June 17, 2022

VIA ELECTRONIC SUBMISSION

Re: The Enhancement and Standardization of Climate-Related Disclosures for Investors
   (File Number S7-10-22)

Subj: Economic Analysis for the Proposed Rule

The Institute for Policy Integrity (Policy Integrity) at New York University School of Law,1 Environmental Defense Fund (EDF), and Professor Madison Condon respectfully submit the following comments to the Securities and Exchange Commission (SEC) regarding The Enhancement and Standardization of Climate-Related Disclosures for Investors (File No. 27-10-22) (Proposed Rule).2

Policy Integrity is a non-partisan think tank dedicated to improving the quality of government decisionmaking through advocacy and scholarship in the fields of administrative law, economics, and public policy. One of the world’s leading international nonprofit organizations, EDF creates transformational solutions to the most serious environmental problems. To do so, EDF links science, economics, law, and innovative private-sector partnerships. Professor Madison Condon joins these comments in her individual capacity. Professor Condon is an Associate Professor of Law at Boston University School of Law,3 an Affiliated Scholar at Policy Integrity, and an Affiliate Scholar at the Initiative on Climate Risk and Resilience Law (ICRRL).4 Her scholarship focuses on climate change and its relationship to corporate governance, market risk, and financial regulators.

This group of signatories has submitted three letters in total. This letter addresses the Commission’s economic analysis for the Proposed Rule. The other two focus on the SEC’s regulatory precedents and reasoned explanation for the Proposed Rule.

The SEC is statutorily obliged to consider the effects of its regulations on “efficiency, competition, and capital formation,”5 and the U.S. Court of Appeals for the D.C. Circuit has

1 This document does not purport to present the views, if any, of New York University School of Law.
3 This document does not purport to present the views, if any, of Boston University School of Law.
4 ICRRL is a joint initiative of Policy Integrity, EDF, Columbia Law School’s Sabin Center for Climate Change Law, and Vanderbilt Law School, focused on legal efforts on climate risk and resilience, particularly at the intersection of practice and scholarship. This document does not necessarily represent the views of each ICRRL partner organization. For more information on ICRRL, see https://icrrl.org.
5 See 15 U.S.C. § 77b(b); id. § 80a-2(c).
interpreted this language as requiring a form of cost-benefit analysis.\textsuperscript{6} We commend the SEC for conducting an economic analysis that is consistent with relevant case law, and suggest some revisions that would provide additional context and support for the final analysis. Specifically, we make the following recommendations:

- **Need for regulation:** The SEC correctly observes that the absence of high-quality climate-risk disclosure is a significant problem for investors and capital markets.\textsuperscript{7} As a result of market failures, the landscape of climate risk disclosure and sustainability reporting is filled with selective disclosures, inadequate information, boilerplate text, and greenwashing. Because of these market failures, firms will not produce the optimal level of climate risk information unless disclosure is mandatory. The Commission should consider citing to more of this literature in the final draft of its rule.

- **Baseline:** The SEC’s baseline analysis captures many of the most important aspects of “how the world would look in the absence of the proposed action.”\textsuperscript{8} The Commission should consider accounting in its baseline for some additional costs that already accrue to issuers and investors under the status quo, including:
  (a) investors’ current expenditures on procuring climate risk information,
  (b) disclosure requirements from other regulators and standard setters,
  (c) issuers’ exposure to litigation risks arising from their current climate-related disclosures, and
  (d) existing incentives to avoid or leave public capital markets.

- **Costs:** The SEC’s compliance cost estimates appear consistent with the results of an independent survey of firms that were asked to report their climate risk disclosure costs. However, the Commission could make a few modifications to the cost analysis section in order to provide additional context and clarity in the final rule. Specifically, the SEC should consider:
  (a) more clearly identifying and presenting certain assumptions that undergird its cost estimates;
  (b) clarifying whether and how the Scope 3 emissions reporting requirement could affect private companies in public companies’ supply chains;
  (c) explaining, in its discussion of potential indirect costs, why the Proposed Rule is unlikely to significantly alter companies’ incentives to participate (or not) in public

\textsuperscript{6} See Chamber of Commerce of the U.S. v. SEC, 412 F.3d 133, 144 (D.C. Cir. 2005) (referring to the SEC’s “statutory obligation to determine as best it can the economic implications of the rule it has proposed”); Business Roundtable v. SEC, 647 F.3d 1144, 1149–50 (D.C. Cir. 2011) (finding that Commission “neglected its statutory responsibility to assess the economic consequences of its rule”); Robert J. Jackson, Jr., *Comment: Cost-Benefit Analysis and the Courts*, 78 LAW & CONTEMP. PROBS. 55, 62 (2015) (noting that “the D.C. Circuit made clear [in *Chamber of Commerce*] that it intends to read the law” as obligating the SEC to conduct a cost-benefit analysis).

\textsuperscript{7} See, e.g., Proposed Rule, supra note 2, at 21,340.

markets; and
(d) contextualizing the costs of climate risk disclosure by comparing them to companies’ overall expenditures on disclosure or other relevant figures.

