COMMENT: PROPOSAL ON THE ENHANCEMENT AND STANDARDIZATION OF CLIMATE-RELATED DISCLOSURES FOR INVESTORS

June 17, 2022

Vanessa A. Countryman, Secretary

Securities and Exchange Commission

100 F Street, NE Washington, D.C. 20549-1090

Re: File Number S7-10-22, submitted via rule-comments@sec.gov

Dear Ms. Countryman, dear SEC colleagues,

At Climate & Company, we strongly support the Security and Exchange Commission's ("SEC") proposed rules for enhancing transparency about climate risks, and their alignment with the recommendations of the Taskforce on Climate-related Financial Disclosures (TCFD) and the Greenhouse Gas (GHG) Protocol. (Release No. 33-11042, March 21, 2022).

Next to our more general comment, which we are submitting in parallel, together with some of our partner organizations, the team at Climate & Company is hereby providing more technical inputs on a subset of the questions that were part of the proposed regulation. Climate risks and impacts are material to investment decisions, and transparency is crucial to enable financial market participants to evaluate and price sustainability risks and impacts. To date, a lack of comparability of available or disclosed data and the varying degrees of scope, relevance, and completeness of climate and sustainability disclosure regimes hamper financial actors' abilities to consider sustainability risks and impacts systematically in their financial decisions and risk assessment.

The experts at Climate & Company and the University of Bamberg, Germany involved in writing this response have decades of experience working with carbon/climate finance and environmental reporting. Amongst others, through our direct, personal involvement in and exchanges with the relevant international bodies (GRI, ISSB, IPSF, EU sustainable finance platform, EFRAG sustainability reporting expert groups), we are intimately familiar with the issues this proposed rule seeks to, rightfully, address.

We strongly support the Proposed Rule: The Enhancement and Standardization of Climate-Related Disclosures for Investors (hereafter the Proposed Rule) and hope to see a swift adoption and implementation.

Moreover, we would like to provide you with a focused set of suggestions based on our policy expertise, our close cooperation with reporting entities (in particular corporates) and users of disclosures (in particular financial institutions and regulators), and our substantial research track-record, to support you in this important initiative. For ease and effectiveness, we have structured our comments according to the chapters of the Proposed Rule. Where possible or applicable, we marked with "Q[number]" the comments to specific questions.

Before we get into the specific answers to questions where we felt we could contribute in a meaningful way, we would like to emphasize a set of particularly important observations. Besides our general support for increasing the resilience of capital markets through mandatory disclosure of climate risks, we welcome the questions raised in this consultation about emissions and associated risks "hidden in" the supply chain, an issue of particular relevance to the agriculture, forestry and land-use sectors (upstream) and the risks of "downstream" sectors associated with vital nature-based ecosystem services , land-use change, deforestation, illegal logging, human rights abuses and land tenure related disputes upstream. As we will go on to explain in detail below, the identification of land-use and nature related dependency risks, the disclosure of "scope 3" emissions and dependency risks (for sectors with a significant share of emissions or dependencies on scope 3 activities), and corresponding sector specific guidance or reporting standards will be crucial for capturing this significant share of the total climate risk exposure of US companies.

Chapter A. Overview of the Climate-Related Disclosure Framework

Q4. *Do our current reporting requirements yield adequate and sufficient information regarding climate-related risks to allow investors to make informed decisions? In lieu of, or in addition to the proposed amendments, should we provide updated guidance on how our existing rules may elicit better disclosure about climate-related risks?*

Under the current reporting requirements, material climate risk disclosure is insufficiently enforced.[1] This means that the incorporation of climate risks under the current regime is neither comprehensive nor consistent and comparability is low. Although listed companies may mention climate risks in their reporting on risks factors (Item 503I), this is neither standardized nor of quantitative nature. Thus, there is a need for climate reporting requirements with mandatory KPIs and a strict enforcement. Furthermore, to reduce the reporting burden of companies active outside the US and to allow for comparability and integration of assets across constituencies (for investors and, for example, US fund managers with US and non-US assets under management), the requirements would need to be aligned with international standards and reporting requirements in other large economies, such as the European Union.

Chapter B. Disclosure of Climate-Related Risks

Before commenting on specific questions of this chapter, we would like to raise a set of overarching recommendations for the Disclosure of Climate-Related Risks.

First, we would recommend for the SEC to carefully consider the highly dynamic nature of the materiality concept, specifically regarding climate-related issues: climate-related impacts can quickly become recognized as risks which are financially material. We caution that a narrowly defined risk-focused approach as represented in the proposal could lead to important climate-related issues being excluded and overlooked whenever they are currently classified as material solely from an impact perspective. The financial materiality of externalities such as carbon emissions has been increasing in recent years, even for companies not falling under any carbon pricing regime and research consistently shows a negative firm value effect of carbon emissions[2]. The hard empirical evidence from the firm value literature clearly illustrates that carbon intensive assets are trading at an increasingly significant discount. The inside-out and outside-in perspectives of materiality overlap, they generally converge over time and hence we recommend for the SEC to align with international developments, which increasingly implement double-materiality to define reporting requirements[3].

Second, we would like to highlight that the proposal is currently failing to consider relevant climate-related risks, specifically those linked to deforestation and forest degradation, which we recommend being included. With 25% of global emission coming from the land sector this represents the second largest source of greenhouse gas emissions after the energy sector; about half of these (5-10 GtCO2e annually) comes from

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[1] Gelles, D. (2016). "S.E.C. is criticized for lax enforcement of climate risk disclosure". *The New York Times*. link.

[2] See for example: Matsumura, E. M., Prakash, R., & Vera-Munoz, S. C. (2014). "Firm-value effects of carbon emissions and carbon disclosures". *The Accounting Review*, 89(2), 695-724. link; Griffin, P. A , Lont, D. H., & Sun, E. Y. (2017). "The relevance to investors of greenhouse gas emission disclosures". *Contemporary Accounting Research*, 34(2), 1265-1297. link; Ott, C , & Schiemann, F. (2022). "The market value of decomposed carbon emissions". *Journal of Business Finance & Accounting*. link

[3] International Platform on Sustainable Finance (2021). "State and trends of ESG disclosure policy measures across IPSF jurisdictions, Brazil, and the US". link

deforestation and forest degradation.[4] Financial markets have already signalled that they consider deforestation a financially material climate risk. A recent investor initiative of US $8.5 trillion, the Investors Policy Dialogue on Deforestation (IPDD), is indicative of investors' growing understanding.[5] The deforestation commitment by over 140 countries at COP26, including major forested nations Brazil, Canada, China, Indonesia, Japan, Russia, and the United States, is a key indicator of rapidly materializing transition risks in this sector.[6] As deforestation, particularly tropical deforestation, is driven predominantly by the expansion of industrial agriculture, this agreement presents regulatory risk. As does the proposal of the EU Commission for a deforestation-free products regulation[7]. These developments will have implications for the cost and availability of agricultural commodities across supply chains. Similarly, as countries increasingly implement carbon taxation and trading systems, emissions-intensive production will become more expensive. There may be stranded assets if enforcement of moratoriums is robust: in Indonesia, as much as 76 percent of unplanted palm oil concessions may become stranded by 2040 if conservation efforts proceed in line with these international commitments and the country's Nationally Determined Contribution to the Paris Agreement.[8] We recommend you to also consider the types of climate change risks in forest, food, and land, according to TCFD classifications.

Third, in addition to the proposal's link to the TCFD, we encourage the SEC to also build on and utilize the TNFD framework, which includes the disclosure of companies on their nature-related dependencies and physical and transitional risks arising from these dependencies.

Q8. *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? If so, should we specify a particular time period, or minimum or maximum range of years, for "short," "medium," and "long term?" For example, should we define short term as 1 year, 1-3 years, or 1-5 years? Should we define medium term as 5-10 years, 5-15 years, or 5-20 years? Should we define long-term as 10-20 years, 20-30 years, or 30-50 years? Are there other possible years or ranges of years that we should consider as the definitions of short, medium, and long term? What, if any, are the benefits to leaving those terms undefined? 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?*

Yes, we support your proposal to require firms 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. There is a benefit of specifying time periods or ranges of years for "short", "medium" and "long" term in terms of comparability amongst the affected registrants. This is exactly what the European Financial advisory Group (EFRAG) has proposed in its "exposure drafts" for the European Sustainability reporting standard[9]; here they differentiate between short-term 1 year, medium-term 1-5 years, and long-term: more than 5 years[10]. EFRAG is mostly arguing with comparability and, considering that relevant time horizons can vary by sector and topic, undertakings are free to specify other relevant time horizons for any given relevant disclosure context[11]. Also other constituencies, like Canada or the Singapore Stock Exchange specify time horizons, while others require a

[4] IUCN Issues Brief (2021). "Forests and Climate Change". link

[5] See IPDD, link. IPDD has a secretariat established by the World Economic Forum, and is supported by PRI (U.N. Principles for Responsible Investment).

