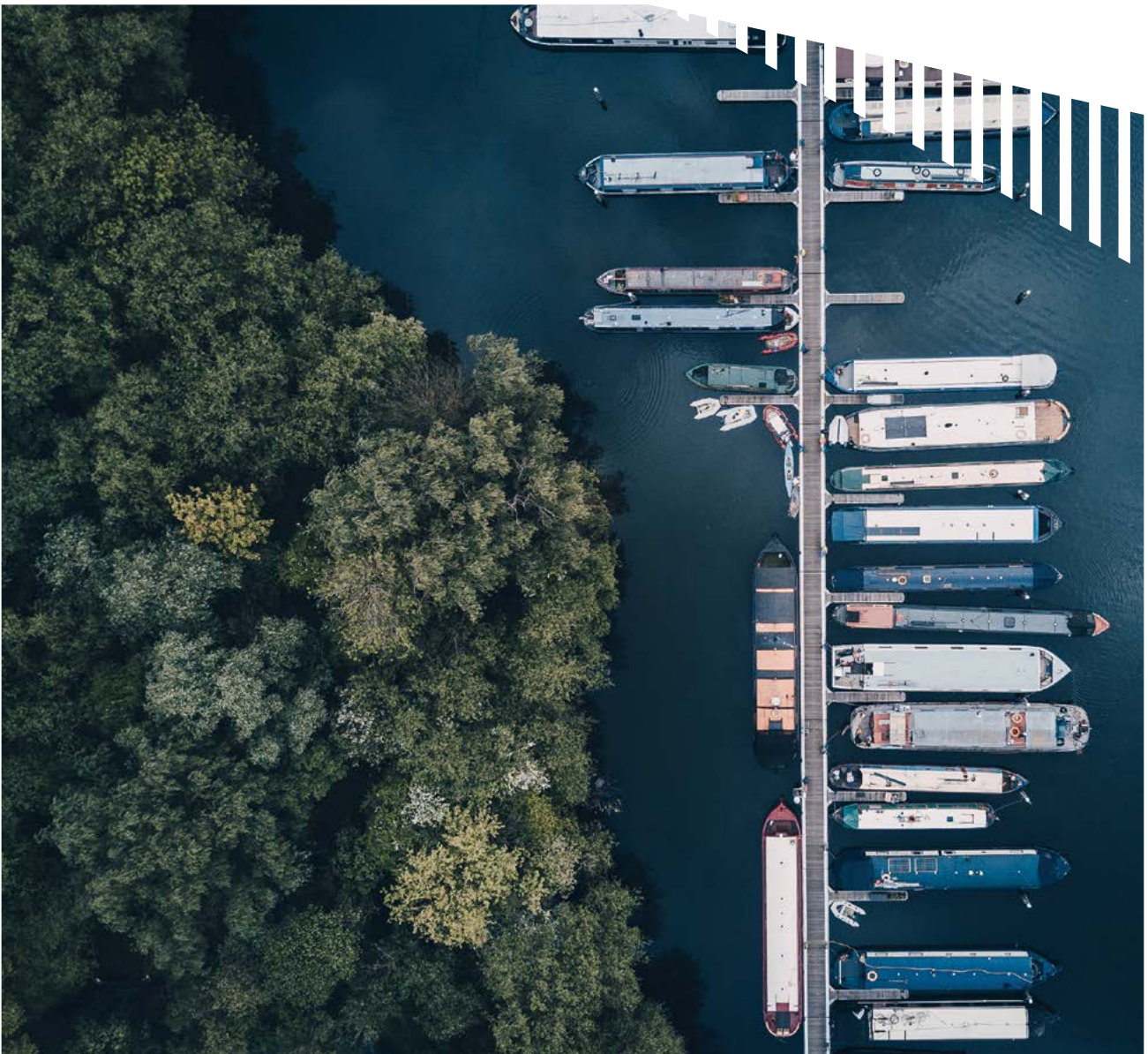


REPORTING CLIMATE RESILIENCE: THE CHALLENGES AHEAD



Key Takeaways

- The growing focus on climate resilience is driven by the view that companies that assess and understand climate-related risks and opportunities will be able to make better decisions for their future business.
- Companies in all sectors, including the financial-services industry, are being asked: What are the implications of climate change risks and opportunities for your organization's financial performance?
- The release of the Task Force on Climate-related Financial Disclosures (TCFD) recommendations in June 2017 has accelerated this focus by providing a framework for disclosures on the financial impacts of physical and transition climate-related risks.
- One year from the release, there is accelerating support for the TCFD recommendation from policy makers, investor groups, NGOs, and companies.
- Yet there are significant gaps between the focus of current climate reporting by most companies and the information that must be synthesized to meet the TCFD recommendations.
- Adoption of the recommendations requires companies to reconsider and examine how they report on climate risk. Many organizations are still struggling to determine the right starting point.
- Top three challenges for companies in adopting TCFD recommendations:
 - Ensuring leadership support for enhanced disclosure
 - Revising risk assessment processes
 - Applying scenario analysis to climate change
- There are clear indications that implementation will take place over time, but there is still much peer learning to be done on how to apply and report against the TCFD recommendations.

Critical risks but limited disclosure

The World Economic Forum's annual *Global Risks Report 2018* ranks climate and environmental-related threats as the most likely and most damaging global risks over the next decade. Climate change is exposing businesses to new and unpredictable strategic and operational risks; oftentimes, the physical manifestation of these risks can be catastrophic in nature and interfere with an organization's ability to do business in the short, medium, and long term.

