. A similar analysis was undertaken for the Bank's 2019 report, whereby heat maps considered the vulnerability of the grains, livestock and dairy sectors to changes in seasonal rainfall and temperature, and daily average temperature and humidity. By contrast to home lending, vulnerability here was expressed as changes in productive capacity or yield that “impact on farm profitability”. Farm yield, and its effects on farm profitability were then used to estimate credit risk.

“... once you get the response vector you go (to) the farms in this area (that) are going to experience a 40% drop in their yield in these timeframes. That's the financial information, the yield. That then goes into whatever lending or books...”

By contrast, entities with direct ownership of physical assets such as Vicinity Centres (VCX), an Australian real estate investment trust company, can provide estimates of impact from acute events based on historical losses. For VCX, these included events such as Cyclone Debbie in 2017, as well as bushfires, heatwaves and flooding. Modelling of such historical events provided an:

“initial and very high level financial assessment, (which) estimated that the potential impact to our business from acute physical risks is approximately \$53 million in net present value (NPV) of future profits across the portfolio over 10 years.”

VCX similarly modelled chronic events such as drought, finding:

“potential impact to our business from chronic physical risks is approximately \$190 million in net present value (NPV) of future profits across the portfolio over 10 years”

### Stress-testing against transitional climate risks

In stress-testing organisational strategies against risks arising from transitioning to a low-carbon economy, carbon-intensive sectors such as electricity generation, oil and gas and some coal mining, similarly tended to measure outcomes against Net Present Value (NPV).

AGL in its 2018 report on “Powering a Climate Resilient Economy”, for example, considered the NPV as well as potential value add effects for its electricity generating assets, against two emission reduction scenarios. Oil Search (OSH), an oil and gas exploration and development entity, also measured for NPV however doing so on a project by project basis and against three different transition scenarios. In contrast to AGL, who provided figures in AUD\$, OSH indicated the NPV effects in shades of deep green (for positive impact), moving to a beige green (for negative NPV). Santos (STO), an oil and gas producer, also considered NPV effects as well as EBITDAX effects against three reference scenarios. Unlike OSH, STO did so on a portfolio basis (‘pre-growth’ or production portfolio for NPV effects, and ‘growth portfolio’ or backfill and expansion effects for EBITDAX). Like OSH, however, they did so without the use of financial figures – instead opting to indicate portfolio growth along a y axis.

For some of these carbon-intensive entities, the transition pathway is clear. As one electricity generator commented:

“...probably stating the obvious here, but the biggest risk for us is that initial transition.”

This was similarly reflected in the divestment decisions made by some Australian miners including Rio Tinto, whose last thermal coal mine was sold in March of 2018, and South32, who are in the process of selling their South African thermal coal assets. While for others such as Glencore, who have committed to capping thermal coal output, or BHP, who are in the process of considering divestment from their last coal assets, the transition pathways are less clear.

For oil and gas companies such as Oil Search there is the recognition, in its FY18 annual report, “that it is impossible to decouple climate change from... corporate strategy. The two must be fully integrated.”

### 3. The quantity and quality of climate-related financial disclosures do not, however, match the urgency of their demand.

It is clear however, that this is an emerging area of measurement practice. This is evident both in the quantity of climate-related disclosures, as well as in the quality of these.

ASIC recently undertook a climate risk disclosures review, which found, for example, that while the percentage of annual reports containing ‘climate change content’, for companies in the ASX 100, had increased by 11 points, from 54% in the previous year to 65% in 2017, the annual reports of the ASX 100 were “far more likely to include ‘climate change content’ than the bottom 200 companies”.

Another recent study conducted by the task force (2019) also found disclosures were increasing, but that there was a need for greater clarity on the “potential financial impact of climate-related issues”, as well as information on the resilience of strategies. That is, while companies are disclosing in very general terms the type of stress-testing they are conducting on their strategies against climate scenarios, most are not disclosing any detail around what that stress-testing reveals with regard to the likely financial impact of those scenarios, or the overall resilience of their strategies.

