Check for updates

Challenges for a climate risk disclosure mandate

The United States and other G7 countries are considering a framework for mandatory climate risk disclosure by companies. However, unless a globally acceptable hybrid corporate governance model can be forged to address the disparities among different countries' governance systems, the proposed framework may not succeed.

Paul Griffin and Amy Myers Jaffe

The severity of this summer's extreme weather events in China, Europe and the United States, among other locations, has created a new sense of urgency to achieve a net-zero global economy. To hold temperature rise to 1.5 °C with a high degree of certainty, this year's Intergovernmental Panel on Climate Change report warns that global carbon emissions must decline rapidly to net zero by 2050[1]. Heeding this warning will require major changes in the energy sector. Recent related developments such as court rulings adverse to the fossil fuel industry[2,3], shareholder votes removing directors[4] and accusations of biased climate-related disclosure[5] only make the mounting risks for the conventional energy sector more palpable.

As a result, asset managers and large asset owners have started shining a bright light on their efforts to force the activities of energy firms to align with global climate goals. Investors' demands for climate-friendly environmental, social and governance (ESG) stocks and ESG information have surged in recent years. Perhaps taking the lead from business, President Biden has issued an executive order[6] calling for mandatory climate risk disclosures by firms, and the US House of Representatives has passed legislation[7] calling for the same.

The successful development of a mandatory climate risk disclosure framework, however, faces difficult challenges. Most fundamentally, the borderless nature of carbon emissions and financial capital requires that any mandatory climate risk disclosure framework will also have to be global to be effective. At least three difficult challenges emerge in designing and implementing such a global framework.

About governance

The most consequential challenge is that currently no single corporate governance model exists that has wide-scale acceptance. Without a global governance model, there can be no effective global disclosure framework. There are two main corporate governance models practiced in the world today[8]. The major economies operate on either a blockholder system or a dispersed shareholder model. The Asian and European Union models are largely a reflection of block shareholdings, where transactions occur mainly between those with interlocked shareholdings and directorates and powerful stakes in the economy. These models include the keiretsu and chaebol systems in Asia and the banking groups and family-owned firms in some European countries. By contrast, the US governance model is characterized by widely dispersed shareholdings, strong shareholder rights, monitoring by regulators through a high level of required disclosure and well-organized mechanisms of shareholder activism.

Without a global governance model to build on, the contours of a global system of mandatory climate risk disclosure remain unclear. As with other international arrangements and agreements[9], the evolution of a global model for climate disclosure will involve painstaking trade-offs among the member countries, and among key organizations within each country. Even convergence on a common set of principles to resolve differences in accounting rules between the United States and the rest of the world[10] — which seemed like a straightforward matter when it began several decades ago (and arguably has fewer complexities than climate risk) — is still far from complete.

The G7 supports the Task Force on Climate-Related Financial Disclosures (TCFD) framework. However, the group's recent communiqué on climate disclosures implicitly reflects the difficulty of achieving consensus on a specific set of rules, stating that the TCFD represents only a "baseline global reporting standard for sustainability, which jurisdictions can further supplement" that must also involve "a wider range of stakeholders…to foster global best practice"[11].

The TCFD framework at its core aligns best with the US governance model of widely dispersed shareholdings and strong shareholder rights. Properly utilized, TCFD disclosure and shareholder activism have resulted in some highly visible actions at large energy firms such as Equinor[12], BHP and BP[13]. For example, firms' conduct of TCFD-related exercises encouraged ConocoPhillips[14], Marathon Oil, Shell and Total[15] all to exit Canadian oil sands in 2016 before the losses stacked up. ExxonMobil failed to follow suit at the time and was forced to write down 3.5 billion barrels of its oil sands reserves previously valued in the billions of dollars[16].