In response, stakeholders are looking for greater clarity and transparency on the impacts of climate-related events and trends on organizations. While companies are beginning to consider the impacts of their activities on the environment, few have outlined the impacts on themselves. Based on CDP's recent report: *Ready or not: Are companies prepared for the TCFD recommendations?*, only 28 percent and 38 percent of respondent companies have considered at least one regulatory (transition) risk and one physical risk, respectively, beyond six years.¹ Further, The Conference Board research indicates only 16 percent of S&P Global 1200 companies are disclosing the risks that climate change poses to their businesses.² The key challenge moving forward is to convey this information in a consistent format that is material and understandable to investors and other decision makers.

In response to increasing demands for transparency and actionable, climate-related information, the Financial Stability Board (FSB) established the industry-led Task Force on Climate-related Financial Disclosures (TCFD or Task Force). The TCFD, brainchild of financial heavyweights Mark Carney and Michael Bloomberg, is pushing climate change more squarely on the agendas of corporate boards and C-suites. In June 2017, the TCFD released its recommendations on climate-related financial disclosures, applicable to organizations across sectors and jurisdictions.

One year on, the recommendations have gained traction with widespread support from NGOs, governments, regulators, investor groups, the financial services sector, and companies across all industries. (See Exhibit 1.) This paper marks the first anniversary of the launch of the TCFD, and looks at the challenges of weaving climate disclosures into corporate DNA and financial reporting.