These findings are consistent with our own analysis, which found preparers of climate-related scenarios face significant challenges of a conceptual, methodological and commercial nature.

#### Conceptual challenges

As already indicated in the above introduction, the task force were themselves reluctant to specify what such scenarios should look like or how they should be specified. Accordingly, interviewees indicated uncertainties around what a scenario is, how it should be defined and, indeed, whether or not it should even be quantitative or qualitative.

One asset consultant suggested companies were “tending to disclose qualitative information, because it’s very hard to quantify it.” Another asset consultant suggested that qualitative information was more valuable, for the behavioural change it could affect:

“We can spend hours and weeks and months and years trying to model this to the nth degree, it is never going to give you all the information that you need. There is enough information to make decisions now... We need to actually start moving the money. So, actually, our focus in the next few years is moving cash”.

## Methodological challenges

There are also particular methodological challenges that arise from the 'reference' scenarios used. Reference scenarios include long-term energy projections developed by the International Energy Agency (IEA), as well as climate models developed by climate scientists for organisations such as the Intergovernmental Panel on Climate Change (IPCC). Neither of these types of projection are well-suited to the measurement or disclosure of an individual entity's climate-related risks. There is, accordingly, a lack of consistency in the datasets and projections used, as well as in how they are applied by the preparers. This is particularly true for scenarios assessing entity-level resilience against the climate physical risks. That is, and as explained to us in an interview with a leading climate scientist, climate models weren't built with business risk in mind, because:

### 1. Climate models cannot provide information that is timely (to business):

"Our models take six to nine months to run. So, you hit return on your computer, and for one set of simulations, you might wait a year".

### 2. Climate models require petabytes of data:

"[The] scale of the data you're talking is multiple petascale, and people forget how big that is. A petabyte of data breaks most company's computing systems".

### 3. Climate models cannot provide information that is relevant (to business):

"[Our] goal has been to understand how much the earth will warm for a doubling of CO<sub>2</sub> ... [so] two degrees means two degrees on the global mean. It doesn't mean two degrees in temperature where you live. Two degrees on the global mean actually means four degrees over global land... And it means six degrees in the global middle latitudes ... where people live. And it actually means eight degrees in the hottest day of the year, and it means 10 degrees in the extreme, very rare temperatures. Now, 10 degrees on a 44-degree day, if you add 10 degrees to 44 degrees, which was in Sydney last summer, is utterly catastrophic".

Accordingly, existing climate models are not fit for purpose, when used in the top-down analytical methods of traditional financial models.

Instead, the climate scientists and consultants we interviewed suggested a combination of historical entity-level geospatial and climate data needs to be overlaid onto the data derived from climate models, to come to an outcome that is of actual relevance to the entity.

However, the climate models and data that are referenced in such work are not specified, nor are the methods by which this work is done standardised. This makes it difficult to compare the models and data chosen for one entity's scenario, against the models and data chosen for another entity's scenario. Moreover, and given the highly technical nature of the work and information processed, it is difficult for the financial auditor or the market to determine the quality or relevance of such disclosures made.

There is, therefore, little incentive for companies to provide information around their exposure to climate physical risks, given the market's inability to determine the quality of the disclosures made. A representative of a global insurer explained it as follows:

"My view is that although the TCFD tried to make it easy for anybody to participate by keeping low barriers, because of the risk that companies then take on when they disclose things—either the risk that the disclosures are wrong, or misleading—companies have actually been reluctant to disclose. It's almost paradoxical, by making it really easy, they made it difficult."

## Commercial challenges

In addition to the technical challenges, there are the challenges associated with putting forward-looking financial information to the market that, while built on "plausible assumptions", is not a forecast. As one accountant for a publicly-listed entity put it:

"... getting to a quantitative level is difficult because putting an actual number into an annual report means that, especially [a] forward looking risk size number, is probably the issue ... and I just don't think there's a massive appetite internally."

