

Via Electronic Mail
to rule-comments@sec.gov

Secretary Vanessa Countryman
U.S. Securities and Exchange Commission
100 F Street, NE Washington, DC 20549

Re: The Enhancement and Standardization of Climate-Related Disclosures for Investors

Attention: 87 FR 21334; Docket ID: SEC-2022-06342; File No. S7-10-22

RIN 3235-AM87

Dear Ms. Countryman:

I am pleased to submit comments in response to the Notice of Proposed Rulemaking for The Enhancement and Standardization of Climate-related Disclosures on behalf of RMI. We are encouraged by President Biden's [Executive Order](#) on Climate-Related Financial Risk and the [G7 Finance Ministers and Central Bank Governors Communiqué](#). The Securities and Exchange Commission's (SEC) commitment to enhancing corporate disclosure on climate risks will be critical for transparency to ensure fair, orderly, and efficient markets.

Background on RMI and Our Disclosure Expertise

RMI is an independent nonprofit founded in 1982 that transforms global energy systems through market-driven solutions to align with a 1.5°C future and secure a clean, prosperous, zero-carbon future for all. We work in the world's most critical geographies and engage businesses, policymakers, communities, and NGOs to identify and scale energy system interventions that will cut greenhouse gas emissions by at least 50 percent by 2030.

RMI has worked on climate change disclosure through various workstreams. RMI's [Center for Climate-Aligned Finance](#) (the Center) helps the financial sector transition the global economy toward a zero-carbon, 1.5°C future. Through deep partnerships in finance, industry, government, and civil society, the Center works to develop decarbonization agreements within high-emitting sectors and support financial institutions in decarbonizing their lending and investing portfolios. By addressing systemic barriers, including a lack of consistent, quality-assured, and validated data to inform climate-aligned decision-making, the Center works to enable more financial institutions to make climate alignment commitments and ensure those commitments can be implemented more effectively.

Our [Climate Intelligence](#) team at RMI is focused on advancing data-enabled solutions that differentiate products and markets by emissions performance. Our approach includes improving emissions visibility, while establishing governance and accountability measures for standardization. An example of this is the [Horizon Zero Project](#) that is accelerating the decarbonization of supply chains through GHG transparency.

RMI's [Utility Transition Hub \(UTH\)](#) is another example of RMI's work that surfaces the less visible forces driving future emissions outcomes in the power sector— investments, operations, customer and community impacts, regulations, and policies. The UTH uses historical data sourced from multiple public datasets including emissions, capacity and generation, and book value net of depreciation, all broken down by technology type. Data are converted into metrics that are useful for advocates, regulators, and investors interested in understanding the climate and transition risks and opportunities faced by individual utilities. The UTH can serve as an example for how SEC could make climate change disclosure easy to understand and actionable.

Our Approach to This Submission

RMI worked with a cross-programmatic team of RMI experts to demonstrate our support for the rulemaking, help address some of the questions posed by the rulemaking and offer additions we believe should be considered.

General Support & Recommendations

We Believe This Rulemaking Would Address Critical Gaps in Capital Markets Today

RMI strongly believes effective climate change disclosure is critical to ensure investors have adequate transparency in light of unprecedented, inevitable climate damages and decarbonization transition. Our comments submitted on this topic to the SEC in March of 2021 reflected our views on the value that mandatory climate-related disclosures would provide for investors in understanding the climate performance and risk of their investments. We strongly support the SEC's attention to and inclusion of the public's feedback submitted during this period to form this proposed rulemaking, and we welcome this proposal as an essential step in protecting investors and providing them with standardized, accurate, and accessible climate-related information they have long demanded and do not have access to today. We believe urgent action is needed around mandatory climate change disclosure, and we commend the SEC's actions to evaluate and welcome public input on these proposed rules. We believe this rulemaking provides a strong new baseline that we look forward to working with the SEC to further develop and improve in the months and years to come.

For the reasons further discussed throughout our comments below, we believe this rulemaking would serve to address critical gaps on the disclosure and accuracy of climate-related information for several reasons, including:

This Rulemaking Would Greatly Benefit Retail Investors

The SEC's proposal would greatly serve widespread investor demand for more, and better, information about the impact of climate-related targets, goals, strategies, and risks that affect their investments. In a highly complex and fragmented landscape of voluntary climate disclosures and frameworks, SEC-mandated and standardized disclosures will reduce the costs to investors who otherwise spend time and resources interpreting sustainability disclosures, engaging with companies, and tracking company-specific news/updates. As the SEC has noted, investor demand and support for the information provided by this rulemaking is clear.¹ This rulemaking would especially serve to benefit investors of all varieties, including retail investors who are at a particular disadvantage compared to more sophisticated investors due to the substantial costs and resources needed to obtain the high-quality climate-related information today. This rulemaking serves an essential role in reducing that burden. Unsurprisingly, amid widespread corporate commitments to decarbonization and growing climate risks a majority of retail investors say that they would factor in climate-related risks about an investment if that information was standardized, free, and easy to find, which SEC-mandated disclosures would fulfill.²

This Rulemaking Would Meet the Quickly Growing Needs of Professional Investors

The SEC's proposed rulemaking would substantially benefit professional and institutional investors as well. Assets managed using ESG-related strategies have exploded to over \$17 trillion as of 2020, or one in three dollars of US-domiciled assets under professional management.³ As ESG and climate-related factors continue to evolve as mainstream investment factors, professional investor need for the high-quality climate-related information that this rulemaking would provide is quickly accelerating. The Center's report, [Zeroing In: The US Financial Sector Perspective on Net-Zero Lending and Investing](#), is based on a series of

¹ <https://www.sec.gov/news/speech/lee-climate-change>

² https://ourfinancialsecurity.org/wp-content/uploads/2022/04/FINAL-Report_Climate-Disclosure-Survey-Results_AFR-PC-2.pdf

³ <https://www.ussif.org/files/US%20SIF%20Trends%20Report%202020%20Executive%20Summary.pdf>

workshops RMI held with US banks and institutional investors to understand the challenges they face in implementing climate alignment commitments. During these workshops, data and disclosure gaps were repeatedly cited as a key challenge, especially in the US where regulatory precedent suggests legal ramifications for basing decisions on unverified data. To facilitate the caliber of quality assured and verified data that financial institutions require to consider climate-related data in financial decision-making, workshop participants expressed strong support for mandatory climate-related disclosure from the SEC.

This Rulemaking Would Help Issuers Better Communicate About Climate Risks

Relatedly, this rulemaking would serve to significantly help public companies of all sizes communicate to their investors about their climate-related risks, initiatives, and strategies. Demand for the information that this rulemaking provides has exploded in parallel with surging investor interest in ESG and climate-related factors. In the last two years, sustainability report issuances⁴ and climate-related shareholder proposals⁵ have both hit all-time highs. Just a decade ago, 80% of S&P 500 companies did *not* issue sustainability reports.⁶ Today, that number is just 8%. However, in absence of regulatory intervention, a myriad of third-party solutions have emerged with the goal of helping issuers meet investor demand. Navigating such a complex landscape is both time-consuming and resource-intensive for issuers, with over 77% of issuers in a recent survey indicating that they spend an average of \$177,000 annually keeping up with the changing landscape of climate-related initiatives to respond to their stakeholders' demands. By both building upon and improving existing voluntary disclosure practices and standards, the SEC's proposed rulemaking will serve to greatly simplify, synchronize, and enhance existing reporting practices that are widely used by public companies today.

Throughout our comments, we propose recommendations for the SEC's consideration that we believe would make the proposed rulemaking more effective for investors and issuers alike, including:

The Proposed Rulemaking Should Expand Scope 3 Requirements (see questions 98-100, 105-106)

After an initial phase-in period, we believe the SEC's proposed requirements for scope 3 emissions disclosure should be extended to apply to all issuers. We believe that leaving scope 3 emissions disclosures to an issuer-determined materiality standard will ultimately lead to underreporting of scope 3 emissions based on historical examples of underreporting under similar standards. For most companies,⁷ scope 3 emissions constitute the vast majority of their GHG emissions profile and represent a significant concentration of a company's emissions-related risk exposure, making them a significant investment factor for any company.⁸ As a result, scope 3 has already become a mainstream area of discussion and reporting for public companies, and we encourage the SEC to revise and expand this area of the rulemaking to reflect this reality. We anticipate that by phasing-in scope 3 requirements over time, the compliance burden for all reporting companies, but especially smaller reporting companies, will decrease as supply chains become increasingly transparent. Additionally, to better utilize the limited resources of issuers, we suggest that the SEC initially require issuers to prepare disclosures for the categories of scope 3 emissions that constitute the most scope 3 emissions for most issuers, namely categories 1, 11, and 15, or any other issuer-specific categories of equal relevance depending on the issuer's industry or other considerations. Finally, we believe it would be valuable for companies to disclose asset-level emissions metrics for assets that contribute the most to a company's emissions profile. Such disclosures can help investors better understand the nature of emissions-

⁴ <https://www.ga-institute.com/research/ga-research-collection/sustainability-reporting-trends/2021-sustainability-reporting-in-focus.html>

⁵ <https://www.ceres.org/news-center/press-releases/2022-proxy-season-begins-record-numbers-climate-resolutions-and>

⁶ <https://www.ga-institute.com/2021-sustainability-reporting-in-focus.html>

⁷ <https://www.carbontrust.com/news-and-events/insights/make-business-sense-of-scope-3>

⁸ <https://onlinelibrary.wiley.com/doi/abs/10.1111/poms.13421>

related risks and facilitate more targeted, effective engagement about a company's emissions reductions strategy or similar climate-related strategies or goals.

Additional Updates and Amendments to the Proposed Rulemaking

- We recommend that the SEC develop guidance over time that further clarifies minimum expectations around the depth and breadth of climate-related risk disclosures based on an issuer's size and sector (pg. 7).
- We encourage the SEC to extend the provision of asset-level physical risk disclosures to a wider range of both physical and transition risks given the importance of asset-level data in assessing the true nature of an issuer's climate-related risk exposures (page 7).
- We recommend that the SEC develop clearer guidance around which types of climate risk mitigation strategies count as transition plans, and how issuers can better communicate transition plan details and progress to their investors. We also recommend a retroactive application of transition plan disclosure requirements for previously published transition plans (pages 21, 23).
- We recommend that the SEC develop guidance to enable issuer disclosure of financial statement impact metrics under first-, second-, and third-order categories so investors can more clearly identify the risk transmission channels for material climate-related impacts (page 24).
- We recommend that the SEC enable issuers to prioritize disclosure of certain scope 3 categories that are of unique significance to an issuer before eventually requiring disclosure of all scope 3 categories (page 29).
- We encourage the SEC to extend the disclosure of greenhouse gas emissions reporting data sources to include the disclosure of a company's assets that are the largest contributors to a company's emissions profile (page 31).
- We recommend that the SEC develop guidance to include emissions intensity metrics based on economic value for homogenous sectors and to recommend issuer disclosure of additional emissions intensity metrics that provide context to an issuer's emissions performance, where appropriate (page 33).
- We recommend the SEC extend a retroactive application of disclosure requirements for an issuer's previously published climate-related targets and goals (page 34).

Responses to Questions Posed by the Rulemaking

Section B. Disclosure of Climate-Related Risks & Proposed Time Horizons and the Materiality Determination

Question 8.

Should we require a registrant to disclose any climate-related risks that are reasonably likely to have a material impact on the registrant, including on its business or consolidated financial statements, which may manifest over the short, medium, and long term, as proposed?

Yes, the SEC should require disclosures of climate-related risks over the short, medium, and long-term, as proposed. Climate-related risks are prevalent in the financial system and chronically underestimated by many companies today, putting investors at risk. In addition to mounting losses due to worsening climate-related physical disasters, investors face a multitude of climate-related transition and systemic risks stemming from the mismatch between factors such as investor holding periods, the useful life of carbon-intensive assets, or the time horizons used by companies to assess future risks.⁹ For example, above any other country in the world, individual investors in the United States hold over \$300bn in fossil fuel assets that are at a high risk of being stranded at the rate of decarbonization required to limit warming to 2.0°C.¹⁰

In one study, climate risks were attributed to a 90% increase in revenue risk by 2050 across 1,300 companies globally in eight major indices under current greenhouse gas emissions trajectories.¹¹ Meanwhile, 93% of institutional investors agree that climate change as a financial risk has yet to be priced into key markets globally, leaving a wide array of assets at risk of being rapidly repriced.¹² Research from Blackrock has corroborated this sentiment and indicates that the vast majority of potential repricing has yet to come.¹³

Investors require transparency around climate-related risk exposures over various timelines to prudently assess a company's ability to respond to those risks and to effectively price the risks accordingly. Requiring the disclosure of climate risks over different timeframes can help capture risks that are likely to materialize through different timeframes in different sectors and regions. Sectors with lower carbon intensity, such as technological services, face substantially different transition timelines than higher-emitting sectors like materials and energy. Given the unique nature of climate risks and their timing, investors need information to weigh the timing and outlook of climate-related risks that a company has identified as material, and information to evaluate whether or not a company is responding appropriately. This is important not only to individual investors, but also to maintaining the stability of capital markets and the financial system overall.¹⁴ Tying risk disclosures to different timelines will help build investor understanding about climate-related risks, and this is important as the extent to which financial exposures will translate into economic shocks highly depends on the ability of market participants to proactively mitigate climate-related risks before they materialize. The 2008 financial crisis, for example, illustrates the dramatic and globally systemic impacts triggered by the rapid repricing of over \$250-\$500bn in assets.¹⁵

Within high-emitting sectors, which face the highest risks of stranded and mispriced assets, transition timelines can vary substantially and consequently carry unique risks. For example,

⁹ <https://www.marketwatch.com/story/climate-change-fueled-3rd-costliest-losses-ever-in-2021-less-than-half-of-that-property-was-insured-11643140439>

¹⁰ <https://www.nature.com/articles/s41558-022-01356-y>

¹¹ <https://xdi.systems/xdi-1000-insights/>

¹² <https://investmentsandwealth.org/getmedia/73598b76-2523-4d0d-a0ae-3aad8586d237/future-2024-abridged-us-final.pdf>

¹³ <https://www.blackrock.com/corporate/literature/whitepaper/bii-managing-the-net-zero-transition-february-2022.pdf>

¹⁴ <https://www.sec.gov/news/press/2009/report102109.pdf>

¹⁵ <https://www.nature.com/articles/s41558-022-01356-y>

carbon-intensive sectors whose transition will rely upon a variety of nascent technologies that must first be scaled up, such as the production of green steel using hydrogen or carbon capture and storage, may need to adjust their climate risk mitigation strategies accordingly. Associating these risks with timeframes can help investors better understand the implications of a company's strategy to address material climate-related risks, such as investing in more R&D dedicated to low-carbon production processes, and evaluate their actions accordingly.

