CLIMATE DISCLOSURE LINE-DRAWING & SECURITIES REGULATION

Virginia Harper Ho[*]

Abstract:

The SEC's efforts to standardize climate disclosure have revealed deep divides among the public and among corporate and securities law scholars about the proper scope and goals of climate disclosure reform. This controversy comes at a time when investor demand for ESG investment products is rising exponentially and when other regulators worldwide are already moving to standardize how climate risk and other ESG information is reported to investors.

This Article clarifies the line-drawing choices behind mandatory climate risk disclosure, explains the established frameworks for corporate climate reporting that regulators internationally are building upon, and identifies how both have informed the SEC's proposed climate disclosure rules. This Article makes an important contribution to the debates over ESG disclosure mandates by exploring the boundaries and intersections of climate risk and broader ESG concepts and by considering the potential liability implications of mandatory climate risk disclosure. It concludes by explaining the impact and limits of the SEC's line-drawing choices and outlining steps that could be taken to better achieve the goals of the proposed reforms and perhaps to move beyond them.

[*] Professor of Law, City University of Hong Kong School of Law. I wish to express thanks to the organizers of the 2022 UC Davis Law Review Symposium and to the editors of this volume, as well as to the other contributors, whose perspectives on these topics have often influenced my own.

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INTRODUCTION

At the time of this writing, the Securities and Exchange Commission ("SEC") is working to finalize corporate reporting rules on climate-related financial risk and is moving forward with plans to strengthen public company reporting on other "environmental, social, and governance" ("ESG") matters, including human capital and diversity.[1] In response to growing concerns about ESG "greenwashing," the SEC has also proposed disclosure rules for investment advisers.[2] Those rules will require them to support any claims that their financial products or investment process or strategies take account of ESG performance factors or achieve ESG-related goals.

The SEC's efforts to standardize climate disclosure have generated a political firestorm in the United States, revealing deep divides among the public and among corporate and securities law scholars about the proper scope and goals of climate disclosure reform.[3] Much of the challenge stems from confusion (and fears) about the meaning and reach of terms like "climate risk," "sustainability," and "ESG." Such questions go directly to fundamental issues about the extent to which ESG information is financially relevant, whether it reflects only the social or political preferences of certain investors and asset managers, or whether these concepts have both public policy and economic significance. These debates matter since they have caused some to call into question the SEC's authority to mandate climate disclosure in the first place.[4]

All of this comes at a time when investor demand for ESG investment products is rising exponentially and when other regulators worldwide are already moving to standardize how climate risk and other ESG information is reported to investors.[5] As a result and regardless of whether

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[1] *See* Sec. Exch. Comm'n, Proposed Rule on the Enhancement and Standardization of Climate-Related Disclosures for Investors, 87 Fed. Reg. 21334 (proposed Apr. 11, 2022) [hereinafter "Proposing Release"]. The SEC has also released proposed disclosure rules on cybersecurity risk after concluding that its 2018 guidance was not sufficiently effective. Sec. Exch. Comm'n, Cybersecurity Risk Management, Strategy, Governance, and Incident Disclosure, 87 Fed. Reg. 16590 (proposed Mar. 23, 2022).

[2] *See* Sec. Exch. Comm'n, Enhanced Disclosures by Certain Investment Advisers and Investment Companies About Environmental, Social, and Governance Investment Practices, Rel. No. 33-11068 (May 25, 2022); Investment Company Names, Rel. No. 33-11067 (May 25, 2022) [hereinafter Investment ESG Disclosures].

[3] Public comments to the SEC from corporate and securities law scholars reveal equally deep divides within these fields. *See* Letter from Jill E. Fisch & George S. Georgiev to Vanessa A. Countryman, Secretary, U.S. Sec. & Exch. Comm'n (June 6, 2022) [hereinafter Fisch & Georgiev Letter], https://www.sec.gov/comments/s7-10-22/s71022-20130354-297375.pdf [https://perma.cc/576P-ATW6 (arguing that the rules fall squarely within the SEC's authority). *But see* Letter from Lawrence A. Cunningham et al. to the Sec. Exch. Comm'n (Aug. 15, 2022), https://corpgov.law.harvard.edu/wp-content/uploads/2022/06/Comment-Letter.docx.pdf [https://perma.cc/YE3Y-6FBG] [hereinafter Cunningham Letter] (arguing the contrary).

[4] *See, e.g.*, Cunningham Letter, *id.;* Letter from West Virginia Attorney General Patrick Morrisey et al. to Gary Gensler, Chair, U.S. Sec. & Exch. Comm'n (June 14, 2021), https://www.sec.gov/comments/climate-disclosure/cll12-8915606-244835.pdf (challenging the proposed mandatory greenhouse gas emissions disclosures as exceeding the SEC's authority to protect investors and fair markets).

[5] *See* INT'L ORG. SEC. COMM'N. (IOSCO), RECOMMENDATIONS ON SUSTAINABILITY-RELATED PRACTICES, POLICIES, PROCEDURES AND DISCLOSURE IN ASSET MANAGEMENT, FR08/21 8 (Nov. 2021) [hereinafter Asset Management] (discussing rising investor demand) [hereinafter Asset Management]; INT'L ORG. SEC. COMM'N. (IOSCO), REPORT ON SUSTAINABILITY-RELATED ISSUER DISCLOSURES, FR04/21 10-14 (June 28, 2021), https://www.iosco.org/library/pubdocs/pdf/IOSCOPD678.pdf [https://perma.cc/AG2E-MMJH] [hereinafter Issuer Report]. On international developments, see also *infra* Part I(A).

the SEC's proposal moves forward in its current form or not, the largest U.S. companies will continue to face demand from investors — and for some, compliance obligations under foreign law — to consider how they disclose climate risk and other ESG matters to the markets. In this context, the SEC's existing regulatory and enforcement mandate makes engaging with issues about the proper scope of ESG disclosure unavoidable and understanding where the SEC has drawn these boundary lines thus far essential.

This Article clarifies the line-drawing choices behind the SEC's proposed climate risk disclosure rules and explores their implications for investors, issuers, and real climate impact though (spoiler!) the latter is explicitly *not* a goal of the SEC's proposal.[6] Part I of this Article places the SEC's proposed reforms in an international context and explains these line-drawing choices. Part II introduces the SEC's proposed rules with reference to the leading international disclosure frameworks, specifically the framework developed by the Task Force for Climate-Related Financial Disclosure ("TCFD") of the G20's Financial Stability Board, and the Greenhouse Gas Protocol Corporate Standard for greenhouse gas ("GHG") emissions reporting (the "GHG Protocol").[7] It then seeks to clear away some of the confusion surrounding climate and ESG concepts that are raised by the proposed rules, as well as those that are emerging at the frontiers of sustainable finance internationally. It concludes by considering the potential liability implications of TCFD-based climate disclosure rules for U.S. registrants. Part III considers the potential impact and limits of the proposed rules and outlines potential steps that can be taken to better achieve the goals of the SEC's rulemaking and perhaps to move beyond it.

Because the SEC's proposal is based on the same climate disclosure frameworks and standards that are being adopted internationally, these issues will remain foundational to any future SEC rulemaking even if its current proposals do not survive legal challenge. Many of the issues raised here also have implications for the SEC's proposed investment adviser disclosure rules and for the ongoing debates surrounding ESG disclosure reform more broadly.

I. CLIMATE DISCLOSURE LINE-DRAWING IN GLOBAL CONTEXT

Internationally, mandatory climate reporting frameworks respond to two main challenges: (i) the failure of voluntary corporate sustainability reporting practices to generate information that is reliable, consistent, comparable, and focused on what is material to investors; and (ii) the financial risks climate change poses to companies themselves. Frameworks directed at eliciting this kind of information align with *financial* materiality, as that concept has been defined under U.S. securities laws or similar rules in other jurisdictions. However, as discussed below, many other jurisdictions identify two additional goals for mandatory climate (and ESG) reporting: (iii) the need to direct capital toward more sustainable uses and away from less sustainable ones; and (iv) the use of disclosure to help investors and other stakeholders hold companies accountable for their

[6] *See infra* Part II.A. (discussing the proposal's goals). In earlier work, I have presented recommendations for how disclosure reform should proceed in the U.S. context. *See generally* Virginia Harper Ho, *Modernizing ESG Disclosure*, 2022 ILL. L. REV. 277 (advocating mandatory market-wide and sector-specific ESG disclosures based on internationally recognized standards) [hereinafter *Modernizing ESG Disclosure*].

[7] TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES (TCFD), FINAL REPORT: RECOMMENDATIONS OF THE TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES (2017) [hereinafter TCFD Report]; Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (2015 ed.), https://ghgprotocol.org/corporate-standard [https://perma.cc/9FR5-GGRZ] [hereinafter GHG Protocol].

greenhouse gas ("GHG") emissions, climate impacts, and other social and environmental externalities of their operations.[8]

A. THE RISE OF MANDATORY ESG DISCLOSURE INTERNATIONALLY

The backdrop of mandatory ESG disclosure is that the vast majority (and nearly all listed companies) in the U.S. and worldwide have been for many years producing voluntary sustainability, "corporate social responsibility" or ESG reports based on a wide range of private standards and frameworks, such as the Global Reporting Initiative (GRI) standards,[9] ISO sustainability standards,[10] the Climate Disclosure Protocol (CDP),[11] the Sustainability Accounting Standards Board (SASB) standards,[12] and hundreds of others.[13] Many of these standards draw on international guidance, best practices, and even international law, and they often use transparency and peer comparisons to drive companies toward better business practices.[14] But they are designed for consumers and other stakeholders rather than investors, need not be verified, and ultimately only report what the company elects to say.[15] Their force also depends heavily on the "business case" for corporate responsibility, which includes the reputational costs of failing to respond to the concerns of consumers, NGOs, and media watchdogs.

This model has produced volumes of public ESG information that is not suitable for investment purposes, even though some companies do include climate or other sustainability information in their annual reports or other mandatory filings.[16] For U.S. companies, decades of reliance on

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[8] The European Union is the most prominent example. *See* EUR. CMM'N, ACTION PLAN: FINANCING SUSTAINABLE GROWTH, COM (2018) 97 [hereinafter EU Action Plan] (noting the foundational role of disclosure in the sustainable finance transition).

[9] The leading stakeholder-oriented standards are the Global Reporting Initiative standards. *See generally* Glob. Rep. Initiative, *Standards*, https://www.globalreporting.org/standards (last visited Jan. 11, 2023) [https://perma.cc/2U5H-8RNZ].

[10] ISO produces specific sustainability standards and also integrates sustainable development considerations across all of its standards and guidance. "Sustainability Standards from ISO," https://iso26000.info/sustainability-standards-from-iso/ (last visited Jan. 25, 2023).

[11] The CDP coordinates a global environmental disclosure and scoring system based on questionnaires completed by companies and subnational governments. *See generally* CDP, "What We Do," https://www.cdp.net/en/info/about-us/what-we-do (last visited 25 Jan. 2023).

[12] The SASB standards, which are now administered under the auspices of the IFRS Foundation, are the leading private ESG reporting standard internationally for investor-facing disclosure and use the financial materiality standard that applies under the U.S. securities laws. *See generally "SASB Standards,"* https://www.sasb.org/ (last visited Jan. 25, 2023); Sustainability Accounting Standards Board (SASB), Converging on Climate Risk: CDSB, The SASB, and the TCFD (Sept. 2017), https://www.sasb.org/knowledge-hub/converging-on-climate-risk/ [https://perma.cc/H5AE-LGYD] (discussing the alignment between SASB standards and leading climate risk standards).

[13] *See* Harper Ho, *Modernizing ESG Disclosure*, *supra* note 6, at 288-92 (discussing these standards).

[14] *See generally* Virginia Harper Ho & Stephen Park, *ESG Disclosure: Optimizing Private Ordering in Public Reporting*, 41 U. PENN. INT'L L.J. 249 (2019) (discussing the intersection of public and private incentives in international ESG reporting regimes).