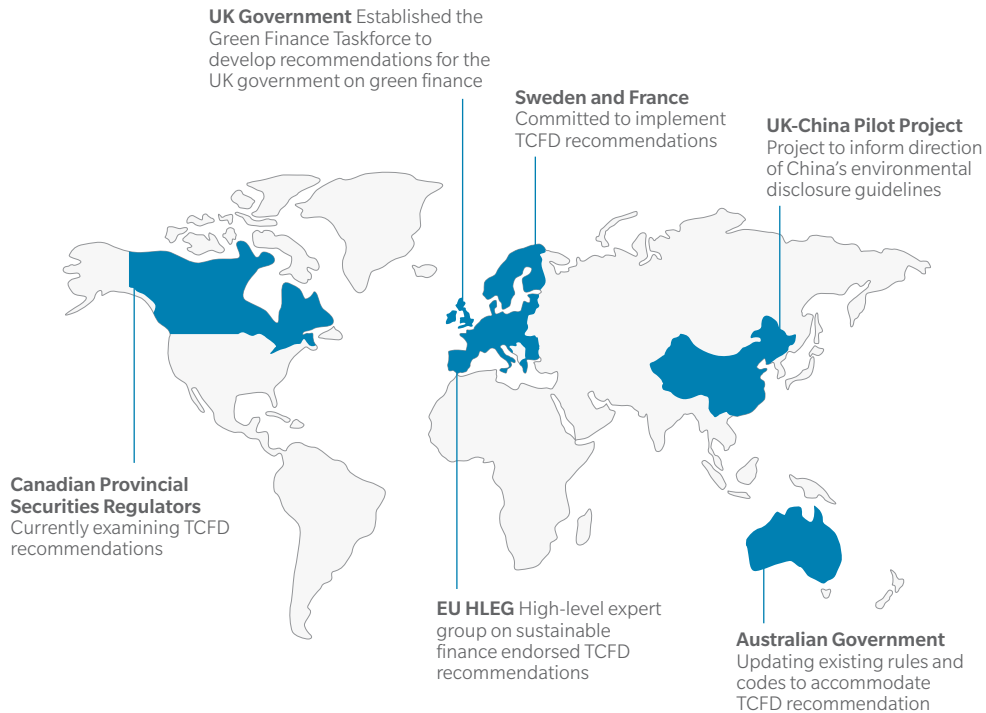
¹ *Ready or not: Are companies prepared for the TCFD recommendations?* CDP and CDSB 2018

² *Sustainability Practices 2017 Key Findings*; The Conference Board

Exhibit 1: Broad acceptance of TCFD recommendations

A year after the TCFD officially released their recommendations, there is growing support from financial institutions, corporates, governments, and organizations to voluntarily disclose climate related risks.

Government and regulatory support (selected examples)



BY THE NUMBERS

250+ Companies with **\$6.3T** in market cap have publicly committed to support the TCFD recommendations

130 Investors with **\$130T** assets under management called on G20 leaders to consider TCFD recommendations in national disclosure rules

16 companies from the CDSB initiative are committed to implementing recommendations

NOTABLE COLLECTIVE EFFORTS



Working to align its disclosure platform with TCFD recommendations



Collaborating with the accounting community to share knowledge and help overcome challenges



Creating a TCFD Hub as a platform for the latest insights, tools, and resources



Working to align its reporting framework with the TCFD recommendations



Promoting TCFD recommendations as a key consideration for companies



Conducting a pilot project with leading banks to implement the TCFD recommendations



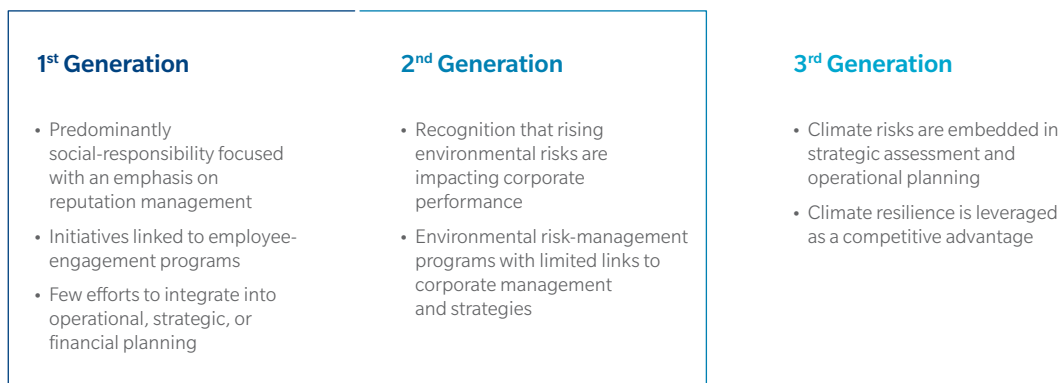
Engaging the world's largest GHG emitters to provide disclosures in line with the TCFD recommendations