- **Benefits**: The SEC’s benefits analysis offers reasoned explanations for why each component of the Proposed Rule will elicit useful information that will benefit investors. Although the SEC need not quantify these benefits, the Commission should consider, to the extent feasible, presenting a side-by-side comparison of the benefits of each of the Proposed Rule’s disclosure requirements with any associated costs and expressly concluding, with respect to each of the Proposed Rule’s disclosure requirements, that the unquantified investor protection, efficiency, competition, and capital formation-related benefits identified by the Commission justify the associated direct and indirect costs.
I. The Commission’s climate risk disclosure standards are necessary to address persistent market failures that prevent investors from accurately pricing risk.

Consistent with the SEC’s internal guidance on economic analysis, the Commission identifies multiple market failures—including principal-agent problems, information asymmetries, and collective action problems—that have resulted in an undersupply of comparable, consistent, and decision-useful information on climate risk, and that the Proposed Rule would address. Below, we discuss additional evidence that the Commission could cite regarding each of these market failures.

A. The Proposed Rule would address the principal-agent problem.

First, there is the principal-agent problem between corporate officers and investors, which occurs when corporate officers have incentives that are not aligned with maximizing the long-term value of the corporation. The Commission dedicates a section to discussing this possibility, but the broader literature on agency problems provides additional support for its analysis. Research from professors John Armour, Jeffrey Gordon, and Geeyoung Min demonstrates that “[s]tock-based pay, ubiquitous for corporate executives, creates systematic incentives to short-change compliance,” because compliance is a “long-term investment for firms, [whereas] managers’ time horizon is truncated to the date to liquidate stock.” Moreover, because managers are often compensated with stock options, which become worthless if the stock drops below the strike price, managers are “indifferent to the difference between a ‘bad’ and a ‘worse’ event.” Thus, Armour et al. show that managers may be under-incentivized to spend on “insurance against low-probability high-impact events.” Law professors Marcel Kahan and Edward Rock have also shown that the risk of being fired for a drop in the stock price can cause managers to forego spending on mitigating longer-term risks.

The same logic applies to climate risk disclosures. Just as managers have a disincentive to make up-front expenditures to manage long-term risks, they also have a disincentive to disclose information that could lead to investor pressure to make such expenditures. For example, an

9 Proposed Rule, supra note 2, at 21,426.
10 John Armour et al., Taking Compliance Seriously, 37 YALE J. REG. 1, 4–5 (2020).
12 Armour et al., supra note 10, at 25.
13 Marcel Kahan & Edward B. Rock, Hedge Funds in Corporate Governance and Corporate Control, 155 U. PA. L. REV. 1021, 1088 (2007); see also John R. Graham, Campbell R. Harvey & Shiva Rajgopal, The Economic Implications of Corporate Financial Reporting, 40 J. ACCT. & ECON. 3, 32–35 (2005) (stating that 80% of corporate executives admitted that they would decrease discretionary spending in areas such as research and development to meet quarterly earnings targets).
14 Condon, supra note 11, at 100 (citing Lisa Zaval & James F. M. Cornwell, Cognitive Biases, Non-Rational Judgments, and Public Perceptions of Climate Change, OXFORD RSCH. ENCYCLOPEDIA CLIMATE SCI. 10 (Nov. 2016); Leonhard K. Lades, Towards an Incentive Salience Model of Intertemporal Choice, 33 J. ECON. PSYCH. 833 (2012)).
investigation into the coal company Peabody Energy by the New York attorney general found that the company “denied its ability to reasonably predict the future impact of any climate change regulation on its business,” while internally, “the company and its consultants projected severe impacts from certain potential regulations that would materially affect Peabody.”

Because other companies’ managers face similar incentives to under-investigate, ignore, or even suppress material climate risks, it is highly unlikely that investors will successfully obtain accurate and decision-useful climate risk information without greater regulation. The SEC should thus consider citing to the broad academic literature on managerial incentives to bolster its case for the Proposed Rule.

B. The Proposed Rule would address information asymmetry.

The principal-agent problem also contributes to the market failure of information asymmetry. Because climate risk is possible to evaluate only with information that is internal to the company, such as locations of capital infrastructure and their resilience to increased hazard, investors are at an information disadvantage relative to issuers. For example, the Carbon Tracker Initiative has documented the many instances in which companies have made claims that their capital allocation processes account for anticipated and potential regulatory risks, but provide insufficient detail for an investor to understand how, or if, this was done.

Existing disclosure regulations and guidance have proved insufficient to address this asymmetry. In a 2020 study of climate risk disclosures in 10-K filings, the Brookings Institution concluded that though “[d]isclosure has risen sharply,” “[m]ore firms are disclosing more general information that is essentially of no utility to the marketplace.” This is especially true with


17 Id. at 79–80.

18 See generally, e.g., BARBARA DAVIDSON & ROB SCHUWERK, CARBON TRACKER INITIATIVE, FLYING BLIND: THE GLARING ABSENCE OF CLIMATE RISKS IN FINANCIAL REPORTING (2021).

regard to physical risk: according to the authors, “transition risk gets double the mentions of physical risk” in the disclosures analyzed. Physical risk is already affecting the economy; in the last two years alone, the U.S. has experienced forty-two separate weather disasters that have each imposed over a billion dollars in costs. This risk has also intensified with time. But despite this, there is little to no evidence that physical risk disclosures are moving markets, in large part because corporations have underemphasized physical risk disclosures.