[15] For example, the GRI standards, *supra* note 13, encourage companies to identify their own significant stakeholders and to define what information is material to those stakeholders accordingly. [CITE]

[16] *See* Proposing Release, *supra* note 1, at 29-34 (discussing the need for climate disclosure standardization)*; see also* COMMODITY FUT. TRAD. COMM'N (CFTC), MANAGING CLIMATE RISK IN THE U.S. FINANCIAL SYSTEM 88-92 (2020), *available at* https://www.cftc.gov/ (identifying deficiencies in corporate climate-

voluntary reporting has also proven costly, since investors have had to rely on direct engagement, corporate surveys, and internal research to fill the gap.[17] Internationally, the limited climate information companies report voluntarily has until quite recently given little information to investors about its relevance to companies' financial risk.[18]

Over the past several decades, the International Organization of Securities Commissions ("IOSCO") and over 60 governments worldwide have responded by advocating or adopting some form of mandatory disclosure to enable markets to price ESG risks efficiently and allow investors to assess ESG investment risk.[19] Investor protection and greenwashing concerns have also led the European Union and the U.K., among others, to adopt separate ESG disclosure rules for fund managers and other investment intermediaries.[20] Some of these aim to set clear standards for ESG investment products and activities, as the SEC's proposed investment adviser rules do,[21] while others go further to require fund managers and investment advisers to integrate ESG considerations into their investment and advisory functions.[22] In addition, more than twenty governments, including the European Union ("E.U.") and China, have adopted "taxonomies" to better define which investment products and activities may be labelled "green" or "sustainable" so that investors can allocate capital based on sustainability considerations and toward sustainable

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related disclosure); IOSCO, Issuer Report, *supra* note 5, at 13-16 (concluding that corporate sustainability disclosures "are not complete, consistent and comparable").

[17] Virginia Harper Ho, *Nonfinancial Disclosure & The Costs of Private Ordering,* 55 AM. BUS. L.J. 407, 452-56 (2018); Madison Condon, *Market Myopia's Climate Bubble,* 2022 UTAH L. REV. 63,78-109 (discussing the sources of corporate climate risk under-reporting). .

[18] The TCFD's 2016 Phase I Report found that while "[m]ost G20 countries have some form of required climate-related disclosures, [only] a limited number . . . pertain directly to climate-related *financial* risks." TCFD, PHASE I REPORT OF THE TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES (Mar. 31, 2016). TCFD, 2022 STATUS REPORT at 5-6, 9-14 & tbl. ES1, ES2, & fig. A-3 (Oct. 2022), https://www.tcfdhub.org/resource/tcfd-2022-status-report/ [https://perma.cc/UV7N-Q5Y2] [hereinafter 2022 TCFD Status Report] (reporting that public companies globally now report climate-related financial disclosures in some form).

[19] *See* "Carrots & Sticks" (2020), https://www.carrotsandsticks.net/ (last visited Nov. 30, 2022) [https://perma.cc/66KH-HGUH] (providing interactive data on sustainability reporting instruments as of 2020); *see also* INST. OF INT'L FIN., "BUILDING A GLOBAL ESG DISCLOSURE FRAMEWORK: A PATH FORWARD 8 (2020) (reporting that as of 2020, over 200 ESG disclosure measures, most of them mandatory, had been adopted by public regulators).

[20] Regulation (EU) 2019/2088 of 27 November 2019 on Sustainability-related Disclosures in the Financial Services Sector [2019] OJ L317/1, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32019R2088 [https://perma.cc/GS4G-S7ZQ] [hereinafter EU SFDR]; *see also* Fin. Conduct Auth. (FCA), Enhancing Climate-Related Disclosures by Asset Managers, Life Insurers and FCA-Regulated Pension Providers' Policy Stmt. PS21/24 (Dec. 2021), https://www.fca.org.uk/publication/policy/ps21-24.pdf [https://perma.cc/VVT4-465M]. *See also* IOSCO, *Asset Management, supra* note 5, at 11-14, 28-35 (discussing greenwashing concerns); Investment ESG Disclosures, *supra* note 2, 13-20 (discussing the need to better define ESG investment products and services).

[21] *See generally* Investment ESG Disclosures, *supra* note 2.

[22] *See, e.g.*, EU SFDR, *supra* note 20 (requiring financial advisers, asset managers, and other financial market participants to provide sustainability disclosures and to consider the negative environmental and social justice impacts of their investment decisions, advice, and products); FCA *supra* note 20 (requiring U.K. asset owners and managers to make TCFD-aligned climate disclosures).

uses.[23] Securities regulators recognize that the quantity and quality of firm-level ESG information is a foundation for any such attempt to improve the transparency of ESG investment products and services.[24]

Demand for ESG standardization and improved ESG data also has corporate governance implications, since many governments outside the U.S. have also adopted investor stewardship codes. Many of these codes encourage institutional investors and fund managers to use their voting power and direct engagement with companies to advance corporate ESG practices, GHG emissions, and climate strategy and require them to report on how they use these rights.[25] Some of the largest U.S. investors have also voluntarily committed to use their governance rights as shareholder to advance ESG goals to the extent consistent with their fiduciary duties.[26] ESG disclosure is therefore also essential to the exercise of investor voting rights and other forms of stewardship.

At the time of this writing, international mandatory reporting standards are being developed for climate disclosure first, followed by mandatory reporting rules for other sustainability information. The most important of these are the separate reporting standards for climate risk and for other sustainability information released in 2022 by the International Sustainability Standards Board ("ISSB") of the IFRS Foundation, which also oversees the development of International Financial Reporting Standards.[27] These standards are designed for investors, apply to the company's annual report, and build on the leading voluntary frameworks developed by private standard setters, international organizations, and companies themselves over the past decades. The ISSB's goal is to set an international baseline for climate and sustainability disclosure that different jurisdictions can build on or enhance.[28] The second major international development is the European Union's adoption in 2022 of its next-generation sustainability disclosure rules -- the European Sustainability

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[23] *See* INT'L PLATFORM ON SUST. FIN. (IPSF), COMMON GROUND TAXONOMY – CLIMATE CHANGE MITIGATION INSTRUCTION REPORT, Annex 35-43 (Nov. 2021), https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/211104-ipsf-common-ground-taxonomy-instruction-report_en.pdf [https://perma.cc/4BEV-DEAC] (identifying these jurisdictions).

[24] As IOSCO has noted, "Any firm-level and product-level disclosures made by asset managers relating to sustainability are dependent on the quality, reliability and accuracy of ESG data from disclosures by corporate issuers and third-party data providers." IOSCO, *Asset Management*, *supra* note 5, at 6.

[25] *See generally* GLOBAL SHAREHOLDER STEWARDSHIP: COMPLEXITIES, CHALLENGES AND POSSIBILITIES (Dionysia Katelouzou & Dan Puchniak eds., 2022) (assessing the content and impact of investor stewardship codes around the world.)

[26] Some may make such commitments as signatories to the United Nations' Principles for Responsible Investment, for example. United Nations Princ. Resp. Inv., "Signatory Directory," https://www.unpri.org/signatories/signatory-resources/signatory-directory (last visited Jan. 27, 2023).

[27] IFRS, EXPOSURE DRAFT IFRS S1 GENERAL REQUIREMENTS FOR DISCLOSURE OF SUSTAINABILITY-RELATED FINANCIAL INFORMATION (31 March 2022) [hereinafter ISSB Sustainability Disclosure Standard], https://www.ifrs.org/content/dam/ifrs/project/general-sustainability-related-disclosures/exposure-draft-ifrs-s1-general-requirements-for-disclosure-of-sustainability-related-financial-information.pdf [https://perma.cc/2S8X-UX5S]; IFRS, EXPOSURE DRAFT IFRS S2 CLIMATE-RELATED DISCLOSURES (31 March 2022) [hereinafter ISSB Climate Disclosure Standard], https://www.ifrs.org/content/dam/ifrs/project/climate-related-disclosures/issb-exposure-draft-2022-2-climate-related-disclosures.pdf [https://perma.cc/FM9P-ZH6J].

[28] ISSB, *Sustainability Disclosure Standard*, *supra* note 27, at 5-6, 20 ("IFRS Sustainability Disclosure Standards are intended to meet the needs of the users of general-purpose financial reporting to enable them to make assessments of enterprise value, providing a comprehensive global baseline for the assessment of enterprise value").

Reporting Standards ("ESRS") developed under the Corporate Sustainability Reporting Directive ("CSRD").[29] The ESRS are designed to replace the ESG reporting framework established by the E.U. for certain large companies in 2014 and to expand its scope to more than 50,000 companies operating in the EU.[30]

ESG reporting mandates developed by other governments have also taken a "climate first" approach. This prioritization is driven by the overwhelming scientific evidence of the physical effects of climate change on the planet and of the narrow window of time humanity has to reduce carbon and other GHG emissions, achieve climate stability, and avoid catastrophic temperature rise.[31] As a result, climate risk is also important to investors.[32]

These mandatory disclosure reforms reflect an international consensus about the nature of the financial risks that climate change and related market and regulatory responses pose to companies and economies. Financial regulators and stock exchanges have therefore been at the center of efforts to develop national and regional climate regulation and corporate reporting systems. The SEC's proposed rules also come in the context of high demand from asset managers and from the SEC's counterparts abroad for international harmonization of reporting standards for climate-related financial risk and for greater interoperability of sector-specific ESG reporting standards as well.[33] These developments reflect a steady hardening from voluntary to mandatory sustainability reporting, and an increasing convergence, consolidation, and alignment among reporting standards across global capital markets that should simplify the reporting landscape for companies and improve the quality of information available to investors.

[29] Eur. Comm'n, Directive of the European Parliament and of the Council amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as Regards Corporate Sustainability Reporting, 2021/0104(COD) (Nov. 26, 2022) [hereinafter CSRD], amending Council Directive 2014/95, of the European Parliament and of the Council of 22 October 2014 Amending Directive 2013/34/EU as Regards Disclosure of Non-Financial and Diversity Information By Certain Large Undertakings and Groups, 2014 O.J. (L 330); European Union Sustainability Reporting Standards (ESRS) E1 Climate Change (draft) (Nov. 15, 2022) [hereinafter ESRS Climate]. The full suite of ESRS standards includes two general standards and 10 separate ESG topical standards. EFRAG, *EFRAG Delivers the First Set of Draft ESRS to the European Commission* (Nov. 23, 2022), https://www.efrag.org/Assets/Download?assetUrl=/sites/webpublishing/SiteAssets/EFRAG+Press+release+First+Set+of+draft+ESRS.pdf [https://perma.cc/MED5-J294].

[30] *See id.* This is in comparison to around 12,000 companies are covered by the Non-Financial Reporting Directive, *supra* note 29. Eur. Comm'n, "Corporate Sustainability Reporting," https://finance.ec.europa.eu/capital-markets-union-and-financial-markets/company-reporting-and-auditing/company-reporting/corporate-sustainability-reporting_en (last visited Dec. 3, 2022) [https://perma.cc/5Z47-2PLT] (reporting these figures).

[31] *See generally* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, IPCC SIXTH ASSESSMENT REPORT: IMPACTS, ADAPTATION AND VULNERABILITY (2022), https://www.ipcc.ch/report/ar6/wg2/ [https://perma.cc/AV3P-WKJV].

[32] *See generally* Sec. & Exch. Comm'n, Commission Guidance Regarding Disclosure Related to Climate Change, 75 Fed. Reg. 6,290 (Feb. 8, 2010), https://www.sec.gov/rules/interp/2010/33-9106.pdf [https://perma.cc/6KHW-5YD8] [hereinafter, 2010 Climate Guidance] (providing guidance on climate risk materiality under the federal disclosure rules); *see also* Phillipp Krueger, Zacharias Sautner & Laura Starks, *The Importance of Climate Risks for Institutional Investors*, 33 REV. FIN. STUDS. 1067 (2020).

[33] IOSCO, *Asset Management, supra* note 5, at 59-61 (discussing the multiplicity of reporting frameworks and inconsistent corporate sustainability reporting as a key challenge for investors and asset managers); ISSB, *Sustainability Disclosure Standard*, *supra* note 27, at 5-6, 20 (discussing demand for international standardization).

B. LINE-DRAWING CHALLENGES IN ESG DISCLOSURE

Developing any disclosure regime (voluntary or mandatory) requires defining its goals and its bounds, a task made difficult by the potential breadth of ESG concepts. For climate disclosure, the picture is simplified by the "climate first" approach that the SEC and its counterparts have taken. In addition, for climate disclosure, regulators have not been working from a blank slate. The ISSB, E.U., and SEC climate disclosure rules, as well as similar mandates adopted by governments elsewhere, generally start from the same standard — the international voluntary reporting framework for climate-related financial risk developed by the Task Force for Climate-Related Financial Disclosure ("TCFD") of the G20's Financial Stability Board in 2016.[34] Like the TCFD itself, all of these climate disclosure rules also build on the GHG Protocol, which is the leading GHG emissions standard used by companies.[35] Building on established frameworks that companies are already using offers obvious cost savings to regulators and to companies and reduces the costs of aligning newly developed but divergent regulations across capital markets.

In order to understand how the SEC's proposed rules are bounded by these starting points and how the SEC has drawn its own lines, it is necessary to first identify the main questions of scope that must inform any mandatory ESG disclosure regime. Specifically, these are: (i) the target firms, investment activities, or financial products to which disclosure should apply; (ii) the ESG concepts to be covered by the rules; (iii) whether the required disclosures should be limited to information that is financially material to the reporting company;[36] and (iv) the underlying goals the disclosure reform is intended to achieve. In previous work, I have presented my own views on how these lines should be drawn under the U.S. federal disclosure framework.[37] Although the focus here is on corporate disclosure rather than investment activities or products, many of the same considerations apply to those disclosure regimes as well.