This view was supported by a partner at one of the Big4 accounting firms:

"So, they are scenarios not forecasts ... So, you're trying to use plausible assumptions to come up with something that might be. So, you are not putting out a forecast and that's one of the issues that Directors have said — oh well, it's forward looking we can't."

A representative from an investor industry group made the point, however, that while companies may not disclose such information, given its “commercially sensitive” nature, their behaviour suggests it is having an impact:

“... companies will often report a rosy picture having undertaken their scenario analysis and they’ll report maybe a slither of the actual depth of the information that they’ve undertaken and said, ‘That’s all we can report because it’s commercially sensitive’ and then coincidentally six months later make an abrupt pivot in their business portfolio and sell off their coal holdings ...”

The trend not to disclose forward-looking financial information was observable in all of the ASX50 reports analysed, with only six of these entities providing some form of financial information, much of it however, barring three exceptions, in very general terms only.

#### 4. Given the above, investors are increasingly calling for, and some regulators acting on, the need for the specification/standardisation of reference scenarios used, and the methodologies employed.

As a consequence of the above conceptual, technical and commercial challenges, some investors are increasingly critical of the task force who, they argue, seek comparability, while also advocating “learning by doing”:

“The way they’ve described it ... the words that they use are, we want to aim for comparable disclosure and decision-useful disclosure ... I think those two benchmarks are just wonderful as an assessment tool, they are just fantastic. So, comparability, they’re shooting themselves in the foot by giving that much leeway.”

One standard setter accordingly suggested the likelihood for the development of some sort of industry standards:

“... you then go, ‘Okay, with financial statements, we came up with the accounting standards which tell you specifically about how to do financial statements.’ What will then come is lots of specific guidance about how you do something like climate change. And you might have three or four key things that you say that everybody needs to do, and then you might have some industry stuff which says, ‘Okay, if you’re in this industry, you might do these extra four things.’”

During our interviews, we became aware of one such initiative that had the support of the financial regulators, the Big4 Australian banks and major insurers. One of the insurers driving this initiative argued it was in their interest for this to go ahead:

“It’s in [APRA’s] interest to have these standards, because then [they] know what [they are] getting has confidence and [is] comparable. It’s in our interest in developing these standards so that—you know, before we are regulated on it, at least give us a chance to say what we think we can do.”

Indeed, a global network of financial regulators and supervisory authorities, the Network for Greening the Financial System (NGFS), is broadly supportive of such standards, noting for example that “Using a consistent set of transition scenarios can help to enhance the comparability of different analyses”. The UK Prudential Regulation Authority has already commenced on this path, providing specification and guidance on scenarios to be used by general insurers. This “exploratory exercise” requests firms “consider the impact of three hypothetical greenhouse emission scenarios on selected metrics of their liabilities and asset valuations” and is intended to “support the climate related activity of the Bank’s [Bank of England] Climate Hub in assisting the ...NGFS” (Bank of England, 2019).



# Conclusions

Climate change presents an emerging, but also rapidly evolving challenge for the global community of accounting practitioners, academics and standard setters. This is a challenge that is unlikely to abate and that requires considerable upskilling of that global accounting community.

We examine the challenges corporate entities face in seeking to measure and disclose their climate-related financial risks, as well as the challenges investors face in analysing such risks.

Our findings indicate that demand for climate-related financial disclosures is escalating rapidly. The ability for preparers of financial reports to provide such information in a manner that is decision-useful is, however, limited by three fundamental problems, including:

- a) The lack of specification and guidance available;
- b) The nature of the measurements required, which are often complex and require significant scientific expertise; and
- c) The desire for investors to see, in the market, forward-looking information pertaining to organisational strategy, stress-tested against a variety of climate change 'scenarios'. This latter information is inevitably uncertain, as well as being possibly commercially sensitive in nature.