However, the SEC should consider revising, or at least clarifying, the term “reasonably likely” and have issuers disclose their interpretation of reasonability. Certain climate risks may have low likelihood but high magnitude of potential severity, and it will be important for investors to understand how a company approaches these risks. Climate-related physical risk distributions are characterized as having “fat tails”, meaning outlier incidents have a higher probability of occurring. Physical climate damages could trigger reinforcing feedback loops that could spur runaway momentum toward irreversible “tipping points” in the Earth system, such as glacial and permafrost melt or ecosystem collapse. Given how unfamiliar the future will look, it is difficult to predict where these tipping points lie or how they are triggered. Nevertheless, the increasing probability of outlier events will have profound implications for businesses that operate in areas prone to physical risks. For example, consecutive record-breaking losses in 2017 and 2018 California wildfire seasons cost the state's homeowner's insurance industry two times the total amount of combined profits since 1991, pushing many insurance companies to or at the brink of bankruptcy.¹⁶

Additionally, as a systemic financial risk, climate risks can be harder to detect than other forms of financial risk. Climate change impacts may result from dynamic and dispersed exposures, including through amplified feedback loops across global economies. Accordingly, it is often difficult for investors to assess the nature and extent of both physical and transition risks. COVID-19 provides a case study in how systemic risks can be difficult to capture. Following global travel bans due to COVID-19, the risk implications for aviation stocks were likely clear. However, the transmission of COVID-induced risks – economic slowdown leading to layoffs, leading to slowed production, leading to delayed shipping, matched by an increase in consumer demand for durable goods and unprecedented recovery spending – was likely more difficult for companies to predict.

[What, if any, are the concerns to leaving those terms undefined? Would the proposed provision requiring a registrant to specify what it means by the short, medium, and long term mitigate any such concerns?](#)

The SEC should specify a particular time period, or minimum or maximum range of years, for “short,” “medium,” and “long term. At minimum, the SEC should require issuers to disclose how they have interpreted short-, medium-, and long-term time periods as they relate to material climate risks (item 1502) and targets and goals (item 1506), but it would be more effective for the SEC to provide explicit guidance on the ranges. For example, the European Central Bank has provided similar guidance defining short-term and medium-term risks as those that would arise within a business' current planning period, with longer term risks extending beyond that period.¹⁷

Deferring the selection of time periods to issuers would complicate investor comparison of disclosed risks across issuers who may interpret timeframes differently. This is especially important due to the long-term nature of climate-related risks. For example, a company that chooses to examine climate risks over a period of 5, 10, and 30 years would likely report significantly more exposure to transition and physical risks than a company that only looks at risks materializing over a period of 1, 2, and 5 years. Such differences may lead investors to

¹⁶ https://climatealignment.org/wp-content/uploads/2021/11/FIO_Climate_RFI.pdf

¹⁷ https://www.bankingsupervision.europa.eu/legalframework/publiccons/pdf/climate-related_risks/ssm.202005_draft_guide_on_climate-related_and_environmental_risks.en.pdf

falsely conclude that the latter company is less risky and could deter companies from assessing and disclosing risks over longer time periods.

Question 9

Should we define “climate-related risks” to mean the actual or potential negative impacts of climate-related conditions and events on a registrant’s consolidated financial statements, business operations, or value chains, as proposed?

We broadly agree with the SEC’s definition of climate-related risks. We especially agree that disclosures should include the potential negative impacts of climate-related conditions and events on an issuer’s business. As stated in response to question 8, although it is difficult to predict the probability of climate-related risks, such difficulty does not diminish its importance for assessing a company’s outlook. Given the uncertainty and complexity of how climate risks will materialize in the future, companies that do not consider *potential* climate-related risks are almost certainly underestimating their exposure to physical and transition risks.

In a study analyzing the climate risk exposure to over 1300 companies across 2.1 million assets, extreme events like storms and flooding - which would likely fall under the “potential” category of climate-related risks for most companies - contributed the most to risk exposures for companies, not current climate-related events.¹⁸ For example, in the month following extreme heat events, the average market cap of affected equities drops approximately .5%.¹⁹ Volatility and negative market responses are expected to increase as these events become more frequent, more intense, and last longer, and as investors accordingly recalibrate previously underpriced risk for increased exposure climate change over the near-, medium-, and long-term.²⁰ Thus, proactively identifying, planning, and building shareholder expectations around the potential impact of these risks is an important exercise for prudent climate risk management for all issuers.

We also agree that the proposed definitions must include both physical and transition risks, and that physical risks must include both acute and chronic risks. Although transition related risks are a broader category, we believe it may be helpful to assign categories to transition related risks across policy, legal, and regulatory risks, technological changes, or shifts in consumer and investor sentiment.²¹ It may also be helpful to further assign these risks to global, national, or sub-national levels. For instance, while an automobile manufacturer may face broad transition risks based on global market factors, such as changing consumer and investor preferences for electric and low-emission vehicles, manufacturers with an outsized presence in jurisdictions that have initiated bans on gasoline-powered vehicles may face notable and unique risk exposures.²² Accordingly, such geographic categorization can help investors better determine their own exposures to shifts in policy and regulation.

Are there any aspects of the definitions of climate-related risks, physical risks, acute risks, chronic risks, and transition risks that we should revise?

While we agree with the definitions of physical and transition risks used, the transition and physical risks that companies face are highly unique to each company. We encourage the SEC to provide guidance over time that further clarifies minimum expectations based on an issuer’s size and industry to convey an accurate depiction of relevant, priority climate-related risks to its investors. Additional guidance should point towards a more contextualized, nuanced description of risks from issuers that is unique to their sector, region, or strategy. For example, aviation companies shifting towards an increased reliance on biofuel-derived sustainable aviation fuels may face higher physical risk exposures due to potential climate-related impacts on the

¹⁸ <https://xdi.systems/xdi-1000-insights/>

¹⁹ <https://www.nature.com/articles/s41560-020-0548-2>

²⁰ <https://www.sciencedirect.com/science/article/pii/S2212094719300817?via%3Dihub>

²¹ <https://www.bis.org/bcbs/publ/d517.pdf>

²² <https://www.coltura.org/world-gasoline-phaseouts>

supply of biofuel feedstocks. It may also be helpful to break down these risks by sectors to help investors understand the key drivers of an issuer's risk exposures. For example, in one study on climate-related financial risks completed by the Dutch Central Bank, Dutch financial institutions were found to have substantial exposure to transition risks in many industries beyond carbon-intensive industries alone, highlighting that transition risk exposures can often be hidden without economy-wide consideration of industry-specific factors.²³

Question 15

Are there other specific metrics that would provide investors with a better understanding of the physical and transition risks facing registrants? How would investors benefit from the disclosure of any additional metrics that would not necessarily be disclosed or disclosed in a consistent manner by the proposed climate risk disclosures? What, if any, additional burdens would registrants face if they were required to disclose additional climate risk metrics?

We support the SEC's proposal to disclose more granular, asset-specific data, such as the location and nature of company assets and operations that are subject to physical risks, and we encourage the SEC to extend this asset-specific framework to further areas of disclosure related to transition and liability risks relevant to registrant assets. A

widespread lack of high quality asset-level data on physical and transition risks is a key barrier to financial institutions, financial regulators, investors, and other market actors from appropriately integrating climate-related risks, opportunities, and impacts into decision-making.²⁴ In a recent workshop that the Center hosted with financial institution partners on data used to assess transition risks, participants noted that asset-level information can be vital in assessing a client's potential exposure to transition risks. For example, the country, state, or county of assets could be essential information to evaluate the company's likely exposure to future climate-related policy developments, such as the imposition of a carbon tax. Similar to our response in question 9, in addition to describing transition risk exposures in further detail, we believe companies should disclose any significant asset-level exposures to transition risks. Our response to question 106 further expands upon why asset-level disclosures for physical and transition risks may be useful for investors.

Importantly, granular, asset-level data can also act as an important input for climate risk management and assessment tools, such as scenario analysis. For example, the Paris Agreement Capital Transition Assessment (PACTA) is a free, open-source methodology and tool, which measures financial portfolios' alignment with various climate scenarios. According to PACTA, there are wide gaps in asset-level data across nine key sectors: utilities, energy, materials, financials, consumer discretionary, industrials, consumer staples, telecoms, health care, and IT.²⁵ Quality asset-level data that is useful for climate risk assessments generally exhibit five key characteristics that could help inform additional or future metrics for the SEC's consideration:

- **Geography-specific:** data that describes exposure to different national policies, markets, and physical risks.
- **Forward-looking:** data that describes exposure to forecasted trends rather than past performance.
- **Complete:** data that provides global industrial coverage if possible.
- **Disaggregated:** data that is nuanced at technology, cost, product class, etc.
- **Practical:** data that is easily integrated into existing tools and analysis, such as information that can match asset-level data to financial securities.

²³ https://www.dnb.nl/media/naiiupcg/persberos_transition-risk-stress-test-versie_web_tcm46-379397.pdf

²⁴ <https://www.smithschool.ox.ac.uk/sites/default/files/2022-04/Asset-level-data-and-the-Energy-Transition-Findings-from-ET-Risk-Work-Package2.pdf>

²⁵ <https://2degrees-investing.org/wp-content/uploads/2017/02/Asset-Level-Data-Market-Report.pdf>

Recent engagements with the Center's financial institution partners on their need for financial data relevant to assessing the implications of the transition on portfolios and clients revealed several more specific characteristics of useful, climate-related financial data such as:

- **Comparable:** data that is comparable within and specific to individual sectors.
- **Precise:** data on asset-specific, absolute and intensity-based emissions metrics.
- **Transition-relevant:** information that clearly communicates a company's transition plans, including how transitions plans factor into a company's capital expenditure and other strategic decision-making.
- **Transparent:** data that offers clear indicators and metrics around the achievement of a company's transition plan
- **Trustworthy:** data that is verified

Other specific physical and transition risk disclosures are likely best identified on sector-by-sector basis and should be clarified through future guidance. For example, in the electric utility sector, data on purchased power can clarify the percent of electricity supply (and emissions) from generation assets that the power producer owns and operates (scope 1 emissions) relative to the amount that is purchased as supplementary generation from another producer (scope 3 emissions). The difference can help evaluate the degree of control the issuer has to manage climate-related transition risks across its operations.

As with any additional data reporting, the burden these requirements may place on registrants is the need to have adequate resources to provide data in a timely, accurate, and standardized way so they can be comparable. However, such disclosures will substantially reduce the burdens many investors and financial sector users of climate-related data currently face in obtaining such information. In the absence of asset-level data, investors interested in assessing the transition risks facing a company will likely rely on higher-level data such as average asset emissions intensity (e.g., typical emissions values for sectors or activities), rather than observable asset-level data (e.g., actual emissions from the company's operations and activities). As a result, that company's transition risk assessment would track the average emissions-intensity of a sector or an activity, even if that company made efforts to steer their operations and activities toward low-carbon alternatives. Asset-level data is thus important to help investors efficiently allocate capital based on an accurate understanding of how companies are managing the climate transition relative to industry peers.

Disclosure of the assets that contribute the most to a company's emissions profile would be valuable. For example, Repsol, an oil and gas company, reported that over 31% of the company's Scope 1 emissions originated from a *single* asset in Malaysia.²⁶ Similar disclosures can equip investors with information that enables them to more effectively understand a company's emissions sources and understand the unique risks associated with them, such as a highly carbon-intensive asset located in a jurisdiction that enacts a carbon pricing mechanism. Additionally, such disclosures can help to facilitate more targeted, effective engagement about a company's climate-related strategy, goals, and targets. Given that asset-level sources are likely going to be a significant source of data for many companies calculating their emissions profiles, we anticipate that this information will increasingly become readily available for most issuers. Accordingly, we encourage the SEC to require disclosure of this metric so investors can understand the true drivers of a company's emissions profile and gauge their associated risks and opportunities for emissions reductions accordingly.

Section C. Disclosure Regarding Climate-Related Impacts on Strategy, Business Model, and Outlook

Question 19

²⁶ <https://www.cdp.net/en/responses/15669>

Should we require a registrant to describe the actual and potential impacts of its material climate-related risks on its strategy, business model, and outlook, as proposed? Should we require a registrant to disclose impacts from climate-related risks on, or any resulting significant changes made to, its business operations, including the types and locations of its operations, as proposed?

Yes, the SEC should require a registrant to describe the actual and potential impacts of its material climate-related risks on its strategy, business model, and outlook. Across real economy sectors, decarbonization to mitigate the worst impacts of climate change will require a structural overhaul of core business models and production methods. This transition will be costly and challenging to many individual firms. Accordingly, such disclosures provide necessary information to help investors understand how at-risk a company is, and how prepared a company is to be resilient through a transition. Unsurprisingly, such information is highly demanded by investors. In one recent survey of retail investors' support for the SEC's proposed rulemaking, seventy percent (70%) of investors surveyed supported the SEC in requiring companies to disclose standardized information about financial risks due to climate change, risks due to new regulation, competing technologies, and consumer demand changes.²⁷ Specifically, SEC-mandated disclosure was important to retail investors as only a minority (36%) of investors indicated that they would trust voluntary disclosures of climate change risks, whereas a majority (58%) indicated that they would trust disclosures made to the SEC.

Such disclosures are also especially useful for financial institutions and investors that have set climate targets and goals and are seeking to engage with their clients to facilitate their transition and verify and monitor their transition progress. To do so effectively, investors require an understanding of how companies and sectors must transform their assets in the real economy to meet climate goals. This entails translating long-term targets and strategies into timelines and terms relevant for executing lending and investing decisions today.²⁸ The availability of more information on how specific climate risks may or are impacting an issuer's business can act as an invaluable starting point for such engagement.

While substantial collections of climate-related financial data exist today through third-party data providers, the lack of transparency and cost of obtaining climate-related data is frequently cited as a major barrier for investors and financial sector users of such information. Institutional investors, for example, spend an average of \$1.372M annually to collect, analyze, and report climate data for investment decision-making and cite the cost of obtaining ESG ratings and climate-related data as the largest expense.²⁹ This challenge is compounded as investors seek climate-related information in more sectors and can be summarized by the following quote from a market survey completed by the 2 Degrees Investing Initiative (2DII) on asset-level data used in financial analysis:³⁰

"While any single industry database's costs may be manageable, the need to assess ESG- and climate-related issues across all (or at least all material) sectors makes purchasing high-resolution data for each sector cost-prohibitive. Search costs and training time compound these issues. This naturally leads to the desire for a single cross-industry solution (e.g., ESG scores, portfolio carbon footprint) that can achieve broader coverage of a diversified portfolio, even if the level of detail is not as high."

