Published by



Governance Challenges 2022

CLIMATE GOVERNANCE

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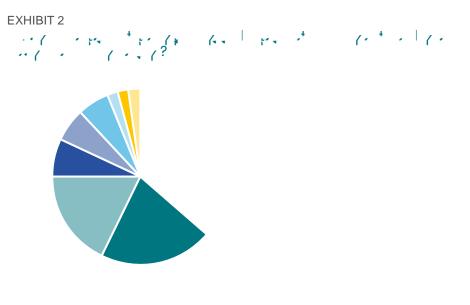
The State of Climate in US Boardrooms

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The clock is ticking in the race against climate change, and many credible reports are warning of a "Code Red" for the planet, for societies, and for companies. Because climate is an ecosys - tem-wide issue, it requires an ecosystem approach, which will require every board to develop

EXHIBIT 1

There are multiple forces that can contribute in elevating climate to the top of board consid - eration: NACD's survey revealed that the main factor that led to more discussions about climate change on the board's agenda is its relevance to long-term growth prospects of the business (37%), while 21 percent stated that its disclosure requirements were the primary driver. The majority of boards now consider climate not only from the perspective of compliance but also focus on its potential as a driver of opportunities for long-term value creation. In fact, this transition will likely be a signi cant growth driver for companies that are able and willing to adapt to this new reality.



In the midst of our survey, the US Securities and Exchange Commission (SEC) released its much-anticipated proposed rule on climate-related disclosure and accounting that would re - quire registered companies to report aspects of their climate risk. Whether or not climate dis - closures are ultimately mandated by the SEC, they are increasingly expected by stakeholders of both publicly and privately held companies. Our survey related that 55 percent of companies do not have any climate targets, and 42 percent of companies do not report on climate targets.

EXHIBIT 3

Multiple stakeholders are increasingly holding board directors accountable for oversight of their company's climate strategies. Not reporting can lead to assumptions, including that the company has a climate problem, is failing to anticipate issues, or is lagging behind its peers. These perceptions can have considerable negative consequences on brand value, recruiting, and long-term value creation.

While the lack of uniform disclosure standards remains a principal obstacle to reporting, 18 percent of respondents reported that they have adopted the reporting framework from the $\overline{1 + 1 + 2} = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 = 1 + 2 =$

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Board Oversight of Climate Scenario Analysis – Eight Factors for Consideration

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Organizations are facing increasing pressure to assess both their impact on the climate, and the impact of the changing climate on their business over the forthcoming decades. For example, in the United States, the US Securities and Exchange Commission (SEC) recently proposed rules on disclosures related to climate change governance, strategy, and risk management. If adopted, the rules would bring the United States into alignment with current or proposed climate disclo - sure requirements in Canada, the United Kingdom, and the European Union. Companies are also facing a rising focus on climate and sustainability performance by their lenders, investors, and insurance providers, who are analyzing client portfolios against their own carbon reduction targets (aligned to industry alliance initiatives) and climate reporting requirements.

To meet rising expectations, companies will need to assess the performance of their orga nization under future climate scenarios and establish processes for identifying, assessing, and managing climate-related risks and opportunities. This will include running climate scenario analysis along with establishing appropriate governance to provide e ective oversight of the process. NACD survey data suggest that only 15 percent of boards have recently engaged in

Scenario analysis is a process of examining and evaluating possible events or scenarios that aodibinative 2006(erptae)/1032E.B2500T (3-30-7/LDa0g) (420-1825)/(3-5/s-0/1413/0/1/2/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4-1)/(4

Organizations need an approach to address potential challenges in consistently capturing the data required for climate scenarios. Data may not be actively collected by the organization or may be in the early stages of collection, may not be stored or used systematically, may rest in unstructured environments, or there may be key gaps, given nonsystemic usage.

The organization should also consider their engagement with the new and rapidly evolving landscape of data vendors specializing in the physical and transition data needed to run scenario analysis. Each provider has di erent strengths (for example, by peril or by geographic scope), and the organization should consider current and future needs when selecting a vendor and avoid be ing "locked-in" to a single model provider. It is important to consider the limitations of "o -the-shelf" or "black box" models whose processes cannot be investigated, customized, or challenged fully.

6. Review the scenario assumptions: The board should review the core assumptions built into the scenarios, such as policy developments; physical variables included (for example, rising temperatures and sea levels); and time horizon and scope (for example, the degree to which the organization's supply chain is included). Most organizations choose a selection of represen - tative climate scenarios based on the materiality to the business. With a comprehensive view of the most-material risks, adequate methodical ap

proaches for scenario analysis and the corresponding data requirements can then be de ned.

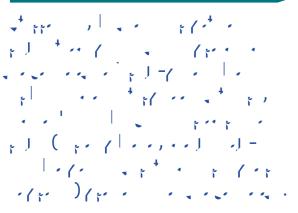
Respected organizations, such as the International Energy Agency (IEA), the Network for Greening the Financial System (NGFS), and the Intergovernmental Panel on Climate Change (IPCC), have developed reference climate scenarios used by many organizations as the basis for their modeling. Emerging practices suggest that entities examine 3–5 reference scenarios to ensure a robust scan of possibilities.

Other factors to consider are the physical and transition risks included in the scenarios. In terms of physical risks, these can include perils such as ood, water stress, heatwave or wind - storms, and the shifts in patterns that may occur over longer time frames, such as 20 or 30 years. Companies may perform a multi-peril analysis on key facilities to understand short- and long-term impacts under a variety of potential climate and warming pathways. In terms of transition scenario analysis, where a risk may evolve over a shorter time frame, the company should consider outputs such as projected nancial impacts broken down by climate scenario

The appropriate model for physical risks can be informed with consideration of aspects such as the range of scenarios available, applicability to the organization's sector, granularity/reso lution of the model, the model's exibility and transparency, and the output metrics produced. It is also important to understand the limitations of the model—for example, how the model considers the compound e ect of extreme weather events (e.g., the combination of wind stress and storm surge), the range of climate risks covered, and how indirect impacts such as business interruption are considered. Currently, models for acute risks such as ooding are highly devel oped by risk-assessment rms in the insurance industry, while "slow moving" or chronic risks (for example, the knock-on impacts of drought or water scarcity) are less well developed. Climate models should include both acute and chronic risks.

Transition risks analysis remains an evolving space. A spectrum of approaches can be ap plied with various trade-o s in terms of granularity, data needs, methodological complexity, and the ability to evaluate the merits of di erent business adaptation strategies. To choose the right models, it is critical to identify which transition risks are most likely to be material to the organization, including technological disruption, shifting regulatory environments, and changing commodity prices.

8. Build in a road map for evolution: The approach to climate scenario analysis should include a road map to re ect the evolution of the organization and the data and models available. For example, the company may start with a model that captures selected physical risks, Scope 1 and Scope 2 emissions, and a static view of the organization and its balance sheet. Over time, the process and model may evolve to include additional perils and transition risks such as litigation risk, as well as more complex scenarios. These could include consideration of the organization and its supply chain's ability to adapt to new business



strategies as well as embedding resilience metrics into physical risk models to re ect reduced exposures to climate risks.

To enable e ective evolution, management needs to de ne the controls around the process, data, and model to ensure a repeatable, comparable, yet dynamic approach to climate sce nario analysis.

Finally, the organization should be aware of the growing focus on environmental impacts not directly linked to carbon emissions. This will present risk analytics and risk management chal - lenges and organizations should start to consider approaches to modeling these risks as the Task Force on Nature-related Financial Disclosures gains momentum. ⁵

^{4.,} Task Force on Nature-related Financial Disclosures



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