A Discussion on the Global Trend of Climate-Risk Disclosures

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ABSTRACT

The global trend toward regulating climate-risk disclosures reflects both real trends (addressing climate change issues) and reporting trends (demands from investors and stakeholders for more information on these issues). At the 2024 American Accounting Association (AAA) annual meeting, the AAA's International Accounting Section hosted a panel discussion with academic and industry experts on the global trend toward regulation of climate-related disclosures. A panel of experts and the audience discussed some key topics related to climate-risk and sustainability-related disclosures. These discussions underscore the need for global collaboration to align and enhance the consistency, comparability, and reliability of climate-risk disclosures.

JEL Classifications: M41

Keywords: ESG; CSR; climate risk disclosures.

I. INTRODUCTION

The global trend toward regulating climate-risk disclosures reflects both real trends (climate change) and reporting trends (demands from investors and stakeholders for more information on these issues). At the 2024 American Accounting Association (AAA) annual meeting, the AAA's International Accounting Section hosted a panel discussion with academic and industry experts on the global trend toward regulation of climate-related disclosures. The panel and the audience (collectively "panel" hereafter) discussed some key topics related to climate-risk and sustainability-related disclosures. In this write-up, we provide our recollection of the discussion, without claiming that it accurately represents the statements made at the meeting or reflects any individual views or those of the organizations to which the participants belong. These discussions underscore the need for global collaboration to align and enhance the consistency, comparability, and reliability of climate-risk disclosures. We also provide relevant academic research on these topics.

II. BACKGROUND

Numerous stakeholders increasingly expect companies to provide information about the climate-related risks they face and companies' strategies to manage those risks. These risks are generally classified into two categories. Physical risks refer to those arising from episodes and events such as hurricanes, floods, and wildfires, as well as ongoing shifts in climate patterns such as changes in precipitation, sea-level rise, and global warming. Transition risks refer to those associated with regulatory policy changes, technological advancements, shifts in supply and demand of products due to climate change, and loss of company reputation from changes in stakeholder perceptions.

In March 2022, the Securities and Exchange Commission (SEC) proposed a comprehensive set of rules for climate-related disclosures, indicating a significant shift toward mandatory, standardized reporting. The rules would require registrants to disclose governance and risk management processes related to climate risks, material impacts of climate risks on business and financial statements, and material Scope 1, Scope 2, and Scope 3 greenhouse gas (GHG) emissions.

The SEC then considered more than 24,000 comment letters submitted in response to the proposed rules.[1] In March 2024, it adopted a new set of rules to enhance and standardize climate-related disclosures by public companies and in public offerings. The SEC claimed that the final rules reflected its efforts to respond to investors' demand for consistent, comparable, and reliable information about the financial effects of climate-related risks on a registrant's operations and how it manages those risks (SEC 2024a). The SEC also claimed that the final rules take into account the costs related to implementing these rules (SEC 2024a). In summary, these rules require a registrant to disclose

- Climate-related risks that have had or are reasonably likely to have a material impact on its business strategy, results of operations, or financial condition;
- The actual and potential material impacts of any identified climate-related risks on its strategy, business model, and outlook;
- Whether, as part of its strategy, it has undertaken activities to mitigate or adapt to a material climate-related risk, a quantitative and qualitative description of material expenditures incurred, and material impacts on financial estimates and assumptions that directly result from such mitigation or adaptation activities;

[1] See https://www.sec.gov/newsroom/press-releases/2024-31.

- Specified disclosures regarding its activities, if any, to mitigate or adapt to a material climate-related risk including the use, if any, of transition plans, scenario analysis, or internal carbon prices;
- Any oversight by the board of directors of climate-related risks and any role by management in assessing and managing its material climate-related risks;
- Any processes it has for identifying, assessing, and managing material climate-related risks and, if it is managing those risks, whether and how any such processes are integrated into its overall risk management system or processes; and
- Information about its climate-related targets or goals, if any, that have materially affected or are reasonably likely to materially affect its business, results of operations, or financial condition. Disclosures would include material expenditures and material impacts on financial estimates and assumptions as a direct result of the target or goal or actions taken to make progress toward meeting such target or goal.

