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INTRODUCTION

Environmental, social, and governance (ESG) matters have been hot-button legal, regulatory, and political subjects in the business sphere for several years now. The three components of ESG are all distinct, although

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they sometimes overlap in certain circumstances. Each component certainly is deserving of individualized attention as a matter important to firm governance and operations. Yet, the overall combined term is susceptible of many meanings.[1] However, as issues that historically may have received less frontal attention than other business operational concerns[2]—matters that may have been perceived to have more direct impacts on investors, markets, and capital formation—environmental, social, and governance questions increasingly have been grouped together in recent discussions involving business law, regulation, and policy.

Among the questions addressed in current public debates is whether ESG matters are significant to businesses and their financial investors. Businesses and investors have perceived a connection between ESG matters and their general and specific respective aims. As a result, businesses have voluntarily pursued ESG policies, programs, and public disclosures that reflect or address related management concerns.[3] Their operational choices are driven by their objectives and reflect assessments of risk—including legal compliance risk—and return as they may apply in context.

Regulators and lawmakers have begun to respond, both to support or extend these affirmative ESG initiatives and to challenge or oppose them.[4] The U.S. Securities and Exchange Commission (SEC) has engaged in rulemaking and directed enforcement efforts to ensure accurate, complete, and comparable ESG disclosures.[5] State legislative bodies have also acted,

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1. *See* Caley Petrucci & Guhan Subramanian, ESG Amnesia in M&A Deals 17–19 (Jan. 14, 2024) (unpublished manuscript), *available at* https://ssrn.com/abstract=4594776 [https://perma.cc/7DBR-NXZ9] (last visited Mar. 3, 2024) (defining ESG).

2. *See, e.g.*, Lynn M. LoPucki, *Repurposing the Corporation Through Stakeholder Markets*, 55 U.C. DAVIS L. REV. 1445, 1447 (2022) ("Despite the corporation's financial success, the corporation has failed to deliver a crucial part of what people want from it: a stable planet; livable communities; a safe and sustainable environment; meaningful, secure jobs with benefits; respect for human rights, and steady improvement in peoples' lives.").

3. *See id.* at 1450–52 (highlighting voluntary compliance with ESG disclosure standards).

4. *See* sources cited *infra* notes 5 & 6.

5. *See* The Enhancement and Standardization of Climate-Related Disclosures for Investors, 89 Fed. Reg. 21668 (Mar. 28, 2024) (to be codified at 17 C.F.R. pts. 210, 229, 230, 232, 239, and 249), *available at* https://www.sec.gov/files/rules/final/2024/33-11275.pdf [https://perma.cc/X7KB-SMAG] (final climate-related disclosure rule) [hereinafter Final Climate-Related Disclosure Rules]; Cybersecurity Risk Management, Strategy, Governance, and Incident Disclosure, 88 Fed. Reg. 51896 (Aug. 4, 2023) (to be codified at 17 C.F.R. pts.

promoting ESG initiatives or opposing ESG-focused investment objectives, including through legislative proposals barring investment managers from using ESG-focused investment criteria in their decision making.[6]

As these general observations illustrate, business-related ESG matters have recognizable connections to law and regulation in a political context. This Article explores some of those connections as they relate to U.S. federal securities regulation. The connections are manifest in the varied regulatory tools used in federal securities regulation, including mandatory disclosure, fraud—including insider trading—and other liability, and substantive regulation of financial investment products, markets, and market participants.[7]

229, 232, 239, 240, and 249); The Enhancement and Standardization of Climate-Related Disclosures for Investors, 87 Fed. Reg. 29059 (May 12, 2022) (codified at 17 C.F.R. §§ 210, 229, 232, 239, and 249) (proposed climate-related disclosure rule).

