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June 14, 2021

The Honorable Gary Gensler, Chair
Secretary Vanessa Countryman
Securities and Exchange Commission
100 F Street NE
Washington, DC 20549

Re: Response to Request for Public Input on Climate Change Disclosures

Dear Chair Gensler:

Thank you for the opportunity to provide input on climate change disclosures per the public request of Acting Chair Lee's on March 15, 2021. This request presents an opportunity for the Commission to respond to one of the most important issues facing investors in our time — how climate change will impact their investments. Climate change threatens to impact issuers across the economy. Investors need high quality disclosure to make comparisons among issuers and investments to understand how this risk—including the physical risk associated with climate change and the transition risk as the United States and other nations transform their economies to mitigate climate change —would affect their portfolio. These risks can manifest themselves in the short run. Yet they pose even greater threats to investors, such as those investing for retirement, with longer-term horizons.

I write this letter as a securities law professor who has taught the subject throughout my 15-year career as an academic. I also practiced securities law as a transactional attorney before that. I have drafted securities law disclosure for clients, and I now study and teach about securities disclosure and securities markets.

This letter proceeds in the following manner; it:

1. provides brief notes on the Commission's authority to require disclosures specific to climate change risks;
2. discusses how the concept of materiality informs these disclosures;
3. notes several factors to consider in assessing the benefits and costs of climate disclosures;
4. provides overarching principles that should guide the Commission as it writes climate risk disclosure rules;
5. analyzes the prospect of borrowing disclosure standards from institutions that have already created climate risk disclosure frameworks;
6. recommends disclosures specific to physical risk;
7. recommends disclosures specific to transition risk;

8. maps where these physical and transition risk disclosures fit into the SEC's existing Regulation S-K framework;
9. recommends disclosures specific to liability risk;
10. counsels revisiting the Commission's 2020 revisions to Regulation S-K which might detract from the impact of climate disclosures;
11. advocates changes to various Industry Guides; and
12. recommends disclosures as conditions for transaction and Rule 144A exemptions.

I endorse various letters that have already been submitted to the Commission in connection with this request from Americans for Financial Reform and Public Citizen.

I also note that many commentators have or will advocate that the Commission borrow existing standards from institutions such as the Sustainability Accounting Standards Board and the Task Force on Climate-related Financial Disclosures. As discussed below, the Commission has authority to do so. I take no position in this letter on which of these sets of standards is preferable. My purpose in this letter is to provide a roadmap for how climate disclosures would fit into the SEC's existing disclosure framework.

1. The Commission Has Broad Authority to Require Climate Change Disclosures.

Requiring high quality disclosures on climate change risks that enable investors to make comparisons among firms fits squarely within the Commission's three-part mandate. I endorse the views expressed in a letter responding to Acting-Chair Lee's request by a group of securities law professors (*i.e.* the Letter by Professor Jill Fisch et al. dated June 11, 2021). That letter explained the legal authority of the Commission to require disclosures related to climate change. My letter seeks to make several supplemental points on the Commission's legal authority.

First, there is ample precedent for the Commission requiring disclosure from all public companies for specific and emerging risks. As one example, in 1998, the Commission issued guidance to public companies, investment advisers, investment companies, and municipal securities issuers regarding their disclosure obligations about "Year 2000 issues" (*i.e.*, potential operational risk from software malfunctions when the calendar reached January 1, 2000). This guidance clarified the Commission's position on when "Y2K" issues constituted "known material events, trends, or uncertainties" that should be disclosed in the Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") section of SEC filings by public companies.[1]

The fact that massive losses to public companies did not ensue when the clock struck midnight and the calendar changed to 2000 does not mean that that earlier SEC disclosure

[1] Interpretation: Disclosure of Year 2000 Issues and Consequences by Public Companies, Investment Advisers, Investment Companies, and Municipal Securities Issuers, Release Nos. 33-7558; 34-40277; IA-1738; IC-23366; International Series Release No. 1149 (Aug. 4, 1998) *available at* https://www.sec.gov/rules/interp/33-7558.htm#foot3 (last visited June 1, 2021).

This interpretative release was preceded by a Staff Accounting Bulletin on the same general topic. Staff Legal Bulletin No. 5 (CF/IM) (Oct. 8, 1997, revised Jan. 12, 1998) *available at* https://www.sec.gov/interps/legal/slbcf5.htm (last visited June 1, 2021).

initiative serves as a cautionary tale. In fact, the disclosure obligations contributed to a general awareness of operational risks that resulted in public companies taking concerted mitigation steps. One never sees crises that were averted. It would be a transformational success if securities disclosure contributed to mitigating the likelihood and severity of climate risks for public companies, financial markets, and the broader economy.

Note that this administrative law mechanism, *i.e.*, using an interpretation of existing requirements for MD&A disclosure, would be available to the SEC with respect to many of the climate risks discussed below in this letter. The SEC could, for example, clarify to issuers that climate risks may need to be disclosed in more detail pursuant to existing requirements under Regulation S-K or Regulation S-X while the rulemaking process proceeds. This kind of interim measure may be advisable given the length of time that typically lapses between a rule proposal and the rule's ultimate effective date.