Shortly after the SEC adopted its climate disclosure rules, a broad coalition—including congressional leaders, trade associations, state attorneys general, and various business groups—filed legal challenges against the proposed rules. These cases were consolidated in the U.S. Court of Appeals for the Eighth Circuit, effectively preventing the rules from taking effect.[2] On March 27, 2025, the SEC voted to cease its defense of the rules in court, signaling a formal retreat from the rules' implementation.[3] We consider, for the purpose of this article, that the implementation of these rules is paused.

In a parallel development, the Sustainability Accounting Standards Board (SASB) released industry-specific sustainability reporting standards that include climate-related metrics and

[2] See https://climatecasechart.com/case/iowa-v-securities-exchange-commission/.
[3] See https://www.sec.gov/newsroom/press-releases/2025-58.

suggested industry-specific disclosures. The standards focus on physical risks and transition risks, but they also suggest identifying opportunities arising from climate change, such as new markets, products, and services related to climate adaptation and mitigation. The focus is on materiality and GHG emissions, energy and water use, efficiency, and climate change adaptation strategies. Notably, SASB provides quantifiable metrics that companies can use to measure and disclose their performance, with metrics designed to make disclosures comparable across companies. SASB aims to align its standards with other major frameworks, such as the Global Reporting Initiative (GRI) and the International Integrated Reporting Council (IIRC).

In 2022, the International Financial Reporting Standards (IFRS) Foundation absorbed the Value Reporting Foundation (VRF), which was previously the steward of the SASB standards. This integration meant that the IFRS subsumed the responsibility for the SASB standards and, therefore, their development and promotion are now under the IFRS's International Sustainability Standards Board (ISSB). The ISSB has also adopted the SASB standards into its sustainability reporting standards, thus enhancing their international relevancy.[4]

III. DISCUSSION POINTS

The panel debated several questions related to climate-risk and broader sustainability–related disclosure. In the following, we provide context leading to the question and a summary of the discussion provided for each question.

1. Why are special rules for climate-risk disclosures needed? SEC disclosure rules already require firms to report material risks. Isn't the current risk disclosure framework enough?

Context: Under its current rules, excluding those specifically related to climate, the SEC requires registrants to disclose material risks under the "Risk Factors" section of their annual filings (SEC

[4] For more information, see https://sasb.ifrs.org/issb-updates-to-sasb-standards/.

2005). These disclosures obligate firms to identify and describe factors that could render an investment in the company speculative or risky. The framework offers flexibility, allowing companies to highlight risks that are most pertinent to their unique circumstances, including environmental, social, and governance (ESG) issues, when deemed material. In principle, this structure already accommodates climate-related risks, as firms are expected to disclose any significant factors, such as those arising from environmental or regulatory developments, that may affect their operations, financial condition, or long-term outlook.

In addition, a risk-centric approach obscures a crucial dimension of climate and broader sustainability reporting: the opportunities that arise from societal transitions. Effective disclosure frameworks should not only enable investors to assess downside risks but also provide insights into how companies are positioning themselves to seize emerging opportunities, enhance competitiveness, and adapt to future conditions.

Panel Discussion: A common misconception is that firms are required to disclose all material information related to risks. In reality, this obligation is not absolute. The existence of insider trading laws explains this nuance. These laws prohibit trading on material nonpublic information, implicitly acknowledging that firms and their insiders often possess significant material knowledge, including risk-related information, that is not required to be disclosed. For instance, a company planning to launch a major new product may withhold disclosure until strategic or regulatory timing considerations are met. This example illustrates that materiality alone does not automatically trigger a disclosure requirement. Timing, context, and regulatory discretion also play crucial roles.

In the absence of mandatory disclosure requirements, firms may mislead investors, not necessarily through false statements, but through the omission of material information. Managers may choose to disclose only what they consider important, potentially leaving out critical climate-related risks that other stakeholders, including investors, would view as highly significant. These omissions, whether intentional or inadvertent, create gaps in the information available to the market. Mandated disclosures, such as those proposed by the SEC, are therefore essential to address these shortcomings. They help ensure that all material risks, including those related to climate, are consistently and comprehensively reported. This selective nature of voluntary disclosure highlights the need for explicit, enforceable rules to prevent inconsistencies and enhance the completeness, comparability, and reliability of information provided to investors.