6. *See* Christine Daleiden, *The Legal and Political Uncertainty of the Environmental, Social, and Governance (ESG) Landscape*, 27 HAW. B.J. 4, 4, 11 (2023) (on file with the *Louisiana Law Review*) (identifying state pro-ESG and anti-ESG initiatives); Lance C. Dial et al., *2023 ESG State Legislation Wrap Up*, K&L GATES (July 25, 2023), https://www.klgates.com/2023-ESG-State-Legislation-Wrap-Up-7-19-2023 [https://perma.cc/P8J6-E2DY]; *Enforcement Task Force Focused on Climate and ESG Issues*, U.S. SEC. & EXCH. COMM'N, https://www.sec.gov/securities-topics/enforcement-task-force-focused-climate-esg-issues [https://perma.cc/45NN-YWSV] (modified Apr. 11, 2023); Leah Malone & Emily B. Holland, *Florida Passes Farthest-Reaching Anti-ESG Law to Date*, HARV. L. SCH. F. ON CORP. GOV. (May 27, 2023), https://corpgov.law.harvard.edu/2023/05/27/florida-passes-farthest-reaching-anti-esg-law-to-date/ [https://perma.cc/PH3Z-BVPB]; Jennifer J. Schulp, *Anti-ESG Legislation Is Demonstrating the Peril of Meddling in Markets*, CATO INST. (June 14, 2023), https://www.cato.org/commentary/anti-esg-legislation-demonstrating-peril-meddling-markets [https://perma.cc/C7ZB-GUBK]; Timbre Shriver & Chad Lee, *The "Pro-ESG" Empire Strikes Back*, LEXOLOGY (Apr. 28, 2023), https://www.lexology.com/library/detail.aspx?g=60dbefb8-0abd-4445-a151-5610ccfe1f03 [https://perma.cc/JV45-KDA5].

7. *See* John C. Coffee, Jr., *The Political Economy of Dodd-Frank: Why Financial Reform Tends to Be Frustrated and Systemic Risk Perpetuated*, 97 CORNELL L. REV. 1019, 1025 n.23 (2012) ("Although the Securities Act of 1933 and the Securities Exchange Act of 1934 do utilize disclosure as their preferred tool, the federal securities laws have frequently regulated substantive corporate conduct and governance"); Cynthia Estlund, *Just the Facts: The Case for Workplace Transparency*, 63 STAN. L. REV. 351, 353 (2011) ("Disclosure mandates, either alongside or in lieu of substantive mandates, have become important tools in the regulation of securities markets . . . ."); Merritt B. Fox,

Importantly, the rules underlying and executing these regulatory tools may be qualified by reference to materiality. The concept of materiality—a contextual gauge of the significance of information—pervades federal and state security laws.[8] For public companies,[9] for example, mandatory disclosure obligations in connection with their periodic, transactional, and event-based reporting—including the relevant gap-filling disclosure mandates[10]—expressly employ the concept of materiality to identify what

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Measuring Share Price Accuracy, 1 BERKELEY BUS. L.J. 113, 118 (2004) (referencing "the standard tools of securities regulation, such as: mandatory disclosure, insider trading regulation, the regulation of selective disclosure, broker-dealer regulation, or regulation of analysts"); Erik F. Gerding, *Disclosure 2.0: Can Technology Solve Overload, Complexity, and Other Information Failures?*, 90 TUL. L. REV. 1143, 1177 (2016) ("One alternative to mandatory disclosure as a regulatory tool is substantive merit-based regulation of issuers and the securities that they can sell"); Joan M. Heminway, *What is a Security in the Crowdfunding Era?*, 7 OHIO STATE ENTREP. BUS. L.J. 335, 345 (2012) ("The U.S. securities regulation regime uses three principal kinds of rules to achieve its policy objectives. These rules—the tools in our securities regulation toolbox—are mandatory disclosure, fraud prevention and substantive regulation"); Ethiopis Tafara, *The Man Who Shot Liberty Valance: The Future of Financial Regulation*, 54 VA. J. INT'L L. 1, 4–5 (2013) (identifying "the traditional tools of securities regulators" as "disclosure, transparency, and rigorous enforcement efforts to police fraud and abuse").

8. *See* Ido Baum & Dov Solomon, *When Should You Abstain? A Call for a Global Rule of Insider Trading*, 88 U. CIN. L. REV. 67, 72 (2019) ("'[M]ateriality' is a common principle of securities regulation"); Edward G. Fox et al., *Economic Crisis and the Integration of Law and Finance: The Impact of Volatility Spikes*, 116 COLUM. L. REV. 325, 393 (2016) ("The concept of 'materiality' pervades securities law, reaching far beyond fraud-on-the-market suits"); Yvonne Ching Ling Lee, *The Elusive Concept of "Materiality" Under U.S. Federal Securities Laws*, 40 WILLAMETTE L. REV. 661, 663 (2004) ("[M]ateriality determinations are commonplace in federal securities laws . . . ."); Richard C. Sauer, *The Erosion of the Materiality Standard in the Enforcement of the Federal Securities Laws*, 62 BUS. LAW. 317, 319 (2007) (noting "the pervasive presence of materiality requirements in the securities laws").