Second, different investors may have different reasons for wanting climate change disclosures, and this does not lessen the Commission's authority to require these disclosures. Some investors want climate change disclosures to evaluate the risks that climate change poses to issuers in their investment portfolio (or in which they are considering investing). This rationale for disclosure lies squarely within traditional asset-pricing motivations, as well as within existing disclosure mandated by the Commission.

Other investors may want disclosures that address how issuers may be contributing to the climate change that, in turn, poses risks for the economy and individual issuers (*e.g.*, through disclosure of an issuer's contributions to carbon emissions or financing of carbon-emitting activities). The fact that this rationale requires an additional logical step does not undermine its ability to serve as a foundation for disclosure rules. The Commission has long required enhanced disclosure of the activities of financial institutions, such as via Industry Guide 3, that may contribute to the incidence and severity of financial market disruptions (often called "systemic risk") that, in turn, would boomerang back and affect individual issuers.[2] No statute prevents the Commission from requiring disclosure of how issuers contribute to a collective risk that, in turn, affects those issuers.

Still other investors may seek climate disclosure because of concerns about the environment, in addition to concerns about investment returns. This too could serve as a viable and legitimate rationale for securities disclosure. The Commission has recognized that "sufficiently significant social policy issues" can serve as a legitimate and non-excludable basis for shareholder proxy proposals.[3] If shareholders can submit proposals on significant social policy issues, such as

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[2] Commissioner Lee has described the growing policy literature and scholarship that climate risk is contributing to systemic risk. "Playing the Long Game: The Intersection of Climate Change Risk and Financial Regulation," Remarks of Commissioner Allison Herren Lee at the Practicing Law Institute 52nd Annual Institute on Securities Regulation (Nov. 5, 2020) *available at* https://www.sec.gov/news/speech/lee-playing-long-game-110520 (last visited June 1, 2021).

[3] SEC Release No. 34-40018 (May 21, 1988). In 2020, the Commission made ill-advised changes to its shareholder proposal rules to make it more difficult for shareholders. *See* Procedural Requirements and Resubmission Thresholds under Exchange Act Rule 14a-8, Release No. 34-89964; File No. S7-23-19 (Sept. 23, 2020) *available at* https://www.sec.gov/rules/final/2020/34-89964.pdf (last visited June 1, 2021). This

renewable energy generation and environmental issues,[4] then these issues should also serve as the basis for disclosure; should a significant number of investors tell the Commission that particular environmental concerns animate their investment and voting decisions, then that would provide compelling grounds for additional disclosure. It is not for the SEC to substitute its own investment judgment for that of investors in deciding the reasons to invest or vote. If many investors care about the environment and demand standardized disclosure, then that suffices even if others might make decisions on narrower financial grounds.

These three rationales for climate disclosure are not mutually exclusive and generally argue in favor of the same types of disclosure. For example, a financial industry issuer with significant investments in certain fossil fuel sectors faces transition risk. Its financed emissions may also contribute to collective risk to the financial sector and its activities may also raise concerns among environmentally focused investors. Nevertheless, there may be disclosure areas in which the Commission finds that direct risks to the issuer are not as clear as other rationales for disclosure. In these areas, one pragmatic approach would be to make those disclosures the subject of separate rulemakings.

2. Understanding "Materiality."

Commissioner Lee recently gave a speech on "materiality" that masterfully debunks several common misconceptions about this legal standard, which is core to securities law.[5] I agree with the legal analysis set forth in her remarks, as well as the analysis in the Letter of Professor Jill E. Fisch et al. It is important to underscore several points made in these commentaries.

First, the concept of materiality does not limit the disclosures that the Commission can require of issuers. Indeed, multiple parts of Regulation S-K and S-X require disclosures without reference to materiality. For example, Item 104 of Regulation S-K on Mine Safety Disclosures requires that issuers provide lists of mines, as well as information with respect to notices of legal violations, fines, and legal actions with respect to those mines. None of those requirements are qualified by materiality.[6] Materiality is also completely absent in other disclosure requirements such as Item 406 of Regulation S-K (relating to a Code of Ethics).[7] Many other disclosures are qualified by materiality only in part.

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letter gives multiple examples of the Commission making a wave of rule changes during the pandemic year that adversely affect investors.

4 *See, e.g.*, Sarah Krouse & Theo Francis, *Climate Changes as Firms Heed Investors on Social Issues*, WALL ST. J. (May 1, 2019) ("Earlier this year, after Verizon Communications Inc. vowed to generate or buy renewable energy equal to half of its total yearly electricity consumption by 2025, an environmentally focused shareholder withdrew a proposal it had filed in late 2018 calling for Verizon to report on ways to increase its reliance on renewable energy.")

5 "Living in a Material World: Myths and Misconceptions about 'Materiality'", Remarks of Commissioner Allison Herren Lee at the 2021 ESG Disclosure Priorities Event Hosted by the American Institute of CPAs & the Chartered Institute of Management Accountants, Sustainability Accounting Standards Board, and the Center for Audit Quality (May 24, 2021)

6 17 CFR § 229.104 - (Item 104) Mine Safety Disclosure.

7 17 CFR § 229.406 - (Item 406) Code of Ethics.