There is a clear trend in support of mandated disclosures. While the U.S. disclosure framework has long required companies to report material risks (see SEC 2005), SEC regulations have become increasingly prescriptive, particularly in the context of Form 10-K filings, with firms now must having to provide more detailed and specific information about their business operations. This shift toward greater specificity extends to climate-related disclosures, aiming to ensure that critical climate risks are systematically identified and reported—especially considering the rising informational demands from investors. This evolution is significant because current voluntary practices are widely viewed as inadequate for capturing the unique, complex, and long-term nature of climate-related risks. Such risks often involve uncertainty and extended time horizons, making them difficult to quantify or communicate using traditional financial metrics (Jona and Soderstrom 2022, 2023).

As a result, more structured and mandatory disclosure requirements are increasingly seen as essential tools for enhancing the transparency and decision-usefulness of climate-risk reporting. The academic literature reinforces this argument. Several recent studies highlight that existing climate-risk disclosures often fall short of providing material, reliable, and actionable information.

For instance, Wasim (2019) finds that many climate disclosures lack substance, offering limited insight into firms' actual exposure or risk management strategies. Ferreira, Natalucci, Singh, and Suntheim (2021) emphasize that the absence of standardized reporting practices leads to inconsistencies and a lack of comparability across firms, making effectively assessing climate-related risks difficult for stakeholders. In many cases, firms appear to disclose information primarily to satisfy regulatory requirements or manage reputational concerns, not to convey meaningful insights. Consequently, sustainability disclosures are frequently perceived as less reliable than traditional financial disclosures, especially given that they are often unaudited and lack third-party assurance (Chalmers and Picard 2023; Deloitte 2024).

Furthermore, climate risk is becoming an increasingly value-relevant category within corporate risk disclosures. Jona and Soderstrom (2023) argue that effective climate-risk disclosures provide critical insights into how climate-related factors affect a firm's operations, financial performance, and strategic direction. The authors show that high-quality disclosures not only enhance internal decision-making and promote better risk management but also contribute to improved market efficiency by enabling investors to more accurately assess firm value. Empirical evidence supports these claims. Studies find that climate disclosures are incorporated into firm valuations, reinforcing their relevance to capital markets (Berkman, Jona, and Soderstrom 2024; Griffin, Jiang, and Sun 2023; Nagar and Schoenfeld 2024). In addition, Berkman, Jona, Lodge, and Shemesh (2024a) document a sharp rise in shareholder proposals related to climate-risk disclosure, with approximately 92% sponsored by institutional investors, highlighting a strong and growing demand for greater transparency and accountability in this domain among influential market participants.

2. If climate-risk disclosures were beneficial to investors and investors demand them, then firms must already be providing them. What are the arguments for and against the SEC mandating climate-risk disclosures?

Context: Some critics argue that the SEC exceeded its statutory authority in creating climate-risk disclosures, as its primary role is to ensure fair financial markets, not to regulate environmental practices. Critics also note that disclosing detailed risk information could reveal private information to a firm's competitors and other stakeholders, reducing the competitive advantage of the disclosing firm. Critics further claim that mandating disclosures would force companies to include nonmaterial information for the sake of compliance, overwhelming investors with irrelevant data. Complaints also have been made about the costs of compliance, which include the direct financial costs of setting up systems to track, measure, and report climate-related risks, as well as consultancy, assurance, and assurance fees. Complaints also mention operational challenges arising from the complexity of data collection, especially for global operations, and the need for staff training to implement new reporting requirements (ERM 2022). In addition, the regulatory burden of navigating new and evolving disclosure requirements can be particularly burdensome for small firms. These costs could outweigh the benefits (e.g., Winden 2022).