1. Diverse Regulatory Goals for Disclosure

Mandatory ESG disclosure has been driven by governments and by mainstream investors for different reasons but that nonetheless generally relate to risk. From a financial standpoint, ESG factors may contribute to the market risk associated with an individual company, but also to the market risk of an entire portfolio or sector or even across the economy as a whole.[38] Because of the severe global threats posed by climate change, international organizations, as well as U.S. regulators, have also warned of the systemic risk that climate change poses to the financial system

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[34] TCFD, 2022 STATUS REPORT, *supra* note 18, at 99 & tbl. D1 (Oct. 2022), https://www.tcfdhub.org/resource/tcfd-2022-status-report/ [https://perma.cc/UV7N-Q5Y2] [hereinafter 2022 TCFD Status Report] (reporting on TCFD-aligned disclosure mandates and adopting governments).

[35] GHG Protocol, *supra* note 7; Proposing Release, *supra* note 1, at 35-42 (explaining the SEC's decision to build on these standards).

[36] This third issue is generally tied to how fiduciary duty is defined under corporate law and under the law governing the fiduciary duties of institutional investor fiduciaries and asset managers.

[37] There I have also considered several additional boundary questions, such as the frequency of reporting and whether mandatory ESG disclosure should be in the company's periodic filings or disclosed separately in some form. *See generally* Harper Ho, *Modernizing ESG Disclosure*, *supra* note 6, at 313-314.

[38] For discussion of ESG matters in relation to varying measures of investment risk, see generally Virginia Harper Ho, *Risk-Related Activism: The Business Case for Monitoring Nonfinancial Risk*, 41 J. CORP. L. 647, 655-58 (2016); Madison Condon, *Externalities and the Common Owner*, 95 WASH. U. L. REV. 1 (2020); John Coffee, Jr., *The Future of Disclosure: ESG, Common Ownership, and Systematic Risk*, 2 COLUM. BUS. L.R. 602 (2021).

as a whole.[39] Systemic shock associated with climate change is more likely — and market instability more likely to be extreme — if companies and governments fail to take immediate steps to mitigate or adapt to climate change.[40] ESG disclosure mandates are therefore directed at base toward facilitating efficient market pricing of ESG-related financial risks, protecting investors, and ensuring market stability.[41]

As explained above, different jurisdictions have also moved to standardize ESG disclosure to achieve broader policy goals that are not unrelated to the economic goals outlined above. One such goal — and a key pillar of the Paris Climate Accord itself — is to enable investors to direct capital toward climate mitigation and other sustainable uses.[42] This requires that investors be able to distinguish sustainable investments from less sustainable ones, and to distinguish firms with lower and higher GHG emissions. Whether investors will use ESG information in this manner or will continue to invest in environmentally riskier assets that may offer a higher short-term return is an unresolved empirical question.[43]

Finally, mandating ESG disclosure can serve as an indirect form of corporate regulation.[44] Outside the U.S., ESG disclosure mandates are often part of a broader policy toolkit to deal with climate change, develop green finance regulation, reduce corporate environmental harms, and otherwise meet sustainable development goals.[45] Because these ESG disclosure mandates are often supported by national and regional climate regulation, as well as greater popular support for the role of regulation in smoothing a post-carbon transition, there is far less controversy than in the U.S. about the role of the financial sector, financial regulation, and disclosure mandates in improving corporate climate transparency. In Europe in particular, disclosure regulation is explicitly designed to change corporate behavior by encouraging companies to reduce their own climate impacts and align with national and regional climate responses.[46]

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39 *See, e.g.,* BASEL COMM. ON BANKING SUPERVISION, CONSULTATIVE DOCUMENT: PRINCIPLES FOR THE EFFECTIVE MANAGEMENT AND SUPERVISION OF CLIMATE-RELATED FINANCIAL RISKS (Nov. 2021) (developing principles to address such risks); *see also* CFTC, *supra* note 16.

40 *See, e.g.*, CFTC, *id.*, at 88-92.

41 *See* Proposing Release, *supra* note 1, at 15, 306 (discussing the goals of the proposed rules); *see also* IOSCO, Issuer Report, *supra* note 5, at 24-27 (discussing the relationship between financial and dual materiality goals).

42 Paris Agreement, FCCC/CP/2015/10/Add.1 Decision 1/CP21, at art. 2(1)(c) (adopted Dec. 12, 2015) (stating that the "Agreement . . . aims to strengthen the global response to the threat of climate change . . . including by [limiting temperature rise] and making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development").

43 *See generally* Sebastian Steuer & Tobias H. Tröger, *The Role of Disclosure in Green Finance*, 8 J. FIN. REG. 1 (2022) (surveying the theoretical and empirical support for this expectation).

44 Disclosure has long been used as a compliance incentive to give teeth to voluntary corporate responsibility commitments as well. *See* Harper Ho & Park, *supra* note 14, at 273-76.

45 *See, e.g.* EU ACTION PLAN, *supra* note 8;.EUR. CMM'N, FORGING A CLIMATE-RESILIENT EUROPE – THE NEW EU STRATEGY ON ADAPTATION TO CLIMATE CHANGE, COM(2021) 82; Regulation (EU) 2021/1119 Establishing the Framework for Achieving Climate Neutrality and Amending Regulations (EC) No 401/2009 and (EU) 2018/1999 [hereinafter EU CLIMATE STRATEGY].. China's comprehensive climate finance strategy is another example. *See generally* 2020 Guiding Opinions of the Ministry of Ecology and Environment, the National Development and Reform Commission, the People's Bank of China and Other Departments on Promoting the Investment and Financing in Response to Climate Change [生态环境部，国家发展和改革委员会，中国人民银行等关于促进应对气候变化投融资的指导意见], No. 57 (2020).

46 *See, e.g.* EU ACTION PLAN, *supra* note 8; EU CLIMATE STRATEGY, *supra* note 45.

The SEC has previously adopted disclosure rules to change corporate behavior, and the history of the securities laws suggests that it is empowered to do so.[47] Examples include the disclosure rules for executive compensation, board independence, and risk management systems.[48] However, the SEC's climate disclosure proposal is careful not to mention the potential effects of the rules on corporate climate resilience, risk mitigation, or even corporate governance. This is no doubt in light of the political polarization that has emerged around these issues and the greater likelihood of legal challenge should the SEC appear to be indirectly regulating corporate behavior.[49]

2. *Rule Scope*

The second and most critical question concerns the subject scope of ESG disclosure — what ESG information must be disclosed? The answer in each jurisdiction will be closely tied to the expected benefits of disclosure, which must be balanced against compliance costs and legal risks that are likely to rise if new disclosures are required. For example, securities class action litigation is a robust source of private enforcement in the United States that is less widely available elsewhere; other jurisdictions rely more heavily on public enforcement of the securities laws.[50] The scope of ESG reporting is also tied directly to how "materiality" is defined, particularly whether it is limited to financial materiality. For climate and environmental risks that may have minimal financial impact when discounted over a longer period of time, a related question is how time factors into assessing materiality. Deciding which other ESG factors, if any, should be subject to mandatory reporting also requires considering what information should be required across all companies and what should only be required for certain industry sectors.

The TCFD framework and the SEC's proposed rules focus on climate risk, specifically climate-related *financial* risk to the company itself.[51] In contrast to this "single materiality" standard, the E.U.'s 2022 sustainability reporting standards and the leading voluntary standards are based on a "double materiality" standard that "includes both financial materiality and materiality with respect to environmental and social impacts".[52] These categories are not mutually exclusive, since double materiality includes information that is financially material. The ISSB's separate sustainability

[47] On the authority of the SEC in this regard, see Cynthia A. Williams, *The Securities and Exchange Commission and Corporate Social Transparency*, 112 HARV. L. REV. 1197, 1210-11 (1999) (citing legislative history supporting the conclusion that "Congress also intended disclosure . . . to affect corporate conduct").

[48] *See generally* SEC. EXCH. COMM'N, REPORT ON REVIEW OF DISCLOSURE REQUIREMENTS IN REGULATION S-K (Dec. 2013), https://www.sec.gov/news/studies/2013/reg-sk-disclosure-requirements-review.pdf [https://perma.cc/2LCW-NZDC] (discussing throughout changes to Regulation S-K introduced under the Dodd-Frank Act and Sarbanes-Oxley).

[49] Academic debate in earlier periods over the "federalization" of corporate governance through such initiatives has echoes in more recent controversy over whether the SEC's proposed rules are an attempt to substitute for direct climate regulation. *See e.g.*, Amanda Rose, *A Response to Calls for SEC-Mandated ESG Disclosure*, 98 WASH. U. L. REV. 1821, 1844 (2021) (arguing that the use of ESG disclosure to incentivize certain corporate behavior "blur[s] the line between the domains of federal securities regulation and state corporate law").

[50] On this cross-jurisdictional variation, see generally Mathias Reimann, *Private Enforcement in the United States and in Europe: A Comparative Perspective and Potential Lessons for Asia, in* ENFORCEMENT OF CORPORATE AND SECURITIES LAW: CHINA AND THE WORLD 14 (Robin Hui Huang & Nicholas Calcina Howson, eds., 2018).

[51] *See generally* TCFD Report, *supra* note 7; Proposing Release, *supra* note 1.

[52] *See* EFRAG SRB Cover Note – Approval of Draft ESRS Set 1 (Nov. 15, 2022) (describing the ESRS framework and issue scope); *see also* CSRD, *supra* note 29. The leading voluntary sustainability reporting standards, the Global Reporting Initiative standards, also adopts a double materiality approach under which companies report on how their operations affect their key stakeholders. *See* GRI, *supra* note 14.

standards extend beyond climate disclosure to other sustainability matters while following a single materiality approach.[53]

3. *Covered Firms & Entity Boundaries*

Which firms are covered by the disclosure mandate and how it will be enforced depend on the choice of regulator and the reform goals. For instance, in the U.K. mandatory TCFD-based disclosure is being rolled out gradually through 2025 for all large companies under the authority of a consortium of regulatory authorities who have authority over different types of firms.[54] The ISSB climate standards will apply to the same companies that are currently obligated to disclose financial information under the International Financial Reporting Standards ("IFRS").[55]

Where disclosure policies extend beyond listed firms, such policies are not justified solely by concerns about investor protection and the efficiency of the public markets, but because they may help achieve real climate and sustainability goals. An advantage of extending the rules beyond listed firms is that compliance is not a disincentive to listing, since equal transparency obligations apply to firms of similar size and scale regardless of listing status.

A second issue related to entity boundaries is whether the reporting obligation is limited to the consolidated reporting entity or extends to certain business partners. This choice will determine how easy it is for reporting companies to "outsource" their climate footprint or less sustainable practices to business partners when reporting rules tighten. How this question is addressed under the TCFD framework and the SEC's proposed rules is discussed below.

II. DISCLOSURE LINE-DRAWING & SECURITIES REGULATION

At present, the federal reporting framework in the United States does not mention climate risk, sustainability or ESG explicitly. Companies are, however, already required to make disclosures on certain ESG topics, including specific environmental, workforce, board diversity, and material risks identified by management.[56] They are also obligated to disclose information, which could pertain to ESG risks, if necessary to render required disclosures not misleading.[57] The SEC's proposed climate disclosure rules and its ESG disclosure rules for investment funds and advisers would be the first to require reporting of explicit climate or ESG measures.

The SEC's proposed rules are being closely watched because of the size and dominance of the U.S. capital markets and because the U.S. is among the last of the leading capital markets to adopt mandatory climate disclosure rules.[58] In addition, a significant gap between the SEC and ISSB

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53 ISSB, *Sustainability Disclosure Standard*, *supra* note 27.

54 UK JOINT REGULATORY AND GOVERNMENT TCFD TASKFORCE: INTERIM REPORT AND ROADMAP 13-16 (Nov. 2020), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/933782/FINAL_TCFD_REPORT.pdf [https://perma.cc/C3TC-JSDR].

55 Approximately 4,000 issuers across the European Union prepare IFRS-compliant financial statements and of these, approximately half produced ESG (i.e., "non-financial") reports in 2020 under the more flexible precursor to the ESRS. Eur. Sec. Mkts. Auth. (ESMA), Report: 2021 Corporate Reporting Enforcement and Regulatory Activities, at Ann. 6.2 & Ann. 6.5 (Mar. 30, 2022).

56 *See* Harper Ho, *Modernizing ESG, supra* note at 286, 328, 332-340 (discussing these rules and related proposals).