[6] Glasgow Leaders Declaration on Forests and Land Use (2021). link

[7] European Commission (2021). "Proposal for a regulation on deforestation-free products". link

[8] Orbitas (2021). "Climate Transition Risk Analyst Brief: Indonesian Palm Oil". link

[9] EFRAG (2022). "Exposure Draft ESRS 1 General principles.". link

[10] *Ibid.*, p. 18, Nr. 83

[11] EFRAG (2022). "Exposure Draft ESRS 1 General principles - Basis for Conclusions". p. 20, BC 81 ff.: link

general differentiation between short-, mid- and long-term.[12] We suggest considering the TCFD's approach, as it represents the international reference point for the specification of the forward-looking perspective and respective time periods. The TCFD suggests firms to provide "a description of what they consider to be the relevant short-, medium-, and long-term time horizons, taking into consideration the useful life of the organization's assets or infrastructure and the fact that climate-related issues often manifest themselves over the medium and longer terms". We view this approach as an appropriate starting point, as it requires registrants to be explicit and transparent in their time specifications, whilst still allowing for the consideration of firm specific characteristics, which might affect the definition of the mentioned time horizons. Independent of the exact time horizons chosen, we recommend considering the requirement of applying consistent time periods for all reporting issues to enhance comparability and clarity.

Q9. *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? Should we define climate-related risks to include both physical and transition risks, as proposed? Should we define physical risks to include both acute and chronic risks and define each of those risks, as proposed? Should we define transition risks, as proposed? Are there any aspects of the definitions of climate-related risks, physical risks, acute risks, chronic risks, and transition risks that we should revise? Are there other distinctions among types of climate-related risks that we should use in our definitions? Are there any risks that we should add to the definition of transition risk? How should we address risks that may involve both physical and transition risks?*

Yes, we support your proposal in that it defines "climate-related risks" to mean both the actual and the potential negative impacts of climate-related conditions and events on a registrant's consolidated financial statements, business operations, or value chains. We further support your proposal's applicability to both physical and transition climate-related risks, as well as the inclusion of both acute and chronic physical risks. In the addition to the proposal's link to the TCFD, we encourage the SEC to also build on and align with the TNFD framework, which includes the disclosure of companies on their nature-related dependencies and physical and transitional risks arising from these dependencies. We also highlight that important material risks are currently not identified in the proposal. More specifically, we assert that deforestation risks – for their particular climate-related significance – need to be included as both a physical risk and a transition risk.

Results from a 2022 study[13] tracking of deforestation commitments and performance of the 350 globally operating companies most exposed to deforestation risk in their supply chains, and from the 150 financial institutions similarly exposed in their loan portfolios and investments, indicate that three-quarters of operating companies do not have deforestation policies covering all of the forest risk in commodities in their value chains, nor do 93 of 150 financial institutions have such policies for their financed forest risk.

These risks need to be clearly disclosed in registration statements and annual reports for the protection of U.S. investors, particularly given the Glasgow Leaders Declaration on Forest and Land Use, which, if enforced by the 141 signatory countries, would be a turning point in addressing deforestation. As such, it presents material risk of stranding assets, producing negative returns on invested capital, increasing non-performing loans previously extended in the forest, food, and land sectors, and reducing revenues in those sectors.

[12] While many jurisdictions require (listed) companies to disclose their environmental or climate risks (e g., Brazil, Indonesia, Chile, etc), including the distinction of short-, medium, and long-term risks (e.g., New Zealand), a specification of the exact time frame is rare. Canada differentiates between short-term (1-5 years) and "thereafter" in their CSA STAFF NOTICE 51-333 ENVIRONMENTAL REPORTING GUIDANCE from 2010. The Singapore Stock Exchange states in its 2021 consultation paper "Climate and Diversity - The way forward" that "Typically, the short-term is considered less than one year for banking and financial instruments. For the medium term, the issuer may wish to take reference from their typical planning horizon, investment cycle or plant renewal, or other considerations relevant to its business. The long-term should be a useful time horizon over which expectations can be formed and efforts planned."

[13] Forest500 (2022). "2022 Annual Report". link

Part of the European Sustainability Reporting Standard (ESRS) prepared by EFRAG, the so-called exposure draft of the Climate Standard (E1) defines climate-related physical and transition risk as follows:

Climate-related physical risk: Climate-related physical risks are risks that arise from the physical effects of climate change. They typically include acute physical risks, which arise from particular hazards, especially weather-related events such as storms, floods, fires or heatwaves, and chronic physical risks, which arise from longer-term changes in the climate, such as temperature changes, rising sea levels, reduced water availability, biodiversity loss and changes in land and soil productivity. (adapted from Commission Communication C(2019) 4490 final)[14]

Climate-related transition risk: Climate-related transition risks are risks that arise from the transition to a low-carbon and climate-resilient economy. They typically include policy risks, legal risks, technology risks, market risks and reputational risks and can arise from related transition events. (adapted from Commission Communication C(2019) 4490 final).[15]

Q10. *We define transition risks to include legal liability, litigation, or reputational risks. Should we provide more examples about these types of risks? Should we require more specific disclosures about how a registrant assesses and manages material legal liability, litigation, or reputational risks that may arise from a registrant's business operations, climate mitigation efforts, or transition activities?*

In line with the TCFD requirements, we suggest you require registrants to disclose "a description of the process(es) used to determine which risks and opportunities could have a material financial impact on the organization", also regarding transition risks[16].

Q11. *Some chronic risks might give rise to acute risks, e.g., drought (a chronic risk) that increases acute risks, such as wildfires, or increased temperatures (a chronic risk) that increases acute risks, such as severe storms. Should we require a registrant to discuss how the acute and chronic risks they face may affect one another?*

It is of crucial importance to emphasize the dynamic and interdependent nature of risks. This does not only hold for chronic and acute risks but also for their materiality in terms of inside-out and out-side in perspectives. Risks that are today material from an impact perspective or classified as chronic risks, can quickly become material from a financial perspective and become acute risks, too.

The example of the Amazon biome can illustrate the dynamic characteristics of risks and materiality. Systemic financial risk would increase exponentially, should the tipping point for ecosystem collapse arrive. Already, around 17 percent of the Amazon have been deforested[17]. However, climate scientists have predicted a tipping point when 20–25 percent of the Amazon is cut down, warning that the rainforest's hydrological cycle will be unable to support itself and the biome will convert to a savanna. Since the Amazon provides water to a region in South America responsible for 70 percent of the continent's GDP, the risk to the continent's financial sector is sizeable, as is the risk to downstream U.S. companies reliant on agricultural supply chains or U.S. financial institutions with regional investments.[18] Companies from the healthcare sector might be subject to the related risks, since a quarter of modern medicine originates in tropical forests[19].

We thus stress the importance to include both chronic and acute risks in the disclosure requirements and support the SEC's suggestion to require registrants to disclose their assessments regarding their interplay and potential developments. In that regard, we again recommend using and building on the TCFD

[14] EFRAG (2022). "Exposure Draft ESRS E1 Climate change". Appendix A: Defined Terms, p. 15: link

[15] *Ibid.*

[16] Further examples can be found in Canada's CSA STAFF NOTICE 51-333 ENVIRONMENTAL REPORTING GUIDANCE (2010). link

[17] Roy, D. (2022), "Deforestation of Brazil's Amazon Has Reached a Record High. What's Being Done?" *Council on Foreign Relations.* link

[18] *Ibid.*

[19] Food and Agriculture Organization of the United Nations (2017). "Ten things you may not know about forests". link

recommendations, which include climate-related scenario analysis. With regards to chronic and acute risks climate-related scenario analysis can help to evaluate in how far and under which scenarios chronic risks might become acute and thus help to evaluate risks in a more nuanced manner, considering the attached uncertainty and dependencies. Further, we recommend going a step further and implementing the concept of double materiality for both chronic and acute risks: firms should also disclose in how far their activities increase chronic and acute risks that influence stakeholders besides their investors. A double materiality approach is increasingly implemented internationally and capital market´s considerations of impacts are likely to increase in the near future. As such, including a double materiality approach and considering chronic and acute risks that registrants are both influenced by and that they contribute to reflects in our view a timely manner to deal with the materiality dimension, which is also most coherent with the direction of other international frameworks.