²⁷ https://ourfinancialsecurity.org/wp-content/uploads/2022/04/FINAL-Report_Climate-Disclosure-Survey-Results_AFR-PC-2.pdf

²⁸ https://rmi.org/wp-content/uploads/2021/03/ZeroingIn-FINAL_03-11-2021.pdf

²⁹ <https://www.sustainability.com/thinking/costs-and-benefits-of-climate-related-disclosure-activities-by-corporate-issuers-and-institutional-investors/>

³⁰ <https://2degrees-investing.org/wp-content/uploads/2017/02/Asset-Level-Data-Market-Report.pdf>

We believe the SEC's proposed rulemaking will provide an invaluable basis for a cross-industry platform for climate-related information, much like how SEC filings today serve as a foundational source of information for private databases such as Bloomberg Market Data. Today, financial users and investors using the relatively newer field of ESG and climate-related data face inherent issues with utilizing third party data sources that often offer low company and asset-specific resolution, opaque methodologies, and lack source point verification. This problem is especially relevant to investors in the US, where regulatory precedent suggests legal ramifications for basing decisions on unverified data.³¹ Thus, we believe the SEC's proposal to solicit asset- and issuer-specific data directly from issuers will help to address critical barriers investors face today in understanding, assessing, and including sound information about climate-related risk exposures in their investment strategies.

Question 20

Should we require a registrant to disclose climate-related impacts on, or any resulting significant changes made to, its products or services, supply chain or value chain, activities to mitigate or adapt to climate-related risks, including adoption of new technologies or processes, expenditure for research and development, and any other significant changes or impacts, as proposed?

Yes, the SEC should require a registrant to disclose climate-related impacts on its products and services, value chain, and any related activities. Investors need transparency on how businesses will shift in response to or in preparation of climate change and an inevitable energy transition, including evaluating changes in cost projections, product offerings, and competitiveness projections. The SEC's proposed disclosures in this question would support the provision of the necessary information to help investors make those evaluations.

The impacts of climate change and the implications of the transition challenge virtually every aspect of a sector or company's outlook. Widespread market changes spurred by the transition are empirically evidenced by breakthrough, low-carbon technologies undercutting incumbent alternatives across markets and are increasingly triggering the early retirement and revaluation of assets, and therefore the value of companies overall.³² Companies and industries with misplaced and mispriced expectations of continued growth against the headwinds of the transition will be dramatically disrupted at the margin and may face unexpected disruptions if such risks are unaccounted for.

For example, in 2020, far above any other industry, oil and gas companies wrote-down a record number of assets, with numerous oil majors experiencing credit downgrades in 2021 as a result of heightened industry risks. In 2020, the energy sector had a higher percentage of distressed debt issuances than any other US sector.³³ If investors cannot stay informed on how companies are considering and responding to these trends, investors (especially retail investors who mostly lack the same level of access and insight to companies) will be left with an incomplete picture regarding a company's financial wellbeing in a heightened risk environment.

Transition risks can also be observed through mounting legal liabilities for companies that uphold the status quo, especially as international regulatory and policy regimes embrace updated policies, tools, and guidance requiring consideration and management of climate and ESG-related factors.³⁴ As enforcement actions against greenwashing increases around the world for all companies, we believe companies without a robust strategy to back up their ESG, sustainability, or climate-alignment claims are exposed to increasing legal and regulatory risks.³⁵ Accordingly, investors should have clear visibility into how a company is responding to climate-related risks within their operations and business strategy so that investors can proactively understand and

³¹ https://rmi.org/wp-content/uploads/2021/03/ZeroingIn-FINAL_03-11-2021.pdf

³² <https://rmi.org/how-to-retire-early-making-accelerated-coal-phaseout-feasible-and-just/>

³³ <https://www.bloomberg.com/news/articles/2020-12-08/u-s-bankruptcy-tracker-coal-s-a-canary-in-the-mine-for-energy>

³⁴ <https://www.unepfi.org/wordpress/wp-content/uploads/2019/10/Fiduciary-duty-21st-century-final-report.pdf>

³⁵ <https://www.ft.com/content/85ca91c0-036f-47a1-9a76-3da48caf6851>

engage with companies on their response. For example, Deutsche Bank AG's asset management division DWS Group suffered an 18-month record drop in share price after the SEC announced a formal investigation into potentially unfounded and exaggerated claims about its ESG investment products.³⁶

Question 22

Should we require a registrant to discuss whether and how it considers any of the described impacts as part of its business strategy, financial planning, and capital allocation, as proposed? Would any of the proposed disclosures present competitive concerns for registrants? If so, how can we mitigate such concerns?

Yes, the SEC should require a registrant to discuss whether and how it considers any of the described impacts as part of its business strategy, financial planning, and capital allocation. These disclosures can give investors vital insight into how companies are responding to the risks and impacts of climate change and evaluate the appropriateness of that response. Understanding how consideration of climate risks and impacts are integrated throughout business units is especially important to help investors understand the efficacy of governance and oversight structures that companies have for climate risk management programs. With over a fifth (and rapidly growing) of the world's largest companies now committed to achieving net zero emissions, such disclosures can also help investors evaluate the credibility and viability of a registrant's strategy to execute on that commitment.³⁷

For example, the future disruption of an oil producer's core business can already be foreseen via the speed of electrification in transport. Analysis by Boston Consulting Group expects that electric vehicles will account for over half of all light vehicles sold globally by 2026, four years sooner than they previously anticipated in the wake of high EV growth rates in 2019-2021.³⁸ Already, EVs of all types are displacing over 1.5 million barrels of oil daily and are expected to displace almost 2.5 million barrels daily by 2025.³⁹ Recent analysis by BNEF anticipates gasoline demand to peak in 2026, with total oil demand from road transport to peak the following year. Despite such trends, and despite 60% of investors agreeing that oil demand will peak by 2030,⁴⁰ notably vague voluntary climate disclosures from oil and gas companies do not provide sufficient detail for investors to understand how these companies are updating their business models in response to the inevitable transition and attendant market shifts.⁴¹

Should we require a registrant to provide both current and forward-looking disclosures to facilitate an understanding of whether the implications of the identified climate-related risks have been integrated into the registrant's business model or strategy, as proposed?

Yes, we believe that both current and forward-looking disclosures will help facilitate investor understanding of whether the implications climate-related risks have been integrated into a registrant's business model or strategy. Forward-looking disclosures are essential in helping investors and financial institutions navigate the impacts of climate change and the transition. Financial institutions and investors will need to understand at a granular level how companies and sectors intend to scale decarbonization strategies and invest in climate-aligned solutions in response to material climate risks over time.⁴² Backward-looking, historical data cannot provide insight into the transition-readiness or future alignment of a company or sector. Without granular, relevant, and forward-looking data, investors will struggle to understand how a

³⁶ <https://www.bloomberg.com/news/articles/2021-08-26/dws-shares-fall-after-u-s-opens-probe-on-sustainability-claims>

³⁷ <https://eciu.net/analysis/reports/2021/taking-stock-assessment-net-zero-targets>

³⁸ <https://www.bcg.com/publications/2021/why-evs-need-to-accelerate-their-market-penetration>

³⁹ <https://about.bnef.com/electric-vehicle-outlook/>

⁴⁰ <https://web-assets.bcg.com/b9/b4/74ed93c5481b81a4c8dab3443422/oil-gas-investors-survey-2022-220104.pdf>

⁴¹ <https://www.energypolicy.columbia.edu/research/esg-investing-and-us-oil-and-gas-industry-analysis-climate-disclosures>

⁴² https://climatealignment.org/wp-content/uploads/2022/02/impact_principles_for_climate_aligned_finance_report.pdf

company is poised to navigate the transition, identify climate-resilient investment opportunities, and assess a client's progress on their climate risk management strategy over time.

Information about a company's historical climate performance (e.g., the previous year's GHG emissions) can help investors understand some drivers of current risk exposures but hardly convey a complete picture regarding the implications of a company's climate strategy and the transition. Emissions footprints are a starting point, but as climate risks will evolve over time, robust insight into how a company intends to manage risks and opportunities is likely a more meaningful metric for efficient capital allocation.

Investors need more forward-looking information on whether and how a company is adjusting its business strategy, financial planning, and capital allocation in response to climate related risks, which this rulemaking will help to provide. Insightful forward-looking information may include the emissions pathway for a sector of the economy in which a registrant operates (e.g., utilities sector) and the technology mix and business models the registrant will adopt to keep emissions below that pathway while still delivering services (e.g., electricity generation) at a reasonable cost and maintaining profitability.⁴³

The value of forward-looking data in the accurate pricing of securities can be summarized by the following quote from the CEO of insurance company Willis Towers Watson:

"This approach reduces the capital allocation to companies with the largest transition risk, which reduces financial risk to investors. It facilitates the repricing of climate risks, allowing capital markets to align with government policy. It also increases capital allocation to the companies that stand to gain from the climate transition and hence offers potential for improved returns. Finally, it brings transparency at the company level, which helps identify what companies can do to mitigate climate transition risk and be a part of the solution."⁴⁴

Further, forward-looking disclosures can help fulfill the SEC's objective to facilitate capital formation and maintain efficient markets. Accurate pricing of climate risk is the first step to ensuring an orderly transition. Without easily accessible, transparent forward-looking information about how companies may fare in the transition, the underpricing of climate risk, already present today,⁴⁵ stands to worsen. This is especially true given the unprecedented nature of climate-related risks, which historical data fails to capture. Although there are many drivers behind the mispricing of climate risk, incomplete and misleading disclosures around the climate-related risks that companies face is a significant problem facing investors.⁴⁶ With incomplete information, investors are not readily able to accurately value the future earning potential of securities, which may set the stage for "climate bubbles" of overvalued and mispriced equities to emerge both within climate-exposed sectors and across capital markets overall.⁴⁷ Examples of this already exist, such as the global and rapid transition away from coal that has plunged the Dow Jones US Coal Index by over 90% since its peak in 2011.⁴⁸

Question 30

Should we require a registrant to disclose analytical tools, such as scenario analysis, that it uses to assess the impact of climate-related risks on its business and consolidated financial statements, and to support the resilience of its strategy and business model, as proposed?

⁴³ https://rmi.org/wp-content/uploads/2020/07/Breaking_the_Code.pdf

⁴⁴ <https://www.wtwco.com/en-US/Insights/2021/11/forward-looking-financial-metrics-can-hasten-climate-action#:~:text=By%20using%20forward%20looking%20financial,to%20raise%20their%20climate%20ambitions.>

⁴⁵ <https://www.bloomberg.com/press-releases/2019-09-16/climate-change-and-artificial-intelligence-seen-as-risks-to-investment-asset-allocation-finds-new-report-by-bny-mellon-investm.>

⁴⁶ https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3782675

⁴⁷ <https://www3.lawschool.cornell.edu/research/JLPP/upload/Steele-final.pdf>

⁴⁸ <https://www.marketwatch.com/investing/index/djuscl?countrycode=xx>

Scenario analysis is an important tool for companies to assess and prepare for a range of future conditions that the transition and climate change may bring about. Designed well and interpreted realistically, scenario analysis models have promising potential to improve understanding of climate-related risk exposures, providing a helpful starting point in assessing the implications of climate risks for investors and companies alike. The results of scenario analysis can be critical for companies in justifying proactive mitigation of climate risks for investors. Climate change has far-reaching, long-term implications that are often out of alignment with the planning horizons of companies yet require action today.⁴⁹ To counteract this misalignment, scenario analysis can help with:

- **Risk management and mitigation** by proactively assessing the range of potential actions companies can take in response to climate-related risks.
- **Supply chain resilience** by proactively identifying areas of high or concentrated exposure to climate-related risks.
- **Communication** by helping organizations better frame strategic issues they face in the transition with investors and other external stakeholders.
- **International regulatory compliance** by providing issuers with a sound basis for identifying and understanding the unique implications of climate-related risks for their business. For this reason, the use of climate scenario analysis has been encouraged by many domestic⁵⁰ and international⁵¹ regulators.

Scenario analysis can provide useful insights for investors into the sector-specific challenges that may arise from the transition, and how these challenges may manifest in a company's strategy and capital allocation strategy. For example, in a scenario analysis exercise conducted by Rockefeller Asset Management (RAM), energy transition dynamics were shown to differ significantly within industries.⁵² In the materials sector, companies were shown to need to invest into new operational infrastructure that shifted them away from fossil fuel powered-heat generation and into clean-energy powered kilns. For energy companies, the growth of renewable energy and electric vehicles were shown to substantially disrupt their business models, requiring substantially greater investment to adjust to the transition. Such insights helped inform RAM's actively managed investment strategies.

Furthermore, scenario analysis tools have been widely endorsed by the financial sector as an effective tool for climate-related financial risk management. Since 2018, the banking signatories of the Katowice Commitment have closely worked together with 2 Degrees Investing Initiative (2DII) to develop an approach for measuring the alignment of financial portfolios to different climate scenarios. This approach forms both the methodology and the basis of the PACTA tool for financial institutions and has been used by over 20 systemically important financial institutions.⁵³

Retail investors have also indicated that they would find the public disclosure of scenario analysis exercises to be material information. In a recent survey of retail investors, a majority (66%) indicated that it would be valuable for companies and banks to publish analysis on the short and long-term risks that their business would face under different climate scenarios. ING's "Terra Report" provides a preliminary example of this type of disclosure. Under subsections of each sectoral business line, investors can examine an illustration of the EBITDA, revenue, and credit rating impacts of different scenarios as well as a description of the scenarios used.⁵⁴

⁴⁹ https://www.frc.org.uk/getattachment/0d28d5e8-ff89-4028-88a8-49e837db6022/FRC-Climate-Scenario-Analysis-in-Corporate-Reporting_October-2021.pdf

⁵⁰ <https://www.occ.gov/news-issuances/news-releases/2021/nr-occ-2021-138a.pdf>

⁵¹ <https://www.bis.org/bcbs/publ/d530.pdf>

⁵² <https://www.unpri.org/showcasing-leadership/pri-awards-2019-case-study-unep-fi-investor-case-study-applying-climate-scenario-analysis-to-actively-managed-strategies/4839.article>

⁵³ https://group.bnpparibas/uploads/file/credit_portfolio_alignment_vf.pdf

⁵⁴ https://ourfinancialsecurity.org/wp-content/uploads/2022/04/FINAL-Report_Climate-Disclosure-Survey-Results_AFR-PC-2.pdf

Should we require a registrant providing scenario analysis disclosure to include the scenarios considered (e.g., an increase of global temperature of no greater than 3°, 2°, or 1.5°C above pre-industrial levels), the parameters, assumptions, and analytical choices, and the projected principal financial impacts on the registrant's business strategy under each scenario, as proposed?