Panel Discussion: Mandating climate disclosures offers several important benefits. Standardized reporting facilitates the production of reliable, consistent, and comparable information, thereby enhancing transparency and investor trust (SEC 2024a). Beyond informational value, such disclosures can have real economic effects by encouraging firms to systematically assess climate-related risks, which in turn can strengthen internal risk management, support long-term strategic planning, and improve stakeholder engagement (Condon, Ladin, Lienke, Panfil, and Song 2021; Jona and Soderstrom 2022, 2023). Uniform disclosure requirements ensure that all firms operate under the same expectations, fostering comparability across industries and firms while reducing selective or strategic omissions. As a result, climate-risk disclosures can contribute to more efficient capital markets, with investors having greater confidence in the quality and completeness of reported information. Thus, specific climate disclosure rules serve not only to inform but also to align corporate behavior with the expectations of investors and broader society (Shortell 2023).

Specific climate disclosure rules in the U.S. are pivotal to aligning domestic practices with global standards, such as the Task Force on Climate-Related Financial Disclosures (TCFD), thereby meeting the needs of global investors (e.g., Carter 2024; SEC 2024b). The SEC rules respond to calls from investors for consistent and transparent climate disclosures, such as TCFD and SASB, which have gained significant investor attention since 2020. Importantly, the TCFD framework has become a cornerstone of the ISSB, and many countries are beginning to adopt it to replace and build on existing reporting requirements. This global shift emphasizes the importance of alignment with ISSB standards, as it mitigates the inconsistencies in disclosure regulations. Varied standards across jurisdictions create compliance challenges, and, by adopting regulation frameworks accepted more widely across the world, the SEC climate rules would support U.S. companies in meeting international expectations for standardized climate data.

3. How do the terms "framework," "guidance," and "regulations," which often come up in the discussion of climate-risk disclosures, differ?

Context: As climate-risk disclosures become an increasingly prominent focus for regulators, investors, and companies, the terminology used can be confusing and often misunderstood. Terms such as "framework," "guidance," and "regulations" may be foundational to understanding how climate-related risks and opportunities are reported and managed, and they could serve distinct purposes while carrying different authority levels. This question addresses the distinctions among these key terms to clarify their roles in the broader context of climate-risk disclosures. A better understanding of the differences between these terms is crucial for interpreting the requirements and best practices for climate-risk reporting, as well as for navigating the complex ecosystem of standards and regulations.

Panel Discussion: The evolution of climate-related disclosures has seen contributions from a variety of stakeholders, including international organizations, industry groups, and regulatory bodies, each playing a unique role in shaping the disclosure landscape. For example, voluntary frameworks such as TCFD aim to establish broad principles for reporting, while regulatory requirements such as the SEC's climate disclosure rules impose legally binding obligations on companies.

In this context, the terms "framework," "guidance," and "regulations" have distinct meanings. A framework provides an overarching structure and set of principles for how climate risks and opportunities should be identified, assessed, and disclosed. A framework often is developed by an international organization or an industry group and is typically voluntary (Jona and Soderstrom 2022), serving as a reference point for best practices. An example is the TCFD framework, which offers recommendations for disclosing clear, comparable, and consistent information about climate-related financial risks and opportunities. The European Financial Reporting Advisory Group (EFRAG 2020) identified 17 climate-risk reporting standards and frameworks used by European Union (EU) companies (Jona and Soderstrom 2022).

Guidance offers more detailed advice and explanations on how to implement frameworks or comply with regulations (Jona and Soderstrom 2022). Guidance is usually issued by a regulatory body or an industry association to help organizations understand how to meet specific requirements or recommendations. Guidance can be both prescriptive and explanatory, providing practical steps for compliance. For instance, if the SEC's climate-risk disclosure rules were implemented (SEC 2024b), the agency could issue detailed guidance, with examples, to help companies interpret and comply with specific rules.

Regulations are legally binding rules set by a government authority or a regulatory body that mandates specific actions or disclosures by companies. Regulations are enforceable by law, and noncompliance can result in legal penalties, fines, or other enforcement actions. The SEC's climate-risk disclosure rule (SEC 2024b) is an example of a regulation that, if implemented, would require public companies to disclose certain climate-related risks and governance practices in their financial filings.