9. For the purposes of this Article, a *public company* is a corporation or other business association that files periodic, transactional, and event-based reports with the SEC under §§ 13 and 14 of the Securities Exchange Act of 1934, as amended, 15 U.S.C. §§ 78m & 78n. *See* Noah Klarish, *Planting Pearls in Shells: Evaluating the Possibilities in a Reverse Merger*, 12 BUS. L. TODAY 40, 41–42 (2003) ("[A] public company is subject to the reporting requirements of the Securities Exchange Act of 1934 that requires filing with the SEC of quarterly reports, annual reports and proxy statements.").

10. This term refers to, e.g., Rule 408(a) under the Securities Act of 1933, as amended, and Rule 12b-20 under the Securities Exchange Act of 1934, as

the firm is required to disclose in specific areas and contexts. Moreover, the broad-based doctrine addressing securities fraud and misstatements often relies on a determination that there has been a misrepresentation of material fact or a misleading omission to state a material fact, implicating materiality as a key element for compliance and enforcement.[11] Substantive regulatory requirements are more rarely qualified by materiality, but there are circumstances in which a mandated status, qualification, or process, for instance, calls for a materiality assessment. For example, Rule 14d-1(d)(2) requires that tender offers remain open for a specified period following "the date that material changes to . . . tender offer materials are disseminated to security holders . . . ."[12]

Given the current attention being paid to ESG matters—including in securities regulation circles—and the importance of materiality analyses to various aspects of U.S. federal securities regulation, this Article undertakes to explore the materiality of ESG information, assess its importance to regulatory compliance, identify contexts in which the materiality of ESG information may be especially significant, and make related observations. To accomplish this purpose, the Article proceeds in three additional parts. To set the stage, the Article begins in Part I by defining two critical concepts: ESG information and materiality. Then, in Part II, the Article isolates disclosure rules operative in common situations that may compel an assessment of the existence and materiality of various kinds of ESG information. Finally, drawing from the assembled knowledge of these relevant disclosure rules and their application to ESG information, the Article reflects in Part III on the importance of materiality determinations concerning ESG information and the difficulty in making those determinations in the current investment environment.

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amended. 17 C.F.R. § 230.408(a) (2023) ("In addition to the information expressly required to be included in a registration statement, there shall be added such further material information, if any, as may be necessary to make the required statements, in the light of the circumstances under which they are made, not misleading."); *id.* § 240.12b–20 ("In addition to the information expressly required to be included in a statement or report, there shall be added such further material information, if any, as may be necessary to make the required statements, in the light of the circumstances under which they are made not misleading.").

11. *See*, *e.g.*, 15 U.S.C. § 77k(a); *id.* at § 77l(a)(2); *id.* § 77q(a)(2); 17 C.F.R. § 140.10b-5(b).

12. 17 C.F.R. § 240.14d–4.

I. ESSENTIAL DEFINITIONS: ESG INFORMATION AND MATERIALITY

Comprehending the importance of materiality assessments involving ESG information requires that a firm and its legal counsel first understand both ESG information and materiality. *ESG information* is not currently defined in legal doctrine; rather, its meaning arises from practical application. This Article identifies and employs the concept of ESG information in a business governance, finance, and operational context. *Materiality* is defined by a legal standard primarily established and interpreted in, and developed through, federal judicial opinions.