Second, materiality is a dynamic concept because it focuses on the information needs of a reasonable investor.[8] Changes in society, science, or external legal rules may cause a contemporary reasonable investor to find certain facts material that would not have been decades earlier. An issuer's vulnerability to cyberattacks, its legal exposure for producing carcinogenic products, or its reputational and legal risk for claims of widespread racial discrimination might all be viewed by a reasonable investor as material to a particular company today. Yet all of these types of risks either did not exist (because technology or laws were different) or were not understood by investors (for example, because science had not identified carcinogenic properties of many substances) at the time Congress drafted the Securities Act of 1933 and the Securities Exchange Act of 1934.

Third, federal courts and the Commission have long recognized that materiality encompasses both quantitative and qualitative aspects. Facts or risks that might not be quantitatively material (*e.g.*, because they would impact less than 5% of figures in an issuer's financial statements), might still be qualitatively material in the eyes of a reasonable investor.[9]

Fourth, the Supreme Court has also articulated a reasonable standard for assessing the materiality of forward looking information. In *Basic v. Levinson*, the Court applied a probability multiplied by magnitude formula for assessing the materiality of forecasts and disclosure about future events.[10] Small probability events might still be material if their occurrence would have a large impact on an issuer. I note that issuers may enjoy a safe harbor for forward looking statements, including those statements required by Commission rules, under the Public Securities Litigation Reform Act.[11]

3. Factors to Consider in Assessing the Benefits and Costs of Climate Change Disclosures

In analyzing the need for, and formulating, new climate change disclosures, the Commission should bear in mind the following:

In assessing the benefits of particular disclosures, the best (but not the only) yardstick is whether a significant number of investors—both institutional and retail—say that they value this additional information in

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[8] The Supreme Court has provided a time-tested materiality standard for purposes of antifraud rules and liability. In *Basic v. Levinson*, the Court found that "… materiality depends on the significance the reasonable investor would place on the withheld or misrepresented information" and specifically adopted for purposes of Rule 10b-5 an earlier standard articulated in *TSC Industries, Inc. v. Northway, Inc.* Basic Inc. v. Levinson, 485 U.S. 224, 240 (1988).

In *TSC Industries*, the Court set for the following standard for when a fact (in that case, an omitted fact) is material:

> "… there must be a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the 'total mix' of information made available." TSC Industries, Inc. v. Northway, Inc., 426 U. S. 438, 449 (1977).

[9] SEC Staff Accounting Bulletin: No. 99 – Materiality (Aug. 12, 1999) *available at* https://www.sec.gov/interps/account/sab99.htm (last visited June 1, 2021).

[10] Basic v. Levinson, 485 U.S. at 238-9.

[11] *See* 15 U.S.C. § 78u–5.

making their decisions to buy/sell/hold securities or vote on shareholder matters. Letters from investor groups have attested to the demand for a rich and deep set of climate disclosures.[12]

In assessing the costs of disclosure, it is important to frame costs in marginal terms. Plainly stated, many issuers may not be incurring significant costs over what they would already do to:

¶ *Assess risk from climate change*: Climate change exists in objective physical reality, regardless of whether policymakers do anything. Just as they did with respect Y2K risks, businesses need to assess and potentially mitigate physical, transition, and liability risk as part of their operations;

¶ *Disclose on a voluntary basis to investors:* Many companies already make disclosures on climate change and related risks to investors;[13] and

¶ *Disclose pursuant to rules in other jurisdictions:* Issuers subject to the securities laws of other jurisdictions across the globe will need to comply with the disclosure rules that these other regulators are developing.[14] This reduces the marginal cost for these issuers of preparing disclosure under U.S. regulations.

Moreover, being subject to mandatory disclosure regimes abroad without a mandatory and coherent set of rules on climate disclosures in the United States would undermine the comparability that is essential for investors. Many investors may choose to move their capital to foreign markets with clear and well-designed rules mandating disclosures of climate risk, undermining the competitiveness of U.S. capital markets and adversely impacting capital formation for U.S. companies.

4. Principles for Climate Disclosure Requirements.

Comparability is indeed part of the DNA of mandatory securities disclosure. Standardized disclosure allows investors to make apples-to-apples comparisons of information among different companies in which they might invest. This need for standardized disclosure provides a core rationale for why mandatory disclosure is needed; the proliferation of private and international standard setters in the climate area means that even the issuers that elect to disclose may present similar risks in very different ways. A lack of comparability also creates opportunities

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[12] *E.g.* Statement by 457 Investors & The Investor Agenda, "2021 Global Investor Statement to Governments on the Climate Crisis," (June 10, 2021) attached to the Letter from Mindy S. Lubber, CEO of CERES (June 11, 2021) *available at* https://theinvestoragenda.org/wp-content/uploads/2021/05/IN-CONFIDENCE_EMBARGOED_2021-Global-Investor-Statement-to-Governments-on-the-Climate-Crisis-1.pdf (last visited June 14, 2021).

[13] *See, e.g.,* Letter from Prat Bhatt, Senior Vice President, Chief Accounting Officer, Cisco Systems, Inc. (June 11, 2021).