Because “investors can only price the risks they are aware of,” inadequate disclosures contribute to asset prices that do not accurately reflect issuers’ varying degrees of vulnerability to the physical and transitional effects of climate change. For this reason, over 93% of investors surveyed “view climate risk as an investment risk that has yet to be priced in by all of the key financial markets globally.” Correcting mispricing can mitigate the extent by which climate risk poses a systemic risk to the economy, as informed investors will be better equipped to engage in hedging that could diminish their overall exposure to climate-related risks.

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NYU J. LEGIS & PUB. POL’Y 745, 777–84 (2022) [hereinafter “Mandating Disclosure”]: Will Evans, Private Report Shows How Amazon Drastically Undercounts Its Carbon Footprint, REVEAL (Feb. 25, 2022), https://perma.cc/3B3L-HYWY (“[Amazon’s CDP report] highlights the pitfalls of relying on self-disclosures and voluntary commitments from companies that have a vested interest in understimating their own accountability. Amazon has positioned itself as a climate change leader, promoting a “Climate Pledge” to zero out emissions by 2040. But by not counting all of its emissions, it isn’t on the hook for cutting them.”).

20 BOLSTAD ET AL., supra note 19, at 11.


22 Id. (“In broader context, the total cost of U.S. billion-dollar disasters over the last 5 years (2017-2021) is $742.1 billion, with a 5-year annual cost average of $148.4 billion, both of which are new records and nearly triple the 42-year inflation adjusted annual average cost.”).

23 BOLSTAD ET AL., supra note 19, at 11 (“A puzzle that needs further investigation is why reporting about climate exposure is so heavily weighted to transition risk. As shown in our analysis of disclosure from traded corporate equities, transition risk gets double the mentions of physical risk. It is hard to believe that physical risks are, indeed, only half as important as transition risks.”).

24 Condon, supra note 11, at 76.


27 For more on systemic risk, see Mandating Disclosure, supra note 19, at 792–93.
The Commission should also be commended for acknowledging and working to reduce information asymmetries among investors.\(^28\) The need for climate risk analysis has spurred large institutional investors to hire in-house climate scientists and enter into partnerships with academic climate research centers.\(^29\) These initiatives may allow the largest and most well-capitalized investors to obtain better climate risk information, but they can also exacerbate the information gap between retail investors and large asset managers. As the Commission observes, asymmetries among investors can cause investors with less information to demand higher risk premiums.\(^30\) Investors who know that they are at an informational disadvantage may also choose to exit the market altogether.\(^31\) Either scenario raises the cost of capital for firms.

**C. The Proposed Rule would address the collective action problem.**

Lastly, there is the collective action problem posed by climate risk disclosure, which the Commission alludes to in its discussion of impediments to voluntary climate-related disclosures.\(^32\) As explained in a prior EDF and Policy Integrity report,

Managers face strong short-term incentives to keep share prices and credit ratings high, and as a result, have little reason to disclose unfavorable climate risk information if it will lead investors to favor competing corporations. However, because there are benefits to sharing information and strategies for addressing climate risk, corporations would be better off in a world where they assess risks accurately and disclose this information so as long as they have assurance that other corporations will do the same. An improved mandatory disclosure regime solves this problem by creating a level playing field. Corporate managers can benefit from information sharing, while avoiding the penalties and backlash that may have come with unilateral disclosure.\(^33\)

\(^{28}\) See Proposed Rule, supra note 2, at 21,431.


\(^{30}\) See id.

\(^{31}\) See id. at 21,430 n.853.

\(^{32}\) Proposed Rule, supra note 2, at 21,426.

\(^{33}\) Mandating Disclosure, *supra* note 19, at 788–89. This analysis accords with the Commission’s observation that mandatory ESG reporting is associated with aggregate stock price movement. Proposed Rule, *supra* note 2, at 21,429 (quoting J. Grewal, E. J. Riedl & G. Serafeim, *Market Reaction to Mandatory Nonfinancial Disclosure*, 65 MGMT. SCI. 3061–84 (2019)). Companies can reap benefits from reporting accurate sustainability information, but they may be reluctant to report their climate-related financial risks if other companies are not guaranteed to report them as well.
These three overlapping market failures demonstrate the inaccuracy of Commissioner Peirce’s contention that the Proposed Rule lacks “a credible rationale for such a prescriptive framework when our existing disclosure rules already capture material risks relating to climate change.” In reality, the SEC’s current, entirely principles-based approach to climate risk disclosure, which lets issuers decide what information a hypothetical reasonable investor would want from them, exacerbates agency problems and collective action problems by putting reporting discretion in the hands of managers who often have incentives to underreport climate risk. Underreporting leads to information asymmetries that investors cannot correct, because they cannot know what is being omitted without significant effort on their part.