Q12. *For the location of its business operations, properties or processes subject to an identified material physical risk, should we require a registrant to provide the ZIP code of the location or, if located in a jurisdiction that does not use ZIP codes, a similar subnational postal zone or geographic location, as proposed? Is there another location identifier that we should use for all registrants, such as the county, province, municipality or other subnational jurisdiction? Would requiring granular location information, such as ZIP codes, present concerns about competitive harm or the physical security of assets? If so, how can we mitigate those concerns? Are there exceptions or exemptions to a granular location disclosure requirement that we should consider?*

We support a requirement for registrants to provide a detailed location of their business operations, properties or processes. When a facility is directly owned by a registrant, specific location (with exact location coordinates) is highly relevant in identify material physical risks stemming from operations usage of natural resources and whether there will be risk arising along its value chain. Tracking risks and impacts of companies due to GHG emission, in deforestation and land use for example, is already possible to be monitored and should be pushed by the SEC. Instead of ZIP codes, geographic coordinates would provide a more generally applicable approach to report locations. For example, the proposed EU Regulation for Deforestation-free Products requires geographic coordinates instead of the ZIP code.

Q13. *If a registrant determines that the flooding of its buildings, plants, or properties is a material risk, should we require it to disclose the percentage of those assets that are in flood hazard areas in addition to their location, as proposed? Would such disclosure help investors evaluate the registrant's exposure to physical risks related to floods? Should we require this disclosure from all registrants, including those that do not currently consider exposure to flooding to be a material physical risk? Should we require this disclosure from all registrants operating in certain industrial sectors and, if so, which sectors? Should we define "flood hazard area" or provide examples of such areas? If we should define the term, should we define it similar to a related definition by the Federal Emergency Management Agency ("FEMA") as an area having flood, mudflow or flood-related erosion hazards, as depicted on a flood hazard boundary map or a flood insurance rate map? Should we require a registrant to disclose how it has defined "flood hazard area" or whether it has used particular maps or software tools when determining whether its buildings, plants, or properties are located in flood hazard areas? Should we recommend that certain maps be used to promote comparability? Should we require disclosure of whether a registrant's assets are located in zones that are subject to other physical risks, such as in locations subject to wildfire risk?*

We support the proposal to define "flood hazard area" and to use existing definitions, such as the definition provided by FEMA. Providing a specific definition reduces opacity and efforts attached to the identification of such areas for registrants, and further ensures that a common definition and understanding is the basis of the linked reporting between different registrants, increasing the comparability of the disclosed information. We further support the proposal to require registrants to disclose how "flood hazard area" have been identified. This helps to verify the respective information and produces more transparent and reliable data. A recommendation of using specified maps further helps to increase comparability, which is why we are also supportive of this proposal element. Locations exposed to other physical and climate related risks, such as wildfire risk, are also highly relevant for respective risk assessments, so we strongly encourage and support the proposal to incorporate further physical risks.

Q15. *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?*

As it is generally important that metrics and KPIs are specific wherever possible, we encourage the SEC to consider the additional inclusion of metrics used in other relevant sustainability reporting standards and frameworks (e.g., TCFD, TNFD, SASB standards, proposed ESRS, proposal of ISSB), also with regard to physical and transition risks. Research suggests that when there are no precise guidelines on reporting, it leads to cherry-picking approaches on indicators[20], which inhibits comparability and usefulness for investors. Therefore, to improve information quality and enhance standardization, the set of metrics and KPIs provided to the registrants shall be specific and tailored to the sectoral activities and size. Investors would benefit from the disclosure of specific metrics by allowing companies to report and act on evolving physical and transition risks, pushing forward the aim to shift global financial flows away from nature-harming outcomes. Specific metrics would also allow for better assessment of companies' potential risk-adjusted returns, exposure to such risks and the progress toward managing or adapting the risks into opportunities. While this provides comparable information to investors, it will also facilitate the reporting process for registrants.

The proposed ESRS Climate standards require the disclosure of metrics regarding potential financial effects from material physical and transition risks[21] (with detailed rules for calculation and connecting the metrics with financial reporting in the Application Guidance[22]): For both categories "undertakings" need to disclose the "assets (monetary amounts and percentage) at material [physical / transition] risk" over the different time horizons (short, medium, long) and "the share of these assets addressed by the climate change [adaptation / mitigation] action plan" and "the share (%) of net turnover from its business activities at material [physical / transition] risk" over the different time horizons. In addition, undertakings shall disclose a reconciliation of these metrics to the "most relevant amounts presented in the financial statements."

As a further metric for transition risk exposure the ESRS Climate Standard requires the disclosure of "the liabilities (monetary amounts) that may have to be recognized in financial statements over the short-, medium- and long-term".

Regarding propositions for specific additional metrics, we recommend in particular the inclusion of metrics on climate-related financial risks from agriculture, forest, and other land use. These risks are relevant to both current year emissions and future emissions, because of reduced carbon storage capacity and soil erosion. In addition to contributing close to one-quarter of all global greenhouse gas emissions according to the IPCC, AFOLU emissions weaken future efforts to mitigate climate risks and they also often come with significant social risks.[23] As such, regulations that do not explicitly mandate industry-specific disclosures for financial risks from agriculture, forest, and other land use would not be effective in protecting investors. Creating industry-specific metrics will reduce the burden on issuers, as their disclosure obligations will be clear, and will increase decision-useful information for

[20] Korca, B. and Costa, E. (2021). "Directive 2014/95/EU: building a research agenda", *Journal of Applied Accounting Research*, Vol. 22 No. 3, pp. 401-422. link

[21] EFRAG (2022). "Exposure Draft ESRS E1 Climate change". Disclosure Requirements E1-15 through E1-16, p. 14: link

[22] EFRAG (2022). "Exposure Draft ESRS E1 Climate change" pp. 39 ff. (AG70-AG90): link

[23] IPCC (2019) "Special report on climate change and land use," Summary for Policy Makers" A.3, p. 10. link

investors. The European Financial Reporting Advisory Group (EFRAG) is currently developing sector-specific reporting standards, which are scheduled for submission to the EU regulator before the end of this year. Models for such industry-specific metrics also exist in several of the voluntary disclosure initiatives that have been developed over the last decades. A useful reference point for such disclosures is CDP Forests, which is already used by companies to voluntarily report on tropical commodity. CDP Forests clearly defines high deforestation risk commodities and countries and provides a menu of key performance indicators that companies with tropical commodity supply chains, financiers with high deforestation risk investments, and forestry asset managers could use to provide shareholders with standardized and comparable disclosures. We therefore recommend the SEC to consider the inclusion of metrics developed by other institutions with expertise in the field, such as CDP Forests.

Q16. *Are there other areas that should be included as examples in the definitions of acute or chronic risks? If so, for each example, please explain how the particular climate-related risk could materially impact a registrant's operations or financial condition.*

Yes. As indicated in our previous responses of this chapter, we identify deforestation risk as a physical risk, which needs to be explicitly included in the rule. Deforestation generates GHG emissions in the current year, and reduces the carbon storage capacity in the future. As such, it has a substantial impact on climate change and accelerates other climate risks. Deforestation furthermore increases risks related to soil and groundwater retention and replenishment, soil degradation, heat stress, changes local precipitation patterns, can increase the likelihood of more extreme weather events and substantially increase dependency risks in relation to ecosystem services. It also intensifies other social risks such as land disputes between commodity producers and Indigenous Peoples or traditional communities. All of these issues can cause changes in firms' costs, revenues, community relationships, and reputation which is why disclosure on deforestation issues is needed so that investors can weigh their investments with appropriate risk weightings. A tool that can support registrants in the preparation of the materiality assessment is "Trase"[24] which covers deforestation risk (and other environmental risks) in supply chains as well as exposure to these risks in the financial sector.

Q17. *Should we include the negative impacts on a registrant's value chain in the definition of climate-related risks, as proposed? Should we define "value chain" to mean the upstream and downstream activities related to a registrant's operations, as proposed? Are there any upstream or downstream activities included in the proposed definition of value chain that we should exclude or revise? Are there any upstream or downstream activities that we should add to the definition of value chain? Are there any upstream or downstream activities currently proposed that should not be included?*

Yes, we support the proposal to cover impacts on a registrant's value chain in the definition of climate-related risks, including both the upstream and downstream activities. Negative impacts on a registrant's value chain are financially material to the registrant and cannot be identified by investors based on other available information. As such, disclosure of climate-related risks must include negative impacts on a registrant's value chain. In most economic sectors, the bulk of environmental risks are rooted in the supply chain: On average, entities' emissions from the supply chain are five times higher than from direct operations[25], while large sectors such as retail and food industries are characterized by substantial upstream dependencies on ecosystem services. To date, data availability of supply chain data is limited [26] and regulation is one of the key drivers of increased data availability.[27] In other words, without mandatory Scope 3 disclosure, investors cannot gain a full picture of the risks related to their investments. It is thus of crucial importance for higher transparency, and it would be a game-changer to include Scope 3 reporting requirements in the Proposed Rule.