Source: TCFD and Marsh & McLennan Companies analysis

Exhibit 2: A paradigm shift to climate resilience



MOST FIRMS ARE HERE



Source: Marsh & McLennan Companies analysis

Interviews with companies on the application of the TCFD recommendations suggest that many challenges remain ahead. Most companies will have to make significant changes to their assessment of climate-related risks. Along with this, organizations will need to adjust risk governance, reporting processes, and data sourcing and analytics to focus on climate resilience. (See Exhibit 2.) Few companies, however, seem to fully understand the required shift and how the TCFD recommendations will work in practice; these can be overwhelming, especially for companies new to the concept of climate-related risk management and disclosures.

Additional obstacles exist around the application of TCFD recommendations as companies realize key challenges related to processes, data, and materiality. (See Exhibit 3). Some companies lack the expertise necessary for carrying out the required analysis within the organization.

Companies have questions about where and how to disclose on climate risks and what alignment to the recommendations means in practice. Finally, many companies are simply unsure about how and where to get started.

MOST COMPANIES WILL HAVE TO MAKE SIGNIFICANT CHANGES TO THEIR ASSESSMENT AND REPORTING OF CLIMATE-RELATED RISKS

Exhibit 3: Core elements of the TCFD recommendations



- The organization's governance around climate-related risks and opportunities
- The actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning
- The processes used by the organization to identify, assess, and manage climate-related risks
- The metrics and targets used to assess and manage relevant climate-related risks and opportunities

Source: TCFD, "Recommendations of the Task Force on Climate-related Financial Disclosures," June 2017

About the TCFD Recommendations

The TCFD was tasked with developing a set of voluntary, financially relevant, climate disclosure recommendations that could promote informed investment, credit, and insurance underwriting decisions on assets exposed to climate related risks.

The recommendations are applicable to organizations across sectors and jurisdictions and are related to the core elements of how organizations operate. They are supplemented by specific recommendations to support organizations in providing climate-related financial disclosures in their public filings.

Across all sectors, the TCFD expects that reporting of climate-related risks and opportunities will evolve over time as organizations and investors improve the quality and consistency of shared information.

Challenges and questions on the application of TCFD recommendations

Adopting the TCFD recommendations requires changes in the processes of sustainability groups, company boards, their C-suites, and senior management, as well as risk management groups. CDP's 2017 disclosure cycle, conducted around the time the TCFD released its final recommendations,

along with interviews with sustainability leaders in diverse sectors, highlights the issues to be addressed. Overall, challenges fall into three areas: governance and leadership, risk management processes, and scenario analysis.

Governance and securing leadership support

Adopting the TCFD recommendations requires the support of senior leadership and enhanced governance of climate risk assessments to properly define the impact of climate change on financial performance. Sustainability teams will need to reorient directors and C-suites to take a focus on climate resilience and drive that approach into business units and operations. Many surveys indicate that boards of directors, CEOs, and the C-suites “talk a good talk” on climate change and environmental issues, but may need to expand their horizons in considering climate risks. Mindsets will need to broaden to focus on climate resilience to match the wider scope of climate analysis recommended by the TCFD.

For example, while many companies do discuss environmental issues at the board level, few are turning their awareness into action. Research undertaken by CDP and its sister organization CDSB (the Climate Disclosure Standards Board) provides the figures: among 1,681 companies from 14 countries that disclose climate-related matters, only 1 in 10 currently incentivize board members to manage climate-related risks and opportunities – even though more than 8 in 10 companies report there is oversight of climate change issues at the board level.³

Further, the annual 2017-2018 *Public Company Governance* survey by the USA-based National Association of Corporate Directors (NACD), found that only 6 percent of boards view climate change as a top-five trend impacting their company over the next year (utilities and energy companies were exceptions, 39 percent and 19 percent, respectively, seeing climate impacts as a major trend). Some 69 percent believed their board allocated enough time and resources to manage CSR/Sustainability issues over the past year, despite only 7 percent discussing environmental, social, and governance (ESG) practices in meetings with institutional investors. Many boards continue to view ESG issues as reputational risks