Yes, the SEC should require the disclosure of the scenarios, parameters, assumptions, analytical choices, and projected financial impacts that issuers consider. Disclosure of scenarios and models used by issuers can help investors develop an appropriately nuanced interpretation of their results based on scenario choice and construction. Models to evaluate climate-related financial risks are only as effective as their inputs and assumptions. Bad models, based on unrealistic assumptions and inadequate data, are not equipped to offer effective conclusions. Several widely used scenario sets today differ widely between one other, and accordingly pose several important limitations in their results based on the assumptions implicit in their design. For example, while the IEA, BP, and Rystad faster transition scenarios estimate a range of oil demand decline between 70-80%,⁵⁵ comparable NGFS scenarios model oil production falling by only 55% of its 2020 levels by 2050 in NZ2050. As a result, users of these scenarios may draw dramatically different conclusions about risks they face according to the likely energy future that they model.

Alternatively, should we require all registrants to provide scenario analysis disclosure? If a registrant does provide scenario analysis disclosure, should we require it to follow certain publicly available scenario models, such as those published by the IPCC, the IEA, or NGFS and, if so, which scenarios?

Ultimately, no scenario or climate economy model is perfect. While we believe that issuers should be able to choose their scenario models in the short-term, regulators should consider building out robust, comparable parameters and scenarios over the long-term. As part of the FSOC climate report's recommendations, we encourage regulators to collaborate through the newly created Climate Financial Risk Committee to focus on building common parameters and scenarios to better enable comparability across scenario analysis exercises.⁵⁶ In the meantime, we agree with the SEC's approach of requiring issuers who use scenario analysis to disclose the scenarios used, the parameters, assumptions, and analytical choices, and the projected principal financial impacts on the registrant's business strategy under each scenario. Such disclosures can help investors pragmatically caveat and appropriately utilize the results obtained by companies based on further information around their origin.

Section D. Governance Disclosure

Question 34

Should we require a registrant to describe, as applicable, the board's oversight of climate-related risks, as proposed?

Board oversight disclosures are valuable in demonstrating an issuer's integrated, strategic approach in monitoring and addressing climate-related risks and opportunities. As a strategic risk to the company, the board has an obligation to identify and manage material climate risks as they would for any other strategic risks the company may face. Without proper climate-related governance in place, companies will be ill-suited to proactively understand and address material climate-related risks, which may translate into higher exposures to climate-

⁵⁵ See IEA WEO 2021, Net Zero Energy scenario- <https://www.iea.org/reports/world-energy-outlook-2021> ; BP 2020 Energy Outlook Net Zero scenario- <https://www.bp.com/en/global/corporate/energy-economics/energy-outlook.html> ; Rystad Energy's EnergyScenarioCube, 1.6°C scenario

⁵⁶ See recommendation 2.4, <https://home.treasury.gov/system/files/261/FSOC-Climate-Report.pdf>

related risks for investors. As a result, board and management expectations around climate risk management are already being set by the world's largest investors. For example, the world's largest asset manager, Blackrock, has made ESG governance a main priority for its investments. Blackrock's 2022 Investment Stewardship Priorities highlight board membership and performance as the primary focus of their investment stewardship strategy, which includes an evaluation of how board members effectively manage of strategic, operational, financial, and material environmental, social and governance (ESG) factors.⁵⁷

The Board of Directors are perhaps the most important stakeholders in managing the future risks and opportunities facing a company. Accordingly, understanding the climate-related expertise and practices of a company's directors, leadership, and executive management is fundamental to enabling investors to assess the prospects for a company's future in the transition. Although holistic risk management is an expectation of any effective governance, including for climate-related risks, the nascency and complexity of climate change and its materiality to a company's future performance makes specific disclosures around these topics worthwhile. In other words, general governance and expertise is not necessarily sufficient or nuanced enough for the effective management of climate related risks, or for the execution of potentially highly transformative strategies to mitigate them, such as transition plans.

For example, in 2021 the World Benchmarking Alliance found that 86% of the companies assessed in the automotive sector possessed board-level oversight of climate plans.⁵⁸ To many investors, such visibility at the board level would indicate that decarbonization is one of the most important aspects of a company's future. However, further context can be highly informative for investors in evaluating the quality of said oversight. Of this group, only 10% had board-level climate or decarbonization expertise, which may give investors pause in evaluating how effective or prepared a company may be in managing such a complicated strategic shift. Similar to existing disclosure requirements (e.g., item 10 of Form 10-K) about the background and experience of a company's directors and executive officers, investors are entitled to be informed about a board's capabilities with respect to climate-related risk management and are already asking for such information. State Street Global Advisors, for example, lists an evaluation of board composition and expertise in managing climate-related risks as an official part of its guidance for its directors in evaluating the climate risk management capabilities of a company.⁵⁹

Additionally, it is relevant to note that in many jurisdictions, a company's Board of Directors are legally obligated to understand and prudently manage the potential risks and threats of the companies they oversee regardless of their time horizons. Failure to act and disclose information on these risks could expose both the Board and the company itself to legal action.⁶⁰ As a material legal issue, the disclosure of a Board's climate risk management practices is highly relevant to investors to understand the potential litigation risks that a company may face in failing to adequately manage climate-related risks.

Climate-related governance disclosures in general are essential for informing investors on the extent to which climate related risks are considered within an issuer's business. For example, there are numerous initiatives and commitments in the financial sector today that focus on assessing the alignment of financial portfolios with climate targets and commitments. While these targets and commitments can help investors understand what types of climate-related risks a registrant is focusing on, such initiatives often only focus on climate risks at the portfolio level and offer little guidance on how climate-related risks and factors are integrated into institute-wide

⁵⁷ <https://www.blackrock.com/corporate/literature/publication/blk-stewardship-priorities-final.pdf>

⁵⁸ <https://assets.worldbenchmarkingalliance.org/app/uploads/2022/01/Automotive-Benchmark-2021-Insights-Report.pdf>

⁵⁹ <https://www.ssga.com/library-content/products/esg/climate-change-risk-oversight.pdf>

⁶⁰ See "Appendix 1", https://www3.weforum.org/docs/WEF_Creating_effective_climate_governance_on_corporate_boards.pdf

practices such as strategy, governance, and risk management.⁶¹ Governance disclosures can thus help fill in these critical gaps for investors to understand that climate-related risks are being comprehensively managed by an issuer.

Accordingly, we support the proposal's requirements for further disclosure around the practices and details of board and management oversight of climate-related risks.

Investors want to understand climate-related governance. In a recent discussion with the Center's partners about this proposed rulemaking, participants from several large financial institutions emphasized that the requirement for disclosures around the climate-related governance of issuers is one of the most important aspects of the SEC's proposed rulemaking. Participants noted that strong climate-related governance and the creation of committees that oversee various aspects of climate-related risks are vital steps in embedding climate-related risks throughout an issuer's business and risk management practices. This was seen as especially true for integrating climate risks into core business and strategy decisions, such as in credit, market, and enterprise risk management.

Question 38

Should we require a registrant to describe, as applicable, management's role in assessing and managing climate-related risks, as proposed?

Yes, management oversight disclosures are additionally valuable pieces of information for investors to understand the capabilities and preparedness for climate-related risks and are uniquely valuable in addition to board disclosures. Like disclosures around the climate-related expertise and practices of a company's board, disclosures around similar topics for a company's executive management are highly valuable for investors. For most companies, the successful management and oversight of climate-related risks and opportunities will require in-depth, business-level understanding and expertise. The activities and investments that a company undertakes directly impact the climate-related risk exposures that a company faces and the ways in which a company can successfully navigate their role in the transition.

Effective management oversight of climate-related risks, opportunities, and strategies plays a distinctly important role in comparison to board-level oversight of similar risks and opportunities. Boards are often tasked with addressing a wide variety of competing strategic risks, such as emerging industry trends or global economic conditions, and have limited time to equally review and address all topics, including climate change. This challenge is compounded by the complexity and depth of climate change, which are often diverse, on longer time scales, and more uncertain than other strategic risks. While non-board oversight roles may not have the same degree of liability as the Board, given the magnitude and scale of transformation that many companies will need to undergo throughout the transition, it is important for investors to understand the operational expertise and accountability that exists in relation to how well-equipped a company is in overseeing climate risks, opportunities, and strategies.

Relatedly, we also recommend the disclosure of how, if any, incentives, such as employee compensation, are tied to the achievement of climate-related metrics. While integrating ESG and climate-related metrics are an important part of boosting accountability and performance towards a company's climate-related goals, the widely varying nature of these incentive schemes warrants further disclosure for investors to understand the efficacy of these structures. For example, while 57% of companies in the S&P 500 have reportedly integrated ESG metrics in employee annual incentive plans, fewer 5% of the same group have integrated ESG metrics into long-term incentives, which may hinder a company's ability to focus on long-term climate goals strategies.⁶² Furthermore, current trends in ESG performance incentives have been shown to award management for misleading claims about accomplishing ESG objectives despite increases in emissions or incidences of major environmental damage. For example, despite large

⁶¹ https://rmi.org/wp-content/uploads/2020/07/Breaking_the_Code.pdf

⁶² <https://www.ceres.org/news-center/blog/boards-guide-esg-and-incentives-integration-esg-compensation>

environmental-related bonuses awarded to executives of several major oil and gas companies in 2021, MSCI research has shown that the same companies have lagged in reducing carbon emissions in the real world.⁶³ Accordingly, we believe that further transparency around whether and how climate-related bonuses exist for the Board and management can help investors better understand and engage with companies on their plan to achieve their climate-related strategies and goals.

Section E. Risk Management Disclosure

Question 42

Should we require a registrant to describe its processes for identifying, assessing, and managing climate-related risks, as proposed?

Yes, the SEC should require a registrant to describe its processes for identifying, assessing, and managing climate-related risks. All companies will face different varieties, magnitudes, and transmission channels of climate-related risks. As a growing systemic financial risk, it will not be possible, or desirable, for investors to simply exit or avoid companies that face climate risks.⁶⁴ Many companies, however, are in the early stages of understanding climate risks and the implications that they have for their future. More and better information on how companies are managing climate risks is critical to address the rising investor need for information on these topics and can help illustrate how far along a company is in developing appropriate climate risk management practices. For example, a recent survey of over 70 financial institutions reports that these businesses have begun the process of developing a climate-risk management framework.⁶⁵ However, further detail shows that such processes are far from being effectively integrated to truly address climate risks in their business lines in any meaningful way, with just 20% of respondents indicating that they have fully engaged with business lines to perform climate risk assessments. Furthermore, over 33% of firms report that they lack guidance on identifying or managing climate risks within lending or underwriting documents, and 25% indicated that they have no plans to budget or allocate resources for climate-risk transformation projects and activities, such as employee training or education.

Question 44

When describing the processes for managing climate-related risks, should we require a registrant to disclose, as applicable, as proposed:

- How it decides whether to mitigate, accept, or adapt to a particular risk?
- How it prioritizes climate-related risks?
- How it determines to mitigate a high priority risk?

Yes. These proposed disclosures would be helpful to investors aiming to understand how climate risks are being addressed within a company. Given the widely divergent landscape of tools, resources, and methodologies available for companies to assess, measure, and manage climate-related risks and opportunities, it is important for investors to be informed on the processes that companies utilize in managing, understanding, and responding to these risks.⁶⁶ Such disclosures are highly relevant to investors given that a company's assessment of their exposure to transition and physical risks is largely subjective. Many aspects of climate risk, especially those that may not be imminent or directly linked to a company's strategy or operations, may elude the boundaries of conventional materiality or risk-return evaluations. Since much of the proposed rulemaking's disclosure requirements hinge upon an issuer-made

⁶³ <https://www.washingtonpost.com/business/interactive/2021/fossil-fuel-climate-bonus/>

⁶⁴ <https://www.whitehouse.gov/cea/written-materials/2021/11/03/new-tools-needed-to-assess-climate-related-financial-risk-2/>

⁶⁵ <https://www.cadwalader.com/news/news-release/climate-risk-study-finds-advances-in-financial-industry-mitigation-strategies-concerns-linger-on-execution--->

⁶⁶ <https://rmi.org/introducing-a-climate-alignment-impact-and-risk-toolbox-for-financial-institutions/>

designation of significant or material climate risks, investors should understand the process that a company utilizes to reach these conclusions, specifically on the decision-making employed by companies in choosing how they will respond to identified climate risks.

For example, ING's "Terra Report", which details the bank's integrated climate reporting, provides a helpful overview of the bank's risk management processes and the risk factors used to assess each sector the bank is exposed to, the timelines and categories used to assess each risk, and how such information is used by front office and risk management employees.⁶⁷ The risks a company faces will largely stem from their assessment of what the likely energy, physical, and political & regulatory future looks like, and these conclusions can and do vary widely. As we stated in our response to question 30, even the energy futures assessed by research agencies such as the IEA or the NGFS can vary substantially in composition and timing. Differences in this outlook will directly inform the relevance and weight that a company may give to climate-related risks. Transparency can help resolve instances where investors and companies disagree on what the future may look like.

In addition to understanding the methodologies and processes used to identify, assess, and prioritize climate-related risks, it is valuable for investors to understand the specific actions a company is taking to mitigate or adapt to risks. As the transition continues and climate risks continue to grow, we believe that companies that seek to manage climate risk exposures will struggle to keep up with risks that are growing in both scale and impact, in addition to significant business impacts that the transition to decarbonization will bring. For example, as universal owners of the global economy, large financial institutions will struggle to find ways to hedge or diversify out of a globally systemic risk such as climate change.⁶⁸ Ultimately, robustly addressing climate risk exposures will require moving beyond climate risk management to proactively mitigating risks through forward-looking transition plans.