57 17 C.F.R. § 230.408 (2001); 17 C.F.R. § 240.10b-5; 17 C.F.R. § 240.12b-20 (2013).

58 The SEC's 2010 guidance on the materiality of climate information, *id.*, met a weak response from U.S. reporting companies, but it appears to have stimulated regulators elsewhere to consider adopting climate disclosure mandates. On its limited efficacy, see Virginia Harper Ho, *Disclosure Overload?*, 65 VILL. L. REV.

approaches to TCFD-based climate risk disclosure may increase costs to issuers with dual listings and impede the comparability of climate information across markets.

A. THE SEC'S PROPOSED CLIMATE RISK DISCLOSURE RULES

Again, the SEC's proposed corporate climate reporting rules are based on the TCFD framework and the GHG Protocol for corporate emissions reporting.[59] The SEC adopted this approach to reduce compliance costs for companies, since these frameworks are already widely used. They are also the basis for the international standards for climate-related financial risk disclosure that already apply in many other capital markets and those being developed by the ISSB.[60] Even if the proposed rules do not survive court challenge, any future climate disclosure reform will in all likelihood build on the same international standards and include many of the same elements.

By building on the TCFD framework and the Greenhouse Gas Protocol, the SEC has endorsed many of the line-drawing choices made in these frameworks. However, the SEC has also had to draw its own lines in deciding which aspects of the TCFD recommendations to require, and how best to integrate them into the existing federal disclosure framework. In general, the SEC has chosen a narrower and more flexible approach than the ISSB, no doubt in view of its statutory authority and the prospect of legal challenge. The following discussion introduces the SEC's proposed climate disclosure rules and explains some of these choices.

1. *Reform Goals & the Boundaries of the SEC's Statutory Authority*

The stated goals of the SEC's proposed disclosure rules are to improve the "consistency, comparability, and reliability of climate-related disclosures" in view of the SEC's conclusion that existing voluntary disclosures do not adequately inform investors of the financial effects of climate-related risks on the companies they invest in.[61] The SEC's proposal is explicit, however, that its purpose is "not to address climate-related issues more generally."[62]

The SEC has grounded its authority to enact the proposed rules on its statutory mandate to "protect investors, maintain fair, orderly and efficient markets, and promote capital formation."[63] Both the Securities Act of 1933 and the Exchange Act of 1934 authorize the SEC to promulgate rulemaking as necessary or appropriate in the public interest or for the protection of investors so long as the rules also "promote efficiency, competition, and capital formation."[64] The SEC has observed in this regard that "consistent, comparable, and reliable" information on material climate-related risks would promote efficient capital allocation and competition by allowing investors to make informed comparisons across industry peers, in addition to aligning the US with other

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67, 119-22 (2020) (analyzing public comments on its adequacy in response to the SEC's comprehensive review of Regulation S-K in 2016).

[59] Proposing Release, *supra* note 1

[60] *Id.* 1.

[61] Proposing Release, *supra* note 1, at 7-10, 462.

[62] The SEC's proposal states that "[w]hile climate-related risks implicate broader concerns—and are subject to various other regulatory schemes—our objective is to advance the Commission's mission to protect investors, maintain fair, orderly and efficient markets, and promote capital formation, not to address climate-related issues more generally." *Id.* at 10.

[63] *Id.*

[64] Securities Act of 1933, Sec. 2(b), 15 U.S.C. § 77b(b), 77g(a)(1) (2018); *see also id.* § 77s(a); Securities Exchange Act of 1934, Sections 3(f) & 23(a)(2), 15 U.S.C. § 78(c)(f), 78m(a), 78l(b), 78o(d) (2018); Investment Company Act of 1940, Section 2(c), 15 U.S.C. § 80a-2(c) (2018); Proposing Release, *supra* note 1, at 23-24 (referencing this language).

jurisdictions that have already adopted such mandates.[65] Although a full discussion is beyond the scope of this Article, I and others have previously argued that mandatory climate disclosure does indeed fit squarely within the SEC's core statutory authority.[66]

Nonetheless, the proposed rules are likely to face legal challenge along the lines identified by some of the many submissions during the public comment period. The primary objections are that the disclosures may constitute "compelled speech" in violation of the First Amendment,[67] that they may impermissibly take on responsibilities given to other federal agencies, and that they may fall afoul of the "major questions doctrine" announced (or applied, depending on one's view) in 2022 by the Supreme Court in *West Virginia v. EPA*.[68]

2. *Scope & Content of the Proposed Rules: Climate-Related Financial Risk*

The SEC's proposed rules are limited to disclosure of climate-related risk and so on their face do not reach other ESG issues.[69] As defined by the proposed rules, "climate-related risk" is "the actual or potential negative impacts of climate-related conditions and events on a registrant's consolidated financial statements, business operations, or value chains, as a whole."[70]

Following the four core pillars of the TCFD,[71] the SEC's proposal mandates narrative reporting and, in some cases, specific disclosures on the company's (i) corporate governance, (ii) strategy, and (iii) risk management processes with regard to climate-related risks, as well as (iv) the "metrics and targets" the company uses to assess and manage them.[72] In addition, all companies must disclose Scope 1 (direct) and Scope 2 (indirect) GHG emissions from acquired energy regardless of materiality.[73] Scope 3 indirect emissions from the company's "value chain" must be reported if material or if the company has set Scope 3 targets, unless the company is a "smaller reporting

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[65] Proposing Release, *supra* note 1, at 13-15.

[66] Harper Ho, *Modernizing ESG, supra* note 6, at 296-304; *see also* Fisch & Georgiev Letter, *supra* note 3.

[67] This argument succeeded in the D.C. Circuit in striking down part of the SEC's initial conflict minerals disclosure rules. Nat'l Assoc. of Manf. V. Sec. Exch. Comm'n., 800 F.3d 518, 556(D.C. Cir. 2015). For an articulation of this argument, see Sean Griffith, *What's "Controversial" About ESG? A Theory of Compelled Commercial Speech Under the First Amendment*, (May 24, 2022), unpublished manuscript, https://ssrn.com/abstract=4118755 [https://perma.cc/YKJ8-LASD]. If taken on its face, this argument may call into question the whole of the federal disclosure regime.

[68] 142 S.Ct. 2587, 597 U.S. __ (2022), 2022 WL 234278 (concluding that the EPA itself lacked authority to regulate GHG emissions). Academic comments on the proposed rules have raised these and other objections. *See, e.g.*, Cunningham Letter, *supra* note 3, at 13-15 (raising objections to the proposal by professors of law and finance).

[69] This language differs from the language of the MD&A, which requires disclosure of "known trends or uncertainties that in the view of management have had or are reasonably likely to have a material impact on the business. 17 C.F.R. 229.103. On the potential overlap between climate and other ESG concepts, see Section B *infra*.

[70] Proposed Rule 17 C.F.R. 229.1500(c).

[71] TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES, IMPLEMENTING THE RECOMMENDATIONS OF THE TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES 14-15 (Oct. 2021) [hereinafter TCFD 2021 Implementing Guide].

[72] Proposing Release, *supra* note 1, at 42-46, 476-500. The TCFD recommends reporting of both climate risks and opportunities, but reporting on climate-related opportunities is optional under the SEC's proposal. Proposing Release, *supra* note 1, at 229.1502(a) & 1503(a).

[73] Proposed Rule 17 C.F.R. § 229.1504 (requiring aggregated and disaggregated GHG emissions disclosure, excluding offsets, including GHG intensity measures).

company."[74] The purpose of requiring Scope 3 emissions disclosure is to capture the company's full exposure to climate risk and discourage emissions "outsourcing" or undercounting.[75] Requirements for certain large filers to obtain limited assurance of Scopes 1 and 2 emissions are phased in over time.[76] If adopted, the required disclosures would be reported in a separate section of corporate annual reports and registration statements.[77]

The TCFD framework includes 11 recommended disclosures under the four pillars mentioned above, and like the ISSB, the SEC has chosen to mandate most of these recommendations in some form.[78] Specifically, the core requirements of the proposed rules are that companies identify and describe actual and potential climate-related risks, describe the actual and potential impacts of these risks on the company's strategy, business model, and outlook, together with relevant time frames and any mitigation efforts that have been undertaken.[79] Companies must also provide a narrative description of the board's role in oversight of climate-related risks and management's role in identifying, assessing and managing these risks.[80] They must also disclose how they determine the materiality of climate-related risks, and whether their processes for "identifying, assessing, and managing" climate-related risks are integrated into the registrant's overall risk management system or processes.[81]

To give companies maximum flexibility, additional rules that are the most prescriptive, and therefore potentially the most informative, only apply if the company has adopted the relevant practice. For example, if a company adopts a climate transition plan as part of its risk management strategy, it must describe the plan, including "as applicable" any plans to manage its natural resource use or otherwise mitigate or adapt to climate risks.[82] It must then annually disclose actions taken to achieve its set goals.[83] Detailed measures, time horizons, and annual indicators of progress toward voluntary climate-related targets or goals are also required, but only if they have been set in the first place.[84] Along the same lines, only companies that use scenario analysis to measure their climate resilience must disclose the climate scenarios, parameters, and assumptions they use and the primary financial impacts they identify through the analysis.[85]

As the above examples show, even if the practice has been adopted and must be disclosed, many of the details need only be disclosed "if applicable," creating a possible disincentive to adopting

[74] *Id.* at § 229.1504(c)(3). Scope 3 emissions are indirect emissions from other sources beyond those included in Scopes 1 and 2. *Id.* at § 229.1503(c).

[75] Proposing Release, *supra* note 1, at 61.

[76] Proposed Rule 17 C.F.R. at § 229.1505.

[77] Proposing Release, *supra* note 1, at 42-46, 476-500.

[78] The proposed ISSB protocols adopted a fairly similar approach. ISSB Climate Disclosure Standard, *supra* note 27.

[79] Proposed Rule 17 C.F.R. § 229.1502. In contrast, the ISSB climate prototype requires disclosure of "significant climate-related risks and opportunities" that are "reasonably expected" to affect the company's business model. *See* ISSB Climate Disclosure Standard, *supra* note 27, at par. 8-9. *Cf.* MD&A, 17 C.F.R. 229.103 and *supra* note 69 (discussing the MD&A standard).

[80] Proposed Rule 17 C.F.R. § 229.1501.

[81] *Id.* at. § 229.1503.

[82] *Id.* at § 229.1503(c).

[83] *Id.* at § 229.1506.

[84] *Id.* at § 229.1506.

[85] *Id.* at § 229.1502(f).

the practice in the first place and rendering the rules potentially optional. Similar provisions include requirements that the company (i) describe the processes it uses to identify, assess, and manage climate risk, *if any*; (ii) whether those processes *if any* are integrated into the company's risk management system; and (iii) if the company has such processes, how it assesses the materiality of climate-related risks.[86]

This flexibility may help these rules survive legal challenge on compelled speech grounds.[87] However, this flexibility comes at the cost of promoting consistent reporting of transition risk, which is a primary goal of mandatory climate disclosure. The ISSB climate risk standards, in contrast, require all companies to make disclosures based on the TCFD recommendations for each pillar.[88] These include the use of specified cross-industry and industry-specific "metrics and targets," the use of climate-related "scenario analysis" or alternative measures of climate resilience, and disclosure of the company's direct and anticipated climate mitigation and adaptation efforts.[89]

Because the disclosures described thus far appear outside the financial statements, they are not subject to financial auditing. However, to make clear to investors the financial effects of identified climate risks and any risk mitigation the company may undertake, the proposed rules would also amend Regulation S-X to require companies to disclose the financial impact of climate-related events and transition activities on their consolidated financial statements.[90] These costs might include, for example, climate risk mitigation or adaptation expenses, and because these disclosures would be made in a new footnote to the financial statements, they would be subject to auditing and internal financial controls.[91]

3. Entity Scope: Listed Companies & Their Value Chains

Because the federal disclosure regime applies only to public companies and other registrants, the proposed rules would not extend as broadly across the economy as the other international disclosure regimes. For example, in the U.K. and Europe, TCFD-based climate disclosure is not limited to listed firms.[92] However, given the SEC's more limited jurisdiction, its proposed rules do not directly apply to large private companies that are otherwise exempt from federal reporting obligations.

At the same time, the SEC's proposed rules follow the TCFD by extending climate risk reporting obligations beyond the consolidated reporting entity in several respects.[93] First, the scope of

[86] *Id.* at § 229.1503.

[87] Again, such arguments succeeded in the D.C. Circuit, which struck down part of the SEC's conflict minerals disclosure rules. Nat'l Assoc. of Manf. V. Sec. Exch. Comm'n., 800 F.3d 518, 556(D.C. Cir. 2015).