A. ESG Information

Definitional and political uncertainties surrounding ESG impact the ways that businesses and their stakeholders conceptualize and address ESG information. Each of the three ESG components—environmental, social, and governance—embodies a range of subject matter. Environmental topics may include questions relating to recycling, energy, water, land use, nonhuman animals, plant life, climate, and other matters.[13] Social factors may include concerns relating to, for example, health and wellness, safety, employee relations and benefits, diversity, equity, inclusion, community affairs, and human rights.[14] Governance issues may include a spectrum of considerations encompassing director, officer, and shareholder management and control in the firm involving, among other things, board composition and process, board and officer incentive compensation, business ethics, cybersecurity, and compliance programs and policies.[15]

In recognition of current norms favoring the aggregation of environmental, social, and governance concerns in business law and policy, this Article considers ESG jointly. Accordingly, as applied in this Article, ESG information includes plans, policies, programs, data, events, demands, commitments, trends, uncertainties, outcomes, and other facts relating to environmental, social, or governance matters. Specifically, in

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13. *See* Petrucci & Subramanian, *supra* note 1, at 18 ("Environmental factors might include actions to reduce greenhouse gases, promote sustainability, reduce or recycle plastics, and minimize pollution." (footnote omitted)).

14. *See id.* ("Social considerations might include the health and safety of employees, wage equality, reputational value and goodwill, employee diversity, and the relationship between the community and corporation." (footnote omitted)).

15. *See id.* ("Governance factors encompass issues between shareholders, directors, and management.").

the setting posed here, ESG information comprises facts of the kind businesses may possess.

A broad query of Google Bard (now relabeled Google Gemini)[16] asking, "What is ESG information?" tested this definition against Internet intelligence. The response received is excerpted below:

> ESG information is data and metrics that investors and other stakeholders can use to assess a company's environmental, social, and governance (ESG) performance. ESG information can be used to evaluate a company's sustainability, ethical practices, and overall risk and return profile.
>
> **Environmental information** can include data on a company's greenhouse gas emissions, energy consumption, water usage, waste production, and pollution levels. It can also include information on a company's environmental policies and initiatives, such as its commitment to renewable energy or its efforts to reduce its carbon footprint.
>
> **Social information** can include data on a company's workforce diversity, employee satisfaction, human rights record, and community engagement. It can also include information on a company's social policies and initiatives, such as its commitment to fair labor practices or its support for local communities.
>
> **Governance information** can include data on a company's board composition, executive pay, shareholder rights, and auditing practices. It can also include information on a company's governance policies and initiatives, such as its commitment to transparency and accountability.
>
> ESG information can be gathered from a variety of sources, including:
>
> - Company websites
> - ESG reports
> - Sustainability reports
> - Regulatory filings
> - Third-party data providers
> - News articles and other media coverage
>
> ESG information is becoming increasingly important to investors and other stakeholders. . . . ESG information can be used to:
>
> - Identify companies that are well-positioned to manage long-term risks and opportunities;
> - Avoid companies that are exposed to significant ESG risks;

16. GOOGLE BARD, https://bard.google.com/ [https://perma.cc/SWD7-HMY5] (last visited Dec. 10, 2023).

> - Select companies that are aligned with investors' values;
> - Create more sustainable and inclusive investment portfolios.
>
> ESG information is still a relatively new and evolving field, and there is no single standard for how it is reported. However, there are a number of frameworks and standards that companies can use to guide their ESG reporting, such as the Global Reporting Initiative (GRI) Standards and the Sustainability Accounting Standards Board (SASB) Standards.[17]

Certainly, this generative artificial intelligence conceptualization of ESG information is useful as a reference point, even if incomplete and undocumented. It is consistent with the definition offered in the preceding paragraph, although it limits consideration to "data and metrics that investors and other stakeholders can use to assess a company's environmental, social, and governance (ESG) performance."[18]

As the proffered definition suggests, ESG information includes an array of facts connected to a business's environmental, social, or governance affairs. These facts may be publicly available, as the Google Bard response suggests,[19] or they may be nonpublic. Moreover, they may be useful in contexts outside those indicated in the Google Bard query response.

B. Materiality

Materiality doctrine in U.S. securities regulation has been generated and advanced principally in federal court opinions, although SEC rulemaking also plays a role in mandatory disclosure application contexts. Opinions in a variety of legal actions establish, interpret, and apply that standard in the context of common law, statutory law, and SEC rulemaking. Judicial action has circumscribed and expanded the notion of materiality in various contexts using a standard that incorporates law and facts.

17. The full Google Gemini colloquy is *available at* https://gemini.google.com/app/3848e8828d7c64b6 [https://perma.cc/A623-LBDM] (last visited Dec. 10, 2023). The reference to a Deloitte survey report in that colloquy has been removed from the quoted passage because, as the overall dialogue indicates, that information is not currently verifiable.