[24] https://www.trase.earth

[25] CDP (2019), link

[26] Erdmann, Hessenius and Yahisi (2022), link

[27] Jürgens and Erdmann (2020), link

Q26-29 S*everal questions on Internal Carbon Pricing*

We support the disclosure by registrants on internal carbon pricing. They are also referred to in the EU EFRAG exposure draft ESRS 2-GOV3 (AG49) as a mechanism with which undertakings "put in place initiatives to modify its strategy and business model(s), to reduce or eliminate the risk or to benefit from the opportunity and/or to prevent and mitigate negative material impacts and enhance positive material impacts". In this case "the undertaking shall provide information about the key decisions made by its governance bodies which provide a useful level of understanding of their involvement in this respect." We support that this disclosure should include: <u>if</u> an internal carbon pricing system is used and <u>how</u> it uses it. Further details should be at the discretion of the registrant and could help registrants in demonstrating their effectiveness in addressing climate-related risks and opportunities.

Q30. *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? What other analytical tools do registrants use for these purposes, and should we require disclosure of these other tools? Are there other situations in which some registrants should be required to conduct and provide disclosure of scenario analysis? 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? 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 º, 2 º, or 1.5 ºC 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? Are there any other aspects of scenario analysis that we should require registrants to disclose? For example, should we require a registrant using scenario analysis to consider a scenario that assumes a disorderly transition? Is there a need for us to provide additional guidance regarding scenario analysis? Are there any aspects of scenario analysis in our proposed required disclosure that we should exclude? Should we also require a registrant that does not use scenario analysis to disclose that it has not used this analytical tool? Should we also require a registrant to disclose its reasons for not using scenario analysis? Will requiring disclosure of scenario analysis if and when a registrant performs scenario analysis discourage registrants from conducting scenario analysis? If so, and to the extent scenario analysis is a useful tool for building strategic resilience, how could our regulations prevent such consequences?*

We recommend introducing a required scenario analysis disclosure since it is, as commenters that you have referenced in the consultation document have rightly stated, a powerful forward-looking tool to demonstrate to investors registrants' resilience to different possible courses of future developments. For a particularly effective sensitivity analysis of undertakings' resilience the ESRS Climate Standard makes it obligatory to consider

(a) for climate-related physical risks "at least high emission climate scenarios, which may affect the undertaking's assets and business activities"[28] (intensifying the exposure of the undertaking to possible physical risks in the scenario), and

(b) for climate-related transitional risks "at least a climate scenario in line with limiting global warming to 1.5°C with no or limited overshoot, which may affect its assets and business activities"[29] (intensifying the exposure to transitional effects).

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[28] EFRAG (2022). "Exposure Draft ESRS E1 Climate change" p. 21 (AG14 (b) i.): link

[29] EFRAG (2022). "Exposure Draft ESRS E1 Climate change" p. 22 (AG14 (c) i.): link

We support this approach of the ESRS and their additional guidance.[30]

Q40. *Should we specifically require a registrant to disclose any connection between executive remuneration and the achievement of climate-related targets and goals? Is there a need for such a requirement in addition to the executive compensation disclosure required by 17 CFR 229.402(b)?*

Clarity in the disclosure requirements is useful for registrants, and adding climate-related targets and goals, where applicable, is unlikely to produce duplicative disclosure. A requirement to disclose any connection between executive remuneration and the achievement of climate-related targets and goals under the discussed proposal would very much help investors to assess the degree of alignment of the registrant's policies and targets and the incentive schemes directed at management. A greater degree of alignment could indicate to investors that a registrant is more effectively addressing its climate-related risk exposure. If the SEC determines that it is useful to add a specific requirement to discuss how remuneration is connected to achieving climate-related targets and metrics, then any remuneration metrics related to avoiding deforestation, promoting reforestation, or improving soil productivity should be included for registrants that are facing material deforestation- or degradation-related climate risks in their operations or value chain.

The ESRS Climate Standard exposure draft also provides for the disclosure of remuneration rules, i.a. with the aforementioned reasoning.[31]

Chapter E. Risk Management Disclosure

Q46-50

We strongly suggest the SEC to re-consider its approach of only requiring disclosure of a registrant's transition plan where it has adopted one. The transition plan is the strategic centerpiece and summary of how a company is aiming to address the material climate risks it faces. It is therefore also central to investors' decision making and should be included in the disclosure requirements. Designing the proposal on a "if adopted" basis regarding transition plans also poses the risk of disincentivizing registrants from adopting transition plans due to the absence of a level playing field, further limiting investors' access to this critical piece of summarizing information.

The ESRS Climate Standards draft not only requires undertakings to disclose a transition plan; with the EU party to the Paris Agreement it also requires undertakings to "disclose its plans to ensure that its business model and strategy are compatible with the transition to a climate-neutral economy and with limiting global warming to 1.5 °C in line with the Paris Agreement" and describes further details of how undertakings are expected to present this.[32]

30 EFRAG (2022). "Exposure Draft ESRS E1 Climate change" p. 23/24 (AG19-AG21): link

31 EFRAG (2022). "Exposure Draft ESRS E1 Climate change" Disclosure Requirements ESRS 2-GOV 4, p. 20: link; EFRAG (2022). "Exposure Draft ESRS E1 Climate Change, Basis for conclusions". p. 9/10, BC15 ff.: link

32 EFRAG (2022). "Exposure Draft ESRS E1 Climate change". E1-1, p. 5f.: link

Chapter F. Financial Statement Metrics

Q68. *Instead of including a quantitative threshold, as proposed, should we require disaggregated disclosure of any impact of climate-related risks on a particular line item of the registrant's consolidated financial statements? Alternatively, should we just use a materiality standard?*

Q77. *Instead of including a quantitative threshold, as proposed, should we require disaggregated disclosure of any amount of expense and capitalized costs incurred toward the climate-related events and transition activities, during the periods presented? Alternatively, should we just use a materiality standard?*

Answer to both questions: We support a disaggregated disclosure of any impact of climate-related risks on a particular line item, as well as of any amount of expense and capitalized costs incurred toward the climate-related events and transition activities, during the periods presented. We caution that especially regarding the disclosure of the impacts of climate-related risks, quantitative thresholds could incentivize registrants to influence estimations in a manner that result in estimates falling under a specified threshold. In particular because the respective estimates and their validation processes are still in an early stage, we caution that there is a risk of thresholds providing opportunities and incentives for registrants to influence estimates to avoid disclosure, prohibiting an effective and well-functioning reporting frameworks. To avoid such inefficiencies, we support the proposal for disclosure of any impact of material climate-related risks on a particular line item.

Chapter G. GHG Emissions Metrics Disclosure

The disclosure of GHG emissions metrics is at the core of climate-related disclosures, and therefore, we support clear requirements aimed at improving data availability, credibility, and comparability. In general, the requirements should cover reporting about scope 1, 2 and 3 emissions and either reference applicable measurement method(s) or require transparent disclosure about the methods applied by the registrant.

The exposure drafts of the European Sustainability Reporting Standards (ESRS) have gone to lengths to compile detailed guidance for the calculation of Scope 1, Scope 2 and Scope 3 GHG emissions with the GHG Protocol Corporate Standard and GRI 305 as fundamental starting points.[33] The ESRS draft Climate Standard also incorporates a metric for GHG intensity per net turnover (ESRS E1-11) which allows for comparison of undertakings' year on year performance as well as comparability between organizations in the same sector. For financial institutions the Climate Standard refers to the PCAF Standard (which is also considered in the current SEC consultation document) which is considered the most appropriate accounting and reporting framework for financial institutions in line with the recommendations of the European Banking Authority (EBA).