The measurement and disclosure of risks in the mainstream financial filings of publicly listed entities is an accounting issue. In the opinion of the task force, investors, financial regulators and standard setters detailed in this report, climate change is clearly considered a financial risk, and so, the measurement and disclosure of climate-related risks is also an accounting issue. As a financial risk moreover, and as laid out in a speech delivered by ASIC Commissioner John Price in 2018, climate change should also be subject to "the [same] core fundamentals of corporate governance – integrity, transparency, accountability and acting for a proper purpose" (Price, 2018) – that other financial risks and opportunities are subject to. Climate change, in other words, can no longer thought about as a 'sustainability' issue; but rather, as a 'financial' issue.

Climate change therefore involves the work of accountants at all levels of accounting expertise, be it in the development of internal analyses; forward planning, strategising and budgeting; financial measurement and disclosure; as well as standard setting for, and assurance of such disclosures.

Our findings illustrate, however that climate knowledge and expertise is an area that many firms, and indeed the global financial community, are struggling with. There is accordingly considerable opportunity, if not the need, for upskilling within accounting communities.

These include, for example:

- Opportunities for industry bodies such as CIMA to develop climate-related Continuing Professional Development programs, as well as knowledge hubs that provide members easy access points to critical reference sources;
- Opportunities for accounting departments of academic institutions, in terms of the development of climate-related teaching content as well as knowledge;
- Opportunities for accounting and professional service firms, in their advisory as well as in their audit services, to expand practice areas and expertise; and
- Opportunities for researchers, in first furthering our understanding of the data gaps, blind spots and inconsistencies of climate-related financial information and later, once such information is improved in quality and available, in the analysis of that information.

# References and/or further reading

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# Additional related resources for practitioners

## **TCFD – Task Force on Climate-related Financial Disclosures**

Download the full report – ‘Recommendations of the Task Force on Climate-related Financial Disclosures’. Learn more about recommendations, find cases studies and online courses in the TCFD Knowledge Hub.

[fsb-tcfd.org/](https://fsb-tcfd.org/)

## **Green Finance Strategy: Transforming Finance For a Greener Future**

Issued by HM Government, in July 2019. This strategy recognises the role of the financial sector in delivering global and domestic climate and environmental objectives.

<https://www.gov.uk/government/publications/green-finance-strategy>

## **Better Alignment Project: Alignment in Climate-related Reporting**

Issued by the Corporate Reporting Dialogue in July 2019. The report shows high levels of alignment between their reporting frameworks on the basis of the Task Force on Climate-related Financial Disclosures (TCFD) recommendations.

[corporatereportingdialogue.com/publication/driving-alignment-in-climate-related-reporting/](https://corporatereportingdialogue.com/publication/driving-alignment-in-climate-related-reporting/)

## **Accounting For Sustainability (A4S) TCFD resources**

Here you can find an implementation guide for finance teams, practical examples, and a TCFD maturity map.

[accountingforsustainability.org/en/activities/tcfd.html](https://accountingforsustainability.org/en/activities/tcfd.html)

## **Climate Disclosure Standards Board (CDSB) TCFD resources**

Download the ‘TCFD Good Practice Handbook’ and learn more about implementing the recommendations through the use of the CDSB Framework and SASB standards.

[cdsb.net/what-we-do/task-force-climate-related-financial-disclosures](https://cdsb.net/what-we-do/task-force-climate-related-financial-disclosures)

## **CIMA’s Academic Research Programme**

CIMA has a global academic engagement programme through which we support the development of the science of management accounting. Here you can read the latest executive summaries of research projects commissioned by CIMA. These reports summarise the project itself and present the key findings and the implications for business practitioners.

[cimaglobal.com/Research--Insight/Research-Funding/academic-research-reports/](https://cimaglobal.com/Research--Insight/Research-Funding/academic-research-reports/)

# TCFD recommendations background and overview

One of the most influential initiatives to emerge is the Financial Stability Board's private sector Task Force on Climate-related Financial Disclosures (TCFD), which is supported by Mark Carney and chaired by Michael Bloomberg. Issued in June 2017, the recommendations promote the importance of climate-related disclosures. Suitable for use by all companies the recommendations,

- Include disclosure of governance, strategy and risk management;
- Establish consistent and comparable metrics and targets applicable across all sectors, as well as specific metrics for the most carbon-intense industries;
- Encourage use of scenario analysis in order to assess the potential impact of the risks and opportunities of the transition to a low carbon economy on strategy and financial planning.