18. *See id.* and accompanying text.

19. *See id.* and accompanying text.

The lodestar for materiality in federal securities law is the U.S. Supreme Court's opinion in *TSC Industries, Inc. v. Northway, Inc.*,[20] a legal action raising claims of proxy fraud under § 14(a) of the Securities Exchange Act of 1934, as amended (1934 Act).[21] In its opinion in *TSC*, the Court articulated a specific legal standard defining materiality in the federal proxy fraud context.[22]

> An omitted fact is material if there is a substantial likelihood that a reasonable shareholder would consider it important in deciding how to vote. This standard . . . . does not require proof of a substantial likelihood that disclosure of the omitted fact would have caused the reasonable investor to change his vote. What the standard does contemplate is a showing of a substantial likelihood that, under all the circumstances, the omitted fact would have assumed actual significance in the deliberations of the reasonable shareholder. Put another way, there must be a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the "total mix" of information made available.[23]

This legal standard requires the objective assessment of the meaning of a fact holistically in an identified context.

Courts have embraced this materiality standard for use in areas of federal securities regulation—and state corporate law—outside the proxy fraud context.[24] Importantly, in its 1988 opinion in *Basic, Inc. v. Levinson*,[25] the U.S. Supreme Court expressly adopted the *TSC* standard for use in legal actions brought under § 10(b) of, and Rule 10b-5 under, the Exchange Act[26] (§ 10(b) and Rule 10b-5, respectively[27]). Section 10(b) and Rule 10b-5 provide that specified manipulative and deceptive conduct

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20. TSC Indus., Inc. v. Northway, Inc., 426 U.S. 438 (1976).

21. 15 U.S.C. § 78n(a).

22. *TSC*, 426 U.S. at 449.

23. *Id.*

24. *See, e.g.*, Bradford D. Bimson, Zirn v. VLI Corp.*: The Far-Reaching Implications of Loquacity*, 19 DEL. J. CORP. L. 1067, 1077–84 (1994) (describing the *TSC* standard's legacy under federal securities and Delaware corporate law); Charlotte W. Rhodes, *Living in a Material World: Defining "Materiality" in the Municipal Bond Market and Rule 15c2–12*, 72 WASH. & LEE L. REV. 1989, 2027 (2015) (describing the *TSC* standard as "the classic definition of materiality.").

25. Basic Inc. v. Levinson, 485 U.S. 224 (1988).

26. *Id.* at 232 ("We now expressly adopt the TSC Industries standard of materiality for the § 10(b) and Rule 10b-5 context.").

27. 15 U.S.C. § 77j(b); 17 C.F.R. § 240.10b-5 (2023).

is unlawful in connection with the purchase or sale of a security.[28] As implemented through Rule 10b-5, § 10(b) is a liability provision commonly used to enforce the disclosure of accurate and complete information in connection with securities trading transactions.[29]

The *Basic* case also articulated a specialized test for implementing the *TSC* standard in assessing the materiality of preliminary merger discussions—a context involving facts that are contingent or speculative.[30] In essence, the existence of preliminary merger discussions, as a potentially disclosable fact, includes both a current component and a potential future component. The Court explained that "[w]here . . . the event is contingent or speculative in nature, it is difficult to ascertain whether the 'reasonable investor' would have considered the . . . information significant at the time. Merger negotiations, because of the ever-present possibility that the contemplated transaction will not be effectuated, fall into the latter category."[31] To facilitate materiality determinations in this context, the Court adopted a test used by the U.S. Circuit Court of Appeals for the Second Circuit.[32] Under this test, "materiality 'will depend at any given time upon a balancing of both the

28. 15 U.S.C. § 77j(b); 17 C.F.R. § 240.10b-5 (2023). *See also, e.g.*, Lewis D. Lowenfels & Alan R. Bromberg, *Rule 10b-5's 'In Connection with': A Nexus for Securities Fraud*, 57 BUS. LAW. 1, 8 (2001) ("The scope and coverage of the *Bankers Life* opinion . . . is breathtaking and potentially limitless. It finds that Exchange Act section 10(b) prohibits the use of any deceptive device in connection with the purchase or sale of any security by any person").