Additionally, the existing disclosure rules do not require auditing of climate risk information, even though this information is being used to guide investment decisions. CDP reports that in 2021, “13,000+ companies representing over 64% of global market capitalization disclosed through CDP.” These self-reported emissions figures are relied upon in direct and significant ways that affect capital flows. Emissions data is used by investors to track corporate risk management strategies over time, incorporated into executive pay incentives, and used to design index fund composition and weighting. Yet these numbers do not receive the outside assurance or auditing approval that we expect from other financial information used in these same ways.

Lastly, even if the SEC ramped up its enforcement of climate risk disclosure under existing rules and spurred corporations to report risks more accurately, the principles-based disclosures would

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35 Some investors may be more informed than others, and these investors may attempt to arbitrage away mispricings in order to reap a profit and bring an asset’s price in line with its fundamental value. However, arbitrage is unlikely to correct widespread mispricing in this instance. “A large literature on the ‘limits to arbitrage’ details why informed arbitrageurs are very limited in their ability to correct broad market mispricings. Arbitrageurs can’t short the whole market, and they lack the resources to correct market-, or even industry-wide bubbles.” Condon, supra note 11, at 105–07; see also Jeff Schwartz, Fairness, Utility, and Market Risk, 89 OR. L. REV. 175, 208–13 (2010); Ronald J. Gilson & Reinier H. Kraakman, The Mechanisms of Market Efficiency, 70 VA. L. REV. 549, 581 (1984); Robert J. Shiller, Irrational Exuberance 197 (3d ed. 2015) (“[I]f indeed one knew today that the market would do poorly over the next ten or twenty years, but did not know exactly when it would begin to do poorly and could not prove one’s knowledge to a broad audience, then there would be no way to profit significantly from this knowledge.”).


38 Andrew Hill, Executive Pay and Climate: Can Bonuses Be Used to Reduce Emissions?, FIN. TIMES (Nov. 14, 2021), https://www.ft.com/content/c1d0e4d5-b42f-4287-8bfe-319f31a7acbe.

not be standardized, creating unnecessary difficulties for investors seeking to compare the performance and risk exposure of different firms.

In sum, the SEC can draw on the large literature describing the above market failures to show that investors cannot obtain comparable, consistent, and decision-useful information on climate risk without the Proposed Rule’s standardized reporting requirements.

II. The Commission should consider providing additional detail in its baseline analysis about climate risk-related costs that issuers and investors would face without the Proposed Rule.

The Commission’s baseline analysis captures many of the most important aspects of “how the world would look in the absence of the proposed regulation,” including the costs to issuers of providing voluntary disclosure and the costs of complying with other climate risk disclosure regulations at the state and international level. We identify four other components of the baseline that the Commission should consider including in its final economic analysis: (i) investors’ current expenditures on procuring climate risk information, (ii) disclosure requirements from other regulators and standard setters, (iii) issuers’ exposure to litigation risks arising from their current climate-related disclosures, and (iv) existing incentives to avoid or leave public capital markets.

A. The Commission should consider including estimates of current investor expenditures on climate risk information.

First, the baseline analysis should reflect that many investors currently spend significant amounts of money and time procuring climate risk information to guide their investment decisions. For example, CalPERS, the largest public pension fund in the United States, expends considerable resources to procure disclosures from the companies it invests in. ERM surveyed an array of institutional investors and found that “institutional investor respondents spend an average of $1,372,000 annually to collect, analyze, and report climate data to inform their investment decisions.” Another research firm found that spending on ESG data products and metrics

40 SEC Guidance, supra note 8, at 6.
41 Proposed Rule, supra note 2, at 21,415–21.
42 Id.; see also JACK LIENKE & ALEXANDER SONG, INST. FOR POL’Y INTEGRITY, ASSESSING THE COSTS AND BENEFITS OF MANDATORY DISCLOSURES 14–18 (2022), https://perma.cc/8JLA-EWDK (discussing the caselaw that guides the SEC’s baseline analysis and applying it in the climate risk disclosure context).
surpassed $1 billion in 2021.\textsuperscript{45} The accuracy of these data products and metrics is sometimes suspect, due to a lack of transparency regarding the methods used and the completeness of the underlying information.\textsuperscript{46}

Including an estimate of current investor spending on climate risk data in the baseline would help the Commission’s economic analysis properly account for the benefits of mandatory disclosure. Specifically, if issuers can gather the same climate risk information more efficiently than third-party ESG data providers, then the net reduction in information-gathering costs is a benefit of the Proposed Rule. Additionally, if issuers can supply more accurate information than third-party ESG data providers, then the resulting increase in efficiency of capital allocation is also a benefit of the Proposed Rule.