[88] The ISSB also requires disclosure of industry-specific climate information based on the materiality standards developed by the Sustainability Accounting Standards Board (SASB)/Value Reporting Foundation, with minor modification. *See* ISSB Climate Disclosure Standard, *supra* note 27, at App. B. On the SASB standards, see generally *supra* note 12

[89] *See* ISSB, *Climate Disclosure Standard*, *supra* note 27, at 19-24 (metrics and targets) & para. 13 (requiring description of the company's climate transition plan and related capital commitments, targets, and assessment processes).

[90] Proposing Release, *supra* note 1, at 43, 53-54, 471-75 (proposing adding a new Article 14 to Regulation S-X, 17 C.F.R. 210.14-01-17 C.F.R. 210-14-02).

[91] Proposing Release, *supra* note 1, at 471-75, Proposed Rule § 210.14-02.

[92] CSRD, *supra* note 29. On the scope of the U.K. rules, see *supra* note 54.

[93] In general, the TCFD encourages companies to report climate-related risk for the reporting entity as defined for purposes of preparing the company's annual report or comparable filing. TCFD Implementing Guide, *supra* note 71, at 3; *see also* ISSB, *Sustainability Disclosure Standard*, *supra* note 27, at par. 37.

climate-related risks" is defined to include negative impacts on the reporting company's "value chain."[94] A company's "value chain" is defined to include the company's suppliers, distributors, and other business partners in upstream or downstream (i.e., distribution and consumer-related) activities.[95] Scope 3 GHG emissions requirements also include emissions from the reporting company's value chain beyond Scope 2 emissions. The proposed rules therefore expand firm-level reporting boundaries to include risk-related information from domestic and foreign private companies that would not otherwise be subject to federal disclosure obligations.[96]

B. MAPPING CLIMATE RISK BOUNDARIES: CLIMATE RISK, ESG & THE SUSTAINABLE FINANCE FRONTIER

The fact that the scope of the SEC's proposal is limited to climate risk still leaves open the question of whether the boundaries of "climate risk" overlap with broader concepts like "sustainability" and "ESG." To date, the flexibility of these concepts have helped companies and regulators avoid one-size-fits-all approaches and have let both set their own priorities among a wide range of ESG issues that are potentially related to corporate performance and real-world public impact. The ambiguity surrounding these terms was also less problematic when voluntary sustainability reporting was mostly intended to advertise companies' corporate social responsibility to consumers and other non-investor audiences and sustainability issues were less widely used by mainstream investors. Now, however, the urgent need to standardize ESG reporting for investment purposes is a central goal of emerging disclosure mandates. This Section takes up these questions.

1. Climate Risk

As explained above, the term "climate risk" as adopted by the SEC and in the TCFD framework has a narrower meaning that focuses on *financial* risk to the company and does not refer to the effects of corporate activity on the pace and severity of climate change or other environmental impacts.[97] Following the TCFD, the SEC divides climate-related financial risk into "physical risk" — like weather events and other physical impacts of climate change that may affect enterprise value — and "transition risk" — the legal and business risks associated with climate change and the transition to post-carbon economy, including mitigation and adaptation costs and the effects of future climate regulation.[98] Yet, as with other mandatory disclosures, this financial materiality baseline still leaves open important boundary questions about how material climate-related risks should be identified, over what timeframes, and which indicators and parameters should be used to measure corporate climate risk, resilience, and risk mitigation. The SEC has left most of these boundary questions to reporting companies. Some of these are addressed in the proposed rules and in implementing guidance from the TCFD and the GHG Protocol.[99]

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94 Proposing Release, *supra* note 1, at 17 C.F.R. § 229.1500(c).

95 *Id.* at § 229.1500(t). These concepts are drawn from the GHG Protocol's upstream and downstream emissions categories. *Id.* at 42.

96 As voluntary standards, the Greenhouse Gas Protocol and the TCFD recommend that firms define their "value chain" and explain the entity boundaries on which they base GHG emissions and other climate risk assessments. GHG Protocol, *supra* note 7.

97 Proposing Release, *supra* note 1, 17 C.F.R. 229.1500(c).

98 Transition risks include policy and litigation risks, as well as technology risk, market risk, and reputational risk. TCFD 2021 Implementing Guide, *supra* note 71, at App. 1. Physical risks include both "acute" (event-driven) and chronic (i.e. longer-term and sustained) physical impacts. *Id.*

99 For this guidance, see TCFD, "Publications," https://www.fsb-tcfd.org/publications/#recommendations [https://perma.cc/2Z6W-2QQF].

GHG emissions disclosure, which the SEC has mandated regardless of whether the company has identified the information as material, would appear to be an exception to the single materiality rule.[100] Scopes 1 and 2 GHG emissions measures are the most direct, standardized, and widely used measures of the reporting company's own contribution to climate change and a basis for measuring corporate climate mitigation and progress toward "carbon neutrality."[101] However, the SEC does not justify its proposal on these grounds, but like the TCFD, identifies GHG emissions as a core measure of transition risk to the reporting company itself, which may arise from regulatory changes or market shifts that more heavily penalize high-emitting firms.[102] GHG emissions are therefore also a proxy for corporate climate resilience. Another potential economic justification for mandating GHG emissions disclosure that is not relied on by the SEC is that GHG emissions are a measure of companies' contribution to portfolio-wide climate risk and to systemic climate risk.[103]

2. *Climate Governance*

Another important aspect of climate risk disclosure is climate governance. This is a core focus of the TCFD framework, the SEC's proposed rules, and other international ESG disclosure mandates. By requiring climate-specific corporate governance disclosures, the rules ask companies to prioritize climate risk and resilience in corporate strategy and in general risk oversight and risk management functions,[104] and to include climate risk reporting in disclosure controls.[105] Some commentators argue that the elevated importance of climate risk may indirectly render climate risk oversight more readily enforceable as a matter of state law fiduciary duties.[106]

Perhaps because listed companies have relatively well-established corporate governance practices,[107] the corporate governance dimensions of the proposed rules and indeed of ESG itself are easily overlooked. In addition, Regulation S-K already requires companies to provide disclosures on some aspects of corporate governance, including board diversity. risk oversight, and

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[100] Historically, many companies, particularly those in the financial sector, have not identified emissions measures as capturing material financial risk to the firm.

[101] *See generally* Envt'l Prot. Agency EPA Center for Corporate Climate Leadership*, Scope 1 and Scope 2 Inventory Guidance*, at https://www.epa.gov/climateleadership/scope-1-and-scope-2-inventory-guidance; Proposing Release, *supra* note 1, at 41-42 (discussing these concepts with reference to the GHG Protocol).

[102] Proposing Release, *supra* note 1, at 154-55.

[103] This argument has generated resistance from some commentators who argue that materiality must be defined based solely on firm-level considerations. *See* Roberto Tallarita, *The Limits of Portfolio Primacy*, 76 VAND. L. REV. __ (forthcoming 2023); *see also* Letter from Jay Knight, Chair, Comm. on Fed. Reg. of Securities, ABA Sect. of Bus. L. to Vanessa Countryman, Sec'y, Sec. & Exch. Comm'n 2 (June 24, 2022), https://www.sec.gov/comments/s7-10-22/s71022-20132946-303300.pdf [https://perma.cc/N5W8-2QK7]. However, since retail and institutional investors are presumed to be highly diversified, their portfolio risk-adjusted returns may be affected by portfolio firm externalities. Primary works discussing the relationship between externalities and portfolio-level risk are Coffee, *supra* note 38 and Condon, *supra* note 38.

[104] Proposed Rules 17 C.F.R. 229. 1501(a)-(b).

[105] Disclosure controls and procedures are required under Rule 13a-15 and 15d-15 of the Securities Exchange Act. 17 C.F.R. 240.13a-15 and 17 C.F.R. 240.15d-15. *See also* Item 307 17 C.F.R. § 229.307.

[106] *See, e.g.*, Roy Shapira, *Mission Critical ESG and the Scope of Director Oversight Duties*, __ COLUM. BUS. L. REV. __ (forthcoming 2023) (arguing that Delaware *Caremark* doctrine may encompass climate risk oversight).

[107] *But see* Kobi Kastiel & Yaron Nili, *The Corporate Governance Gap*, 131 YALE L. J. 782 (2022) (identifying weaker corporate governance practices among smaller listed firms).

executive compensation.[108] The proposed corporate governance disclosures appear at any rate to be less controversial. However, the TCFD's 2022 implementation study found that its two corporate governance disclosures were among the least-reported indicators among surveyed global firms.[109] Surveys of corporate directors also find that while many boards are formalizing board oversight of ESG issues, a majority do not see ESG issues as impacting financial performance and do not see it as important to the board.[110] In fact, one of the key "game changers" in the TCFD framework, and by extension in TCFD-based reporting mandates, may well be its corporate governance dimensions.

3. *Environmental & Social Risks and Impacts at the Sustainable Finance Frontier*

The expansion of TCFD-based climate risk disclosure mandates raises the further question of whether broader corporate environmental and social risks are also reportable climate risks. For example, to what extent might reliance on nonrenewable resources, or pollution, or destruction of habitats, even if legally permitted, constitute a climate transition risk? Even if such practices are profitable and do not pose a material financial risk to the firm itself, might they be a material source of climate risk to the firm's diversified investors across a broad portfolio?[111] Despite the efforts of standard setters to distinguish climate and sustainability risks, it is not clear that there is such a clear divide between the two.

These questions matter because the limits of the SEC's present regulatory authority and the political context of ESG disclosure reform in the U.S. require the SEC to adhere to a single-materiality standard, which can be more readily met for climate risk than for other ESG information. Opponents of mandatory ESG reporting are therefore wary of its potential expansion to other "E" and "S" matters even if there are clear financial rationales in support of climate-related financial disclosure.

Environmental and workforce-related matters other than executive compensation do not generally need to be reported under Regulation S-K's current human capital management disclosures, risk factor disclosures, or the Management's Discussion and Analysis ("MD&A") unless they are material,[112] are the subject of material pending legal proceedings,[113] or reflect a material impairment of corporate assets.[114]

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108 17 C.F.R. 229.402, 17 C.F.R. 229.407.

109 TCFD 2022 Status Report, *supra* note 37.

110 NACD, *NACD Public Company Governance Survey: 2019-2020* (2020) (surveying over 300 public company directors); *Charting the Course Through a Changing Governance Landscape – PwC's 2022 Annual Corporate Directors Survey* 5, 16 (2022), https://www.pwc.com/us/en/services/governance-insights-center/library/annual-corporate-directors-survey.html [https://perma.cc/TZ8X-WF38] (reporting findings from over 500 corporate directors).

111 *See* sources cited *id.*; *see also* Proposing Release at 133-34, 348 (indicating that helping investors manage risk across their portfolio is a motivation for the SEC's proposed rules).

112 17 C.F.R. §§ 229.101(c)(2)(ii) (limiting human capital disclosure to "the extent material to an understanding of the registrant's business taken as a whole"), 229.303 (requiring disclosure of certain material information relevant to assessing the registrant's financial condition and results of operations), 229.105 (requiring disclosure of material risk factors).

113 Regulation S-K, Item 103, 17 C.F.R. § 229.103 (2020).

114 For most listed companies of any size, an impairment of assets would need to be quite high to be material. *See generally* George S. Georgiev, *Too Big to Disclose: Firm Size and Materiality Blindspots in Securities Regulation*, 64 UCLA L. REV. 602 (2017) (discussing the effects of firm size on reporting obligations).

In addition, under the SEC's proposed rules and the TCFD framework, corporate environmental externalities are not explicitly included in the definition of "climate risk."[115] One reason for this is that while the conceptual and empirical links between climate change and financial risk to companies and their investors have been clearly established, empirical studies analyzing the relationship between sustainability measures and financial performance in the aggregate cannot support any conclusion about the materiality of particular environmental or social factors across all firms.[116] In addition, the systemic risk justifications for climate disclosure are clear, but few other ESG factors appear to pose the kind of systemic threats to market stability that climate risk does.[117] Finally, there is less agreement about which measures should be used to capture "human capital" (i.e. workforce-related "S" or "social") dimensions of ESG, despite growing consensus about the materiality of these concepts. Human capital factors, such as workforce diversity or employee participation in corporate governance, also vary more widely in their significance to companies and to corporate stakeholders across different jurisdictions.[118]

However, climate risk to the firm and its investors, which is captured by single materiality reporting, is not unrelated to corporate climate and environmental externalities. Each company's climate and environmental impacts ultimately contribute in the aggregate to environmental degradation, high atmospheric GHG levels, and climate instability. As a result, each firm's operations contribute to climate-related financial risk for all companies across the market, affecting all investors, and also to systemic climate risk.[119] The challenge is that corporate reporting and liability regimes cannot fairly allocate responsibility for collective harms of this sort and are at present poorly equipped to do so.[120]

In addition, climate-related financial risk cannot be easily disaggregated from other environmental factors and may be connected to social factors such as workforce wellbeing and turnover as well. For example, the TCFD recommendations identify energy and water consumption and land use as climate-related risks, and its guidance for the metrics and targets pillar urges companies to disclose their "key climate-related targets, *such as those related to GHG emissions, water usage, energy usage, etc.*, in line with . . . cross-industry, climate- related metric categories. . ., and in line with anticipated

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[115] The ISSB climate risk standards also appear to distinguish climate risk from broader environmental sustainability concerns. The separate proposed ISSB sustainability disclosures permit cross-referencing with the ISSB climate disclosure standards and are not limited to environmental information. *See* ISSB Sustainability Disclosure Standard, *supra* note 27.