This approach, which we refer to as "climate-alignment", is the process of focusing a company's decision making on facilitating rapid, real-economy decarbonization in line with 1.5°C pathways.⁶⁹ The Center's report, *Zeroing In: The US Financial Sector Perspective on Net-Zero Lending and Investing*, is based on a series of workshops RMI held in December 2020 with US banks and institutional investors to understand challenges they face in implementing climate alignment strategies. During these workshops, participants explained that unlike an ESG strategy, climate alignment requires an evolution for all business units, functions, and operational infrastructure within an institution, akin to "*changing to DNA of an organization*."⁷⁰ Ultimately, regardless of how companies choose to address the climate-related risks, we believe it is appropriate to supply investors with specific details on how their climate-related risk management and mitigation strategies will proceed

Understanding a company's approach to mitigating climate-related risks is also important to investors in assessing the performance potential of their investments. Mounting evidence suggests ESG- and climate-related investment strategies correlate with better returns, delivering higher upside and lower downside potential in both the short- and long-term. In the short term, a recent meta study covering 2015-2020 found that the majority of ESG and sustainability-focused indices outperformed their traditional market counterparts during market downturns, such as in the recent 2020 market downturn.⁷¹ In the long-run, Eccles et al. found that US companies with high-quality organizational management of ESG risks outperformed peers over an eighteen-year

⁶⁷ See "Identifying Risks and Impact", <https://www.ing.com/Sustainability/Sustainable-business/Terra-approach.htm>

⁶⁸ <https://hbr.org/2019/05/the-investor-revolution>

⁶⁹ https://climatealignment.org/wp-content/uploads/2022/02/impact_principles_for_climate_aligned_finance_report.pdf

⁷⁰ https://rmi.org/wp-content/uploads/2021/03/ZeroingIn-FINAL_03-11-2021.pdf

⁷¹ <https://www.gbm.hsbc.com/insights/global-research/esg-stocks-did-best-in-corona-slump>

period.⁷² In a meta study of over 190 academic papers focused on the financial performance of ESG and sustainable assets, 88% of researchers found that solid ESG practices resulted in better operational performance of firms.⁷³

Question 46

If a registrant has adopted a transition plan, should we require the registrant to describe the plan, including the relevant metrics and targets used to identify and manage physical and transition risks, as proposed?

Yes, transition plans are an essential disclosure topic to help investors understand the substance behind an issuer's climate goals and strategy and to evaluate a company's business model and profitability as the economy transitions to net zero. Transition plans define how a company will weather one of the most momentous shifts in economic history. For most businesses, it will involve a fundamental shift in business models, strategies, and financial planning – accordingly, investors are entitled to know more.

Despite the proliferation of net-zero targets across numerous industries and regions, substance and credibility behind how companies are planning to achieve targets is severely lacking, especially among key carbon-intensive sectors like oil and gas.⁷⁴ For example, only a third of all companies that disclosed to CDP in 2021 indicated they had or are developing a low-carbon transition plan.⁷⁵ Of these plans, the credibility of their design remains uncertain. Only 1% (135 out of over 13,000) of companies reported plans that aligned with 24 key indicators associated with a credible climate transition plan according to the CDP.

Further details around transition plans are a key mechanism to help fill in the gaps behind decarbonization initiatives in all industries, and investors have repeatedly demanded interest in more stringent, actionable transition plans. For example, a recent group of large investors collectively managing \$14 trillion in assets, have called for all companies to set transition plans and disclose key details of plan progress to inform shareholder engagement and voting.⁷⁶ In a recent global survey of investors, two of the top three characteristics investors valued in ESG reporting were more information demonstrating progress towards ESG targets and more detailed plans for how to reach them.⁷⁷

Accordingly, we support the SEC's proposed requirements for issuers to describe the specific actions taken to achieve a plan's targets and the details around how the plan applies to identified physical and transition risks. However, actionable transition plans should also describe how a company's overall climate-related targets and goals are broken down at a business unit, sectoral, or other similar levels as applicable to an issuer. Further examples of disclosures that can help facilitate a better understanding of transition plan implications for investors include:⁷⁸

- **Sector-specific pathways and transition plans**, as informed by chosen sector transition pathways and a company's own judgments based upon client or supplier transition plans, policy and economic analysis, supply chains, and technology developments.

⁷² Robert G. Eccles, Ioannis Ioannou, George Serafeim (2014) The Impact of Corporate Sustainability on Organizational Processes and Performance. *Management Science* 60(11):2835-2857.
<https://doi.org/10.1287/mnsc.2014.1984>

⁷³ https://arabesque.com/research/From_the_stockholder_to_the_stakeholder_web.pdf

⁷⁴

https://static1.squarespace.com/static/59a706d4f5e2319b70240ef9/t/6271848ea3b75a2e497cd717/1651606674044/AsYouSow2022_NetZero_rev8_FIN_20220428.pdf

⁷⁵ <https://www.climateaction.org/news/cdp-reveals-only-a-third-of-companies-that-disclosed-in-2021-have-climate-t>

⁷⁶ <https://www.ft.com/content/a1ab86dd-edbc-45f8-a4d0-53f7dc3ccc67>

⁷⁷ <https://www.pwc.com/gx/en/corporate-reporting/assets/pwc-global-investor-survey-2021.pdf>

⁷⁸

<https://static1.squarespace.com/static/5e0a586857ea746075c561a3/t/61fa7a928bf1444954619fa5/1643805346245/CSLN+Good+Transition+Report+01.22.pdf>

- **The timelines, baseline criteria, and review processes** used to evaluate progress assessments for transition plan objectives and goals. Since the outlook for sectors, understanding of climate science and transition pathways, and government policies are likely to change regularly, it is important to have a clear review cycle in place for transition plans.
- **The policies and procedures used to engage business units, subsidiaries, clients, or other counterparties relevant to the achievement of an issuer's transition plan.** For instance, financial institutions, whose transition plan success largely depends upon the performance of their clients' transitions, should disclose engagement strategies used for clients or due diligence processes used to evaluate the compatibility of new business opportunities with the objectives of a transition plan.

However, against a backdrop of multiple voluntary efforts and policy efforts working to define decarbonization pathways, granular transition plan reporting can quickly become challenging and complex. We encourage the SEC to develop future guidance to help issuers communicate and disclose transition plan progress indicators with investors. In *Charting the Course to Climate-Aligned Finance*, the Center identified the need to understand complex, often conflicting, sectoral decarbonization pathways and choose one to benchmark efforts against as a barrier to financial institutions that seek to proactively support decarbonization with their clients.⁷⁹

We recommend that the SEC expand its transition plan disclosure requirements to provide information around the steps issuers are taking to integrate transition plans within their businesses. An actionable transition plan must be embedded firm-wide to help a company achieve accountability and holistic alignment with the plan's objectives. Companies with an effective transition plan will need to take a "whole of organization" approach that aligns a company's strategy, governance and accountability structures, work processes and roles, incentives, and culture with the aims and ambition of the transition plan. Yet, as we said in response to question 42, the mere existence of climate risk management practices transition plan does not guarantee meaningful integration of such practices. Some examples of relevant disclosures on the integration of a transition plan include:

- **More details around the formal organizational and accountability oversight structures** that support the implementation and oversight of a plan and its key objectives.
- **Whether and how the execution of a transition plan is embedded into a company's decision-making processes**, including criteria to assess the achievement and progress of a transition plan's goals, and how transition criteria and objectives are integrated into short-, medium- and long-term business strategies, planning, and resource allocations.
- **Whether and how the organization aligns employee resources, compensation, and incentives**, including how transition plan objectives are tied to employee training and business unit performance assessments.

In addition to helping investors stay informed about how a company is planning to navigate the transition, further detail around transition plans can also support efficient capital formation. For companies in sectors that are highly exposed to significant transition risks, such as the oil and gas sector, transition plans supply investors with essential market signals that can help companies attract capital by indicating their willingness and ability to shift to business models that align with a likely energy future. However, such signals can only arise with specificity.

For example, analysis by the International Energy Agency (IEA) in 2021 concluded that no investment in new fossil fuel supply projects were compatible with the global economy's pathway to net zero by 2050. However, CDP research shows that while most oil and gas companies agreed to reduce emissions, none of the 100 companies analyzed committed to specific, key features that would align with a net zero future, such as ending oil and gas exploration. Overall,

⁷⁹ <https://rmi.org/navigating-five-barriers-to-climate-aligned-finance/>

just 13 companies had transition plans compatible with a low-carbon future (all of which came from the EU).⁸⁰ Such information is vital for investors to understand the long-term viability of their investments. Relatedly, a lack of transparency around a company's transition plan has the potential to *increase* the risks that investors face in their investments. More transparency could help investors assess such risks. For example, a 2021 court ruling ordered Shell to redesign and implement faster emissions cuts due to an "insufficient" transition plan.⁸¹

Would this proposed disclosure requirement raise any competitive harm concerns and, if so, how can we mitigate such concerns? Would any of the proposed disclosure requirements for a registrant's transition plan act as a disincentive to the adoption of such a plan by the registrant?

One of the highest costs facing business seeking climate alignment is the lack of synchronization between the climate objectives of the firm and the trajectory of the firm's industry or sector. Transition plans, disclosed widely, will send clear, unambiguous signals for industry-wide investments into key technologies and climate solutions. Converging on common asks and approaches can further reduce costs to companies throughout value chains. A real-world example of this can be seen through the Poseidon Principles, the world's first sector-specific, self-governing climate alignment agreement among financial institutions participating in the maritime shipping sector.⁸² The Poseidon Principles enable signatories to converge around common targets to engage with industry portfolio companies over their decarbonization performance, which significantly reduces first-mover disadvantages for climate ambitious companies that may otherwise lose out to more neutral peers.⁸³ Essentially, the Poseidon Principles function as an industry-standard transition plan that both signatories and industry alike target for alignment.

Since launching with 11 financial institutions, the Poseidon Principles has grown to include over 28 financial institutions representing approximately 50% of global maritime shipping lending.⁸⁴ The disclosure of transition plans, especially from sector leaders, can help reduce costs throughout supply chains by enabling value chains and competitors to build expectations around a sector's future. Similar dynamics can be observed in the automotive industry, where a widespread collective push towards a future of electric vehicles has steadily reduced the cost of important components, such as battery packs, since 2013.⁸⁵ This trend is mirrored elsewhere in financial markets. Corporate transparency, including through public disclosures, has been shown to empirically lead to significantly higher rates of research and development spending and patenting within industries.⁸⁶ Instead of reducing competitiveness, we expect that the thorough public disclosures of transition plans will send similar signals and help to facilitate a lower cost, more efficient, and accelerated transition to a decarbonized economy.

However, we are concerned that the mechanism underlying the transition plan disclosure requirements in the proposed rulemaking may potentially result in disincentivizing companies to adopt new transition plans or keep companies from adhering to existing transition plans. We encourage the SEC to explore a retroactive application of transition plan reporting requirements to ensure that any issuers that have already made transition plans should adhere to previous publicly stated commitments, or if they don't, they should offer disclosures explaining why they are abandoning a commitment. We also encourage the SEC to issue further guidance around what practices specifically constitute a transition plan and thus may trigger disclosure requirements. We are concerned that the proposal as written may allow companies to

⁸⁰ <https://www.cdp.net/en/articles/climate/new-global-analysis-at-current-rates-oil-and-gas-companies-will-prevent-world-from-hitting-15c-warming-goal>

⁸¹ <https://www.theguardian.com/business/2021/may/26/court-orders-royal-dutch-shell-to-cut-carbon-emissions-by-45-by-2030>

⁸² https://www.poseidonprinciples.org/finance/wp-content/uploads/2019/07/Poseidon_Principles.pdf

⁸³ https://rmi.org/wp-content/uploads/dlm_uploads/2020/08/climate-aligned-finance-insight.pdf

⁸⁴ <https://shipandbunker.com/news/world/671552-poseidon-principles-now-cover-50-of-global-ship-finance-lending>

⁸⁵ <https://about.bnef.com/blog/battery-pack-prices-fall-to-an-average-of-132-kwh-but-rising-commodity-prices-start-to-bite/>

⁸⁶ https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2498250

avoid transition plan disclosure requirements through semantics or other loopholes, such as simply choosing not to include a transition plan as a part of its core climate risk management practices.

Section F. Financial Statement Metrics

Question 59

Should we require registrants to disclose the financial impact metrics, as proposed? Would presenting climate-specific financial information on a separate basis based on climate-related events (severe weather events and other natural conditions and identified physical risks) and transition activities (including identified transition risks) elicit decision-useful or material information for investors? Are there different metrics that would result in disclosure of more useful information about the impact of climate-related risks and climate-related opportunities on the registrant's financial performance and position?

We support the disclosure of financial statement impacts to enable investors to compare the investments that issuers are making to address climate risks. It is helpful for investors to understand more specifically the nature of climate-related financial impacts to a business so investors can appropriately understand the drivers of climate-related risks and assess the efficacy of a company's measures to address them. For instance, losses stemming from exposure to physical climate damages may be best addressed through resilient infrastructure upgrades or strategic planning of asset siting. On the other hand, losses due to transition risk exposure related to stranded assets or policy changes will need to be mitigated differently. Overall, the detail provided by financial statement impact disclosures are useful datapoints for investors to utilize in engaging companies on their actual and potential impacts from climate change.

However, given the uncertainty and complexity of climate-related risks and associated impacts, it may be challenging to draw boundaries on which impacts stem directly from climate-related events as many significant risks may arise with second- and third-order effects. Second order effects refer to events that have an indirect impact on a business. Third order effects are changes that arise from the societal responses to climate change and may affect the entire market or economy, such as responses from policymakers or regulators or changes in consumer preferences. For instance, a second order transition risk impact may arise as competitors within an industry change, such as increased demand for raw materials that are used for battery manufacturing. In the context of physical risks, these are events which are influenced by climate dynamics, such as floods or landslides due to more severe storms. While these impacts may often overlap under categories of transition and physical risks, oftentimes there may be more disparate, but nonetheless significant, climate-related risk exposures that companies may not be able to discretely disclose in the context of an audited financial statement.

For this reason, we support the SEC's proposed requirements to require a narrative discussion by issuers of whether and how any climate-related risks have or are reasonably likely to affect an issuer's consolidated financial statements. We encourage the SEC to provide a framework for issuers to group their disclosures under these categories to help investors understand the scope of the actual or potential impacts identified, and to provide a clearer set of expectations around what climate risks and impacts a company should consider. It is currently unclear whether and how companies would be required to evaluate more disparate climate-related financial impacts, and we encourage the SEC to prepare future guidance to help issuers determine whether and how to appropriately communicate about them with investors.