“THE GOAL IS TO HAVE A MORE REGULAR AND ROUTINE COMMITMENT TO DISCUSSIONS ABOUT CLIMATE CHANGE IMPACTS”

instead of as matters directly impacting financial performance. These numbers suggest that boards view such challenges as peripheral and that “the ESG issues are not being treated with the same timelines and rigour as other factors which directly affect financial performance.”⁴

Regardless, there are changes afoot. The NACD survey also indicated most directors said that “improvements in the approach to ESG over the next 12 months” were of moderate to high importance. Adopting the TCFD recommendations will change perspectives and processes. One American company noted: “We are amending the audit committee charter to have a greater focus on sustainability. The goal is to have a more regular and routine commitment to discussions about climate change impacts.”

Management teams also need to consider how climate issues are worked into their metrics. Short-termism, endemic in the financial sector, coupled with a vicious cycle within management, means only a handful of companies are seriously considering climate or environmental issues because “what gets measured gets managed.”

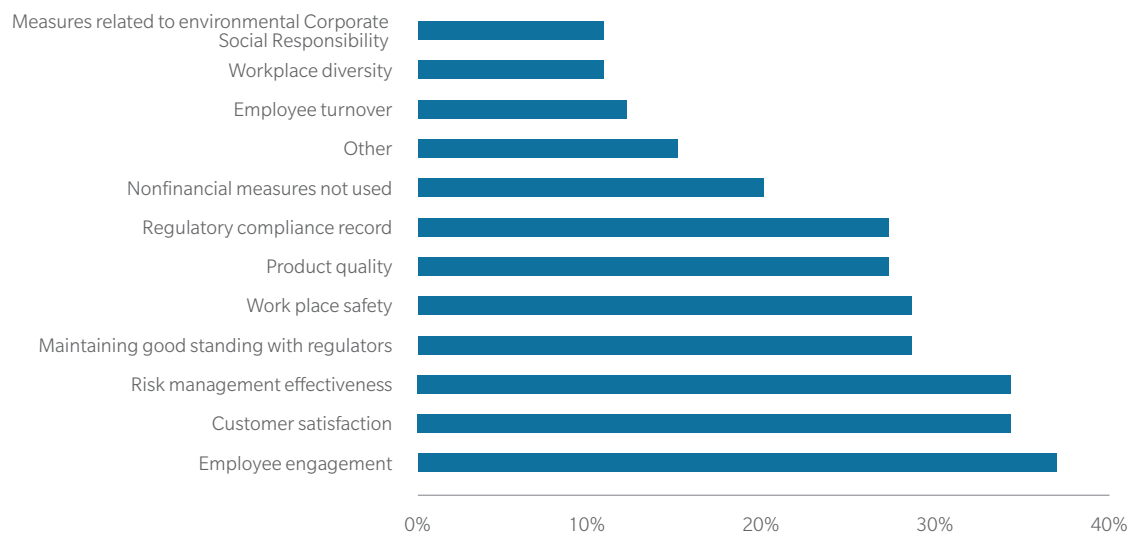
For example, research by the USA-NACD found that only 11 percent of companies use measures related to environmental or Corporate Social Responsibility as non-financial metrics in setting CEO compensation.⁵ (See Exhibit 4). An analysis of CDP disclosures in 2017 indicates that incentivizing climate-risk management is a powerful driver of sustainability goals.

³ *Ready or not: Are companies prepared for the TCFD recommendations?* CDP and CDSB 2018

⁴ National Association of Corporate Directors’ 2017–2018 NACD Public Company Governance Survey

⁵ National Association of Corporate Directors’ 2017–2018 NACD Public Company Governance Survey

Exhibit 4: What are the key non-financial metrics used by your board to set CEO pay?