The ESRS also requires from undertakings the disclosure of their "energy consumption and mix" and "energy intensity per net turnover". Energy accounts for around three quarters of worldwide GHG emissions and "energy-related activities represent the most significant GHG emission sources for many sectors such as industrials, transportation and construction / real estate activities."[34] Energy use by sources is also a primary input for the calculation of direct and indirect GHG emissions. "Over time, the breakdown by non-renewable and renewable sources enables preparers and users to track efforts for decarbonizing the undertaking's energy mix and its extent of deployment of renewable energy."[35] Also, the disclosure of energy consumption and mix in absolute terms provides KPIs for providers of financial capital to assess the financial risk resulting from energy consumption linked to GHG emissions.[36]

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[33] EFRAG (2022). "Exposure Draft ESRS E1 Climate change". Disclosure Requirements E1-7 through E1-10, pp. 10-11; Application Guidance pp. 31 ff.: link

[34] EFRAG (2022). "Exposure Draft ESRS E1 Climate change, Basis for Conclusions". p. 22, BC76: link

[35] *Ibid*, p. 22, BC77: link

[36] *Ibid*, p. 23, BC82: link

Q98. *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? Should we use a quantitative threshold, such as a percentage of total GHG emissions (e.g., 25%, 40%, 50%) to require the disclosure of Scope 3 emissions? If so, is there any data supporting the use of a particular percentage threshold? Should we require registrants in particular industries, for which Scope 3 emissions are a high percentage of total GHG emissions, to disclose Scope 3 emissions?*

We strongly support a disclosure requirement for Scope 3 emissions. Scope 3 emissions represent the majority of an organization's GHG emissions and offer emissions reduction opportunities. Although these emissions are not under the organization's control, the organization may be able to impact the activities that result in the emissions. The organization may also be able to influence its suppliers or choose which vendors to contract with based on their practices. An estimation by the IPCC reports that 23% of total GHG emission is derived from mostly scope 3 sectors (AFOLU).[37] Further, data availability and tools to measure emissions from scope 3 sectors (such as agriculture) are increasingly available, such as LandScale and InVEST.[38]

The importance of the materiality principle in regard to emissions is best illustrated by the example of the agriculture industry. While this industry is responsible for a relatively large amount of emissions,[39] the SEC's document on the Proposed Rules for "The Enhancement and Standardization of Climate-Related Disclosures for Investors" reveals that only a very limited amount of information on emissions is provided by registrants from the agriculture sector (see figure 4, page 308). In another example, financial risks of deforestation apply to a number of commodities (cattle, palm oil, soy, timber, natural rubber, cacao, coffee), which does materially impact revenues and costs of companies in the agricultural and food sectors.[40]

There is an international trend towards increasing consideration of scope 3 emissions. For example, in the public consultation regarding the Proposed National Instrument 51-107 Disclosure of Climate-related Matters in Canada, 65% of the replies to Scope 3 emission requirements are in favor of at least Scope 3 disclosure at a "comply or explain" basis.[41] In New Zealand the External Reporting Board (XRB) strongly recommends the inclusion of total Scope 3 emissions.[42]

Due to the increasing awareness of the important role of scope 3 emissions, it is likely that this issue will become even more financially material for firms. Furthermore, without clear guidance companies might not correctly assess whether scope 3 emissions are financially material. However, it is important for investors to be aware of the impacts of their investments on climate change to consider the related financial risks. Thus, we recommend the requirement to disclose scope 3 emissions for all entities. At a minimum, a reporting requirement of Scope 3 emissions based on its financial materiality should be implemented. Especially during a starting phase, applying the materiality principle for reporting requirements relating to scope 3 emissions might be useful to considers cost-benefit relations and learning curves.

Q104. *Should we, as proposed, allow a registrant to provide their own categories of upstream or downstream activities? Are there additional categories, other than the examples we have identified, that may be significant to a registrant's Scope 3 emissions and that should be listed in the proposed rule? Are there any categories that we should preclude, e.g., because of lack of accepted methodologies or availability*

[37] IPCC (2020). "Climate Change and Land, An IPCC Special Report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems. Summary for Policymakers'. link

[38] LandScale, link; InVEST, link

[39] Sustainable Finance Research Platform (2021). "Why it would be important to expand the scope of the Corporate Sustainability Reporting Directive and make it work for SMEs". link

[40] CDP (2016). "Revenues in jeopardy as companies reliant on commodities linked to deforestation underestimate risk". link

[41] Canada Climate Law Initiative (2022). "Summary of 131 submissions to CSA on proposed national instrument 51-107 disclosure of climate-related matters". link

[42] External Reporting Board (2022). "Climate-related Disclosures". link

of data? Would it be useful to allow registrants to add categories that are particularly significant to them or their industry, such as Scope 3 emissions from land use change, which is not currently included in the Greenhouse Gas Protocol's Scope 3 categories? Should we specifically add an upstream emissions disclosure category for land use?

Yes, the SEC should add an explicit mention or introduction to the land use category, since land use, particularly in the AFOLU (agriculture, forestry and land-use) sectors contributes to almost a quarter of anthropogenic emissions. With the upcoming agreement from the Post-2020 Biodiversity framework (particularly on land conservation) there will be an increase in transitional risks in terms of regulations regarding land use (such as, i.a., the proposed EU deforestation-free products regulation) but also growing market and consumer interest in the topic - with the loss of tropical forest from deforestation and habitat modification contributing up to 10% of GHG emission (between 2015 to 2017 alone).[43] It is therefore a relevant risk to registrants that are heavily dependent on deforestation / land use change relevant (upstream) products (i.e., food). Thus, we support that the Proposed Rule suggests an upstream emissions disclosure category for land use and requiring those emissions to be disclosed specifically.

With 25% of global emission coming from the land sector this represents the second largest source of greenhouse gas emissions after the energy sector; about half of these (5-10 GtCO2e annually) comes from deforestation and forest degradation.[44] Financial markets have already signalled that they consider deforestation a financially material climate risk. A recent investor initiative of US $8.5 trillion, the Investors Policy Dialogue on Deforestation (IPDD), is indicative of investors' growing understanding.[45] IPDD was established in 2020, and is comprised of 58 financial institutions and investors concerned about the "financial impacts that deforestation and the violation of the rights of indigenous peoples and local communities may have on their clients and investee companies by potentially increasing reputational, operational and regulatory risks."[46] It identifies three channels by which deforestation risks create financial risk for issuers and investors: ESG risks; supply chain risks; and finance sector risks.[47] The financial risks of deforestation are particularly acute with respect to seven commodity products –cattle (exported as processed beef), palm oil, soy, timber, natural rubber, cacao, and coffee.[48] A CDP analysis of 187 companies potentially affected by climate and deforestation commodity risk found that nearly 25 percent of those companies' revenue depended on four commodities linked to deforestation: beef, soy, timber, and palm oil.[49] These supply chain risks are concentrated in commodities coming from Indonesia and Brazil, which together generate roughly 60 percent of the greenhouse gas emissions generated from tropical deforestation.[50] Although the supply chain risk is concentrated from a country perspective, a broad cross-section of industrial and retail sectors in the United States is directly exposed to tropical commodity supply chain risks. These sectors include food and beverage processing and production, automobile

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[43] Gibbs, D., Harris, N., Seymour, F. (2018) "By the Numbers: The Value of Tropical Forests in the Climate Change Equation." *World Resources Institute*. link

[44] IUCN Issues Brief (2021). "Forests and Climate Change". link

[45] See IPDD, link. IPDD has a secretariat established by the World Economic Forum, and is supported by PRI (U.N. Principles for Responsible Investment).

[46] *Ibid.*

[47] *Ibid.* Among ESG risks, IPDD identifies GHG emissions, biodiversity loss, flood and soil erosion, and rainfall reduction among environmental risks; land rights violations, Indigenous peoples' rights violations; and health hazards from increased exposure to haze as among social risks of concern; and illegality of the deforestation, bribery to reduce enforcement of limits on permissible forestry or agriculture, and financial crimes, including tax evasion and money laundering, as among governance concerns. Supply chain risks include productivity declines; property damage; increased security staff costs, inability to adapt to changes in regulation, litigation for failure to manage ESG risks, cancellation of contracts, and reduced demand from consumers concerned about deforestation. Finance sector risks include losses to investors from stranded assets or negative returns on investments; banks' losses from nonperforming loans, increased default risk, and loss of revenues; regulatory risks from the inability of companies to meet new regulatory requirements, such as due diligence/ESG requirements and risk weightings; failure to disclose ESG risks in portfolios; possible litigation against investors for breach of fiduciary duty due to failure to integrate ESG; increased accountability for ESG impacts under the new OECD guidelines; and reputational risks from damage to brand value and loss of credibility as a responsible investor or bank.

[48] CDP (2021). "The Collective Effort to End Deforestation: A Pathway for Companies to Raise their Ambitions". p. 5. link

[49] CDP (2016). "Revenues in jeopardy as companies reliant on commodities linked to deforestation underestimate risk". link

[50] Pendrill, F. et al. (2019). "Agri-cultural and forestry trade drives large share of tropical deforestation emissions". *Global Environmental Change* 56:1-10. link

manufacturing, textiles, chemicals, pharmaceuticals, retail, food services, personal care products, print publishing, forestry, construction, energy and biofuels, and finance.