[14] For example, the European Union has already begun is legislative process for new disclosure and corporate governance rules with respect to climate risk. Karen E. Torrent, *What the E.U. Draft Directive Means for U.S. Companies' Climate-related Financial Risk Disclosures*, Duke Law School Global Financial Markets Center FinReg Blog (Nov. 11, 2020) *available at* https://sites.law.duke.edu/thefinregblog/2020/11/11/what-the-e-u-draft-directive-means-for-u-s-companies-climate-related-financial-risk-disclosures/ (last visited June 1, 2021).

for gaming disclosures, including "greenwashing." Greenwashing describes practices that many investors have decried, in which companies make cosmetic changes to make reductions in carbon emissions or other environmental benefits appear greater than they are. A lack of comparability frustrates investors seeking to allocate their capital.

The demands for comparability not only justifies climate disclosure, it should also animate the Commission's design of specific disclosure. Furthermore, the Commission should consider a number of additional conceptual principles in designing climate disclosures, including the following:

¶ the need for disclosure to cover physical, transition, and liability risks;
¶ the need for disclosure to focus on remedying the factors that frustrate accurate asset-pricing with respect to these three risks;
¶ the demand by investors for information on both process *and* substance;
¶ the importance of quantitative disclosures in addition to qualitative ones;
¶ how crucial asset duration is for investors with respect to climate risks; and
¶ the problems issuers and investors face because of uncertainties with insurance coverage and hedging.

I discuss each of these guiding principles below.

A. Disclosure Rules Should Address Physical, Transition, and Liability Risks

Disclosure rules should address each of the three forms of climate risks that policymakers and scholars have identified that impact companies: physical, transition, and liability risk.[15]

Physical risk describes the risk of losses to a company's assets and operations from the physical manifestations of climate change, including destruction from rising sea levels, more frequent and intense hurricanes and storms, flooding, extreme heat, drought and water scarcity, and wildfires. Physical risk covers both direct damage and indirect knock-on effects, such as when storms or wildfires cause failures of the electricity grid or harm a company's employees or customers.

Transition risk describes the risk of losses to a company from the prospective transition of the United States and other countries to economies with dramatically lower carbon emissions. Governments have made commitments to restrict carbon emissions or to increase the price of carbon throughout the economy. These changes, many of which may occur without government intervention, may cause dramatic drops in value for a company's assets, including property, plant, and

15 "A Transition in Thinking and Action," Remarks by Mark Carney, Governor of the Bank of England at the International Climate Risk Conference for Supervisors, De Nederlandsche Bank, Amsterdam (Apr. 6, 2018) *available at* https://www.bankofengland.co.uk/-/media/boe/files/speech/2018/a-transition-in-thinking-and-action-speech-by-mark-carney.pdf?la=en&hash=82F57A11AD2FAFD4E822C3B3F7E19BA23E98BF67 (last visited June 1, 2021) (describing these three categories of risk).

equipment and financial investments, that are tied to particular carbon-intensive energy sources. This can create what has been called a "stranded asset" problem.

Liability risk describes the litigation costs and losses that may impact some companies because of lawsuits related to their carbon emissions or because of physical and transition risk.

Although there are conceptual differences among these three forms of risk, they are tightly interconnected. Particular assets or operations may be subject to two or more of these risks. For example, a power plant may be damaged by a storm (physical risk), become obsolete because of market forces or new regulations (transition risk), or give rise to environmental lawsuits (liability risk).

The Commission should require disclosures of all three risks; dollars a company loses are dollars lost regardless of the conceptual bucket into which they fall.

B. *Disclosure Rules Should Remedy Factors that Make it Difficult for Investors to Price Climate Risk*

A number of factors impede accurate asset pricing of climate risk by investors and financial markets.[16] The Commission should design disclosure rules to address these impediments, particularly the following:

The lack of granular data on the physical location of a company's assets: a lack of data on the physical location of a company's assets may prevent investors from understanding the scope of physical risk affecting the company.[17] For example, multiple assets may be located in areas subject to enhanced risk of coastal flooding. It is not just the risk to any one group of assets that matters, but hidden correlations of risks as well. A company's attempt to diversify away physical risk by moving assets from the coast flood zone to a mountain region may suffer if that region is subject to wildfires. Furthermore, investors attempting to diversify their own investments would want to know if different companies in their portfolio have similar exposures to similar financial risks. *Uncovering hidden correlations of risks provide one of strongest justifications for climate risk disclosures*. Climate change, after all, presents one of the potentially largest generators of correlated risk—the "mother-of-all correlated risks"—that U.S. securities markets have ever faced.

Property, Plant, and Equipment and Infrastructure May not be Designed for Extreme Weather and Physical Risk Events: A company's long term Property, Plant, and Equipment, and the third party and public infrastructure on which it relies, may not be designed for the extreme weather and physical risk events that will recur because of climate change. As one example: electricity and internet connectivity at a vital operational

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[16] *See* Madison Condon, *Market Myopia's Climate Bubble*, __ UTAH L. REV. __ (forthcoming) *available at* https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3782675 (last visited June 1, 2021).
[17] Condon, *supra* note 16.

location may not be designed and located to withstand "unprecedented" flooding or storms.

Herd Behavior May Exacerbate Transition Risk: An environmental, market, or political shock or some cocktail of the three could prompt companies to sell stranded asset classes at the same time. The Panic of 2008 demonstrated the destructive possibilities of this kind of "fire sale externality," which prove particularly dangerous in the context of financial institutions.[18] To assess this risk both with respect to a particular issuer and across their portfolios, investors need both granular data on the transition risk of particular assets of an issuer and disclosure on how the issuer proposes selling these assets, including without limitation in response to a shock.