[116] The SASB industry-based standards for identifying material ESG factors are, however, widely used to identify potential sector-specific material factors. *See supra* note 88.

[117] As discussed below, biodiversity, because of its link to climate risk, is a potential exception. *Infra* note 123-124 and accompanying text. Cybersecurity, because of its importance to the stable functioning of markets themselves, is another.

[118] Human capital factors also vary more widely in their significance to companies and to corporate stakeholders across different jurisdictions. *See generally* CHRISTOPHER M. BRUNER, CORPORATE GOVERNANCE IN THE COMMON-LAW WORLD: THE POLITICAL FOUNDATIONS OF SHAREHOLDER POWER (2013) (detailing the effect of such differences on corporate law systems across commonwealth jurisdictions).

[119] *See generally* Coffee, *supra* note 38; *see also* Condon, *supra* note 38.

[120] Space does not permit resolution of this issue, although portfolio-level reporting regimes are emerging to eliminate emissions double-counting and address other issues related to firm contributions to climate risk at the portfolio level. One of the most prominent is the standard developed by the Partnership for Carbon Accounting Financials (PCAF). Partnership for Carbon Accounting Financials, "About," https://carbonaccountingfinancials.com/en/about (last visited Jan. 25, 2023).

regulatory requirements or market constraints or other goals."[121] While these choices are left to companies themselves, the dividing lines between climate risk and environmental or even workforce health and safety risks may already be blurring.

And of course, ESG information that companies do not identify as a material climate risk may also become material and therefore potentially subject to reporting even under existing federal disclosure rules, Materiality is a dynamic concept and no less so for emerging ESG risks and sustainability matters. The risk-centric nature of many ESG issues mean that matters that are not yet identified by many firms as financially material — such as water scarcity, biodiversity, and the sustainability of corporate and consumer consumption — may rapidly become so.[122] For example, there is growing investor demand for corporate disclosure on biodiversity and water conservation and for new "blue" taxonomies for climate bonds to direct capital toward preserving ocean biomes.[123] These issues are rising in prominence in part because of their close link to climate change, but also because they may present similar financial risks to companies over time.[124] Concern about disparate climate impacts on human populations in the developing world, on the workforce, and on local communities that fall within ESG's "social" dimension are also driving rising investor demands for corporations to support a "just" climate transition.[125]

Reflecting these trends, the Task Force for Nature-related Financial Disclosure ("TNFD"), a multi-stakeholder initiative modeled after the TCFD but not under the auspices of the G20, was formed in 2021 to develop a reporting framework for "nature-related financial disclosure."[126] The TNFD released a draft framework in 2022 based on the TCFD's four pillars and identifies nature-related physical, transition and ecosystem risks that pose a potential threat to companies. According to the task force report, nature-related risks may be material to companies either because they represent key resources on which the company depends, or more controversially,

[121] TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES, IMPLEMENTING THE RECOMMENDATIONS OF THE TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES 62 (Oct. 2021) (providing guidance for "metrics and targets" recommended disclosure (c) (climate-related performance targets)); TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES, GUIDANCE ON METRICS, TARGETS, AND TRANSITION PLANS 15-23 (Oct. 2021).

[122] *See* IOSCO, Issuer Report, *supra* note 5, at 28-29; CDP, CDSB, GRI, IIRC, SASB, STATEMENT OF INTENT TO WORK TOGETHER TOWARDS COMPREHENSIVE CORPORATE REPORTING at Fig. 1 (Sept. 2020) (depicting dynamic materiality).

[123] *See* UNPRI, Investor Action on Biodiversity: Discussion Paper, https://www.unpri.org/download?ac=11357 [https://perma.cc/BF8K-J4R9]; Int'l Fin. Corp., "Guidelines for Blue Finance," https://www.ifc.org/wps/wcm/connect/industry_ext_content/ifc_external_corporate_site/financial+institutions/resources/guidelines-for-blue-finance [https://perma.cc/3YLQ-42TF]; Ceres, "Valuing Water Finance Initiative," https://www.ceres.org/water/valuing-water-finance-initiative [https://perma.cc/RNL4-LH47] (coalition of institutional investors representing USD 10 trillion in assets under management).

[124] Harriet Agnew, *Biodiversity Quickly Rises Up the ESG Investing Agenda*, FIN. TIMES (Sept. 20, 2022), https://www.ft.com/content/abbcec95-0154-40cd-83b9-d988bd3271b9.

[125] Investor demands for a "just transition" Climate Action 100+, https://www.climateaction100.org/news/a-need-for-robust-just-transition-planning/ (last visited Jan. 11, 2023) [https://perma.cc/RZR4-UHAG].

[126] "Taskforce on Nature-related Financial Disclosures," https://tnfd.global/about/ (last visited Dec. 3, 2022) [https://perma.cc/J4AW-A3BS] (stating that "financial institutions and companies don't have the information they need to understand how nature impacts the organisation's immediate financial performance, or the longer-term financial risks that may arise from how the organisation, positively or negatively, impacts nature").

because the company's own impact on "nature" may present long-term financial risks to the company itself.[127] These examples show that climate risk may be difficult to separate cleanly from environmental and social risks and impacts, even under a financial materiality regime.

Indeed, as Dirk Schoenmaker and William Schramade argue in their treatise on sustainable finance, a post-carbon transition will require a "whole of business" approach to "long-term value creation," where climate considerations are integrated across the life cycle of the business and its products and services.[128] In the meantime, the largest companies will continue to face investor pressures to reach ever-higher standards for sustainable business practice and disclosure as "frontier" issues evolve.[129] Basic questions about where reportable ESG begins and ends will therefore persist.

C. THE CHANGING COMPLIANCE LANDSCAPE

Thus far, this Article has emphasized the relatively narrow and flexible approach the SEC has adopted toward climate risk disclosure, notwithstanding open questions about the potentially wide boundaries of climate risk itself. At the same time, the SEC's proposal represents a significant expansion of the scope and prescriptivity of risk disclosure and so raises questions about the proposal's compliance and enforcement costs. Although a full analysis is beyond the scope of this Article, the following discussion considers the implications of the proposed rules for private securities fraud litigation, particularly under Rule 10b-5.[130] It concludes that despite the SEC's effort to adopt a more flexible approach to climate risk disclosure, its proposal may increase reporting companies' litigation exposure, a result that is perhaps unavoidable for any reform that attempts to align U.S. climate reporting with the TCFD and related international standards.

1. *Climate Risk Materiality Assessments*

To begin, it bears repeating that the SEC's proposed climate disclosure rules do not redefine materiality as that concept has long been understood under the federal securities laws.[131] In addition, the proposed rules to some extent seek to elicit information that is already covered, even if not necessarily mandated, by the current reporting framework. Most relevant in this regard are

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[127] *Id.* The relationship between corporate externalities and a particular company's financial risk is not yet well-established, and standards for "social ecology accounting" that are needed to operationalize it are evolving.

[128] DIRK SCHOENMAKER & WILLIAM SCHRAMADE, PRINCIPLES OF SUSTAINABLE FINANCE 28-31, 351-62 (OUP 2019).

[129] In 2022, the level of ESG shareholder proposals filed grew relative to 2021, and shareholder support for proposals reflects higher demands for climate mitigation, emissions reduction, and corporate net zero targets. PWC, Governance Insights Center 3(Aug. 2022), https://www.pwc.com/us/en/services/governance-insights-center/assets/pwc-boardroom-recap-2022-proxy-season.pdf.

[130] Although Regulation S-K's requirements do not give rise to a private right of action, one has been implied under Section 10(b) of the Securities Exchange Act of 1934 and Rule 10b-5. Oran v. Stafford, 226 F.3d 275, 287 (3d Cir. 2000). The proposed rules also apply to registration statements and so can be enforced under Section 11 of the Securities Act of 1933. Section 11 creates a private remedy for misrepresentations and omissions in the registration statement and sets a far lower bar for plaintiffs. However, because such claims are less common, I focus here primarily on potential securities fraud liability under Rule 10b-5.

[131] Basic v. Levinson, 485 U.S. 224, 231-32 (1988) (citing *TSC Industries, Inc. v. Northway, Inc.*, 426 U.S. 438, 448-49 (1976) (stating that information is "material if there is a substantial likelihood that a *reasonable shareholder* would consider it important in deciding how to vote" or "that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the 'total mix' of information" available to the investor in reaching a voting or investment decision"). *See also* Proposing Release, *supra* note 1, at 69 & n. 209 (reiterating federal materiality standards and citing this definition).

the discussion of "known trends and uncertainties" in Item 303 MD&A, Item 503's risk factor disclosures, several other provisions of Regulation S-K, and the rules governing the content of proxy statements.[132]

The SEC's proposal indicates that materiality assessments with regard to climate-related risks should follow the analysis that applies under MD&A to disclosure of known material events and uncertainties that have had or are reasonably likely to have an impact on the company's future operations.[133] Under the relevant guidance, in deciding whether a known trend, event, uncertainty or other contingency should be disclosed, management should apply a two-step test.[134] Under this test, management must first assess whether the known trend or event is reasonably likely to occur.[135] If not, then no disclosure is required.[136] The second step applies if management is unable to make the first-stage determination, in which case it "must evaluate objectively the consequences of the known trend . . . on the assumption that it will come to fruition" and must disclose the trend or uncertainty unless management determines that "a material effect on the registrant's financial condition or results of operations is not reasonably likely to occur."[137]

Applying this test to known climate risks would result in disclosure if they are reasonably likely to materially affect the firm's financial condition or performance, so long as it is objectively possible that the risk materializes within the relevant timeframe. Acute or high-magnitude climate risks whose likelihood of occurring is more remote or uncertain must therefore be disclosed if management cannot objectively conclude that their impact would be immaterial. Chronic climate risks of low magnitude but high probability may also be material under this test depending on their anticipated effect on the firm. Determining the relevant timeframe over which materiality should be measured also requires management to exercise judgment. However, the SEC's proposal requires materiality to be assessed over the short, medium, and long-term, as defined by the reporting company.[138] The range of material climate risks that must be reported may therefore be quite broad.[139]

Climate risk is at this point a "known" uncertainty for all firms in some form, but risk assessment of any sort is a complex exercise, and assessing climate risk particularly so. Making materiality assessments under the two-step test will often require projections based on estimates and assumptions and may relate to relatively long time periods. As the TCFD itself has explained, in assessing climate risk, "[f]orward-looking analyses are especially important but challenging. Efforts

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132 For detailed discussion of these provisions, see 2010 Climate Guidance, *supra* note 32 (including also Item 101's description of the business and Item 103 disclosures regarding certain legal proceedings). *See also* Harper Ho, *Modernizing ESG Disclosure*, *supra* note 6, at 334-40 (discussing these provisions).

133 Proposing Release, *supra* note 1, at 70. Indeed, certain climate-related risk disclosures under proposed Item 1502 may be provided within the MD&A itself. *Id.* at 78-80.

134 Management's Discussion and Analysis of Financial Condition and Results of Operations, Certain Investment Company Disclosures, 54 Fed. Reg. 22,427, 22,430 (May 24, 1989) (codified at 17 C.F.R. pts. 211, 231, 241, 271) [hereinafter 1989 MD&A Guidance].

135 *Id.*

136 *Id.*

137 *Id.*

138 Proposed Rule 17 C.F.R. § 622.1502(b)(2).

139 The SEC's 2018 cybersecurity guidance also identifies specific factors that companies should use in materiality risk assessments, drawing on Item 503(c) risk factor disclosures. *See* Commission Statement and Guidance on Public Company Cybersecurity Disclosures, 83 Fed. Reg. 8166, 8167 (Feb. 26, 2018). These include the costs of risk mitigation, the risk's anticipated probability and magnitude, and any anticipated legal and regulatory risks. *Id.* at 8,169.

to mitigate and adapt to climate change are without historical precedent, and many aspects about the timing and magnitude of climate change in specific contexts are uncertain."[140] The SEC has also found that only one-third of corporate annual reports make any type of climate-related disclosure.[141] As a result, the transition to more prescriptive risk disclosure will require new analyses and processes for many firms and present greater compliance challenges.