The deforestation commitment by over 140 countries at COP26, including major forested nations Brazil, Canada, China, Indonesia, Russia, and the United States, is a key indicator of rapidly materializing transition risks in this sector.[51] As deforestation, particularly tropical deforestation, is driven predominantly by the expansion of industrial agriculture, this agreement presents regulatory risk. As does the proposal of the EU Commission for a deforestation-free products regulation[52]. These developments will have implications for the cost and availability of agricultural commodities across supply chains. Similarly, as countries increasingly implement carbon taxation and trading systems, emissions-intensive production will become more expensive. There may be stranded assets if enforcement of moratoriums is robust: in Indonesia, as much as 76 percent of unplanted palm oil concessions may become stranded by 2040 if conservation efforts proceed in line with these international commitments and the country's Nationally Determined Contribution to the Paris Agreement.[9] We recommend you to also consider the types of climate change risks in forest, food, and land, according to TCFD classifications.

Q114. *Should we require GHG emissions disclosure for the registrant's most recently completed fiscal year and for the appropriate, corresponding historical fiscal years included in the registrant's consolidated financial statements in the filing, to the extent such historical GHG emissions data is reasonably available, as proposed? Should we instead only require GHG emissions metrics for the most recently completed fiscal year presented in the relevant filing? Would requiring historical GHG emissions metrics provide important or material information to investors, such as information allowing them to analyze trends?*

We strongly support a requirement to report GHG emissions for the most recently completed fiscal year and also for corresponding historical years included in the registrant's consolidated financial statement in the filing (where such historical data is reasonably available). From an investor perspective, GHG emissions are an indicator of firm risks and empirical research shows that GHG emission are negatively related to firm value.[53] Historical data is useful to understand and for analyzing trends as it improves comparability across years. This is especially relevant when registrants formulate emission targets to credibly show their path toward net zero.

Q115. *Should we require a registrant to disclose the methodology, significant inputs, and significant assumptions used to calculate its GHG emissions metrics, as proposed? Should we require a registrant to use a particular methodology for determining its GHG emission metrics? If so, should the required methodology be pursuant to the GHG Protocol's Corporate Accounting and Reporting Standard and related standards and guidance? Is there another methodology that we should require a registrant to follow when determining its GHG emissions? Should we base our climate disclosure rules on certain concepts developed by the GHG Protocol without requiring a registrant to follow the GHG Protocol in all respects, as proposed? Would this provide flexibility for registrants to choose certain methods and approaches in connection with GHG emissions determination that meet the particular circumstances of their industry or business or that emerge along with developments in GHG emissions methodology as long as they are transparent about the methods and underlying assumptions used? Are there adjustments that should be made to the proposed methodology disclosure requirements that would provide flexibility for registrants while providing sufficient comparability for investors?*

The proposed rule provides some guidance on the measurement methods of scope 1 and scope 2 emissions. For scope 2 emissions, registrants can choose to apply the location-based method, the market-based

[51] Glasgow Leaders Declaration on Forests and Land Use (2021) link

[52] European Commission (2021). "Proposal for a regulation on deforestation-free products". link

[53] Matsumura, E. M., Prakash, R , & Vera-Munoz, S. C. (2014). Firm-value effects of carbon emissions and carbon disclosures. The Accounting Review, 89(2), 695-724. link; Griffin, P. A , Lont, D. H., & Sun, E. Y. (2017). The relevance to investors of greenhouse gas emission disclosures. Contemporary Accounting Research, 34(2), 1265-1297. link; Ott, C , & Schiemann, F. (2022). The market value of decomposed carbon emissions. Journal of Business Finance & Accounting. link

method or both. We support a clearer guidance in this regard and suggest requiring registrants to report under the market-based method as it provides a more relevant picture of the registrants' energy use based on their contracts with the generators of electricity. Contrary to this, the location-based method relies on average energy generation emissions factors regarding the grids of the geographic locations of a registrant's facilities. Thus, the location-based method provides less relevant information, but can be understood as a benchmark to evaluate whether a registrant actively decreases its carbon footprint (when market-based emissions are considerably lower than location-based emissions). As such, an alternative would be the requirement to report both, location- and market-based emissions – as is currently suggested in the ESRS E1 Disclosure Requirement 8 on Scope 2 GHG emissions.[54]

Q116. *Should we require a registrant to disclose the organizational boundaries used to calculate its GHG emissions, as proposed? Should we require a registrant to determine its organizational boundaries using the same scope of entities, operations, assets, and other holdings within its business organization as that used in its consolidated financial statements, as proposed? Would prescribing this method of determining organizational boundaries avoid potential investor confusion about the reporting scope used in determining a registrant's GHG emissions and the reporting scope used for the financial statement metrics, which are included in the financial statements? Would prescribing this method of determining organizational boundaries result in more robust guidance for registrants and enhanced comparability for investors? If, as proposed, the organizational boundaries must be consistent with the scope of the registrant's consolidated financial statements, would requiring separate disclosure of the organizational boundaries be redundant or otherwise unnecessary?*

Q119. *Alternatively, should we require registrants to use the organizational boundary approaches recommended by the GHG Protocol (e.g., financial control, operational control, or equity share)? Do those approaches provide a clear enough framework for complying with the proposed rules? Would such an approach cause confusion when analyzing information in the context of the consolidated financial statements or diminish comparability? If we permit a registrant to choose one of the three organizational boundary approaches recommended by the GHG Protocol, should we require a reconciliation with the scope of the rest of the registrant's financial reporting to make the disclosure more comparable?*

Answer to both questions: We support the SEC's proposal to require a registrant to determine its organizational boundaries using the same scope of entities, operations, assets, and other holdings within its business organization as that used in its consolidated financial statements. In our view, this would not only improve transparency and understandability for investors, it would also make a separate disclosure of the organizational boundaries redundant.

Even if the SEC decides to not require a registrant to determine its organizational boundaries using the same scope of entities, operations, assets, and other holdings within its business organization as that used in its consolidated financial statements, (a) it should still strongly encourage registrants to do so, (b) require registrants to explain the reasons for deviating from their determination of organizational boundaries for climate-related information, and (c) to explain their determination of organizational boundaries for climate-related information (e.g., based on the recommendations by the GHG protocol).

Chapter H. Attestation of Scope 1 and Scope 2 Emissions Disclosure

We strongly encourage that Scope 1 and Scope 2 GHG disclosure information are verified by an independent assurance services provider.

[54] EFRAG Project Task Force on European sustainability reporting standards (2022) ESRS E1 Climate Change Exposure Draft. link

Otherwise, the GHG information reported might lack credibility. Research has shown that assurance can have positive effects on investors' credibility perception of the disclosed information.[55] We follow a similar line of reasoning of the European Commission[56] and envision a similar level for assurance of financial and sustainability reporting. However, we agree with the policy statement of the UK financial conduct authority (FCA), that currently it might be to too early to introduce too strict requirements at this stage.[57] Given the current pressing challenges of climate change and ecological devastation, imposing too strict requirements on 'disclosing' should not hamper companies from their actions.

In 2017 only 45% of the largest firms in 49 countries (67% of the 250 largest) had their sustainability data assured from third parties,[58] and sustainability assurance levels are typically limited,[59] meaning the assurances only covers a limited set of the issues addressed in a firm's sustainability report. Nonetheless, a recent analysis of 200 randomly selected firms of the S&P 500 has found that 81% are already reporting scope 1 and 2 emissions, and 59% have already some extent of third-party assurance in place.[60] Therefore, we expect that mandating the assurance for scope 1 and 2 emissions would not overburden the firms with unexpected costs.

To sustain proportionality of costs, we suggest a longer transition period phase for scope 3 emissions. The proposed timelines for accelerated and large accelerated filers for the Scope 1 and 2 GHG disclosure compliance dates with limited assurance and reasonable assurance provide a coherent and ambitious timeline. We could envision this as a blueprint for score 3 emissions in the long run.

The insights described above are particularly relevant for Q135-Q140.