Managers May Have a Different Time Horizon than Investors Concerned with Climate Risk: Physical, transition, and liability risk may take years to manifest, but also may increase over time, possibly suddenly, given how climate change may worsen due to unforeseen tipping points. However, managers may have much shorter time horizons because of career moves and the structure of their compensation. Their time horizons may differ markedly from buy-and-hold retail investors saving for retirement.[19] These investors would want to know what the governance and executive compensation structures of a company mean for a company's responsiveness to climate risks.

C. Investors Want Information on Both Process and Substance

These different impediments to the pricing of climate risk underscore why investors want information both on process and substance. That is, investors want disclosure on the process an issuer is using to assess and mitigate physical, transition, and liability risks and their incentives to do so. The Commission should consider disclosures on whether a particular board committee or business unit has taken responsibility for assessing and mitigating climate risk, the scope of those responsibilities, and whether those bodies are using scenario planning and other tools, and the details and assumptions embedded in those tools and processes.

Investors also want asset-specific information from issuers so that they can assess these three form of risk for themselves. Without this substantive information, investors may legitimately worry that some issuers are using disclosed risk-assessment and mitigation processes to simply "paper up" and camouflage business as usual.

18 *See generally* Andrei Shleifer & Robert Vishny, *Fire Sales in Finance and Macroeconomics*, 25 J. ECON. PERSP. 29 (2011). *See also* Markus Brunnermeier, *Deciphering the Liquidity and Credit Crunch 2007–08*, 23 J. ECON. PERSP. 77 (2009) (describing fire sale dynamics during the 2008 financial crisis).
19 *See* Condon, *supra* note 16.

D. *Quantitative Metrics Matter*

In order to use sophisticated financial valuation techniques, investors need not just qualitative disclosures about physical, transition, and liability risks, but quantitative metrics as well. Some quantitative metrics would have the collateral benefit of being subject to review by auditors. I discuss particular disclosures later in this letter.

E. *Asset Duration Becomes Critical in the Climate Context*

Longer duration assets, including Property, Plant, and Equipment, and loans by financial institution issuers, pose particular concerns for investors in the context of climate risk. As noted above, these assets may not have been designed with the latency of climate risk in mind. Moreover, they may not have been priced at their date of creation or purchase to reflect climate risks adequately. Investors thus need not only information about climate risks of assets, but the term/duration of those assets as well. This information becomes even more important for bank and bank-like issuers because of the asset/liability mismatch embedded in their business model. Latent risks in long term assets, when coupled with short term liabilities, can exacerbate the fragility of banks and bank-like firms.[20]

F. *Is Insurance and Hedging Unlikely to Cover Physical Risks?*

Investors also care whether issuers have adequate insurance or hedging against physical risks. Adequate coverage in one year may evaporate given that many property and casualty insurance policies have one-year terms. The State of California took extraordinary action in 2020 to prevent insurers from dropping coverage in the wake of devastating wildfires, providing stark evidence of climate risks.[21] If issuers turn to more novel hedging tools, including derivatives and capital markets products akin to CAT bonds, then investors will need high quality disclosure to understand if these tools provide adequate and adequately priced risk mitigation.

5. Borrowing Disclosure Rules from Other Standard Setters

I concur with the analysis in the Letter of Professor Jill E. Fisch et al. with regards to the Commission's ability to rely on climate risk standards set by various multilateral or non-governmental standard setters. However, the Commission should exercise oversight over the

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[20] Investors with environmental motivations may also want information about the duration of assets because of concerns with carbon lock-in. For a description of carbon lock-in, see Karen C. Seto et al., *Carbon Lock-In: Types, Causes, and Policy Implications*, 41 ANN. REV. ENV'T & RESOURCES 425 (2016).

[21] Christopher Flavelle, *California Bars Insurers From Dropping Policies in Wildfire Areas*, N.Y. TIMES at A13 (Nov. 6, 2020) *available at* https://www.nytimes.com/2020/11/05/climate/california-wildfire-insurance.html (last visited June 1, 2021).

substance of the standards being borrowed as well as the process used to create new standards. This will both build a robust administrative record and avoid the problems the Commission has encountered in the past with various gatekeepers that have become indispensable to capital markets.[22]

6. Physical Risk Disclosures

To address the problems noted above with investors assessing physical risks and the potential for highly correlated losses, the Commission should require issuers to disclose whether particular Property, Plant, and Equipment or other assets above a certain value or otherwise material to an issuer's business are located in locations subject to:

¶ Hurricane and severe storms and associated flooding;
¶ Enhanced risk of coastal flooding due to rising sea levels;
¶ Severe heat events;
¶ Drought and water scarcity; and
¶ Wildfires.

The Commission should designate maps developed by respected governmental or academic groups that show the geographic locations where these risks are heightened. By contrast, allowing issuers to pick and choose from different maps would undermine comparability. The Commission should consider building towards an ultimate goal of tagging individual assets with geo-locational data. Data tagging would enable investors to do more sophisticated analysis of risk correlations and to use their own maps and models for physical risk.