Source: National Association of Corporate Directors; 2017-2018 NACD Public Company Governance Survey

The low proportion of bonuses linked to climate-related objectives highlights the limited assessment of climate change issues on financial performance.

Company-wide strategies, driven top-down and supported by strong leadership, will be necessary for driving change and shifting the corporate mindset. One sustainability leader in the utilities sector is in the process of revising its management scorecard to distill climate-related key performance indices (KPIs) as a performance measure. As this

company’s executive aptly noted, “Climate resilience has to start from the top; if nobody is measured by it, who cares?”

“CLIMATE RESILIENCE HAS TO START FROM THE TOP; IF NOBODY IS MEASURED BY IT, WHO CARES?”

Risk management processes – breaking down silos

As highlighted in the annual *Global Risks Report 2018*, three out of the top five global risks in the next 10 years are expected to be climate-related.⁶

Climate-related risks and their potential consequences are diverse, dynamic, long term in nature, and often difficult to quantify. In many cases, these risks do not align easily with the way corporate planning is conducted today, nor with risk assessment timelines, which typically are drafted on a three-year horizon.

Most businesses understand well how to mitigate conventional risks, those that can be relatively easy to isolate and address with standard risk management approaches. But when it comes to complex risks embedded in interconnected systems, standard approaches simply do not work. Businesses must first understand the scale of, and interconnections between, the risks they face to develop effective management strategies.

6 World Economic Forum *Global Risk Report 2018*

Research by the MMC Global Risk Center flagged disconnects between corporate finance modelling/ risk management and corporate sustainability departments. (See Exhibit 5.) Their research showed how climate risk assessments can be significantly impacted by a lack of clarity around defining the risks and on which function “owns” them.

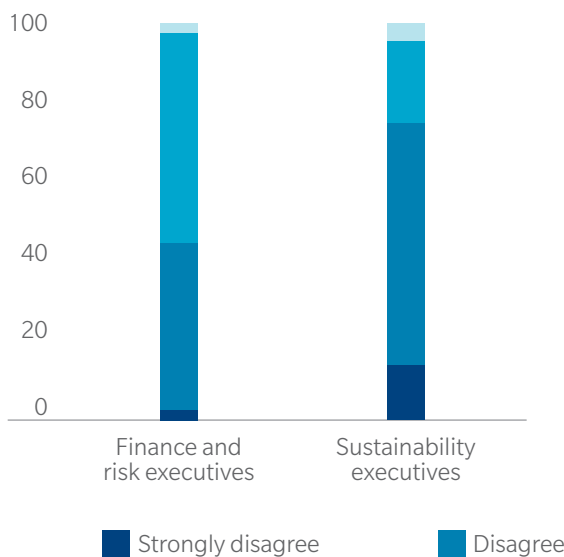
“I MAY BE JUST ONE OF TWO PEOPLE IN THE ORGANIZATION WHO HAVE HEARD OF THE TCFD RECOMMENDATIONS.”

That noted, corporate enterprise risk management groups can become key allies in implementing TCFD. For example, the sustainability leader at one consumer product company held a joint meeting with their risk management, strategy, sustainability and operations teams as a critical first step in raising awareness and knowledge of the TCFD and how to better link sustainability initiatives with these groups. In another organization, the sustainability team, from its inception, is embedded within a cross-functional leadership council. This allows the team to effectively bring sustainability issues, such as the TCFD recommendations, to a broad cross-functional executive group for review and consideration.

An underlying principle of the TCFD recommendations is that understanding and managing climate change should be integrated in groupwide business decisions and cannot be the sole responsibility of a siloed individual or group within an organization, such as the sustainability team. Responding to the TCFD will require broad ownership and understanding of climate risks and how organizations approach these issues. For example, currently few sustainability teams have direct report lines to the board of directors or close working relationships with the finance or strategic planning teams that conduct analysis. As one sustainability leader candidly observed, “I may be just one of two people in the organization who have heard of the TCFD recommendations.”