The key differences lie in scope and flexibility, with a framework being broad and adaptable, guidance providing detailed instructions, and regulations setting specific, mandatory requirements.

4. Do the EU and the U.S. differ on climate-risk disclosures? Does the pace of creating a new ESG regulation differ between Europe and the U.S.?

Context: Climate-risk disclosures have become a global priority, with jurisdictions such as the EU and the U.S. taking significant yet seemingly divergent approaches. These differences in approach could shape the scope and focus of climate-risk disclosures and potentially influence the pace at which regulations are developed and implemented in different countries. The rate of adoption could also differ between domestic and multinational companies, even within the same industry. Understanding the nuances between the EU and U.S. regulatory landscapes is essential to grasp the global dynamics of ESG regulation and how they impact companies operating in different regions.

Panel Discussion: The EU has implemented the Corporate Sustainability Reporting Directive (CSRD), effective from January 5, 2023.[5] The CSRD mandates sustainability disclosure standards for about 50,000 organizations, covering approximately 75 percent of the EU's total company turnover.[6] The CSRD has a broader scope and more stringent requirements than the proposed SEC rules in the U.S. The CSRD covers multiple ESG domains, while the SEC proposes rules that focus primarily on climate-related disclosures. CSRD uses a "double materiality" approach, considering both financial materiality and impact on people and the environment. The proposed SEC rules cover only financial materiality for investors. CSRD requires reporting on Scope 1, Scope 2, and Scope 3 emissions, and the proposed SEC rules require Scope 3 reporting only if deemed material. CSRD applies to both public and private large companies, while SEC rules initially apply only to public companies. The EU has already adopted the European Climate Law and legally committed itself to meeting the goals of the Paris Agreement. The U.S. lacks a similar national climate transition strategy mandated by Congress. Thus, arguably, the CSRD is ahead in both scope and pace of environmental risk disclosures.[7]

In general, the pace of creating new ESG regulations differs between Europe and the U.S. due to differences in political structure, stakeholder engagement, and historical context (e.g., Tricks 2022; Davison, McNally, and North 2023; ING 2023). Europe tends to adopt the precautionary principle, leading to proactive and stringent regulations. The U.S. often relies on a market-based approach (Lehrer 2023), emphasizing detailed cost-benefit analysis, resulting in

[5] See, for example, https://www.brookings.edu/articles/the-coming-of-age-of-sustainability-disclosure-how-do-rules-differ-between-the-us-and-the-eu/.

[6] Companies that are subject to the CSRD are now required to follow European Sustainability Reporting Standards (ESRS) to enhance the consistency and comparability in reporting across climate, social, and governance areas. See https://www.unepfi.org/impact/interoperability/european-sustainability-reporting-standards-esrs/.

[7] In April 2025, the European Parliament postponed the application dates for the due diligence and sustainability reporting requirements. See https://www.europarl.europa.eu/news/en/press-room/20250331IPR27557/sustainability-and-due-diligence-meps-agree-to-delay-application-of-new-rules.

slower regulatory development.[8] The U.S. regulatory process on the ESG front is generally perceived by EU observers as more adversarial and prone to lobbying and political pressure. Europe is also prone to lobbying but of a different kind. Environmental groups, encouraged by strong public support for sustainability, facilitate arguably quicker adoption of, and arguably more stringent, climate regulations in Europe.

5. The International Sustainability Standards Board claims that its creation ended "the 'alphabet soup' of voluntary initiatives." Did that alphabet soup really go away?

Context: The landscape of sustainability and climate-risk reporting standards and frameworks has often been referred to as an "alphabet soup" due to the number of overlapping initiatives available for companies to follow (Pountcheva 2023). This variety has created confusion for firms trying to navigate which standards to adopt, as well as for investors and stakeholders seeking consistent and comparable data. The ISSB has attempted to consolidate key sustainability reporting initiatives, including the Value Reporting Foundation (which encompasses SASB and the Integrated Reporting Framework), the Climate Disclosure Standards Board (CDSB), and the work of the Task Force on Climate-Related Financial Disclosures.[9] This consolidation has helped streamline and standardize the reporting landscape, making reporting on sustainability and climate-related issues easier for companies.