The Commission should also consider that it is not just the location of an issuer's own assets that determine physical risk. An issuer's supply chains may also face disruptions because of the hurricanes, storms, flooding, drought, and extreme heat events resulting from climate change. For example, manufacturers in California suffered from electricity blackouts due to wildfires in that state. Issuers should disclose whether their supply chains are subject to material physical risks from climate change and their assumptions behind their analysis.

7. Transition Risk Disclosures

The Commission should build on existing disclosure rules to provide investors with meaningful disclosures on transition risk that are capable of being used in sophisticated and robust financial analysis.

First, the Commission should amend Item 305 of Regulation S-K[23] to require disclosures of whether the increasing price of carbon will pose market risks to issuers. Issuers should analyze and disclose market risk given today's legal and regulatory environment. They should also analyze and disclose changes in market risk in light of international commitments under the Paris Accord that would increase the price of carbon. The Commission should select widely

[22] For a discussion of this set of problems, see Letter from Ty Gellasch, Healthy Markets (June 14, 2021).
[23] 17 C.F.R. § 229.305.

accepted intergovernmental commitments, such as the Paris Accord, as the yardstick for increased carbon prices. Allowing issuers to pick their own assumptions on increases in the price of carbon would undermine comparability. As these international commitments change over time, the Commission may need to update this part of its disclosure rules accordingly.

Increased carbon prices would impact both energy commodities on which many issuers directly depend, such as the price of jet fuel for airlines and logistics companies. Increased carbon prices of energy would, in turn, impact other commodities that depend on energy intensive processes. The Commission would be reasonable if it chose to focus initial disclosure on the market risk from energy commodities.

The Commission should include both quantitative and qualitative disclosures of market risk:

Quantitative disclosures: Under a given increase of carbon prices, issuers should have to conduct the market risk analysis set forth in current Item 305(a). Issuers should disclose at least two scenarios:

¶ a base case of how increased carbon prices would create market risk given the *current* assets and operations of the issuer; and

¶ an optional transition case of how carbon prices would create market risk given certain assumptions, *which must be clearly stated*, on how the issuer would transition to less-carbon intensive substitutes.

The types of analysis embedded in Item 305(a), including Value-at-Risk analysis do have important limitations. These include limitations in this financial risk assessment technology, such as a "garbage in/garbage out" problem if faulty data is inputted. Moreover, Value-at-Risk and the use of confidence intervals leaves a potentially large blind spot for "tail risk."[24] This can be particularly worrisome given that climate change is full of "fat tail" risks. These limitations can also enable market participants to game models, for example, by designing transactions to hide within these fat tails.[25]

It is thus important for the Commission to require robust disclosure of the assumptions that issuers make in constructing, using, and disclosing these risk assessment tools.

Qualitative disclosures: Because of the blind spots inherent in using quantitative market risk analysis, the Commission already requires that issuers make qualitative disclosures of market risk under Item 305(b) of Regulation S-K. The Commission

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[24] I described how these dynamics afflicting financial models contributed to failures of financial institutions to understand the build-up of risk leading up to the Panic of 2008. Erik F. Gerding, *Code, Crash, and Open Source: the Outsourcing of Financial Regulation to Risk Models and the Global Financial Crisis*, 84 WASH. L. REV. 127 (2009).

[25] *Id.*

should enhance these disclosure requirements so that issuers must also make qualitative disclosures of market risks associated with rising carbon prices.

Second, the Commission should require disclosure, including accounting disclosure under Regulation S-X, of credit risk and possible asset impairments because of rising carbon prices. This is particularly important for financial firms that are in the business of extending credit. The probability and magnitude of default by borrowers or other counterparties may increase with rising carbon prices. Counterparties in the energy sector and carbon-intensive industries may be particularly vulnerable.

8. Where Disclosure of Physical and Transition Risk Disclosure Fits within the Existing Regulation S-K Framework

The Commission should clarify that these physical and transition risks of climate change —including but not limited to operational risk —should be disclosed by issuers in the Description of Business, Description of Property, Risk Factors, and MD&A sections of SEC filings (*i.e.* pursuant to Items 101, 102, 105, and 303 of Regulation S-K).[26] Physical and transition risk may already impact the following items of disclosure in Regulation S-K:

¶ The sources and availability of raw materials (Item 101);
¶ Working capital needs (Item 101);
¶ Description of physical properties (Item 102); and
¶ Risk factors (Item 105);

The Commission should also clarify that MD&A disclosures should physical and transition risk, which may already fall under the following existing standard:

> "The discussion and analysis must focus specifically on material events and uncertainties known to management that are reasonably likely to cause reported financial information not to be necessarily indicative of future operating results or of future financial condition. This includes descriptions and amounts of matters that have had a material impact on reported operations, as well as matters that are reasonably likely based on management's assessment to have a material impact on future operations."[27]

Moreover, physical and transition risk may impact each of the components of MD&A disclosure, including the following:

¶ the liquidity and capital resources of an issuer;[28]
¶ the results of operations;[29] and

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26 17 C.F.R. Subpart 229.
27 17 C.F.R. § 229.303(a).
28 17 C.F.R. § 229.303(b)(1).
29 17 C.F.R. § 229.303(b)(2).