While more granular understanding of the nature of financial losses may be useful, it also has its limits. Especially for physical risks, losses incurred may be indicative of chronic risk exposure (e.g., assets sited in areas that are drought-prone or exposed to sea level rise), or they may stem from acute climate impacts. As stated under question 15, it will be important for investors to have the information necessary to assess forward-looking risk exposures. For physical risk, this may

include asset locations, or any resilience or adaptation plans in place for exposed assets. For transition risk, this includes asset-specific information on operations, especially related to reliance on high-emitting assets, including data such as asset value and remaining useful life to evaluate stranded risk exposure. This also includes location data to evaluate continued reliance on fossil fuel emitting assets against the regulatory and policy environment in relevant jurisdictions.

Additionally, we recommend that the SEC adopt additional metrics that are more descriptive of the financial impacts that a company may face due to climate-related risks, such as:

- **Inclusion of metrics relevant to capital turnover:** We recommend that the SEC consider requiring disclosure of asset depreciation rates and/or average remaining life for assets that are linked to carbon intensive activities. This data is important for investors to assess stranded asset risks. RMI's Utility Transition Hub Investments dashboard provides an example for how this data can be used to create metrics that are useful for investors, such as the assets net of depreciation owned by utilities broken down by technology type.⁸⁷
- **Categorize capex metrics by the carbon intensity of assets:** The SEC should require companies to include, in any forward-looking estimates or projections of future capital expenditures, the anticipated breakdown of those expenditures into categories reflecting the level of their use linked to carbon intensive activities. The SEC should also consider whether companies should disclose rates of return on low carbon versus carbon intensive investments, if such a distinction is possible given different asset financing structures.

Section G. GHG Emissions Metrics Disclosures

Question 93

How would investors use GHG emissions disclosures to inform their investment and voting decisions? How would such disclosures provide insight into a registrant's financial condition, changes in financial condition, and results of operations? How would such disclosures help investors evaluate an issuer's climate risk-related exposure? Would such disclosures enable investors to better assess physical risks associated with climate-related events, transition risks, or both types of risks?

GHG emissions disclosures are important data that investors use to evaluate the climate alignment, climate impact, and climate risk implications of investing in a particular company. Greenhouse gas emissions disclosures are intuitive data points that are widely used, and increasingly asked for, by investors globally. Since the Paris Agreement, a growing number of shareholder proposals have been aimed at encouraging companies to set emissions reductions targets.⁸⁸ Verified, investor-grade disclosures on greenhouse gas emissions are a key component of enabling investors to monitor and engage on the progress companies are making towards their climate targets and commitments. For example, as the SEC has noted, investors are increasingly tracking the emissions of listed firms and have formed numerous coalitions, such as Climate Action 100+ and the Net Zero Asset Managers Initiative to engage with companies to reduce their greenhouse gas emissions.⁸⁹

There is also growing evidence that investors are using information about carbon emissions as a factor in their investment decision-making. For example, Bolton and Kacprczyk found that carbon emissions significantly affect the stock prices of listed companies, with investors demanding a "carbon premium" for firms with higher total carbon dioxide emissions and changes to emissions.⁹⁰ In aggregate, it was shown that institutional investors, such as pension funds,

⁸⁷ <https://utilitytransitionhub.rmi.org/portal/>

⁸⁸ <https://www.fticonsulting.com/insights/fti-journal/reporting-reducing-emissions-investors-expect-climate-action-2022>

⁸⁹ <https://www.climateaction100.org/approach/the-three-asks/>

⁹⁰ <https://www.sciencedirect.com/science/article/abs/pii/S0304405X21001902>

insurance companies, and mutual funds, hold a significantly smaller fraction of companies with higher scope 1 emission intensities, especially in carbon intensive industries. This effect is compounded due to the growing usage of sustainable investment strategies and use of tools that screen funds based on ESG factors.⁹¹ However, despite the growing use of emissions information by investors, GHG emissions disclosures are not widely made outside of large companies,⁹² forcing many investors to rely on industry or regional averages for mid-sized or smaller companies.⁹³ As a central datapoint for ESG and climate-related investment strategies, it is essential that investors have access to accurate emissions disclosures from all market participants as these strategies continue to grow in popularity and become a core factor in mainstream investing strategies.

Emissions can be an indicator of risks (e.g., if transition actions are not taken) and opportunities (e.g., to invest in retrofits and technologies that drive emissions reductions) for investors. Investors want to understand how to allocate capital to mitigate their own risks through the transition, and sectors that face the highest risk of a disorderly transition are the ones with the highest emissions. Given this, it is unsurprising that focusing on reducing GHG emissions are cited by investors as the most important ESG priority for companies to address,⁹⁴ and this focus is increasingly reflected in markets today. For example, higher GHG emissions in CDP disclosures have empirically been associated with negative firm value effects.⁹⁵

However, emissions disclosures are not simply a tool for investors to punish high-carbon companies, but rather, to help investors evaluate a company's prudent and responsible use of resources. For example, the cost of capital for high- versus low-carbon projects already exhibits substantial divergence,⁹⁶ and we expect this trend to continue. Given that 85% of emissions are generated in essential infrastructure such as power, buildings, industry, and mobility, these sectors need targeted capital infusions and strategies to transition their operations and succeed in a decarbonized future.⁹⁷ Emissions disclosures are an important metric for investors to evaluate such progress. For example, studies have shown that investors especially value and integrate firm GHG emissions disclosures and GHG management strategies for companies with poor emissions performance.⁹⁸

Finally, current voluntary and third-party emissions disclosures are not sufficient in helping investors identify, understand, and engage on climate-related risks that portfolio companies may face. Voluntary and third-party data sources today are often incomplete, vague, and opaque in their methodology and often contain estimated or incorrect information. For example, approximately 22% of companies that reported emissions data to both the CDP and in their annual report exhibited a mismatch between the two figures.⁹⁹ In conversations with Center financial partners, numerous participants cited differences between emissions data obtained via third party sources and data obtained directly from companies as a significant barrier in engaging companies over their climate-related risks. Third-party data sources can also frequently be expensive and cost prohibitive to various types of investors. For example, a recent survey of investors found that 83% of investors reported spending an average of \$257,000 per year on

⁹¹ <https://www.robeco.com/docm/docu-202103-robeco-global-climate-survey.pdf>

⁹² <https://www.heidrick.com/en/insights/sustainability/sustainability-disclosure-practices-2022-edition-getting-off-the-sidelines>

⁹³ <https://hbr.org/2022/04/we-need-better-carbon-accounting-heres-how-to-get-there>

⁹⁴ <https://www.pwc.com/gx/en/corporate-reporting/assets/pwc-global-investor-survey-2021.pdf>

⁹⁵ Matsumura, Prakash, and Vera-Munoz, "Firm-Value Effects of Carbon Emissions and Carbon Disclosure."

⁹⁶ <https://www.goldmansachs.com/insights/pages/from-briefings-20-january-2022.html>

⁹⁷ <https://www.mckinsey.com/business-functions/sustainability/our-insights/the-net-zero-transition-what-it-would-cost-what-it-could-bring>

⁹⁸ Johnson, Joseph A., Jochen Theis, Adam Vitalis, and Donald Young. "The Influence of Firms' Emissions Management Strategy Disclosures on Investors' Valuation Judgments." *Contemporary Accounting Research* 37, no. 2 (2020): 642–64. <https://doi.org/10.1111/1911-3846.12545>.

⁹⁹ <https://www.msci.com/www/blog-posts/reported-emission-footprints/03060866159>

collecting climate data related to assets.¹⁰⁰ Finally, recent analysis has also shown that investors using third-party or estimated data identify their most significant emissions exposures 2.4 times less efficiently than investors using data obtained directly from companies.¹⁰¹

Question 98

Should we require a registrant to disclose its Scope 3 emissions for the fiscal year if material, as proposed? Should we instead require the disclosure of Scope 3 emissions for all registrants, regardless of materiality?

We support a requirement for the mandatory disclosure of scope 3 emissions for all registrants as they are an essential indication of any company's emissions profile. As said under Question 93, investors already widely value and utilize GHG emissions disclosures today yet often struggle to access high-quality emissions data for all but the largest companies. To investors, scopes 1, 2, and 3 are all individually valuable categories of data on financially material risks that a company may face. For most companies, however, scope 3 emissions constitute the majority of their GHG emissions profile and represent a significant concentration of a company's climate risks exposure.¹⁰² Ignoring scope 3 emissions would miss upwards of 75% of climate emissions¹⁰³ and as much as 88% of the oil and gas sector's greenhouse gas emissions.¹⁰⁴ Thus, scope 3 emissions are highly valuable in helping investors understand the full extent of the climate risks a company faces.

The disclosure of scope 3 emissions is also widely supported by investors. In recent discussions with Center financial institution partners on the SEC's proposed rulemaking, some participants noted that while they were encouraged by mandatory scope 1 and 2 emissions disclosures, they would like to see the same standard apply to scope 3. This interest corresponds with growing investor initiatives that seek to measure and engage with companies over their scope 3 emissions performance, such as the Climate Action 100+ which represents over \$47tn in assets. As a result, companies are already being asked for more information about their scope 3 emissions by investors, and many have already tracked this information even prior to the SEC's rulemaking. In a recent survey of larger issuers, 74% of respondents indicated that they already currently measure scope 3 emissions.¹⁰⁵ In a survey of over 150 public companies across eleven industries, a majority of respondents indicated that they have had information requested or have been engaged with by their investors over their scope 3 emissions.¹⁰⁶ Relatedly, mentions of scope 3 during corporate earnings calls between 2019-2022 has increased fifteen-fold, during which management has mentioned the term six times for every mention by an analyst.¹⁰⁷ Clearly, scope 3 emissions appear to be material information to the investors of the vast majority, if not all, public companies.

However, applying an issuer-determined materiality standard introduces significant risk of underreporting scope 3 emissions. For one, there is an obvious and significant lack of issuer consensus on the materiality of scope 3 emissions even among companies who voluntarily report their emissions today. For example, although financed emissions represent an overwhelming proportion of a financial institution's emissions profile, only 1 out of 54 financial companies

¹⁰⁰ <https://www.sustainability.com/globalassets/sustainability.com/thinking/pdfs/2022/costs-and-benefits-of-climate-related-disclosure-activities-by-corporate-issuers-and-institutional-investors-17-may-22.pdf>

¹⁰¹ <https://www.shedconnect.com/wp-content/uploads/2020/11/3-Research-Affiliates-carbon-paper.pdf>

¹⁰² <https://onlinelibrary.wiley.com/doi/abs/10.1111/poms.13421>

¹⁰³ <https://www.unpri.org/download?ac=1876>

¹⁰⁴ <https://cleanenergynews.ihsmarkit.com/research-analysis/oil-gas-companies-under-pressure-to-manage-scope-3-emissions-t.html>

¹⁰⁵ <https://www.sustainability.com/globalassets/sustainability.com/thinking/pdfs/2022/costs-and-benefits-of-climate-related-disclosure-activities-by-corporate-issuers-and-institutional-investors-17-may-22.pdf>

¹⁰⁶ <https://www.societycorp.gov/HigherLogic/System/DownloadDocumentFile.ashx?DocumentFileKey=fb38dc57-179b-64f2-4255-b1b6e18e8a3b&forceDialog=1>

¹⁰⁷ <https://fortune.com/2021/12/13/scope-3-business-buzzwords-2021-earnings-call-transcripts/>

reporting to the CDP deemed these emissions as material.¹⁰⁸ Even among firms that disclose scope emissions today, there is a substantial lack of completeness. For example, one study estimates that firms who voluntarily report scope 3 emissions report merely 22% of their actual scope 3 emissions on average.¹⁰⁹ In another study, scope 3 data was available for an average of 5 out of the 15 scope 3 categories across over 1,500 companies that reported scope 3 emissions.¹¹⁰

Additionally, among US financial regulators, a principles-based approach to climate disclosures that enables issuers to determine materiality of climate related risks has historically largely fallen short of its intent. For example, the SEC's 2010 Climate Change Guidance "noted that, depending on the circumstances, information about climate change-related risks and opportunities might be required in a registrant's disclosures related to its description of business, legal proceedings, risk factors, and management's discussion and analysis of financial condition and results of operations."¹¹¹ Yet, in 2021, the SEC identified a need to revisit this guidance due to lagging climate-related disclosure practices by public issuers relative to evolving investor demands with respect to climate change.¹¹² In turn, US investor surveys report growing dissatisfaction with the current state of ESG risk disclosures by public companies.¹¹³

Accordingly, we encourage the SEC to explore expanding the scope 3 disclosure requirement to all issuers. While we agree that some categories of scope 3 emissions are more significant than others (see our response to Question 100), and thus should perhaps be prioritized for disclosure first, we believe that universal scope 3 emissions disclosures should eventually be mandatory for all issuers. If necessary, we propose possibly by extending the timeline of disclosures even further for smaller reporting companies. As larger issuers seek out data to fulfill their own scope 3 reporting requirements, it is reasonable to assume that a growing number of companies throughout supply chains will begin tracking and disclosing relevant emissions data. In the long run, this growth in availability can potentially reduce the costs for all issuers and make it easier to obtain sources of relevant data for an issuer's supply chain.¹¹⁴

Question 99

Should we require a registrant that has made a GHG emissions reduction commitment that includes Scope 3 emissions to disclose its Scope 3 emissions, as proposed? Should we instead require registrants that have made any GHG emissions reduction commitments, even if those commitments do not extend to Scope 3, to disclose their Scope 3 emissions? Should we only require Scope 3 emissions disclosure if a registrant has made a GHG emissions reduction commitment that includes Scope 3 emissions?

We agree that issuers that have made greenhouse gas emissions reduction commitments tied to or relevant to scope 3 emissions should elaborate on them through scope 3 disclosures. For instance, a company with a target of net zero emissions should be required to elaborate on if and how such a target applies to an issuer's scope 3 emissions, and if it does not, an issuer should explain why it does not. Such disclosures can serve to significantly aid investors in comparing net zero targets, which vary substantially in practice today.¹¹⁵

¹⁰⁸ <https://www.msci.com/www/blog-posts/which-scope-3-emissions-will/03153333292>

¹⁰⁹ <https://anderson-review.ucla.edu/wp-content/uploads/2021/03/Blanco-Caro-Corbett-JCP-2016-The-state-of-supply-chain-carbon-footprinting-Analysis-of-CDP-disclosures-by-US-firms0.pdf>

¹¹⁰ <https://www.shedconnect.com/wp-content/uploads/2020/11/3-Research-Affiliates-carbon-paper.pdf>

¹¹¹ <https://www.sec.gov/news/public-statement/lee-climate-change-disclosures>

¹¹² <https://news.bloomberglaw.com/us-law-week/new-secs-first-climate-disclosure-tool-is-blast-from-the-past?context=article-related>

¹¹³ https://www.ey.com/en_us/assurance/how-will-esg-performance-shape-your-future

¹¹⁴ <https://www.sustainability.com/globalassets/sustainability.com/thinking/pdfs/2022/costs-and-benefits-of-climate-related-disclosure-activities-by-corporate-issuers-and-institutional-investors-17-may-22.pdf>

¹¹⁵ <https://www.brookings.edu/blog/planetpolicy/2021/10/25/net-zero-carbon-pledges-have-good-intentions-but-they-are-not-enough/>

However, we also recognize that such a requirement may result in unintended consequences in discouraging companies that have set or are considering setting scope 3 emissions targets from doing so due to enhanced reporting requirements. Accordingly, we refer to our points under question 100 and encourage the SEC to issue clearer guidance on when and to what extent scope 3 emissions disclosures would be necessary under existing commitments, including further guidance on what scope 3 emissions should be prioritized for disclosure. We also refer to our points under question 46 and 168 that any commitments that issuers have previously made should retroactively apply to ensure that any issuers that have already made a GHG reduction commitment should adhere to previous publicly stated commitments, or if they don't, they should offer disclosures explaining why they are abandoning a commitment.