B. The Commission should consider noting additional disclosure requirements from other regulators and standard setters.

Second, the SEC should consider acknowledging any additional disclosure regulations promulgated by state regulators and international standard setters in the months since the Commission released the Proposed Rule. For example, in April, a bipartisan panel of regulators at the National Association of Insurance Commissioners (NAIC) voted to require annual disclosures of climate risk according to the TCFD framework.\textsuperscript{47} Fifteen states have adopted the NAIC’s recommendation and will be requiring TCFD-aligned disclosures this year for insurance companies licensed in their jurisdiction. In total, the NAIC’s action is expected to apply to almost 80 percent of the U.S. insurance market.\textsuperscript{48}

Additionally, shortly after the Proposed Rule was issued, the International Sustainability Standards Board (ISSB) announced proposals to “form a comprehensive global baseline of sustainability disclosures designed to meet the information needs of investors in assessing


\textsuperscript{48} Id.
enterprise value” of companies.\footnote{ISSB Delivers Proposals that Create Comprehensive Global Baseline of Sustainability Disclosures, IFRS (Mar. 31, 2022), https://www.ifrs.org/news-and-events/news/2022/03/issb-delivers-proposals-that-create-comprehensive-global-baseline-of-sustainability-disclosures/} The ISSB’s proposed disclosure framework also draws on the TCFD, while incorporating industry-based disclosure requirements from the Sustainability Accounting Standards Board.\footnote{Id.} Once finalized, the ISSB’s standards can be implemented by jurisdictions around the world, like the standards previously developed by the related International Accounting Standards Board, which have been adopted by more than 140 jurisdictions.\footnote{See Who We Are, IFRS, https://www.ifrs.org/about-us/who-we-are/ (last visited June 4, 2022).} Because both actions were announced after the Proposed Rule, the number of firms issuing TCFD-aligned disclosures in the absence of the Commission’s Proposed Rule is likely to be higher than the Commission estimated. In the Final Rule, the Commission should consider accounting for this rise in TCFD-compliant firms in its baseline analysis.

\section*{C. The Commission should consider discussing issuers’ litigation risk from current climate-related disclosures.}

Third, the Commission should consider including an analysis of companies’ exposure to climate-related litigation risk \textit{under the status quo}. Critics of the Proposed Rule argue that the litigation risk created by mandatory disclosure regulations would amount to a significant new cost for corporations—including those that attempt to comply in good faith.\footnote{See Richard Vanderford, SEC Climate Disclosure Proposal Looms as Litigation Risk, WALL ST. J. (Mar. 26, 2022), https://www.wsj.com/articles/sec-climate-disclosure-proposal- looms-as-litigation-risk-11648299600.} The SEC acknowledges litigation-related expenses as a potential indirect cost in its economic analysis,\footnote{Proposed Rule, supra note 2, at 21,431–32.} but does not acknowledge that issuers already face litigation with respect to misrepresentations (including through omission) regarding the climate risks they face.\footnote{See Benjamin Berringer, Securities-Based Climate Litigation in the United States: What Is the Status?, CLIFFORD CHANCE (May 4, 2020), https://www.cliffordchance.com/insights/resources/blogs/business-and-human-rights-insights/securities-based-climate-litigation-in-the-united-states-what-is-the-status.html (noting the “continuing significance of climate-related lawsuits against corporations” and summarizing relevant cases).} In a world without the Proposed Rule, shareholders would still seek climate risk information, and issuers could still be sued if they fail to disclose a material piece of information. The materiality standard that currently governs climate-related disclosure tasks issuers with making highly fact-specific assessments of the preferences of a hypothetical reasonable investor, which means that issuers disclosing in good
faith could still face litigation (and be held liable) simply due to a lack of clarity around what must be disclosed.\textsuperscript{55}

Thus, by introducing safe harbors that do not exist under the status quo,\textsuperscript{56} the Proposed Rule may decrease rather than increase issuers’ exposure to climate disclosure-related litigation risk in some circumstances. In any event, the Commission will be better able to assess the Proposed Rule’s incremental effects on litigation risk if it includes a discussion of issuers’ current exposures to such risk in its baseline analysis.

\textbf{D. The Commission should consider discussing existing incentives to avoid or leave public capital markets.}

Lastly, the Commission should consider including a discussion of regulatory arbitrage in its baseline analysis. One criticism that has been levied against the Proposed Rule is that it could increase the likelihood that companies go (or stay) private in order to avoid compliance costs associated with participation in public markets.\textsuperscript{57}

But even absent the Proposed Rule, companies would have incentives to go or stay private, as many already do. As Commissioner Allison Lee has observed, “an ever-increasing amount of capital is raised in [private] markets each year, with private offerings accounting for approximately 70 percent of new capital raised in 2019.”\textsuperscript{58} As discussed infra in Section III, the economic literature suggests that the imposition of new disclosure requirements will not significantly affect firms’ decisions to participate (or not) in public markets. In order to avoid overstating the Proposed Rule’s incremental effects on regulatory arbitrages, the Commission should ensure that its baseline analysis notes the factors that currently drive firms’ arbitrage decisions.

\section*{III. The Commission should consider supplementing its cost estimates to provide additional context and clarity.}

The Commission’s analysis captures many of the most important costs that could accrue to issuers, investors, and the public as a result of the Proposed Rule. The Commission’s estimates of the Proposed Rule’s compliance costs appear to be consistent with the cost estimates from an

\textsuperscript{55} See Amanda M. Rose, The “Reasonable Investor” of Federal Securities Law: Insights from Tort Law’s “Reasonable Person” & Suggested Reforms, 43 J. Corp. L. 77, 94 (2017) (“The indeterminacy generated by the fact-specific nature of the reasonable investor standard has frustrated public companies and their advisors for decades. These parties complain that the standard provides them for too little guidance for making disclosure choices and fosters frivolous litigation.”) (emphasis added).