¶ critical accounting estimates[30] (including whether assets are impaired or an issuer is required to hold reserves given physical, transition, or liability risk).

In drafting MD&A, issuers should discuss whether insurance coverage or other risk hedging mechanisms may suddenly increase in price or become unavailable.

The Commission should amend each of these disclosure line items to clarify that they would cover physical and transition risk from climate change to ensure adequate comparability among issuers.

However, as a stopgap measure, while the administrative rulemaking process proceeds apace, the Commission should issue interpretations that issuers should consider physical and transition risk in responding to each of the aforementioned existing line items. The Division of Corporate Finance should then follow this kind of conservative and investor-protective interpretation of existing rules with respect to climate risk in its review of registration statements and proxy disclosure.

9. Liability Risk

The Commission should enhance Item 103 of Regulation S-K[31] to clarify that issuers should disclose litigation risks related to climate change. Issuers should also:

¶ disclose threatened litigation related to climate change in its MD&A disclosure; and
¶ consider whether reserves for liabilities, including litigation risk, need to be taken and disclosed in financial statements pursuant to Regulation S-X.

10. Revisiting the Counterproductive 2020 Revisions to Regulation S-K

I note with concern that the Commission made important deregulatory revisions to Regulation S-K in 2020, as part of a larger wave of hasty deregulatory actions while much of the public was preoccupied with the health and economic impacts of the pandemic.[32] These under-the-radar changes may negatively impact high quality, comparable disclosures on climate risk, because they:

¶ Water down disclosure rules by introducing "principles-based" qualifiers to Item 101 descriptions of an issuer's business;
¶ Deemphasize environmental laws by "refocusing" disclosure in Item 101(c) on other non-environmental government regulations;
¶ Raise the threshold for disclosure of pending litigation proceedings from $100,000 to $300,000; and

[30] 17 C.F.R. § 229.303(b)(3).
[31] 17 C.F.R. § 229.103.
[32] Modernization of Regulation S-K Items 101, 103, and 105, Release Nos. 33-10825; 34-89670 (Aug. 26, 2020) *available at* https://www.sec.gov/rules/final/2020/33-10825.pdf (last visited June 1, 2021).

- ¶ Dilute risk factor disclosure under Item 105 by introducing a "principles based" approach.

The Commission should recognize the hastiness in which it implemented these changes. A "principles-based" approach should supplement, not replace, existing disclosure rules. Otherwise, vague standards will cause a deterioration in the quality and comparability of disclosure. Requiring disclosure of other litigation risks should not detract from the appropriate emphasis on environmental liabilities, given the massive potential scope of legal risks in that particular area. Accordingly, the Commission should recalibrate these disclosure rules to clarify:

- ¶ That a "principles-based" approach supplements but does not replace previous disclosure rules; and
- ¶ That environmental liabilities should remain one of the primary focal points of this corner of Regulation S-K disclosure.

11. Industry Guides

Although climate disclosures should apply broadly to registrants (with enhanced disclosures for larger issuers), the Commission should also revise the Industry Guides to reflect risks particular to issuers in particular economic sectors.

Industry Guide 3—Statistical Disclosure by Bank Holding Companies: As noted above, banks and bank-like issuers have particular vulnerabilities to physical and transition risk given their asset-liability mismatch. Therefore, the Commission should amend Industry Guide 3 to require an additional and separate break down of asset categories exposed to a high degree of market and credit risk from climate change for both Parts II (Investment Portfolio) and III (Loan Portfolio) of Guide 3. The Commission's revisions should begin by defining asset categories with the most direct exposures. I make two process notes with respect to Industry Guide 3:

- ¶ The fact that Commission updated Industry Guide 3 in 2020[33] should not preempt or preclude it from making further updates for climate-related risk; and
- ¶ The Commission should consider creating new parallel guides to cover non-bank market participants that:
    - o provide the same economic functions and services of banks;
    - o are subject to the same risks, including the risk of "runs" as a result of maturity transformation; and
    - o have received government support (including trillions of dollars of Federal Reserve money) twice in the last thirteen years.

Industry Guide 4—Prospectus Relating to Interests in Oil and Gas Programs: The Commission should enhance this Industry Guide to require issuers to disclose whether transition

[33] Update of Statistical Disclosures for Bank and Savings and Loan Registrants, Release No. 33-10835; 34-89835 (Sept. 11, 2020) *available at* https://www.sec.gov/rules/final/2020/33-10835.pdf (last visited June 1, 2021).

risk and new and pending regulations would affect investors. In addition, the Commission should enhance the following existing disclosures in Regulations S-K and Regulation S-X to reflect the financial impact of governmental commitments to increase the price of carbon:

- ¶ Item 302(b) of Regulation S-K (Information about oil and gas producing activities);[34] and
- ¶ Regulation S-X Rule 4-10(a).[35]

Industry Guide 5—Preparation of Registration Statements relating to Interests in Real Estate Limited Partnerships: The Risk Factors required by Part 7 of this Industry Guide should include a discussion of whether the partnership has invested, or will invest, in real estate assets located in areas designated by SEC-selected government or academic maps (as described earlier in this letter) that are subject to significant risk of coastal flooding (from storms or sea level rise), inland flooding, drought and water scarcity, extreme heat, and wildfires.