2. Potentially Limited Liability Risk

Nonetheless, there are several reasons why the introduction of mandatory climate reporting may be able to improve the transparency of climate risk without exposing companies to higher risk of liability for securities fraud beyond the flexibility of the rules themselves. First is the difficulty under Rule 10b-5 of pleading and proving securities fraud based on fraudulent misrepresentations of risk. To bring a claim under Rule 10b-5, plaintiffs must meet the pleading requirements for scienter and must ultimately prove reliance, damages, and loss causation, which requires demonstrating that the misrepresentation affected the share price.[142] As Jill Fisch has noted, this burden may be difficult to meet in most cases involving climate risk disclosure.[143] Pleading and proving fraud based on material omissions or on the basis of opinions, as discussed below, is also difficult.[144]

Furthermore, good faith projections, estimates, and other forward-looking statements that are required under the proposed rules are covered by the safe harbors for forward-looking statements under the Private Securities Litigation Reform Act of 1995 ("PSLRA").[145] The proposed rules would also provide an additional safe harbor for Scope 3 GHG emissions disclosure if the disclosure is made in good faith and on a reasonable basis.[146]

3. Prescriptivity & Potentially Expansive Litigation Risk

However, because the proposed rules are designed to elicit more precise, quantified, and firm-specific information, companies may experience higher litigation risk even if the chance of success for plaintiffs is relatively low.[147] Under the current framework, companies are not required to produce disclosure with regard to any particular risk or uncertainty, nor to make any disclosures about the basis of their materiality assessments for risk disclosures. For example, the SEC has not previously required quantification of known trends or uncertainties in the MD&A, although it has encouraged companies to quantify any material effects of the uncertainties it identifies.[148] Similarly,

140 TCFD Implementing Guide, *supra* note 71, at 12.

141 Proposing Release, *supra* note 1, at 315-24.

142 Dura Pharmaceuticals, Inc. v. Broudo, 544 U.S. 336, 343-46 (2005); Stratte-McClure v. Morgan Stanley, 776 F.3d 94, 104 (2015) (citations omitted).

143 Jill E. Fisch, *Making Sustainability Disclosure Sustainable*, 107 GEO. L. J. 923, 965 (2019).

144 These barriers (and others) have led some observers to argue that current mandatory disclosure requirements are underenforced. *See, e.g.*, Donald C. Langevoort, *Disasters and Disclosures: Securities Fraud Liability in the Shadow of a Corporate Catastrophe*, 107 GEO. L.J. 967 (2018).

145 Private Securities Litigation Reform Act (PSLRA), 15 U.S.C. § 77z-2 (2018); 15 U.S.C. § 78u-5 (2018).

146 Proposed Rule 17 C.F.R. § 229.1504(f).

147 Concerns about the potentially high cost to reporting companies of "event-driven" securities fraud litigation have been raised by some critics of mandatory ESG disclosure. *See, e.g.*, Amanda Rose, *A Response to Calls for SEC-Mandated ESG Disclosure*, 98 WASH. U. L. REV. 1821, 1847-54 (2021).

148 Business and Financial Disclosure Required by Regulation S-K: Concept Release, 81 Fed. Reg. 23916, 23,944 (Apr. 22, 2016); Commission Guidance Regarding Management's Discussion and Analysis of

companies are not required to disclose any affirmative efforts to manage or mitigate material risks they identify.[149] Under the TCFD-based rules as proposed, all of these would be required.[150]

Metrics, Targets, and Goals. The use of metrics and targets, a pillar of the TCFD, aids comparability and can be more informative to investors, but it is obviously an aspect of the TCFD framework designed to promote specificity. This is not entirely novel, as the SEC's MD&A guidance emphasizes the importance of qualitative or quantitative measures, such as key performance indicators, that can help investors evaluate a company's performance.[151] Under its 2020 MD&A guidance, additional narrative disclosures might also be required to render quantitative measures not misleading; narrative context for a measure might include how the metric is defined and calculated, why it is "useful" to investors, how management uses it, and if material, an explanation of any changes.[152] However, greater quantification may also increase companies' litigation risk. For example, shareholders may be motivated to bring securities fraud claims if companies report progress toward climate targets and then experience an extreme climate-related event even if a causal link between the two is ultimately difficult to establish.

Also, because the SEC has determined that climate risk information is necessary to investor protection and because the proposed disclosures are more prescriptive than what would be required under MD&A, current risk factor disclosures and the like, companies will no longer be able to defend themselves against fraud allegations by arguing that soft, generalized statements about risk, risk management, or sustainability commitments are generic statements or "mere puffery" that could not reasonably have been relied on by the plaintiffs and are therefore immaterial.[153] However, such arguments are not likely to apply to the kinds of disclosure contemplated by the SEC's proposed rules.

Financial Condition and Results of Operations, Rel. No. 33-8350 (Dec. 29, 2003) (codified at 17 C.F.R. Parts 211, 231, and 241) [hereinafter 2003 MD&A Interpretive Release].

149 Historically, the SEC has not required mitigation disclosure under Regulation S-K due to concern that it might cause investors to under-estimate the disclosed risk. Regulation S-K Concept Release, *id.* at 23,960. Reasonable investors are unlikely to view climate mitigation disclosure in that way.

150 *See, e.g.*, Proposed Rule 17 C.F.R. § 229.1503(a) (requiring a description of the process for assessing climate risk materiality). Companies will also be reporting for the first time in the notes to the financial statements on their climate risk mitigation expenditures. Proposed Rule 14-02, 17 C.F.R. § 210.14-02. If these amendments are adopted, they will also bring information about the company's climate mitigation costs and the financial impact of identified climate risks under auditing scrutiny. Proposing Release, *supra* note 1, at 116-120.

151 *See* Commission Guidance on Management's Discussion and Analysis of Financial Condition and Results of Operations, 85 Fed. Reg. 10,568, 23, 944 (Feb. 25, 2020) [hereinafter MD&A Guidance]).; *see also* 2003 MD&A Interpretive Guidance, *supra* note 148 (encouraging quantitative disclosure if it is reasonably available, particularly regarding the material effects of known material trends and uncertainties).

152 MD&A Guidance, *id.* at 23,944; *see also* Rule 408(a) 17 C.F.R. 230.408(a) and Rule 12b-20 17 C.F.R. 240.12b-20.

153 *See, e.g.*, Singh v. Cigna Corp., 918 F. 3d 57, 63 (2019) (concluding that statements about regulatory compliance in a corporation's code of ethics and mention of related policies and procedures in the company's Form 10-K were too generic to be relied on by a reasonable investor and therefore not material); In re Braskem S.A. Sec. Litig., 246 F. Supp. 3d 731 (S.D.N.Y. 2017) (dismissing claims arising from general statements about corporate compliance and culture in the sustainability report). Under the Supreme Court's recent decision in Goldman Sachs Group, Inc., et al. v. Arkansas Teacher Retirement System, et al., "the generic nature of a misrepresentation often is important evidence of price impact" that should be considered when determining whether a plaintiff class should be certified. 141 S. Ct. 1951, 1958 (U.S. 2021).

In this regard, it is also noteworthy that proposed Item 1506[154] — which implements the fourth TCFD recommendation and would require the disclosure of climate-related targets and goals — is not limited to climate-related financial risk management targets. Instead, it requires the registrant to provide supporting measures, time-horizons, and data relevant to progress for *any* climate-related target or goal, such as emissions reductions, energy or water conservation, or ecosystem restoration, that the company may have committed to achieve.[155] If adopted, this provision offers a safeguard against greenwashing, since companies will have to "walk the talk" for specific commitments. At the same time, it explicitly bringing corporate voluntary commitments within the bounds of federal antifraud obligations.[156]

Projections, Forward-Looking Information, & Material Omissions. Because the nature of what is being disclosed — climate risk — is inherently uncertain, the new rules, if adopted, will require companies to include projections, estimates, and other forward-looking statements with greater frequency, for instance with regard to scenario analysis and the description of the timeframes and assumptions that inform it.[157] Presenting quantified information with respect to climate risk mitigation targets and goals will also require estimates and assumptions that may prove ill-founded in hindsight even if they were reasonable and not misleading when made. Companies may therefore be exposed to higher litigation risk even though such forward-looking disclosures are protected by the PSLRA safe harbors and plaintiffs may be unlikely to prevail.[158] The greater volume of mandatory forward-looking information to be reported will also require companies to take greater care to identify such information in their filings and to ensure they have met the requirements of the safe harbors, as discussed below.[159]

At present, projections are not generally required in MD&A, except with regard to assessing the materiality of the effects of "known trends or uncertainties" that are "reasonably likely" to occur.[160] There is evidence that forward-looking information has in fact been relatively limited within the MD&A and in corporate filings generally due to the potential litigation risk exposure it may create, notwithstanding the PSLRA safe harbors.[161] In addition, Amanda Rose has noted that IPO issuers have generally sought to avoid Section 11 liability by not making public disclosure of projections,

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154 Proposed Rule 17 C.F.R. § 229.1506.

155 Proposed Rule 17 C.F.R. § 229.1506(a)(1).

156 Companies are already subject to Rule 10b-5's antifraud provisions for statements made outside SEC filings in sustainability reports or on corporate websites. Securities Exchange Act of 1934, 15 U.S.C. § 78a et seq., Sect. 10(b) & Rule 10b(5), 17 C.F.R. 240.10b-5; *see also* Proposing Release, *supra* note 1, at 23 & n. 49 (citations omitted) (noting that Rule 10b-5 liability can attach for such statements).

157 Proposing Release, *supra* note 1, at 92 & Proposed Rule 17 C.F.R. § 229.1502(f).

158 *See* Wochos v. Tesla, Inc., 985 F.3d 1180, 1189 (9th Cir. 2021) (noting that the PSLRA safe harbor "is designed to protect companies and their officials from liability for securities fraud when they merely fall short of their optimistic projections") (citation omitted).

159 PSLRA, *supra* note 145.

160 1989 MD&A Guidance, *supra* note 134, at 22,429 (noting that "some prediction or projection" may be required to disclose the expected material future effects of a known trend, event, or uncertainty); 2003 MD&A Interpretive Guidance, *supra* note 148 (distinguishing disclosure of known material trends and uncertainties and required forward-looking information on their anticipated effects from "optional forward-looking information").

161 *See* Virginia Harper Ho, *Disclosure Overload?*, 65 VILL. L. REV. 67, 110 & n.215 (2020) (citing comments on the 2016 Regulation S-K Concept Release to this effect by Davis Polk & Wardwell and Wachtell, Lipton, Rosen & Katz).

since the PSLRA does not apply to IPO registration statements and registrant's Section 11 liability risk exposure is already high.[162]

The expanded reporting of projections and other forward-looking risk disclosures raises questions about the threshold for actionable omissions. Of course, as the Supreme Court stated in *Basic v. Levinson* with regard to Rule 10b-5 of the Exchange Act, "[s]ilence, absent a duty to disclose, is not misleading."[163] Again, as a general matter, companies are not required to disclose all material information but only what is required under a specific disclosure rule or as necessary to make the required disclosures not misleading.[164] In addition, if the standards that apply to disclosure under Item 303 MD&A apply, as the SEC suggests,[165] then a failure to make material climate risk disclosures, like a failure to disclose under Item 303, may not give rise to liability under Rule 10b-5. There is currently a circuit split on the issue of whether a failure to disclose information about known trends and uncertainties under Item 303 is in fact actionable under Rule 10b-5.[166] The majority have concluded that it is, but that any omissions under Item 303 are only material for purposes of establishing liability under Rule 10b-5 if they satisfy the more restrictive "probability and magnitude" test of *Basic v. Levinson*.[167] Under this test, materiality depends on "a balancing of both the indicated probability that the event will occur and the anticipated magnitude of the event in light of the totality of the company activity."[168]

However, any expansion of mandatory risk disclosure expands the scope of the duty to disclose and also the scope of what must be reported voluntarily to avoid misleading and potentially actionable omissions.[169] For example, since the proposed rules require an affirmative disclosure if the issuer has undertaken climate risk mitigation or adaptation measures — such as developing a transition plan or conducting a scenario analysis and the SEC's rules as proposed require a

[162] The bar plaintiffs must cross to bring a private enforcement action under Section 11 is fairly low, as they need not establish either reliance or causation. Therefore, the requirement for IPO issuers to provide climate risk projections under the proposed rules creates a potentially high liability risk for such issuers. *See* Amanda Rose, *SPAC Mergers, IPOs, and the PSLRA's Safe Harbor: Unpacking Claims of Regulatory Arbitrage,* 64 WM. & MARY L. REV. [37] (forthcoming 2023) (noting that the option of avoiding forward-looking statements will be unavailable under the proposed rules at the IPO stage since certain projections will be mandatory).