\textsuperscript{56} See Proposed Rule, supra note 2, at 21,390–91.


independent survey of issuers conducted by ERM. The survey, which asked companies to estimate their individual compliance costs (including disaggregated estimates for Scope 3 and auditing), returned an average cost of climate disclosure in line with the Commission’s overall estimates.59

We nevertheless suggest several ways in which the Commission could provide additional context and clarity in its final cost analysis. Specifically, the Commission should consider: (i) more clearly identifying and presenting certain assumptions that undergird its cost estimates; (ii) clarifying whether and how the Scope 3 emissions reporting requirement could affect the private companies in public companies’ supply chains; (iii) explaining, in its discussion of potential indirect costs, why the Proposed Rule is unlikely to significantly alter companies’ incentives to participate (or not) in public markets; and (iv) contextualizing the costs of climate risk disclosure by comparing them to companies’ overall expenditures on disclosure or other relevant figures.

A. The Commission should consider more clearly identifying and presenting certain assumptions that undergird its cost estimates.

The SEC’s guidance on conducting economic analysis acknowledges that “[e]ven without hard data, quantification may be possible by making and explaining certain assumptions.”60 While these assumptions are often necessary to arrive at a reasonable estimate, “[i]t is important to make [those] assumptions (and the rationales for the assumptions) explicit.”61 We offer two suggestions to improve the transparency of the SEC’s analysis.

First, in the Commission’s Paperwork Reduction Act analysis, on which it also relies in the costs section of its economic analysis, the SEC “estimate[s] that the average cost of retaining outside professionals is $400/hour,” but it does not say how it arrived at the $400/hour figure.62 The Commission should consider including an explanation of its methodology.

Second, the SEC could improve the clarity of its cost analysis by consolidating the disaggregated estimates (and the calculations used to arrive at the estimates) into a single table or appendix. While the Commission’s analysis provides several reasoned explanations for its cost estimates, these explanations are dispersed throughout the Proposed Rule, and several key steps in the analysis are outlined in sections other than the cost section. For example, the Commission provides a useful estimate of the burden-hours associated with different aspects of the Proposed Rule in the Paperwork Reduction Act section.63 These estimates play an important role in the cost analysis, but the calculations used to arrive at the estimates are not discussed in the costs

59 ERM Survey, supra note 44, at 5.
60 SEC Guidance, supra note 8, at 12.
61 Id. at 13.
62 See Proposed Rule, supra note 2, at 21,458 n.1061.
63 Id. at 21,458–61.
section. The Commission should consider summarizing its cost calculations in a single location to enhance the public’s understanding of the Proposed Rule and its anticipated effects.

B. The Commission should consider clarifying whether and how Scope 3 requirements could affect private companies in public companies’ supply chains.

Critics of the Proposed Rule have argued that the Commission failed to address an important cost category: “the substantial compliance costs that will be imposed on suppliers and vendors . . . when public companies demand that they provide information on Scope 3 GHG emissions.” Some small farmers and businesses have submitted comments indicating their concern that the compliance costs of the rule would reach them. However, large public companies regularly comply with voluntary emissions reporting standards through estimated, rather than measured, supply chain emissions. The GHG Protocol provides methodologies for estimating emissions based on information the company already has from its suppliers and distributors. The Proposed Rule explicitly permits registrants to use these types of estimates and methodologies in reporting their Scope 3 GHG emissions. For these reasons, some finance experts believe the rule is unlikely to impose new burdens on small suppliers.

If the Commission believes that these costs are unlikely to be significant, it should explain why. On the other hand, if the Commission agrees with the critics’ analysis, it should include a discussion of second-order Scope 3 compliance costs in the Final Rule. According to Ceres, over 3,000 companies have already reported their Scope 3 emissions under the Carbon Disclosure Project. The SEC should consider consulting with some of these companies to determine how they arrived at their Scope 3 estimates, how much it cost them, and whether the relevant data came from their suppliers or from third parties.

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64 See generally id. at 21,439–45.
67 See Proposed Rule, supra note 2, at 21,468–69 (including among potential emissions data sources “[d]ata derived from economic studies, published databases, government statistics, industry associations, or other third-party sources outside of a registrant’s value chain” and stating that “[a] registrant may use reasonable estimates when disclosing its GHG emissions as long as it also describes the assumptions underlying, and its reasons for using, the estimates”).
69 Eric Rosenbaum, Climate Experts Are Worried About the Toughest Carbon Emissions for Companies to Capture, CNBC (Aug. 18, 2021), https://perma.cc/UNJ4-UGNY.
C. The Commission should consider explaining in its “Indirect Costs” section whether the Proposed Rule is likely to alter incentives to participate in public markets.