Exhibit 5: Mismatched expectations can undermine effective collaboration

Perspectives on how well sustainability risks are effectively integrated into risk management and risk reporting



Perspectives on how well finance and risk management teams are effectively integrated into sustainability programs



Source: Marsh & McLennan Companies, 2016

Application of scenario analysis

The TCFD calls on organizations to apply scenario analysis to understand the strategic implications of climate-related risks and opportunities. This also helps disclose to investors the organization's climate resilience. Organizations should describe the potential physical and transition risks impacted by different climate scenarios on their business, strategy, and financial planning. As recommended by the TCFD, this includes scenarios where little action is taken to combat climate change (e.g., a "4 degree" scenario) and scenarios where policy action is taken to limit global warming (e.g., a "2 degree" scenario).⁷

This is one of the more challenging components of the TCFD recommendations. From the CDP report *Ready or not*, 92 percent of companies are integrating climate risk into their business strategies, but they may be conducting only limited analysis. For example, CDP notes that just over a quarter (28 percent) of companies consider at least one regulatory (transition) risk and 34 percent at least one physical risk, such as natural disasters and the wider effects of a changing climate, beyond six years.⁸

Interviews with sustainability leaders who have taken efforts to apply scenario analysis and their initial experiences with financial institutions highlight another common challenge. Determining the best approach to modeling climate scenarios and mapping a pathway (See Exhibit 6) for incorporating climate risk

"IN SOME SENSE, THE PROCESS INVOLVES A LOT OF VERY EDUCATED GUESSWORK, BUT NOT EVERYONE GUESSES IN THE SAME WAY."

into future financial planning is a daunting process. Organizations first need to determine which climate scenarios are best suited for understanding their risks. As one sustainability leader at an energy company noted, it is hard to determine the right "boundaries" and elements for the scenarios, particularly transition risks that can include broad and opaque issues like "legal risk."

Organizations face a broad array of scenarios. These include, for example, systematic scenario models (such as CO₂ emission trajectories for various temperature scenarios) or event-based scenarios (that is, carbon pricing or storms and hurricane events). Predicted outcomes vary widely across even the most authoritative models. As one company noted, "In some sense, the process involves a lot of very educated guesswork, but not everyone guesses in the same way." Although the TCFD recommends systematic scenarios, customized event-based scenarios may be more useful for many corporate risk analyses.

Exhibit 6: Pathway to incorporate climate-related risks into corporate planning process



Source: Marsh & McLennan Companies, 2018

⁷ The TCFD report *Technical Supplement: The Use of Scenario Analysis in Disclosure of Climate-related Risks and Opportunities* (June 2017) offers descriptions of various climate change scenarios

⁸ *Ready or not: Are companies prepared for the TCFD recommendations?* CDP and CDSB 2018

Second, organizations must translate climate-economic scenarios into meaningful financial terms. Most models were developed as economic or academic use cases, not financial ones. Industries within a sector can have distinct sector-level risk factors.

Next, scenario analysis should be integrated into existing risk reporting, again raising the question of processes. For example: is scenario planning for climate change integrated with other corporate scenarios planning? Who should lead this analysis? And what is the language of scenario planning for climate change?

Finally, organizations need to describe how top-down scenario impacts link to future business performance, mapping out direct and quantifiable impacts. Unfortunately, there is often limited empirical data to inform the relationship between macroeconomic scenario impacts and individual corporate financials. The issue is further complicated by the temporal disconnect between financial planning and the long-term time horizons of climate-related scenario

“IN THE SHORT TERM, IT IS HARD TO DETERMINE THE BUSINESS ADVANTAGE IN BEING A LEADER IN INTEGRATING WITH PUBLIC REPORTING.”

impacts beyond the scope of routine business planning. The lack of precision raises concerns for organizations' financial reporting. Uncertainty over whether companies are under- or over-assessing risks can expose them to shareholder pressure and unnecessary lawsuits. As one sustainability leader noted: “Unless shareholders demand this, or it is required by the Securities and Exchange Commission (SEC), in the short term, it is hard to determine the business advantage in being a leader in integrating with public reporting.” A safer route may lie in a company reporting its TCFD progress through commonly accepted reporting frameworks such as CDP.