By contrast, the effectiveness of mandatory TCFD disclosure within a blockholder system governance model is less clear. Certainly, there is some emerging evidence that large US asset owner/manager BlackRock, which has over US$7 trillion in assets under management, has been able to alter firms' ESG disclosures in response to its famous demand letters[17]. Mandatory TCFD disclosure could create similar opportunities. So far, however, environmental disclosures have been used by big players mostly to improve their market share or bottom line. Many of the big asset owners have favoured the packaging of climate risk reporting information into new broader sustainability investment products that often reduce the transparency of the climate-specific concerns. These new ESG products that incorporate TCFD information are offered to increase fees or attract new investors. These ESG products also entrench reporting on measures that academic evidence points to having an insufficient bearing on environmental performance so far[18]. Within a blockholder governance model, environmental disclosures can worsen information asymmetry, feed into perverse incentives, and may be insufficient to quicken firms' plans to reduce their emissions in line with a net-zero global economy by 2050.

To strike a balance between the two corporate governance models means that any new regulatory system that brings TCFD disclosure to the fore will have to inform and protect the rights of small shareholders. But it must also work effectively to achieve climate goals, such that it prods large blockholder shareholders to join activists' efforts to shape boardroom decisions and strategy based on firm-level TCFD risk disclosures specific to climate change.

In this way, the disclosure regulators may be able to gain the best of both worlds. On the one hand, mandatory TCFD disclosure may enable activist investors in economies with widely dispersed shareholdings to organize effective shareholder efforts to demand better disclosure about firms' climate risk and performance. On the other hand, action on climate goals is more likely to be achieved more quickly in a blockholder system. To gather up shareholder votes from among large asset owners is an easier task than to assemble consensus from a large, diverse group of individuals and firms with smaller shareholdings. For example, gaining the support of several large asset owners (for example, BlackRock, CalPERS, CalSTRS) was pivotal to the vote[19] to adjust ExxonMobil's board to add more climate-focused board members. Also, much of climate investing and financing requires assessing outcomes at long horizons. This, too, may align best with a blockholder system. By contrast, a dispersed shareholder model, with its emphasis on next quarter's earnings, tends to elevate short-termism. For example, the dispersed shareholder model, with its latest financial results orientation, may have given energy companies a quarter-by-quarter excuse to delay action on carbon emissions and the long-term reallocation of capital.

The fact that large blockholders are emerging as a bigger force in US markets but still working side-by-side with smaller activist shareholders is hopeful news for climate action in the United States. Notwithstanding the long-standing US tradition of full disclosure to all investors, it is also strikingly evident that the increasingly concentrated shareholdings of the big three asset owners (BlackRock, State Street and Vanguard) mean that a blockholder arrangement may soon become the dominant model for US public companies. Elsewhere, however, several of the traditional blockholder-system countries (China, France, Germany, Japan, South Korea, Taiwan) have endorsed disclosure transparency as part of their way forward on net zero. This shift could smooth the way to a climate disclosure model more consistent with a US-style TCFD-like system, although China has indicated that it does not expect mandatory climate risk disclosure for non-bank firms for several decades[20]. So, as the United States moves more towards a blockholder style of governance, and countries with blockholder governance embrace TCFD-style mandatory disclosure, there is hope that a converged global governance system will emerge. However, there is a risk that societal and cultural factors could prevent the convergence of corporate governance systems on a global scale from being sufficiently timely to meet the goals of a net-zero global economy by 2050.

About the disclosures themselves

Before a converged governance system can succeed, a second challenge that must be addressed by any new climate-reporting framework system is the accuracy, comprehensiveness and relevance of the reported disclosures. A related challenge is the enforcement of those disclosures for truthfulness and accuracy. When a jurisdiction encourages firms to publish TCFD information voluntarily, firms may cherry-pick only the most positive items for disclosure[21]. This may be one of the reasons why, so far, the TCFD voluntary system does not seem to have helped investors avoid some of the more catastrophic climate-risk-related financial losses, such as those associated with the bankruptcies in the US coal industry, the sudden collapse of the share price of California utility PG&E, and the extreme cold in Texas in February of this year that caused the state's private-sector-run power grid to fail.

To put teeth into the proposed TCFD-based disclosure system, the Biden administration has proposed that the US Securities and Exchange Commission performs the function of police to ensure that climate-related risk disclosures styled on the TCFD framework are accurate and sufficient, and to discipline those firms that make misleading or overly vague disclosures[6]. But this would require the commission to obtain expertise that it does not presently have and to generate funding for enforcement.