Question 100

Should Scope 3 emissions disclosure be voluntary? Should we require Scope 3 emissions disclosure in stages, e.g., requiring qualitative disclosure of a registrant's significant categories of upstream and downstream activities that generate Scope 3 emissions upon effectiveness of the proposed rules, and requiring quantitative disclosure of a registrant's Scope 3 emissions at a later date?

After an initial phase-in period, we do not believe that scope 3 emissions should be voluntary. So long as scope 3 emissions disclosures stay voluntary, there could potentially be disclosure bias that could result in unintended consequences. For example, the companies that *choose* to disclose scope 3 may potentially be seen as having superior resilience to climate related risks, even though their disclosures do not represent necessarily lower carbon emissions or climate-related risk exposures than other companies that don't disclose. Relatedly, it has been shown that voluntary emissions reporting can contribute to a distortionary "halo effect" where investors falsely perceive that a company may have stronger climate or environmental attributes simply due to the decision to report emissions.¹¹⁶ Additionally, as we have said previously in this comment, past voluntary disclosures on climate-related issues have been almost nonexistent under SEC guidance.¹¹⁷

Additionally, it is important to recognize that scope 3 emissions categories are broad and not of equal relevance to investors as quantitative emissions disclosures. The most significant categories of scope 3 emissions are largely readily identifiable for most public companies. For example, scope 3 categories 1, 11, and 15 (purchased goods and services, use of sold products and investments, respectively) contribute 75% of total emissions across the constituents of the MSCI USA Investable Market Index, which includes over 2,400 small-, mid-, and large-cap companies in the US.¹¹⁸ Prioritizing certain types of scope 3 categories for disclosure first can help with compliance, ensuring issuers can disclose their most important scope 3 categories with sufficient time and in appropriate detail.

The Center for Climate-Aligned Finance is focused on identifying "transition-relevant data" for investors.¹¹⁹ In other words, we encourage investors and issuers to focus on the pieces of information that investors need to allocate capital in a way that accounts for the implications of climate change and the transformation to a net-zero global economy. In many cases, this requires data that extends beyond historical emissions disclosures as investors will need to understand at a granular level how companies and sectors intend to scale decarbonization and invest in climate-aligned solutions over time.

¹¹⁶ <https://www.jstor.org/stable/24468367>

¹¹⁷ <https://news.bloomberglaw.com/us-law-week/new-secs-first-climate-disclosure-tool-is-blast-from-the-past?context=article-related>

¹¹⁸ <https://www.msci.com/www/blog-posts/which-scope-3-emissions-will/03153333292>

¹¹⁹ See "Principle 4", https://climatealignment.org/wp-content/uploads/2022/02/impact_principles_for_climate_aligned_finance_report.pdf

Relatedly, not all emissions data are equally important, or important in the same ways. For example, while the emissions related to employee commuting or business travel are unlikely to represent a significant portion of emissions for any company in a carbon-intensive sector, collecting this data adds to the burden of complying with the SEC's proposed requirements. While we agree with the SEC's proposal to eventually require scope 3 emissions disclosure across the proposed 15 categories, we urge the SEC to issue further clarity around when an issuer is required to disclose under each, or how they should prioritize limited resources. The current standard of disclosing scope 3 emissions if they are "significant" to a reporting company offers a potentially uncertain standard under which companies may be pressured to disclose too much, or too little, information. Given the previously mentioned dominance of categories 1, 11, and 15 for the majority of public issuers, we suggest that the SEC initially require issuers to prepare disclosures for these categories or any other issuer-specific categories of equal relevance, depending on the issuer's industry or other considerations.

We further emphasize that scope 3 category 15 emissions are unique from the other scope 3 categories and will likely require further guidance from the SEC. We anticipate that under the SEC's proposed rulemaking, Scope 3 category 15 emissions will be material, by either a qualitative or quantitative threshold, for all financial institutions. Calculating scope 3 category 15 emissions will require inputs from all relevant portfolio companies. Given the scale of this task, and the timelines proposed under the rulemaking, it is possible that financial institutions can only achieve completeness of their scope 3 disclosures by sacrificing accuracy. In other words, prioritization of *which* scope 3 category 15 emissions a financial institution should disclose is helpful. This is a finding that was echoed by financial institution participants in the Center's recent engagement on the SEC's rulemaking proposal. Participants noted that the current proposal potentially implies a need for financial institutions to disclose scope 3 emissions data for the entirety of their balance sheet. Instead, they hoped to see the SEC revise the guidance to ask for financed emissions disclosures that prioritize the most significant climate risk exposures that a financial institution may face, with suggestions ranging from issuer-made designations to disclosures that focus on key, carbon-intensive sectors. Specifically, many large financial institutions have taken a sectoral approach to their emissions, in line with Center's IMPACT+ Principles, which state that financial institutions should prioritize actions across key sectors, asset classes, and geographies to expedite progress on the way to a comprehensive strategy¹²⁰.

Question 105

Should we require the calculation of a registrant's Scope 1, Scope 2, and/or Scope 3 emissions to be as of its fiscal year end, as proposed? Should we instead allow a registrant to provide its GHG emissions disclosures according to a different timeline than the timeline for its Exchange Act annual report? If so, what should that timeline be? For example, should we allow a registrant to calculate its Scope 1, Scope 2, and/or Scope 3 emissions for a 12-month period ending on the latest practicable date in its fiscal year that is no earlier than three months or, alternatively, six months prior to the end of its fiscal year? Would allowing for an earlier calculation date alleviate burdens on a registrant without compromising the value of the disclosure? Should we allow such an earlier calculation date only for a registrant's Scope 3 emissions? Would the fiscal year end calculations required for a registrant to determine if Scope 3 emissions are material eliminate the benefits of an earlier calculation date? Should we instead require a registrant to provide its GHG emissions disclosures for its most recently completed fiscal year one, two, or three months after the due date for its Exchange Act annual report in an amendment to that report?

We recommend the SEC to consider adjusting reporting cycles to reflect the realities of sector-specific differences. Through engagements with the Center's financial institution partners, participants noted concern that the timing of emissions reporting would rarely align with financial disclosure timing, such as for an issuer's Exchange Act annual report. Participants were particularly concerned on how to align with climate & financial data reporting cycle and timing. For

¹²⁰ See "Principle 3", page 10: https://climatealignment.org/wp-content/uploads/2022/02/impact_principles_for_climate_aligned_finance_report.pdf

example, financial institutions that rely upon their clients' emissions disclosures may not have access to such information until after their clients file their own annual reports and calculate their emissions profiles. Similarly, companies whose scope 3 emissions are primarily based upstream emissions may not be able to calculate their scope 3 emissions until their suppliers calculate and disclose their emissions profiles.

While the SEC's proposal to enable estimates to be supplied for fourth quarter reporting periods was seen as helpful, participants noted that re-estimating and correcting previously reported information through future disclosures may be substantially burdensome. Instead, we encourage the SEC to consider allowing an issuer to provide their GHG emissions disclosures through a delayed amendment to an issuer's most recent completed annual report if necessary and within an appropriate amount of time after the annual report filing date. We also recommend the SEC consider the provision of additional amendments as needed on a sector-by-sector basis to help participants report relevant information in a timely, accurate, and efficient way in reflection of sector-specific differences.

Question 106

Should we require a registrant that is required to disclose its Scope 3 emissions to describe the data sources used to calculate the Scope 3 emissions, as proposed? Should we require the proposed description to include the use of: (i) emissions reported by parties in the registrant's value chain, and whether such reports were verified or unverified; (ii) data concerning specific activities, as reported by parties in the registrant's value chain; and (iii) data derived from economic studies, published databases, government statistics, industry associations, or other third-party sources outside of a registrant's value chain, including industry averages of emissions, activities, or economic data, as proposed?

Yes, we believe the SEC should disclose the data sources used to calculate scope 3 emissions as proposed. It is especially helpful to investors to understand the sources underlying scope 3 disclosures given the wide range in quality and sources used by third-party data providers. Previously, participants in Center workshops on climate-related data have noted that many third-party data sources methodologies are a "black box," which challenges their trustworthiness and the ease of integrating their outputs into decision-making processes.¹²¹ Transparency through disclosure of scope 3 data sources can help avoid confusion and mitigate greenwashing. Disclosing data sources would have the added benefit of knowledge transfer, especially for smaller reporting entities who may be able to leverage similar data sources or methods of larger companies.

Additionally, we recommend that the SEC should encourage the PCAOB to work with federal agencies with climate-specific expertise (e.g., DOE, EPA, etc.) to develop verification or assurance standards for the emissions data that companies use and disclose. The SEC should also seek inter-agency collaboration to ensure that emissions data disclosed to the SEC is reported in a standardized format so that users can both connect their own data with different federal agency datasets and ensure that their reporting is consistent that they provide to other agencies. For example, public electric utilities report information to the Federal Energy Regulatory Commission (FERC), Energy Information Administration (EIA), and EPA that would also be eligible for disclosure to their investors seeking to understand climate risk.

Without standardization, linking these federal datasets is a challenging analytical task today. For example, the numeric codes used to identify reporting entities are different between reporting frameworks, reporting entities provide different levels of detail about asset ownership (e.g., at the operating company or parent company level), asset level information is characterized in different ways (e.g., at the plant versus the unit level), and both company and asset names can differ between reporting frameworks and within reporting frameworks (e.g., from year to year). RMI's Utility Transition Hub provides an example for how utility disclosures can be connected across

¹²¹ https://rmi.org/wp-content/uploads/2021/03/ZeroingIn-FINAL_03-11-2021.pdf

FERC, EIA, and EPA sources, and when they are integrated, can be used to create metrics that provide decision-useful information for investors on climate risk and transition risk (e.g., assets on utility books net by technology type).¹²² Accordingly, the SEC should push for improved collaboration and coordination so investors can more easily make use of complementary disclosures.

Question 109

Should we require a registrant to disclose the intensity of its GHG emissions for the fiscal year, with separate calculations for (i) the sum of Scope 1 and Scope 2 emissions and, if applicable (ii) its Scope 3 emissions (separately from Scopes 1 and 2), as proposed? Should we define GHG intensity, as proposed? Is there a different definition we should use for this purpose?

Yes, it would be beneficial to require emissions metrics in both intensity values and absolute values. Given the drawbacks and benefits that are inherent to each metric, it is preferable for investors to be able to compare and utilize both in analyzing the historical performance of an issuer and in comparing metrics across companies and sectors.

Question 110

Should we require the disclosed GHG intensity to be expressed in terms of metric tons of CO₂e per unit of total revenue, as proposed? Should we require a different financial measure of GHG intensity and, if so, which measure? For example, should GHG intensity be expressed in terms of metric tons of CO₂e per unit of total assets?

Yes, it would be beneficial to require both GHG emissions disclosures for both absolute and intensity metrics; however, for some sectors, we believe economic value is a superior metric for investors than revenue, and we encourage the SEC to consider expanding guidance to include these metrics for homogenous sectors. In homogenous sectors where suppliers are producing roughly identical goods and services, such as basic materials, we believe that economic value is a more appropriate metric to measure GHG emissions performance. For instance, the Poseidon Principles, a shipping sectoral alignment pathway co-developed by the Center, use an economic value metric is defined as tons of carbon dioxide emitted per ton of goods shipped, per nautical mile.¹²³ For the Center's upcoming steel alignment pathway, it is defined as tons of CO₂ emitted per ton of steel produced (either as crude steel or steel products) within a fixed system boundary.

In the absence of reducing demand for a company's products or services, most emissions reduction targets are focused on measuring efficiency, which is commonly measured using intensity metrics. Intensity measures are an important indicator when combined with demand forecasts, as they enable insight into whether assets are aligned to meet their estimated production or demand schedules without exceeding carbon budgets. However, intensity metrics based upon revenue instead of real economic output are inherently decoupled from demand and can instead reward inefficient activities. For example, aviation companies make significantly higher revenues transporting customers in business-class seating yet transport far fewer customers. Illustrating the problem with intensity metrics described above, a carrier with *only* business-class seating would have comparatively far fewer emissions per dollar of revenue than a carrier with *only* coach seating yet would have far higher emissions per passenger in reality.

While economic value metrics are useful for comparison across corporates within homogenous sectors, there are also limitations in using these metrics to aggregate the total emissions intensity of an issuer, especially for an issuer with exposures to numerous sectors, such as a financial institution or for issuers who operate in non-homogeneous sectors, like electronics. In these cases, it may not be possible to define a standard unit of economic value. Accordingly, to

¹²² <https://utilitytransitionhub.rmi.org/portal/>

¹²³ https://www.poseidonprinciples.org/finance/wp-content/uploads/2019/07/Poseidon_Principles.pdf

facilitate reporting for these types of issuers to disclose their overall emissions intensity, normalizing each sector's emissions by revenue is likely useful.

Question 111

Should we require the disclosed GHG intensity to be expressed in terms of metric tons of CO₂e per unit of production, as proposed? Would such a requirement facilitate the comparability of the disclosure? Should we require a different economic output measure of GHG intensity and, if so, which measure? For example, should GHG intensity be expressed in terms of metric tons of CO₂e per number of employees? Should we require the GHG intensity to be expressed per unit of production relevant to the registrant's business (rather than its industry)? Is further guidance needed on how to comply with the proposed requirement? Would requiring GHG intensity to be expressed in terms of metric tons of CO₂e per unit of production require disclosure of commercially sensitive or competitively harmful information?