As we discussed in Part II, the Proposed Rule has been criticized for raising the likelihood that companies will stay in private equity markets rather than public markets. The Commission has addressed this marginal risk in the “Other Economic Effects” section of the Proposed Rule, acknowledging that companies “may choose [to exit public markets] if they believe the potential compliance costs from the proposed rules outweigh the benefits of being [a] registered public company.” The Commission also offers reasoned explanations for why it does not believe this strategy will be widely pursued: limiting access to capital markets imposes high costs on firms, and private companies are also facing investor pressure to disclose climate-related risks. We suggest some additional steps that the Commission could take to support this analysis.

First, the SEC should consider expressly recognizing the risk of regulatory arbitrage in the “Indirect Costs” section of its analysis rather than the “Other Economic Effects” section. Doing so would provide readers with greater clarity and reduce potential confusion regarding the Commission’s analysis.

Second, the Commission should consider citing to more of the economic literature on the decision to go public. Several studies provide evidence that previous regulatory changes, such as the Sarbanes–Oxley Act of 2002, did not have a significant bearing on firms’ decisions to go public or stay private despite mandating additional reporting for public companies.

Notably, the Proposed Rule's estimated compliance costs are significantly lower than those associated with Sarbanes–Oxley. The Proposed Rule’s estimated average compliance cost for large companies is $530,000, and the assurance costs are estimated to be between $75,000 and $145,000. In contrast, economists estimate that section 404(b) of Sarbanes–Oxley imposes an annual compliance cost of about $1,200,000. There is little empirical support for the proposition that Sarbanes–Oxley led to a decrease in public offerings. The SEC could cite to

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71 Proposed Rule, supra note 2, at 21,448.
72 Id.
73 Xiaohui Gao et al., Where Have All the IPOs Gone?, 48 J. FIN. & QUANTITATIVE ANALYSIS 1663 (2013) (finding “very little support” for the hypothesis that the Sarbanes–Oxley Act contributed to a decrease in IPOs); Craig Doidge et al., The U.S. Left Behind? Financial Globalization and the Rise of IPOs Outside the U.S., 110 J. FIN. ECON. 546, 549 (2013) (“Our results make it possible to reject the hypothesis that the regulatory changes of the early 2000s caused the decrease in small-firm IPO activity because it became abnormally low before these changes took place.”); see also Craig Doidge et al., The U.S. Listing Gap, 123 J. FIN. ECON. 464 (2017).
74 Proposed Rule, supra note 2, at 21,439, 21,441.
76 See supra note 73.
these studies to support its belief that the Proposed Rule is unlikely to cause many firms to stay private.

Third, the SEC might discuss how other regulations and rulemakings are likely to have a larger role in shaping regulatory arbitrage incentives than the Proposed Rule. As we mentioned in Part II, companies already have compelling reasons to stay private under the status quo because of regulatory changes that have increased the availability of capital in private equity markets. Additionally, reports indicate that the Commission “has begun work on a plan to require more private companies to routinely disclose information about their finances and operations.” If implemented, this rule could mitigate companies’ incentives to go private by narrowing the disclosure gap between public and private companies.

D. The Commission should consider contextualizing the Proposed Rule’s costs.

The costs of the Proposed Rule may seem large in isolation, but may be easier to understand in the context of companies’ other regulatory expenses or overall revenues. Expenses that seem significant to an individual may be insignificant to a public corporation, or another routine cost of doing business. For example, when an issuer does its initial public offering, it is typical for it to spend millions of dollars on underwriting, legal, and accounting expenses, as well as SEC and FINRA registration costs and exchange listing fees. Many of these expenses also recur annually once a company is public.

The SEC could help the public contextualize the cost of the Proposed Rule by comparing it to companies’ overall expenditures on disclosure, or the costs associated with public company registrations, or by projecting how the costs could affect a firm’s overall valuation. For example, Professor Shivaram Rajgopal, an expert in corporate accounting and auditing, has contextualized the compliance costs by estimating their effects on a typical public company’s market capitalization. He has concluded that “the loss in market capitalization, if any, from compliance costs is too tiny for any outsider to detect.”

IV. The Commission permissibly relies on qualitative assessments of the Proposed Rule’s benefits, but should consider supplementing and clarifying its analysis.

Like the cost analysis, the Commission’s benefits analysis identifies and discusses many of the most important effects that the Proposed Rule would have on issuers, investors, and the public.

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77 See supra text accompanying note 58.


80 Id.

This qualitative assessment is consistent with relevant case law and guidance on regulatory cost-benefit analysis. There is, however, additional scholarship that the Commission can cite to support its benefits analysis. The Commission should also consider comparing the benefits of each of the Proposed Rule’s disclosure requirements side-by-side with any associated costs, and expressly concluding that the benefits to market participants justify any associated costs.