About market volatility

A third challenge is designing a climate disclosure framework to have a positive impact on market volatility by reducing uncertainty. If the proposed framework is overlaid on existing ESG disclosure systems, it could increase rather than reduce market uncertainty. The existing ESG systems lack comparability among themselves and with industry benchmarks, having already created unnecessary disagreement. According to two studies, this incomparability has increased stock price uncertainty, which is an unhealthy outcome for financial markets[22,23]. Relatedly, the ESG information that often garners the most attention by the media involves episodes of controversy rather than material statements of fact[24]. While issuers are naturally reluctant to disclose negative information, the media are not. This view is also supported by a recent study of financial news reports on issuers involving climate matters. Going short/long following negative/positive press reports was the best investment strategy able to generate a positive return on the hedge portfolio[25]. As a response to the likelihood that funds can generate excess returns for investors from ESG controversies, some information providers (for example, Refinitiv) now process and sell information on controversies as a proprietary product.

Adding to this challenge, intensifying anxieties about energy transition climate risk could prompt investors to flee the oil and gas sector as a herd[26], such as occurred in 2015 amid a supplier price war and more recently in 2020, as the COVID-19 pandemic cratered demand. As climate change worsens and governments face pressure to take increased action, a climate change triggering event that could chase more investors out of oil and gas becomes increasingly possible, much the way the Obama administration's executive actions against coal led to a rapid decapitalization of publicly traded US coal firms. Herding behaviour could also change current and future commodity prices in ways that promote market uncertainty and volatility. All told, it remains to be seen whether better TCFD alignment to firms' corporate governance model attenuates (a step forward) or intensifies (a step backward) market uncertainty.

In conclusion

To address these challenges, major institutional investors and regulators need to work at a global level to fashion a hybrid governance model that addresses climate risk and climate risk disclosure in a manner that strengthens shareholder rights to press for climate disclosure, but aligns with the longer-term perspective of a blockholder system. In this way, investors in countries aligned to a dispersed shareholder form of governance will receive climate risk information for investment decision-making that is comparable, understandable and of sufficient quality to reduce disagreement and market volatility. Large asset owners more allied with a blockholder system of governance will also benefit by using their expertise and information-processing capabilities to enhance the diagnostic ability of the mandated disclosures. This may enable them to have more say in the boardroom and to effect change beyond the horizon through direct engagement. Rapid convergence of governance systems into a hybrid global model is essential, given the pressing need for a timely transition to net-zero business principles and to hold global temperatures to a 1.5 °C rise compared with pre-industrial levels. We urge influential bodies such as the Network of Central Banks and Supervisors for Greening of the Financial System, the Federal Reserve and the G7 to join the 2021 United Nations Climate Change Conference (COP26) in Glasgow to hasten consensus on a climate risk disclosure framework embedded in a global hybrid governance model. ❐

Paul Griffin [1]✉ and Amy Myers Jaffe [2]

[1]*Graduate School of Management, University of California, Davis, CA, USA.* [2]*Climate Policy Lab, Tufts University, Medford, MA, USA.*