[163] Basic, Inc. v. Levinson, 485 U.S. 224, 239 n.17 (1988); *see also* In re Time Warner Sec. Litig., 9 F.3d 259, 266-67 (2d Cir. 1993) ("[A]n omission is actionable under the securities laws only when the corporation is subject to a duty to disclose the omitted fact.").

[164] 17 C.F.R. § 230.408 (2001); 17 C.F.R. § 240.10b-5; 17 C.F.R. § 240.12b-20 (2013).

[165] Proposing Release, *supra* note 1, at 69 & n.211 (citing Basic v. Levinson, 485 U.S. 224, 238 (1988)); *see also Id.* at 70 & n 213 (citing MD&A Guidance, *supra* note 131).

[166] Oran v. Stafford, 226 F.3d 275, 287-88 (3d Cir. 2000); Stratte-McClure v. Morgan Stanley Corp., 776 F.3d 94, 102-103 (2d Cir. 2015); Carvelli v. Ocwen Fin. Corp., 934 F.3d 1307, 1331 (11th Cir. 2019) (concluding that a violation of Item 303's broader disclosure duty may not constitute a violation of Rule 10b-5). *Cf.* In re NVIDIA Corp. Securities Litigation, 768 F.3d 1046, 1054 (9th Cir. 2014) (concluding that omissions under Item 303 are not actionable under Rule 10b-5).

[167] Oran v. Stafford, *id.* at 287-88; Stratte-McClure v. Morgan Stanley Corp., *id.* at102-103 (2d Cir. 2015); Carvelli v. Ocwen Fin. Corp., *id.* at 1331.

[168] 485 U.S. 224, 238 (1988).

[169] Although the SEC allows companies to exclude immaterial information from their filings for proprietary reasons in certain circumstances, it does not allow companies to do so when it has already determined that the information is necessary for the protection of investors or is otherwise material. Confidential Treatment Applications Submitted Pursuant to Rules 406 and 24b-2, CF Disclosure Guidance Topic No. 7 (Dec. 19, 2019, am. Mar. 9, 2021), https://www.sec.gov/corpfin/confidential-treatment-applications.

disclosure if such measures exist— then a failure to provide such disclosures would not constitute an omission but rather an affirmative false misrepresentation.[170]

Limits of the PSLRA. Moreover, although the PSLRA offers a safe harbor for forward-looking statements, it is also subject to some key limitations. First, the PSLRA safe harbors do not apply to statements of fact. Therefore, historical information, such as annual GHG emissions disclosures, or details about a company's climate governance systems, internal carbon pricing, or processes for identifying climate risk are not protected by the PSLRA. By the same token, the PSLRA does not protect reporting companies from potential fraud claims when they disclose information about climate risks in their "value chain" that must be obtained from business partners and third parties, although Scope 3 emissions would be covered by the new statutory safe harbor.[171] In addition, to benefit from the PSLRA safe harbors, companies must ensure that good faith projections and other forward-looking statements are identified and accompanied by "meaningful cautionary statements."[172] The PSLRA also does not extend to statements in the audited financials, such as the proposed disclosure of the financial costs of climate risk events or climate mitigation and adaptation.[173] And finally, as noted above, it does not apply to IPO registration statements, which are subject to the antifraud provisions of Section 11 of the Securities Act.[174] For these reasons, companies' litigation risk for misleading affirmative disclosures and omissions, even if the company is ultimately not found liable, may increase in ways that are not adequately addressed by the PSLRA safe harbors.

The reliability of climate risk disclosure depends on the effective enforcement of the disclosure rules, which in the U.S. includes private enforcement mechanisms. However, in view of the limits of historical climate data and models, the unpredictability of climate change itself, and the rapid evolution of climate risk reporting tools and compliance expectations, the PSLRA and the proposed GHG emissions safe harbor alone do not go far enough to shield companies from litigation risk as they adjust to higher transparency demands. Possibilities for addressing this concern are discussed below.

III. THE IMPACT & LIMITS OF THE SEC'S DISCLOSURE LINE-DRAWING

Many of the factors discussed in this Article that have informed the SEC's rulemaking choices on climate risk disclosure will persist even if the SEC's proposed rules do not survive in their current form. These factors include the pace of climate change, the growing importance of climate-related financial risk to investors, and the rapid convergence among global capital markets toward some form of mandatory TCFD-based climate disclosure reporting for the largest firms. By basing its proposed climate disclosure rules on the TCFD framework and the GHG Protocol, the SEC has taken important steps to support international harmonization and the comparability of climate risk data. The proposal has also raised board attention to climate risk issues. At the same time, by adopting a highly flexible approach, the SEC has given companies greater leeway to adjust to higher reporting standards and has perhaps maximized its chances of defending the rules in the courts.

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170 *See, e.g.* Stratte-McClure, 776 F. 3d 94, 102 (noting that since Item 303 requires mandatory disclosure of material known trends and incertainties, "a reasonable investor would interpret the absence of [such] disclosure to imply the nonexistence of [material] 'known trends or uncertainties'").

171 Proposing Release, *supra* note 1, at 218-222.

172 Sect. 27A, Securities Act of 1933, 15 U.S.C. § 77z-2; Sect. 21E, Securities & Exch. Act of 1934, 15 U.S.C. §78u-5.

173 Proposed 17 C.F.R. 210.14-01 & 17 C.F.R. 210.14-02.

174 *See* Proposing Release, *supra* note 1, at 72.

However, this very flexibility is also likely to weaken the rules' near-term impact on corporate attention to climate risk and their power to improve international standardization and climate risk transparency. With the notable exception of the GHG emissions disclosure requirements and the climate-related metrics disclosures to be provided in the notes to the financial statements, most of the mandatory provisions are narrative disclosures that are more likely to elicit generic and therefore less informative industry-benchmarked responses. The most meaningful disclosures, that is, those that require metrics and targets and firm-specific information, are not applicable to companies that have not already adopted a climate transition plan or set emissions targets and goals. For others, the prospect of accountability on these issues may in fact dissuade them from taking any of these steps.

It is therefore possible that investors may not get the kind of meaningful disclosure that the proposed rules promise and may continue to be exposed to greater stock price volatility when climate risk events occur. Lower firm-specific informational content may also weaken investors' ability to allocate capital toward climate-resilient investments.[175]

rior studies have found that mandatory ESG disclosure can change corporate behavior in real terms, but the SEC's proposed rules are also unlikely to motivate corporate climate risk mitigation in any meaningful way, and indeed, this is not their purpose..[176] Again, the optionality of the more prescriptive rules and narrow scope of the SEC's approach, means that the new rules are unlikely to incentivize climate resilience or significantly reduce corporate climate and environmental externalities.

Although space does not permit a full discussion, the following are steps the SEC could take to make TCFD-based disclosure more effective, even within its own regulatory bounds.

Expanded Safe Harbors. As I have written elsewhere, the goal of any climate risk disclosure reform must be "to encourage maximum specificity and reliability, particularly regarding the nature of the risk [to the company] and the processes, estimates, and assumptions that guide risk identification and assessment [while taking] into account the inherent difficulty of estimating risk with any precision."[177] To encourage companies to produce this kind of meaningful firm-specific disclosure, the SEC must go further to address the heightened private litigation risk previously discussed in Part II.

There are several options. The first is to extend the proposed safe harbor for GHG emissions to all TCFD-related disclosures for a three- to five-year transition period and to provide a similar safe harbor for companies that report against either the European Union or ISSB standards. However, as Amanda Rose has observed, if such safe harbors are modelled after the PSLRA or the proposed GHG emissions safe harbors, they will not adequately protect companies from litigation risk in

[175] Facilitating green capital allocation is not a goal of the SEC's proposed corporate climate disclosure rules, *supra* note 1, or of its proposed rules on ESG investment practices, *supra* note 2. As the U.S. has not yet established clear definitions for "green" investments that could further such goals, voluntary standards for green bonds and other financial products will continue to serve in place of a more robust market-wide climate or ESG taxonomy. For a leading industry standard, see, for example, INT'L CAPITAL MKT. ASSOC. GREEN BOND PRINCIPLES (June 2022), https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/green-bond-principles-gbp/ [https://perma.cc/38AL-RKXS].

[176] For example, a study by Downar, Ernstberger, Reichelstein, Schwenen and Zaklan finds that the introduction of mandatory GHG disclosure in the U.K. led companies there to reduce emissions. Benedikt Downar, Jürgen Ernstberger, Stefan Reichelstein, Sebastian Schwenen & Aleksandar Zaklan, *The Impact of Carbon Disclosure Mandates on Emissions and Financial Operating Performance*, 26 REV. ACCT. STUD. 1137 (2021).

[177] Harper Ho, *Modernizing ESG Disclosure*, *supra* note 6, at 341.

the event of a proximate climate risk event that affects the stock price.[178] Therefore, her recommendation to fully preempt private enforcement of climate-related disclosures is a better approach, although I would make such a limitation temporary.[179] Temporary insulation from liability could improve transparency by reducing "boilerplate" disclosure and could also reduce companies' disincentives to adopt climate transition plans or undertake climate risk mitigation. Even with a moratorium on private litigation, public enforcement would not be subject to it and shareholder activism would still offer a meaningful avenue for private enforcement as well.

International Harmonization. Compliance costs for companies will be lower and the informational benefits to investors and markets will be higher if climate risk information is standardized across global capital markets. Unfortunately, the constraints on the SEC's power and the rather unique private enforcement context in the U.S. have compelled the SEC to adopt a US-tailored approach that is likely to prevent a single international approach to climate disclosure from emerging. As a result, corporate ESG reporting will no doubt follow the bifurcated path of accounting standards where the IFRS coexists with U.S. generally accepted accounting principles ("GAAP").

In view of this reality, the SEC should continue to promote maximum harmonization internationally, continuing its cooperation with other regulators and with IOSCO. The SEC has already signaled its interest in aligning its climate disclosure rules with the forthcoming ISSB climate disclosure standards,[180] but it should go further. First, it should accept as fully complying with its own rules corporate reporting against either the European Union or ISSB standards and should set similar recognition standards for other foreign TCFD-based mandates as they emerge.[181] Second, the SEC should encourage voluntary sustainability reporting based on the forthcoming ISSB sustainability standards. These separate ISSB standards rely on the SASB materiality guidelines that have already been widely adopted by U.S. companies and that were originally developed to help U.S. companies identify material ESG information as part of their ongoing federal disclosure.[182]

Integrating Disclosure. Finally, a post-carbon transition will require a transformation of economies and financial systems toward a sustainable, carbon-accountable "new normal." While the Biden administration has urged a whole of government approach to respond to climate change,[183] only Congress can decide how best to help companies across all sectors, both public and private, prepare for the climate risks that are already upon us and help the entire economy navigate the post-carbon transition. I have outlined in other work steps Congress can take to enable the SEC to regulate more broadly in support of a sustainable finance transition, most critically by clarifying how the SEC's authority relates to that of other agencies and laying a foundation for inter-agency collaboration in climate-related rulemaking.[184] Such steps could readily address the anticipated

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178 Letter of Amanda Rose to Vanessa Countryman, Sec'y, Sec. & Exch. Comm'n (June 17, 2022).

179 *See id.*; *see also* Fisch, *supra* note 143, at 964-65 (similarly advocating enforcement of sustainability disclosure primarily by the SEC).

180 Proposing Release, *supra* note 1, at 33-35.

181 A similar recommendation has been made by J.S. Nelson, *Corporate Criminal ESG,* working paper (Oct. 6, 2022), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4240029 [https://perma.cc/EU6Z-RHVJ].

182 *See* ISSB, *Sustainability Disclosure Standard*, *supra* note 27, at App. B; *see also* SASB, *supra* note 88.

183 Executive Order on Tackling the Climate Crisis at Home and Abroad (Jan. 27, 2021), https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/ [https://perma.cc/6BNE-FFPX].

184 Harper Ho, *Modernizing ESG Disclosure*, *supra* note 6, at 346-54.

legal objections to the SEC's authority and pave the way for more effective corporate climate responses and for continued improvements to climate disclosure rules over time.

CONCLUSION

Climate change poses a clear threat to humanity and therefore presents material risks to companies across all sectors. Adopting TCFD-based disclosure rules is a minimum first step toward achieving the goals of investor protection and market efficiency that underpin the U.S. capital markets. However, standardizing climate risk disclosure is not an end in itself, but a means to achieve these basic goals. Disclosure reform should therefore ultimately be part of a more comprehensive, long-term strategy at all levels of government to help companies navigate the post-carbon transition. In the meantime, as investor expectations and public policy evolve, the questions of boundaries and scope raised in this Article will persist for companies and for the SEC alike.