Q141. *Under prevailing attestation standards, "limited assurance" and "reasonable assurance" are defined terms that we believe are generally understood in the marketplace, both by those seeking and those engaged to provide such assurance. As a result, we have not proposed definitions of those terms. Should we define "limited assurance" and "reasonable assurance" and, if so, how should we define them? Would providing definitions in this context cause confusion in other attestation engagements not covered by the proposed rules? Are the differences between these types of attestation engagements sufficiently clear without providing definitions?*

The European Commission's proposal for a Corporate Sustainability Directive (CSRD) states the following: limited assurance includes assurance engagement on "the compliance of the sustainability reporting with the reporting standards, on the process carried out by the company to identify the information reported pursuant to the standards, on the mark-up of sustainability reporting, and on the indicators reported pursuant to Article 8 of the Taxonomy Regulation." Further: "The conclusion of a limited assurance engagement is usually provided in a negative form of expression by stating that no matter has been identified by the practitioner to conclude that the subject matter is materially misstated. The auditor performs fewer tests than in a reasonable assurance engagement. The amount of work for a limited assurance engagement is therefore less than for reasonable assurance. The work effort in a reasonable assurance engagement entails extensive procedures including consideration of internal controls of the reporting undertaking and substantive testing and is therefore significantly higher than in a limited assurance engagement. The conclusion of this type of engagement is usually provided in a positive form of

[55] Quick, R., Inwinkl, P. (2020). "Assurance on CSR reports: impact on the credibility perceptions of non-financial information by bank directors" link. Reimsbach, D , Hahn, R. & Gürtürk, A. (2018). "Integrated Reporting and Assurance of Sustainability Information: An Experimental Study on Professional Investors' Information Processing" *European Accounting Review,* 27:3, 559-581, link

[56] European Commission (2021). "Questions and answers: Corporate Sustainability Reporting Directive proposal", link

[57] Financial Conduct Authority (2020). "Proposals to enhance climate-related disclosures by listed issuers and clarification of existing disclosure obligations" link

[58] KPMG (2017). "The Road Ahead – The KPMG Survey of Corporate Responsibility Reporting 2017" link

[59] Hummel, K., Schlick, C., & Fifka, M. (2019). "The role of sustainability performance and accounting assurors in sustainability assurance engagements". *Journal of Business Ethics*, *154*(3), 733–757. link

[60] LoPucki, L. M., (2022). "Corporate Greenhouse Gas Disclosures" UCLA School of Law, Public Law Research Paper No. 22-11. link

expression and states an opinion on the measurement of the subject matter against previously defined criteria."

So far, relatively few other jurisdictions require/ encourage assurance. However, the situation is changing rather dynamically and in its consultation document, the Singapore Stock Exchange, for example, defines the terms in the following way: "A limited assurance engagement is usually provided in a negative form of expression by stating that no matter has been identified by the auditor to conclude that the subject matter is materially misstated. The auditor performs fewer tests than in a reasonable assurance engagement." and "A reasonable assurance engagement entails extensive procedures, including consideration of internal controls of the reporting undertaking and substantive testing. The conclusion of this type of engagement is usually provided in a positive form of expression and states an opinion on the measurement of the subject matter against previously defined criteria.".[61]

Q145. *Is additional guidance needed with respect to the proposed expertise requirement? Should we instead include prescriptive requirements related to the qualifications and characteristics of an expert under the proposed rules? For example, should we include a provision that requires a GHG emissions attestation provider that is a firm to have established policies and procedures designed to provide it with reasonable assurance that the personnel selected to provide the GHG attestation service have the qualifications necessary for fulfillment.*

Yes, the GHG attestation service should be able to prove that they have the qualifications necessary for fulfillment to provide reasonable assurance. However, a transition period in line with the assurance requirements (limited assurance and reasonable assurance) should be facilitated to allow attestants to prepare for the licensing or accreditation requirements.

Q153. *As proposed, the GHG emissions attestation provider would be a person whose profession gives authority to statements made in the attestation report and who is named as having provided an attestation report that is part of the registration statement, and therefore the registrant would be required to obtain and include the written consent of the GHG emissions provider pursuant to Securities Act Section 7 and related Commission rules. This would subject the GHG emissions attestation provider to potential liability under Section 11 of the Securities Act. Would the possibility of Section 11 liability deter qualified persons from serving as GHG emissions attestation providers? Should we include a provision similar to 17 CFR 230.436(c), or amend that rule, to provide that a report on GHG emissions at the limited assurance level by a GHG emissions attestation provider that has reviewed such information is not considered part of a registration statement prepared or certified by a person whose profession gives authority to a statement made by him or a report prepared or certified by such person within the meaning of Section 7 and 11 of the Act?*

The litigation risk of possible mistakes or untrue statement in the assurance process provide a valuable mechanism for credibility of the information. However, it can indeed also be associated with cost burdens, which will lead firms to refrain from assuring GHG emissions. Given the fade-in phase from limited to reasonable assurance, we suggest a similar approach towards Section 11 of the Securities Act of 1933, 15 U.S.C. § 77k, which provides investors with the ability to hold issuers, officers, underwriters, and others liable for damages caused by untrue statements of fact or material omissions of fact within registration statements at the time they become effective. In line with the argumentation of the policy statement of the UK financial conduct authority (FCA) we think that higher liability can increase the effectiveness and quality of disclosure, while to high penalties for external assurance might lead to a disproportional focus on ‘disclosing’ rather than ‘doing’.[62]

[61] Singapore Stock Exchange (2021). “Consultation Paper on Climate and Diversity” link

[62] Financial Conduct Authority (2020). “Proposals to enhance climate-related disclosures by listed issuers and clarification of existing disclosure obligations” link

Q161. *Should we require the registrant to disclose whether the attestation provider has a license from any licensing or accreditation body to provide assurance, and if so, the identity of the licensing or accreditation body, and whether the attestation provider is a member in good standing of that licensing or accreditation body, as proposed? In lieu of disclosure, should we require a GHG emissions attestation provider to be licensed to provide assurance by specified licensing or accreditation bodies? If so, which licensing or accreditation bodies should we specify?*

Yes, similar to becoming a Certified Public Accountant (CPA) of the AICPA this could be examined by the states/jurisdictions and the respective Board of Accountancy.

Q164. *Should we require a registrant that is not required to include a GHG emissions attestation report pursuant to proposed Item 1505(a) to disclose within the separately captioned "Climate-Related Disclosure" section in the filing the following information, if the registrant's GHG emissions disclosure was subject to third-party attestation or verification, as proposed: (i) Identify the provider of such assurance or verification; (ii) Disclose the assurance or verification standard used; (iii) Describe the level and scope of assurance or verification provided; (iv) Briefly describe the results of the assurance or verification; (v) Disclose whether the third-party service provider has any other business relationships with or has provided any other professional services to the registrant that may lead to an impairment of the service provider's independence with respect to the registrant; and (vi) Disclose any oversight inspection program to which the service provider is subject (e.g., the AICPA's peer review program), each as proposed? Are there other disclosure items that we should require if a registrant has obtained voluntary assurance or verification of the climate-related disclosures? Are there any of the proposed disclosure items that we should omit? Should we specify parameters or include guidance on when the services provided by a third-party would be considered "assurance" or "verification" and thus require disclosure pursuant to the proposed rules? Should a registrant be required to furnish a copy of or provide a link to the assurance or verification report so that it is readily accessible by an investor?*

If the registrant was subject to third-party attestation or verification, we would suggest that they indeed:

(i) Identify the provider of such assurance or verification;

(ii) Disclose the assurance or verification standard used;

(iii) Describe the level and scope of assurance or verification provided;

(iv) Briefly describe the results of the assurance or verification;

(v) Disclose whether the third-party service provider has any other business relationships with or has provided any other professional services to the registrant that may lead to an impairment of the service provider's independence with respect to the registrant.

If the discloser is subject to an oversight inspection program (vi), this information can be value relevant to investors as well. The provision of an assurance or verification report would be desirable here, but do not need to be mandated, since the initiatives are based on voluntary action and therefore should not be disincentivized. Possible third-party disclosure metrics can also be provided by the Carbon Disclosure Project (CDP) disclosure platform.[63] Hereby, especially the combination with CDP forests framework can provide additional metrics for GHG emission reductions and/or removals from land use and land use change that have occurred in the operations or supply chain. Including the GHG emissions from land use change could deliver investor support in understanding the GHG mitigation strategies, but also contribute to the direct land use change in combination with the GHG emissions (afforestation, reforestation, restauration).

Q167. *As proposed, a registrant would not be required to disclose the voluntary assurance or verification fees associated with the GHG disclosures. Should we require GHG disclosure assurance or verification fees*

[63] Carbon Disclosure Platform (2022). "Guidance for companies". link

to be disclosed? Would such disclosure be decision-useful to investors making voting or investment decisions?