Next steps

Companies are focusing increasingly on the impact of the climate change and environmental issues on current and future corporate performance. Business leaders have begun to realize that climate risks and opportunities are not abstract concepts, but instead are essential for creating a business model that delivers long-term value. As one utilities conglomerate said: “The real gain in disclosing climate-related risks is in the identification of new risk areas not typically captured under the lens of traditional risk assessments.” Going forward, as regulators and investors continue to increase their interest in climate-related financial disclosures, it will become critical to review their climate reporting processes.

Most organizations are only in the early stages of this, but they are already realizing that adopting the TCFD recommendations will require a shift in existing processes. Firms will have to overcome a variety of challenges, especially within the areas of governance and leadership, risk management processes, and scenario analysis. The TCFD Knowledge Hub, with more than 400 resources for companies to explore, offers a starting place for companies as they combat these challenges on the road to TCFD implementation.

Over the next 12 months, CDP and Marsh & McLennan Companies' Global Risk Center will explore how corporates (such as non-financial institutions) are approaching the TCFD

recommendations, and develop insights and guidance to help address the challenges. This will be accomplished by conducting a detailed scan of corporate intent to adopt recommendations, identification of key questions and challenges, and initial lessons from first movers, slow movers, and non-adopters. This research will leverage findings from other TCFD-related initiatives such as the project lead by Oliver Wyman, Mercer, and the UNEP FI with 16 of the world's leading banks to promote consistency and comparability in climate change assessments and disclosures across the financial services sector.⁹

The goal is to develop learnings on "what works" and case studies on how organizations can successfully operationalize and mainstream the TCFD recommendations for the future.

“THE REAL GAIN IN DISCLOSING CLIMATE-RELATED RISKS IS IN THE IDENTIFICATION OF NEW RISK AREAS NOT TYPICALLY CAPTURED UNDER THE LENS OF TRADITIONAL RISK ASSESSMENTS”

⁹ The report *Extending our Horizons* published by Oliver Wyman and the UNEP FI provides additional insight on the challenges and solutions faced by financial institutions in piloting the recommendations.

ABOUT CDP

CDP (formerly the Carbon Disclosure Project) operates the only global climate disclosure platform for more than 6,000 companies on behalf of more than 800 institutional investors. From 2018, corporate climate disclosures made through the CDP platform will generate all the information required for a TCFD-compliant disclosure. The Climate Disclosure Standards Board (CDSB) is a consortium of nine international business and environmental organizations and a leader in the field of mainstream reporting. We offer companies a framework for reporting climate change and environmental information with the same rigor as financial information. This helps them provide investors and wider stakeholders with decision-useful information via mainstream filings. Collectively, we aim to contribute to more sustainable economic, social and environmental systems. Together, CDP and CDSB have the global reporting infrastructure, technical expertise and extensive experience to assist policymakers and regulators in evaluating existing national reporting requirements, and in drafting new rules

ABOUT THE GLOBAL RISK CENTER

Marsh & McLennan Companies' Global Risk Center addresses the most critical challenges facing enterprise and societies around the world. The center draws on the resources of Marsh, Guy Carpenter, Mercer, and Oliver Wyman – and independent research partners worldwide – to provide the best consolidated thinking on these transcendent threats. We bring together leaders from industry, government, non-governmental organizations, and the academic sphere to explore new approaches to problems that require shared solutions across businesses and borders. Our Asia Pacific Risk Center in Singapore studies issues endemic to the region and applies an Asian lens to global risks. Our digital news services, BRINK and BRINK Asia, aggregate timely perspectives on risk and resilience by and for thought leaders worldwide.

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