Industry Guide 6—Disclosures Concerning Unpaid Claims and Claim Adjustment Expenses of Property-casualty Insurance Underwriters: The Commission should enhance this Industry Guide to give investors disclosure about whether property/casualty insurers have or anticipate greater claims or increasing reserves because of coastal or inland flooding, super storms, extreme heat or drought, or wildfires. Moreover, investors in both insurance companies and in issuers that are the beneficiaries of policies issued by these insurers would want to know whether an insurer anticipates withdrawing from a particular market or dramatically repricing its policies because of these risks.

12. Disclosure with respect to Transaction and Resale Exemptions

Finally, I write to second the concerns raised in other letters that even the best-designed climate disclosures will have a deteriorated impact if the rules apply only to public companies and registered offerings while capital continues to migrate from public markets to private markets. In a previous letter to the Commission that I co-authored with Professor Elisabeth de Fontenay, which was signed by 13 other securities law professors, we expressed concerns with the expansion of transaction exemptions.[36] In the interest of not cluttering the administrative record, I will not repeat the analysis of that letter. However, I continue to be concerned about expanded transaction exemptions enabling the migration of capital from brightly-lit, well-regulated public markets where disclosure rules:

- ¶ Protect investors;
- ¶ Remedy information asymmetries;

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[34] 17 C.F.R. § 229.302(b).
[35] 17 C.F.R. § 210.4-10.
[36] Law Professor Comment Letter on Harmonization of Private Offering Rules (Concept Release on Harmonization of Securities Offering Exemptions, File No. S7-08-19) (September 24, 2019) *available at* https://scholar.law.colorado.edu/research-data/10/ (last visited June 1, 2021).

¶ Mitigate agency costs in which management does not act in the interests of shareholders; and
¶ Promote comparability of issuers.

Indeed, my concerns have only grown after the Commission took yet another hasty deregulatory move in 2020 to expand radically the scope of transaction exemptions.[37]

I will save for another letter my arguments for revisiting this radical rule change. For purposes of this letter, I note the following:

¶ *The Commission should use its authority to condition transaction and resale exemptions on improved disclosure*, including disclosure on climate risks described in this letter. The Commission's authority to require disclosure in connection with transaction exemptions is well-established and various exemptions already require issuers to make disclosures or have information available to investors.[38] Similarly, the Commission has included information availability conditions in the important Rule 144A resale exemption.[39] Note that a significant percentage of debt securities in the United States are not publicly registered, but exist in Rule 144A markets, making disclosure conditions for this exemption crucial.[40]

With this authority, the Commission should condition the use of the most important exemptions, such as Rule 506 under Regulation D on making disclosure to investors similar to what is required under Regulation S-K and S-X. This condition should particularly apply to large issuers or large issuances. Without this condition, large issuers and large issuances can avoid making important disclosures on climate risk and other matters important to investors.

¶ *The Commission should tighten rules for public company status:* The Commission should also tighten its rules for counting beneficial owners for purposes of the thresholds for when companies become Exchange Act reporting companies.

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[37] Facilitating Capital Formation and Expanding Investment Opportunities by Improving Access to Capital in Private Markets, Release Nos. 33-10884, 34-90300, IC-34082 (Nov. 2, 2020) *available at* https://www.federalregister.gov/documents/2021/01/14/2020-24749/facilitating-capital-formation-and-expanding-investment-opportunities-by-improving-access-to-capital (last visited June 1, 2021).
[38] *E.g.*, 17 C.F.R § 230.502(b) (requiring disclosure to non-accredited investors in a Rule 506(b) offering); Rule 201 of Regulation Crowdfunding (17 C.F.R. § 227.201) (disclosure to investors for crowdfunding offerings).
[39] Rule 144A(d) (17 C.F.R § 230.144A(d)).
[40] This is according to the SEC's own 2015 study. Scott Baugess et al., Capital Raising in the U.S.: An Analysis of the Market for Unregistered Securities Offerings, 2009-2014 (Oct. 2015) *available at* https://www.sec.gov/files/unregistered-offering10-2015.pdf.
I note that the data on the size of private markets is imperfect given the lack of data required and collected for transaction exemptions such as Regulation D. The SEC should enforce filings requirements for transaction exemptions and collect and analyze data on the volume of exempt transactions, which issuers are using various exemptions, the purposes for these issuances, and the incidence of allegations of fraud or material misstatements or omissions. Certainly, the Commission should not further liberalize these exemptions without these data.

> Without this change, issuers who are owned by a large number of diffuse investors can continue to avoid making important disclosures on climate risk and other matters important to investors.

# # #

Thank you for this opportunity to offer comments on the process and substance of climate disclosure rules. I urge the Commission to use its powers to enhance disclosures to investors, who want and need information to understand and compare the grave risks climate change poses to companies in which they invest.

Please feel free to contact me with any questions or if I may be of service to you as you work on this important task.

Best regards,

Erik F. Gerding

Erik F. Gerding

Professor of Law & Wolf-Nichol Fellow

cc:
The Honorable Allison Herren Lee, Commissioner
The Honorable Hester M. Peirce, Commissioner
The Honorable Elad L. Roisman, Commissioner
The Honorable Caroline A. Crenshaw, Commissioner