Given the premise to achieve a similar standard for GHG auditing compared to financial auditing, we would suggest disclosing the verification fees of GHG emissions. However, we argue that this is not a top priority for current developments, since currently the costs can vary immensely based on the different assurance services provided. Therefore, we consider the current decision-usefulness to investors as limited. With increased accounting and assurance standards and requirements we expect increased comparability of the GHG auditing and verification costs in the long-run.

Chapter I. Targets and Goals Disclosure

Q168. *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? Are there any other climate-related targets or goals that we should specify and, if so, which targets or goals? Is it clear when disclosure under this proposed item would be triggered, or do we need to provide additional guidance? Would our proposal discourage registrants from setting such targets or goals?*

Registrants should be required to disclose whether they set any targets related to the reduction of their GHG emissions. From an investor perspective, it is useful to know whether a registrant set any climate-related targets and whether such targets are in line with, for example, the Paris agreement. Such information is not only important to understand a registrant's impact on climate change, but also allows to better assess potential transitional risks of registrants (e.g., litigation or reputational risks). Further climate-related targets (e.g., energy usage, water usage) can be reported on a voluntary basis.

Q169. *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; 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?*

Yes, the Proposed Rule should proceed in requiring from registrants to disclose detailed information on their targets and goals. A certain level of rigor in providing information related to targets is needed to avoid greenwashing issues and to provide investors with precise data. What the Proposed Rule highlights, is closely in line with the European Sustainability Reporting Standards (ESRS) exposure drafts, which are moving in the same direction. When outlining targets, information such as i) timeframe of the target, ii) baseline year to assess progress, and iii) key performance indicators used to measure progress, shall be disclosed and clearly reported. As the ESRS exposure drafts also outline, when the target is medium to long-term, interim targets should follow. In this case, observation of progress is facilitated both for companies themselves and other interested parties such as investors.

A further step would be, to recommend that interim targets are formulated with a maximum time horizon (e.g., maximum five years) to allow a short or medium-term accountability for such targets.

In addition, it would be important that information is provided on how the targets are being monitored over years and if the monitoring approach is consistent or changing for any reason. In case the monitoring approach is changing, registrants should explain why that is the case.

Clear and reliable disclosure on targets and the methodologies used to calculate these targets, could be helpful to investors to understand registrants' ambitions, planned actions, progress, but also potential risks related to the transition. In addition, clear regulation about such disclosure increases the availability and comparability of forward-looking information, which further improves the usefulness of such information for investors.

Q170. *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, information on how a registrant intends to meet its targets and goals is crucial in understanding how feasible and realistic registrant's plans are. A detailed overview with specific action plans on timeline and resource allocation provides investors with useful information to assess the likelihood of a registrant to avoid or mitigate various risks. In case the registrant has not outlined any action plans yet, it is important to disclose why this is the case and to indicate another timeframe when action plans will take place.

Q171. *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?*

Requiring registrants to disclose progress or lack thereof in meeting certain targets would be useful to provide investors with reliable data to understand whether the climate risk reduction associated with that target is actually being achieved or not. For example, providing trend analysis on significant changes (either positively or negatively) in meeting the target is valuable both to investors to evaluate the progress or lack thereof, and to registrants to further plan their target management. In general, reporting ongoing progress towards reaching the registrant's targets will increase the credibility of the forward-looking disclosures and help investors to assess the reliability of the registrant's targets setting.

The disclosure of overall progress towards defined targets is also prescribed in the ESRS draft Climate Standard (as part of detailed requirements for the disclosure of climate-related targets).[64]

Q172. *Should we require that the disclosure be provided in any particular format, such as charts? Would certain formats help investors and others better assess these disclosures in the context of assessing the registrant's business and financial condition? What additional or other requirements would help in this regard?*

While charts are helpful in providing an overview, in this case, it would not be necessary to burden registrants to mandatorily provide charts. Information provided should be clear, precise, and accompanied with quantitative disclosure. For example, tables can be used to show the short, medium, and long term (the target period) commitments in GHG emissions reduction. When useful, registrants can disclose information using pie or bar charts, voluntarily.

Q173. *If a registrant has used carbon offsets or RECs, should we require the registrant to disclose the amount of carbon reduction represented by the offsets or the amount of generated renewable energy represented by the RECS, the source of the offsets or RECs, the nature and location of the underlying projects, any*

[64] EFRAG (2022). "Exposure Draft ESRS E1 Climate change" Disclosure Requirements E1-3, lit. (h) in table, pp. (6 ff.) 8 and Application Guidance, pp. 25 ff..: link

registries or other authentication of the offsets or RECs, and the cost of the offsets or RECs, as proposed? Are there other items of information about carbon offsets or RECs that we should specifically require to be disclosed when a registrant describes its targets or goals and the related use of offsets or RECs? Are there proposed items of information that we should exclude from the required disclosure about offsets and RECs?

It is important to note that carbon offsets as a strategy for reducing climate transition risk exposure are characterized by relatively higher levels of uncertainty and can be associated with additional, e.g. reputational, risks, when equivalent carbon storage or emissions removal does not effectively materialize over the relevant time horizon. Moreover, as seen recently in the US, the increasing likelihood of large-scale forest fires poses an additional risk to the permanence of offsets. For this range of reasons, the risk of (being accused of) greenwashing is relatively high in the absence of strict governance and quality criteria for carbon offsets. The EFRAG comes to a similarly critical conclusion on offsets[65]: There are still large uncertainties concerning the temporal aspects of carbon sequestration, and the risks of releasing carbon through deforestation and other processes could lead to certain carbon offsets proving completely ineffective.

Chapter J. Registrants Subject to the Climate-Related Disclosure Rules and Affected Forms

Q189. *An International Sustainability Standards Board (ISSB) has recently been created, which is expected to issue global sustainability standards, including climate-related disclosure standards. If we adopt an alternative reporting provision, should that provision be structured to encompass reports made pursuant to criteria developed by a global sustainability standards body, such as the ISSB? If so, should such alternative reporting be limited to foreign private issuers, or should we extend this option to all registrants? What conditions, if any, should we place on a registrant's use of alternative reporting provisions based on the ISSB or a similar body?*

We are generally supportive of the idea that reporting requirements between different sustainability standards should ideally be as coherent as possible. However, with respect to question 189 and the potential possibility of firms to use the ISSB sustainability standards as an alternative to the SEC climate related disclosures, we caution that registrants might chose this option especially if the respective reporting pursuant to the ISSB sustainability standards is less specific, detailed and/or strict with respects to aspects such as assurance requirements. Such an option can lead to cherry-picking of the less stringent standard and thereby inhibits comparability of reported information for investors. Therefore, at this stage, and especially while the ISSB requirements are not finalized, we do not support the proposal for registrants to report in conformity with the ISSB sustainability standards as an alternative to the SEC climate related disclosure requirements. Instead, we suggest that the two institutions work closely together with one another to develop climate related disclosure requirements, which are coherent and as similar as possible to one another. The goal of this mutual effort would be to simplify the reporting for registrants, and to increase comparability of climate related information disclosed under different regulatory requirements.

Chapter K. Structured Data Requirement

Q190. *Should we require registrants to tag the climate-related disclosures, including block text tagging and detail tagging of narrative and quantitative disclosures required by Subpart 1500 of Regulation S-K and Article 14 of Regulation S-X in Inline XBRL, as proposed? Should we permit custom tags for the climate-related disclosures?*

Tagging information digitally using the XBRL can be useful to investors as the information becomes easier to access. Research suggests that tools such as XBRL help to increase information readability and

[65] EFRAG (2022). "Exposure Draft ESRS 1 General principles - Basis for Conclusions". p. 28, BC 119: link

accessibility.[66] In the European Union for instance, a database for ESG information is planned, the European Single Access Point. The disclosed information should be digitally tagged to be machine readable to minimize the effort to maintain the database. The SEC should aim to build a similar database, linked to the EDGAR database which contains registration statements, quarterly and annual reports and other forms which are mandatory to submit for foreign and domestic companies. In this regard, the Proposed Rule should proceed with requiring registrants to tag their climate-related disclosure.

We hope you will find these comments useful, and we wish you the best of luck with your further work on this important Proposed Rule. Should SEC colleagues have any questions or identify any further need for feedback or inputs, please do not hesitate to reach out to us.

Yours sincerely,

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Our submission benefited from a range of additional inputs from other scientific organizations and colleagues from our network.

[66] La Torre, M., Valentinetti, D., Dumay, J. and Rea, M.A. (2018), "Improving corporate disclosure through XBRL: An evidence-based taxonomy structure for integrated reporting", Journal of Intellectual Capital, Vol. 19 No. 2, pp. 338-366. link

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