✉*e-mail: pagriffin@ucdavis.edu*

Published online: 12 November 2021
https://doi.org/10.1038/s41560-021-00929-z

References

1. IPCC *Climate Change 2021: The Physical Science Basis* (eds Masson-Delmotte, V. et al.) (Cambridge Univ. Press, 2021).
2. Judgement *Milieudefensie et al. v. Royal Dutch Shell PLC* Case number/Cause list number: C/09/571932 / HA ZA 19-379 (Court of the Hague, 2021).
3. Puko, T. Alaska oil permits blocked by federal judge. *The Wall Street Journal* (19 August 2021); https://www.wsj.com/articles/alaska-oil-permits-blocked-by-federal-judge-11629346302
4. *Vote Bulletin: ExxonMobil Corporation* (BlackRock, 2021); https://www.blackrock.com/corporate/literature/press-release/blk-vote-bulletin-exxon-may-2021.pdf
5. Supran, G. & Oreskes, N. *One Earth* **4**, 696–719 (2021).
6. *Executive Order on Climate-Related Financial Risk* (The White House, 2021); https://www.whitehouse.gov/briefing-room/presidential-actions/2021/05/20/executive-order-on-climate-related-financial-risk/
7. *Climate Risk Disclosure Act of 2021* H.R. 2570 (US Congress, 2021).
8. Bratton, W. W. & McCaherty, J. A. in *Corporate Governance Regimes: Convergence and Diversity* (eds McCaherty, J. A. et al.) Ch. 2 (Oxford Univ. Press, 2002).
9. McCaherty, J.A., Moerland, P., Raaijmakers, T. & Reenenoog, L. (eds) *Corporate Governance Regimes: Convergence and Diversity* (Oxford Univ. Press, 2002).
10. Jones, S. & Finley, A. *Br. Account. Rev.* **43**, 22–38 (2011).
11. *G7 Finance Ministers and Central Bank Governors' Communiqué* (G7, 2021); https://www.g7uk.org/g7-finance-ministers-and-central-bank-governors-communique/
12. Kent, S. Getting the 'oil' out: Norway's Statoil rebrands. *The Wall Street Journal* (15 March 2018); https://www.wsj.com/articles/getting-the-oil-out-norways-statoil-rebrands-1521110218
13. *TCFD Energy Group Metrics* (BP, 2021); https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/sustainability/bp-tcfd-2020.pdf
14. *Managing Climate-Related Risks: Building a Resilient Strategy for the Energy Transition* (ConocoPhillips, 2017); https://static.conocophillips.com/files/resources/19-0051-climate-change-book-2018-web-updated-cover.pdf
15. Form 20-F (Total, 2016); https://totalenergies.com/sites/g/files/nytnzq121/files/atoms/files/2016_form_20-f_web_0.pdf
16. *Form 10-K* Item 1, p. 6 (ExxonMobil, 2017); https://www.sec.gov/Archives/edgar/data/34088/000003408817000017/xom10k2016.htm
17. Pawliczek, A., Skinner, A. N. & Wellman, L. A. *Rev. Account. Stud.* https://doi.org/10.1007/s11142-021-09603-x (2021).
18. Friede, G., Busch, T. & Bassen, A. *J. Sustain. Finance Invest.* **5**, 210–233 (2015).
19. *Form 8-K*/A, Final Votes *in Favor of Nominees for Director* (SEC, 2021); https://ir.exxonmobil.com/node/32836/html
20. Liu, J. PBoC to introduce mandatory disclosure of climate related information. *Seneca ESG* (9 June 2021); https://www.senecaesg.com/blog/pboc-to-introduce-mandatory-disclosure-of-climate-related-information/
21. Bingler, J. A., Kraus, M. & Leippold, M. *Cheap Talk and Cherry-Picking: What ClimateBert has to say on Corporate Climate Risk Disclosures* (Department of Management, Technology and Economics, ETH Zurich, 2021).
22. Christensen, D. M., Serafeim, G. & Sikochi, A. *Account. Rev.* https://doi.org/10.2308/TAR-2019-0506 (2021).
23. Gibson, R., Krueger, P. & Schmidt, P. S. *ESG Rating Disagreement and Stock Returns* (Swiss Finance Institute Research Paper Series No. 19–67, 2021).
24. Aouadi, A. & Marsat, S. *J. Bus. Ethics* **151**, 1027–1047 (2018).
25. Engle, R. F., Giglio, S., Kelly, B., Lee, H. & Stroebel, J. *Rev. Financ. Stud.* **33**, 1184–1216 (2020).
26. Jaffe, A. M. *Nat. Energy* **5**, 101–103 (2020).

Competing interests

P.G. declares no competing interests. Tufts University Climate Policy Lab, where A.M.J. serves as managing director, receives funding from numerous charitable foundations and charities, as well as from BP. A.M.J. provided informational consulting services to American activist investor C. Penner in 2020.