A. The SEC permissibly relied on qualitative assessments of the Proposed Rule’s benefits.

It is obviously difficult to quantify the Proposed Rule’s many benefits: providing comparable, consistent, and decision-useful information to investors; streamlining the disclosure process for issuers; improving shareholder oversight of management; reducing investors’ risk premiums; increasing the allocative efficiency of capital; and decreasing the likelihood of financial crisis.82 This problem is not unique to the Proposed Rule. Numerous academics and regulators have observed that the benefits of financial reporting requirements are rarely easily quantifiable.83

Courts have acknowledged that the “law does not require agencies to measure the immeasurable,” and they have recognized that unquantifiable benefits should still be included in a cost-benefit analysis.84 In Michigan v. EPA, the Supreme Court declined to require that EPA conduct a “cost-benefit analysis in which each advantage and disadvantage is assigned a monetary value.”85 In Labor Council for Latin American Investment v. EPA, the U.S. Court of Appeals for the Second Circuit concluded that an EPA regulation’s “qualitative assessments of the costs to retailers, distributors, and commercial end users were reasonable.”86 And in Nicopure Labs v. FDA, the U.S. District Court for the District of Columbia rejected claims that FDA could not “realistically determine that a rule’s benefits justify its costs” without quantifying some of the benefits, noting that the agency’s analysis, while qualitative, had “provided substantial detail on the benefits of the rule, and the reasons why quantification was not possible.”87

Therefore, the Commission does not need to quantify the unquantifiable; qualitative assessments of effects are sufficient. The Commission can further support its benefits analysis by including additional discussion of the reasons why quantification is not possible, and provide any available

82 See Proposed Rule, supra note 2, at 21,429–39, LIENKE & SONG, supra note 42, at 26 (cataloging the benefits of climate risk disclosure).
86 12 F.4th 234, 250 (2d Cir. 2021).
quantitative information that it does have. These practices would be consistent with both case law and the Commission’s internal guidance on cost-benefit analysis.

**B. The academic literature provides additional support for the SEC’s findings regarding benefits.**

Disclosure rules are “a familiar tool in the Commission’s toolkit,” and the empirical literature provides meaningful evidence that disclosure rules tend to accomplish their goals. Studies and meta-analyses, some of which the Commission has cited, suggest that mandatory disclosures are successful in reducing information asymmetries, which, in turn, reduces the cost of capital.

Additionally, the Proposed Rule is likely to result in more accurate pricing of climate risk, which scholars believe could, in turn, reduce the likelihood of macroeconomic disruptions associated with a “climate bubble.” Because the costs of a financial crisis would be enormous, even a small reduction in its probability would carry major benefits for nearly every market participant. Other agencies have routinely taken action to address high-risk, low-probability events, even though the regulations almost always yield unquantifiable benefits. Ignoring or minimizing these unquantifiable benefits may actually be arbitrary and capricious, because it improperly equates unquantifiability with insignificance.

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88 See SEC Guidance, *supra* note 8, at 12 (“Where particular benefits or costs cannot be monetized, the release should present any available quantitative information: for example, quantification of the size of the market(s) affected, or the number and size of market participants subject to the rule.”).

89 *Chamber of Commerce*, 412 F.3d at 144.


91 Mandating Disclosure, *supra* note 25, at 788 n.185, 793; see also text accompanying notes 24–31.

92 See Cass R. Sunstein, *Maximin*, 37 YALE J. ON REG. 940, 944 (2020) (arguing that “costly efforts to reduce the risk of a financial crisis” can be reasonable, even if the worst-case outcomes are “improbable,” because these worst-case scenarios “are so bad that it may make sense to eliminate them under conventional cost-benefit analysis”).

93 See, e.g., Hazardous Materials: Security Requirements for Offerors and Transporters of Hazardous Materials, 68 Fed. Reg. 14,510, 14,518 (Mar. 25, 2003) (requiring shippers of hazardous waste to develop security plans in order to address the threat of terrorist attacks); Mitigation Strategies to Protect Food Against Intentional Adulteration, 81 Fed. Reg. 34,166, 34,174 (May 27, 2016) (concluding that the regulation was “prudent” even though “the likelihood of an incident is low” because “a successful intentional adulteration of food” would “cause wide scale public health harm”).

C. The Commission should consider comparing the benefits of each of the Proposed Rule’s disclosure requirements side-by-side with any associated costs and expressly concluding that the benefits of each justify any associated costs.

Lastly, consistent with our recommendations above,\(^95\) we suggest that the Commission supplement its analysis with a side-by-side comparison of the costs and benefits associated with each disclosure requirement. Currently, the Commission’s discussion of benefits is spread across three sections: IV.C.1 (discussing benefits to investors), IV.D (discussing benefits to capital markets), and IV.E (discussing indirect benefits). Similarly, the Commission’s breakdown of regulatory cost is spread across multiple sections of the Proposed Rule.\(^96\) Although a simple numerical comparison of the Proposed Rule’s costs and benefits is not practicable given that many important effects are unquantifiable, there are other ways the Commission could enhance the clarity and accessibility of its analysis. The Commission should consider aggregating all the available information on the expected costs and benefits of each proposed disclosure requirement in a single location, including the unquantified investor protection, efficiency, competition, and capital formation-related benefits, and expressly concluding that each requirement is net beneficial. This would help the public understand why the Commission believes that the benefits of each disclosure, and the overall benefits of the Proposed Rule, justify the associated costs.

\(^{321, 326–27}\) (D.C. Cir. 1992) (remanding a fuel efficiency standard for failing to consider indirect costs in the form of safety risks associated with the smaller size of more fuel-efficient cars).

\(^{95}\) See text accompanying notes 63–64.

\(^{96}\) Id.
Respectfully,

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