Discussion: The term "alphabet soup" arguably still applies to the sustainability and climate-risk reporting landscape, especially because organizations such as the Global Reporting Initiative

[8] See an in-depth analysis of the precautionary principle in the European Parliamentary Research Service report at https://www.europarl.europa.eu/RegData/etudes/IDAN/2015/573876/EPRS_IDA(2015)573876_EN.pdf.

[9] See the official organization websites: https://www.ifrs.org/groups/international-sustainability-standards-board/, https://www.valuereportingfoundation.org/, https://sasb.ifrs.org/, https://integratedreporting.ifrs.org/, https://www.cdsb.net/what-we-do/reporting-frameworks, and https://www.fsb-tcfd.org/.

continue to operate independent of market regulators.[10] Thus, firms may still choose to report under multiple frameworks to meet different stakeholder needs or regulatory requirements. For ISSB standards to become enforceable, national regulators must adopt and mandate them, which has not happened yet. The path to obtaining legitimacy involves continuing to work with global regulators, engaging with stakeholders, ensuring corporate buy-ins, and demonstrating the value of ISSB standards through standardized reporting and harmonization with existing frameworks (ProtosCapital 2023).

In addition, the standards, guidance, and frameworks on sustainability reporting remain scattered across jurisdictions. Many companies continue to face pressure to report under multiple frameworks leading to significant differences in choices of reporting standards (Bange 2024). The intrinsic differences between industry sectors concerning climate risk could also result in industry-specific requirements that are not fully addressed or covered by a single framework. While the ISSB has made significant strides in streamlining the landscape, firms continue to navigate a fragmented environment while attempting to balance different reporting needs to satisfy diverse stakeholders, which keeps the alphabet soup boiling.

6. A large multinational firm must comply with multiple frameworks enforced by different regions, such as California, Europe, and U.S. Isn't that costly and confusing?

Context: The need to comply with multiple frameworks enforced by California, Europe, and the U.S. can be both costly and confusing for large multinational firms. Cross-border climate-risk disclosure regulations increase the complexity and cost of compliance for companies operating in multiple jurisdictions. Failing to meet any one of these requirements can pose significant

[10] See GRI's official organization website: https://www.globalreporting.org/. Also, note that significant efforts are made toward full interoperability between ISSB and GRI. See, for example, https://www.iasplus.com/en/news/2024/may/ifrsf-gri.

reputational, legal, and financial risks. Companies may need to invest in new systems, processes, and staff with specialized expertise in climate-risk reporting to manage the diverse climate-risk disclosure requirements effectively (Coppola 2023).

For example, California's new climate-risk reporting rules, as outlined in Senate Bill (SB) 253 (Climate Corporate Data Accountability Act) and SB 261 (Climate-Related Financial Risk Act), have significant implications for U.S.-based companies operating in the state. The legislation requires comprehensive GHG emissions reporting and climate-related financial risk disclosures for companies with substantial revenues, including those not incorporated in California but doing business within its borders. For multinational companies operating in California but not incorporated there, the scope of coverage includes any company with annual revenues exceeding $500 million (under SB 261) or $1 billion (under SB 253). Such companies must publicly disclose their Scope 1 and Scope 2 emissions by 2026 and Scope 3 emissions by 2027, and they must report climate-related financial risks and mitigation measures based on the TCFD framework. They also must obtain third-party verification for their emissions data and may face substantial penalties for noncompliance. These rules differ from those of the SEC.

Panel Discussion: Differences in accounting regulations across regions are not just a climate risk–specific phenomenon. Accounting regulations often vary across regions, reflecting differences in economic structures, legal systems, and regulatory priorities. For example, the U.S. follows the Generally Accepted Accounting Principles (GAAP), which are relatively rules-based, and Europe adheres to IFRS, which are relatively principles-based. These differences lead to variations in how financial information is reported and interpreted across jurisdictions. Such divergence also emerges in climate-risk disclosures, with different regions taking unique approaches based on their local environmental and policy concerns.