- Consistent adoption will lead to effective measurement and improved organisation resilience. It will lead to more informed decisions by investors and better evaluation of organisational risks and exposures to climate change.

## Core Elements of Recommended Climate-Related Financial Disclosures

The recommendations are structured around four thematic areas that represent core elements of how organisations operate: governance, strategy, risk management, and metrics and targets. These are then supported by eleven recommended disclosures that build out the framework with information that will help investors and society understand how reporting organisations assess climate-related risks and opportunities. (Table 1)<sup>i</sup>

Recommendations			
Governance	Strategy	Risk Management	Metrics and Targets
Disclose the organization's governance around climate-related risks and opportunities.	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.	Disclose how the organization identifies, assesses, and manages climate-related risks.	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.
Recommended Disclosures			
a) Describe the board's oversight of climate-related risks and opportunities.	a) Describe the climate-related risks and opportunities the organization gas identified over the short, medium, and long term.	a) Describe the organization's process for identifying and assessing climate-related risks.	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.
b) Describe management's role in assessing and managing climate-related risks and opportunities.	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	b) Describe the organization's process for managing climate-related risks.	b) Disclose Scope 1, scope 2, and, if appropriate, scope 3 greenhouse gas (GHG) emissions and related risks.
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance

<sup>i</sup> TCFD, Recommendations of the Task Force on Climate-related Financial Disclosures (June, 2017).p.14.

Supporting the recommendations is guidance that provides context and suggestions for implementation. There is also supplemental guidance for organisations in the financial sector (Banks, Insurance companies, Asset owners, and, Asset managers) and non-financial sectors (Energy, Transportation, Materials and buildings, and, Agriculture, food and forest products) potentially most affected by climate change.

### TCFD Reporting Principles

These principles help achieve high-quality and decision-useful disclosures that enable users to understand the impact of climate change on organisations. The principles, taken together, are designed to assist organizations in making clear the linkages and connections between climate-related issues and their governance, strategy, risk management, and metrics and targets.

#### Principles for effective disclosure

- Principle 1: Disclosures should present relevant information.
- Principle 2: Disclosures should be specific and complete.
- Principle 3: Disclosures should be clear, balanced, and understandable.
- Principle 4: Disclosures should be consistent over time.
- Principle 5: Disclosures should be comparable among organizations within a sector, industry, or portfolio.
- Principle 6: Disclosures should be reliable, verifiable, and objective.
- Principle 7: Disclosures should be provided on a timely basis.<sup>ii</sup>

The recommendations provide a foundation for improved reporting of climate-related issues in mainstream financial filings. Benefits of implementation will include,

- Foundation for immediate adoption and flexible enough to accommodate evolving practices.
- Promote board and senior management engagement on climate-related issues.
- Bring the “future” nature of issues into the present through scenario analysis.
- Support understanding of financial sector’s exposure to climate-related risks.
- Designed to solicit decision-useful, forward looking information on financial impacts.<sup>iii</sup>

To learn more about the TCFD recommendations download the full report – ‘Recommendations of the Task Force on Climate-related Financial Disclosures’.

ii TCFD, Recommendations of the Task Force on Climate-related Financial Disclosures (June, 2017).p.18.

iii TCFD, Recommendations of the Task Force on Climate-related Financial Disclosures (June, 2017).p.41.

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## Researchers' names and contact details

### **Wai Fong Chua**

Professor of Accounting,  
University of Sydney

[waifong.chua@sydney.edu.au](mailto:waifong.chua@sydney.edu.au)

### **Tanya Fiedler**

Lecturer in Accounting,  
University of Sydney

[tanya.fiedler@sydney.edu.au](mailto:tanya.fiedler@sydney.edu.au)



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