We agree with the requirement to disclose GHG intensity in terms of CO₂e per unit of production. This approach is closely related to the Center's own work on sectoral alignment pathways. However, as we stated above, although this is not necessarily always possible or valid in non-homogeneous sectors, we believe it is vital in homogeneous sectors for fair comparisons between companies and intensity metric disclosures would assist with such efforts.

Overall, we believe that GHG intensity metrics are more useful for investors when they are tied to an issuer's industry. This provides a more consistent metric to allow for direct comparability both within the issuer's emission performance historically and between companies. However, these comparisons may still be difficult if the boundaries of disclosure are not the same between companies, and this may not always be obvious to investors. Thus, we also encourage the disclosure of the methodology an issuer uses to calculate GHG intensity metrics.

Question 113

Should we permit a registrant to disclose other measures of GHG intensity, in addition to the required measures, as long as the registrant explains why it uses the particular measure of GHG intensity and discloses the corresponding calculation methodology used, as proposed?

Yes, we believe the SEC should permit issuers to disclose additional metrics of GHG intensity as they feel is appropriate, so long as supplementary methodology disclosures are provided. We also encourage the SEC to permit any additional metrics that an issuer feels may provide context to other emissions metrics disclosed if an issuer believes such metrics would be informative for their investors, again under the requirement that methodologies are provided.

Question 115

Should we require a registrant to disclose the methodology, significant inputs, and significant assumptions used to calculate its GHG emissions metrics, as proposed? If so, should the required methodology be pursuant to the GHG Protocol's Corporate Accounting and Reporting Standard and related standards and guidance? Should we require a registrant to use a particular methodology for determining its GHG emission metrics?

Yes, the SEC should require all registrants to disclose the methodology, significant inputs, and significant assumptions used to calculate its GHG emissions metrics. At the very least, issuers should describe their methodology, inputs, and assumptions to avoid the possibility of greenwashing. Instances of greenwashing as a result of companies choosing their own reporting methodologies are well documented. For example, firms have been shown to consistently report lower greenhouse gas emissions in voluntary corporate reports using their own methodologies versus reports for the same firms submitted to the CDP using CDP-issued guidance.¹²⁴

¹²⁴ <https://link.springer.com/article/10.1007/s10551-014-2432-0>

However, for the sake of facilitating comparable, decision-useful emissions disclosures for investors, we believe it would be best for the SEC to indicate a preferred methodology or list of methodologies to use. We are concerned that if every issuer has the option to choose one of dozens of methodologies - or worse, if they are allowed to make individual tweaks to the methodologies - the result will be a proliferation of incomparable disclosures. Enabling companies to use bespoke methodologies may critically limit the usefulness of disclosed information and runs counter to the rationale for requiring disclosure in the first place. As a near-term solution, we believe the SEC should encourage the use of the Greenhouse Gas Protocol Corporate Standard for all issuers. We also recommend that the use of this methodology is supplemented with disclosures on both the allocation of embodied carbon of products and services that an issuer produces as well as any use of emissions methodologies specific for different sectors.

In the long run, we believe the SEC should ultimately work to develop standardized metric(s) (e.g. Co2e/unit of production) that fall within a fixed system boundary which encompasses the most significant carbon-intensive assets and processes that drive an issuer's emissions profile. Combined with transparency around the assumptions, data, and inputs used, we believe such disclosures would enable the most comparable set of emissions-related metrics for investors. Current standards such as the GHG Protocol allow for significant flexibility in the boundaries of an issuer's emissions profile and accordingly dilute the comparability of emissions disclosures based on these significant choices.

Section H. Targets and Goals Disclosure

Question 168

Should we require a registrant to disclose whether it has set any targets related to the reduction of GHG emissions, as proposed? Should we also require a registrant to disclose whether it has set any other climate-related target or goal, e.g., regarding energy usage, water usage, conservation or ecosystem restoration, or revenues from low-carbon products, in line with anticipated regulatory requirements, market constraints, or other goals, as proposed? Would our proposal discourage registrants from setting such targets or goals?

We agree with the SEC's proposed requirements to disclose further information around any targets that an issuer has set related to the reduction of GHG emissions or any other climate-related targets or goals. Similar to our responses to previous questions, the pursuit and achievement of climate-related targets and goals will have significant and material impacts on and implications for any issuer's business, and investors are increasingly demanding additional information to make sense of these dynamics. For example, further detail around a company's progress towards set ESG targets was recently ranked as the second most important area of ESG reporting by investors.¹²⁵

Finally, while we do not believe that this requirement will discourage issuers from setting future climate-related targets or goals, we encourage the SEC to pursue a retroactive application of this proposal within a reasonable timeframe, similar to our recommendations for issuer transition plan disclosures. If an issuer has already publicly issued a climate-related target or goal, we believe they should be required to adhere to them, or if they don't, they should offer disclosures explaining why they are abandoning a target or goal.

Question 169

Should we require a registrant, when disclosing its targets or goals, to disclose:

- The scope of activities and emissions included in the target;
- The unit of measurement, including whether the target is absolute or intensity based;

¹²⁵ <https://www.pwc.com/gx/en/corporate-reporting/assets/pwc-global-investor-survey-2021.pdf>

- The defined time horizon by which the target is intended to be achieved, and whether the time horizon is consistent with one or more goals established by a climate-related treaty, law, regulation, or organization;
- The defined baseline time period and baseline emissions against which progress will be tracked with a consistent base year set for multiple targets;
- Any intervening targets set by the registrant; and
- How it intends to meet its targets or goals, each as proposed?
- Are there any other items of information about a registrant's climate-related targets or goals that we should require to be disclosed, in addition to or instead of these proposed items? Are there any proposed items regarding such targets or goals that we should exclude from the required disclosure? If a registrant has set multiple targets or goals, should it be permitted to establish different base years for those targets or goals?

We agree with the SEC's proposed requirements to require further details of an issuer's climate-related targets or goals, as these requirements are essential for investors to compare targets between issuers and to understand the implications of these targets for an issuer's business over time. Despite the growth of net zero commitments and climate-related targets and goals in the market today, not all targets and goals are created equal. While over a fifth of the world's largest public companies have made net zero commitments in some form, just a quarter of these commitments are detailed enough to be considered "robust."¹²⁶ For example, in the US financial sector, despite all ten of the largest US banks possessing commitments to net zero targets in some form, all commitments entail different financed emissions targets that are often measured using bespoke emissions metrics and cover differing subsets of portfolios.¹²⁷ Without further context, it can be difficult, if not impossible, for investors to compare and understand the ambition and implications of these commitments. For example, HSBC Bank's original target for achieving net zero was limited to covering on-balance sheet exposures, which excluded other significant drivers of financed emissions, such as underwriting activities.¹²⁸ For HSBC, underwriting represents approximately 60% of the bank's overall upstream oil and gas financing. In practice, this meant that carbon-intensive clients would have been exempt from HSBC's net zero aims if they were interested in debt financing instead of loan financing.

The proliferation of net zero targets that align to different climate scenarios and cover various combinations of portfolios, metrics, and activities is confusing for investors and introduces the possibility greenwashing. The lack of clarity around high-level climate targets has material implications for an investor trying to evaluate whether and how a target addresses an issuer's climate risks or whether or not an issuer's business is compatible with the transition. In a review of 25 of the world's largest companies' net zero pledges, most were found to only cover the minority of a company's value chain emissions or to lack enough specificity to determine what the pledge fully entails.¹²⁹ Without sufficient detail on how climate targets were set or how an issuer intends to achieve their climate-related targets or goals, investors will lack sufficient information to understand the implications of various issuers climate plans. For example, analysis by Climate Risk Review illustrates the significance of understanding which climate scenario or pathway were used to set climate targets.¹³⁰ For instance, if two companies set a net-zero by 2050 target but based on two different climate pathways, each company could pursue very different interim plans. The analysis offers the example that an oil and gas company with an operational emissions intensity of 3.7 tCO₂e/TJ in 2030 would be passable based on the Canadian Government's Evolving Oil and Gas Pathway but not based on the IEA's Net-Zero by 2050 pathway, both of which could be construed as aligned with net-zero by 2050.

¹²⁶ <https://eciu.net/analysis/reports/2021/taking-stock-assessment-net-zero-targets>

¹²⁷ <https://www.climate-riskreview.com/p/us-banks-go-their-own-ways-on-financed?s=w>

¹²⁸ <https://shareaction.org/news/hsbcs-new-climate-commitments-exclude-the-bulk-of-its-finance-to-oil-gas-companies>

¹²⁹ <https://newclimate.org/2022/02/07/press-release-corporate-climate-responsibility-monitor-2022/>

¹³⁰ <https://www.climate-riskreview.com/p/how-to-tackle-net-zero-target-arbitrage?s=r>

In a recent survey on investor sentiment related to this rulemaking, over 78% of investors indicated that companies should publicly and freely release annual metrics and progress reports related to the targets they have set.¹³¹ Among US investors, 67% agree that detailed information about progress towards ESG-related targets is important, but only 29% believe current reporting on these targets meets investors' needs.¹³² We believe that the proposal would help meet these needs, and we agree with the provision to standardize multiple targets against a single base year to help achieve better comparability among targets.

Question 170

Should we require a registrant to discuss how it intends to meet its climate-related targets or goals, as proposed? Should we provide examples of potential items of discussion about a target or goal regarding GHG emissions reduction, such as a strategy to increase energy efficiency, a transition to lower carbon products, purchasing carbon offsets or RECs, or engaging in carbon removal and carbon storage, as proposed? Should we provide additional examples of items of discussion about climate-related targets or goals and, if so, what items should we add? Should we remove any of the proposed examples of items of discussion?

Yes, the material implications of how an issuer intends to achieve its climate-related target or goals warrants further disclosure for investors. We also refer to our points under section E discussing the material implications of an issuer's strategy to address its climate-related risk exposures, including through meeting its climate-related targets or goals. Further detail on how a company is achieving progress towards its climate-related targets or goals is highly important for investors to understand the full scope of impact that a company's strategy will have on addressing their climate-related risk exposures. In particular, companies that plan on achieving their climate-related targets by selling their carbon-intensive assets may face significant difficulties in finding buyers even in the near-term future, which could leave them exposed to significant transition risks, such as being forced to sell stranded assets at low prices. This type of progress made on a company's net zero commitments, which potentially comes at the expense of real economy decarbonization, has the potential to mislead investors and potentially increase shareholder exposure to possible liability risks. In certain industries, liability risks tied to the environmental damages caused by operating assets can extend to previous owners even after their sale or transfer. For example, several public oil companies were recently ordered to pay hundreds of millions of dollars to retire previously sold aging oil wells.¹³³ Accordingly, we believe investors are entitled to detailed information around how issuers are achieving progress on their climate-related targets and goals.

Relatedly, we believe issuers should disclose the use of offsets and RECs. Offset and REC markets are subject to market uncertainty with impacts for future supply, demand, and resulting pricing. Given these dynamics, it would be helpful for an investor to understand the extent to which an issuer intends to rely on offsets and RECs within their climate strategies. Depending on the trajectory of future regulation and voluntary efforts, the market for offsets and RECs and the viability for their use in achieving net zero strategies or other climate-related targets and goals could change significantly. For example, net zero strategies that rely on carbon removal offsets may become unviable as supply constraints set in due to increased demand, stricter voluntary standards of net zero requirements, or increased regulation in offset markets. Companies that have developed strategies based on the assumption of widespread cheap offsets will find themselves effectively exposed to elevated carbon prices, and thus, elevated transition risk. Additionally, Carbon offset markets remain highly opaque and non-standardized, making it difficult to understand the risks and implications tied to their use. In a recent report, 90% of offsets

¹³¹ https://ourfinancialsecurity.org/wp-content/uploads/2022/04/FINAL-Report_Climate-Disclosure-Survey-Results_AFR-PC-2.pdf

¹³² https://viewpoint.pwc.com/dt/us/en/pwc/in_the_loop/assets/intheloop0222.pdf

¹³³ <https://www.wsj.com/articles/oil-companies-are-ordered-to-help-cover-7-2-billion-cleanup-bill-in-gulf-of-mexico-11625569200>

analyzed were found to ultimately offset fewer emissions than claimed, impermanently offset emissions, lead to damaging side effects for local communities or ecosystems, or some combination of all problems.¹³⁴ Accordingly, we strongly endorse the details that the rulemaking would provide under the proposed disclosures for offset and REC usage in achieving an issuer's climate-related targets and goals.

Question 171

Should we require a registrant, when disclosing its targets or goals, to disclose any data that indicates whether the registrant is making progress towards meeting the target and how such progress has been achieved, as proposed?

Yes, such data is highly important to inform investors on the efficacy of an issuer's climate-related strategy, investments, and risk management. Investors have demonstrated strong interest in access to detailed, standardized information around how a company is achieving their climate-related targets and goals. For example, in a recent survey of investors, two of the top three characteristics investors valued in ESG reporting was more information demonstrating progress towards ESG targets and more detailed plans for how to reach them.¹³⁵ Among US investors, an overwhelming majority indicated that further detail around ESG-related commitments, targets, and goals are important characteristics of high-quality ESG reporting.¹³⁶

Conclusion

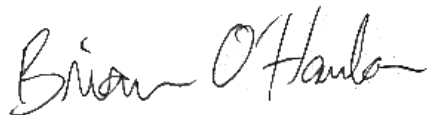
We commend the SEC's proposed rule to improve climate disclosure. The proposal in its current form would be a substantial improvement on current practices in line with the SEC's "mission of protecting investors, maintaining fair, orderly, and efficient markets, and facilitating capital formation." We believe our recommendations herein would further reinforce the proposal, and we hope they are valuable in formulating a final rule.

More accurate, comprehensive, and standardized climate reporting is essential to supporting low-carbon economic growth and managing climate risk in an efficient and equitable manner. Tools from RMI projects, such as the Center for Climate Aligned Finance, Climate Intelligence, and The Utility Transition Hub, have been designed with these goals in mind. We stand ready to provide additional background and resources to support the SEC as you reevaluate current disclosures rules.

If there are questions on the points highlighted here, or if you would like further information, please let us know.

Thank you very much for your consideration and extensive investment in these issues. Your work and attention to this topic are deeply valued.

Sincerely,



Brian O'Hanlon
Managing Director
Center for Climate-Aligned Finance

¹³⁴ <https://www.compensate.com/reforming-the-voluntary-carbon-market>

¹³⁵ <https://www.pwc.com/gx/en/corporate-reporting/assets/pwc-global-investor-survey-2021.pdf>

¹³⁶ https://viewpoint.pwc.com/dt/us/en/pwc/in_the_loop/assets/intheloop0222.pdf

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