While a lack of uniformity can create challenges for multinational companies, it offers several benefits, especially when addressing specific climate risks or regional priorities through tailored regional regulations. That is, it allows for more relevant region-specific disclosures. This flexibility ensures that companies report on climate risks most pertinent to their operations in specific regions. Regional rules also can be economically advantageous by considering the local impact of climate change, helping industries address risks specific to their areas while providing their varied stakeholders with relevant information for their individual decision-making. In addition, separate rules foster regulatory innovation, as different jurisdictions can experiment with diverse approaches to climate disclosures, potentially leading to new global best practices. The competition could drive improvement in standards, encouraging more rigorous corporate responsibility. Moreover, by acting independently, each region can implement climate regulations more quickly, without waiting for international consensus, speeding up progress on climate-risk management. While the result may be a fragmented regulatory landscape, the benefits of regional adaptation, innovation, leadership, and faster action are significant.

IV. CONCLUSION AND ENSUING RESEARCH QUESTIONS

The global trend toward regulating climate-risk disclosures has occurred in fits and starts. While progress has been made on standardizing these disclosures through initiatives such as the SEC's enhanced disclosure rules in the U.S., the EU's CSRD, and the consolidation efforts of the ISSB, significant variation and challenges remain. Differences across regions in regulatory pace, scope, and adoption continue to create a fragmented landscape. Furthermore, while the ISSB has streamlined some of the alphabet soup of voluntary frameworks, companies still face pressures to navigate multiple standards to meet diverse stakeholder needs.

These discussions underscore the need for global collaboration to align and enhance the consistency, comparability, and reliability of climate-risk disclosures. The AAA panel provided an opportunity to bring the accounting academic community up to date on key topics related to climate-risk and sustainability-related disclosure. Such discussion fosters a continuing dialogue, with the ultimate objective of providing meaningful, decision-useful information that benefits investors, businesses, and society at large.

The discussion in the article leads to promising avenues for new or additional research that can inform stakeholders, decision-makers, regulators, and corporate managers.

A. Disclosure efficacy and market relevance

i. How can the informativeness of mandated versus voluntary climate-risk disclosures be evaluated? That is, how can the value relevance of climate disclosures mandated by regulators (e.g., SEC or CSRD) be assessed compared with those issued voluntarily (e.g., TCFD-based)?

ii. How do investors interpret forward-looking climate-risk disclosures?

B. Capital market consequences of climate disclosures

i. Are firms penalized or rewarded for early adoption of climate-related disclosure frameworks?

ii. Do enhanced climate disclosures reduce information asymmetry between firms and stakeholders and among stakeholders and what are its capital market consequences (e.g., improves liquidity)?

C. Firm strategy and governance

i. Does board-level climate oversight (as required in SEC and ISSB rules) improve disclosure quality and performance?

ii. What are the internal organizational responses to climate disclosure mandates? For example, do firms create ESG committees and change evaluations of risk and returns from new projects?

D. Regulatory design and legal boundaries

i. Does the legal challenge to the SEC's climate rules reflect a broader accountability gap in ESG regulation?

ii. How do EU's CSRD versus the SEC's paused rules differ in details of required disclosures, enforceability, and economic effects?

iii. Can U.S. firms subject to both regimes exhibit arbitrage behavior?

E. Framework harmonization and standard setting

i. Was the "alphabet soup" of sustainability frameworks truly resolved by ISSB consolidation?

ii. How interoperable are ISSB, SASB, and GRI frameworks? What do firms use and why?

F. Measurement and assurance

i. How feasible is assurance of sustainability disclosures? Is such assurance associated with higher investor trust or lower cost of capital?

ii. Do materiality assessments in ESG differ under CSRD's "double materiality" and U.S. "investor materiality"?

G. Sectoral and geographic focus

i. How do climate disclosures vary by sector (e.g., utilities versus tech) in content, quality, and impact?

ii. Do regional ESG regulations foster innovation or create reporting fatigue?

During the preparation of this work, the authors used OpenAI to check for grammatical mistakes. After using this service, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

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