29. *See* Stephen Kim Park, *Targeted Social Transparency as Global Corporate Strategy*, 35 NW. J. INT'L L. & BUS. 87, 98 (2014) ("[T]he Exchange Act includes powerful antifraud provisions that impose standards on the veracity and completeness of mandatory disclosure. Most notably among them is § 10(b), which subjects an Exchange Act reporting company to civil liability for material omissions or misrepresentations in periodic reports filed with the SEC or any other document or information released by the company"); David A. Gordon, *Corporate Disclosure of Merger Negotiations—When Does the Investor Have a Right to Know?* Greenfield v. Heublein, Inc., 36 SYRACUSE L. REV. 1155, 1157–58 (1985) ("Section 10(b) of the Securities Exchange Act of 1934, and Rule 10b-5 promulgated thereunder, were designed to promote full and accurate disclosure of corporate information, thus allowing investors to reach informed investment decisions.").

30. *See* sources cited *infra* notes 31–33.

31. *Basic*, 485 U.S. at 232.

32. *Id.* at 238–41.

indicated probability that the event will occur and the anticipated magnitude of the event in light of the totality of the company activity.'"[33]

In addition, wording from the *TSC* materiality standard has been incorporated into agency rules relating to offering registration statements under the Securities Act of 1933, as amended (1933 Act), and statements and reports under the 1934 Act. Specifically, an SEC rule under the 1933 Act provides that "[t]he term material, when used to qualify a requirement for the furnishing of information as to any subject, limits the information required to those matters to which there is a substantial likelihood that a reasonable investor would attach importance in determining whether to purchase the security registered."[34] Similarly, as used in the 1934 Act rules and regulations relating to registration, reporting, and related statements and forms, "[t]he term 'material,' when used to qualify a requirement for the furnishing of information as to any subject, limits the information required to those matters to which there is a substantial likelihood that a reasonable investor would attach importance in determining whether to buy or sell the securities registered."[35] These definitions of *material*, adopted in 1982—six years after the Court's *TSC* opinion[36]—alter the wording of an earlier definition.[37]

The SEC's Staff Accounting Bulletin No. 99 (SAB No. 99)[38] is another touchstone that reinforces the materiality standard in *TSC* and *Basic*. SAB No. 99 asserts that the materiality standard cited in the accounting literature "is in substance identical to the formulation used by

33. *Id.* at 238 (citing to Sec. & Exch. Comm'n v. Tex. Gulf Sulphur Co., 401 F.2d 833, 849 (2d Cir. 1968)).

34. 17 C.F.R. § 230.405 (2023).

35. *Id.* § 240.12b–2.

36. *See* Adoption of Integrated Disclosure System, 47 Fed. Reg. 11380, 11436, 11465 (Mar. 16, 1982) (codified at 17 C.F.R. §§ 200, 201, 229, 230, 240, 249, 250, 260, 274) [hereinafter Integrated Disclosure Release].

37. *See* Registration and Registration Procedures, 12 Fed. Reg. 4070, 4072 (June 24, 1947) (codified at 17 C.F.R. § 230) ("The term 'material', when used to qualify a requirement for the furnishing of information as to any subject, limits the information required to those matters as to which an average prudent investor ought reasonably to be informed before purchasing the security registered"); Registration and Reporting Rules and Rules of General Application, 13 Fed. Reg. 9321, 9322 (Dec. 31, 1948) (codified at 17 C.F.R. § 240) ("The term 'material', when used to qualify a requirement for the furnishing of information as to any subject, limits the Information required to those matters as to which an average prudent investor ought reasonably to be informed before buying or selling the security registered.").

38. SEC Staff Accounting Bulletin No. 99, 64 Fed. Reg. 45150 (Aug. 12, 1999) (codified at 17 C.F.R. § 211).

the courts in interpreting the federal securities laws."[39] In SAB No. 99, the SEC staff is quick to note that application of the standard involves considering both quantitative and qualitative factors.

> [A]n assessment of materiality requires that one views the facts in the context of the "surrounding circumstances," as the accounting literature puts it, or the "total mix" of information, in the words of the Supreme Court. In the context of a misstatement of a financial statement item, while the "total mix" includes the size in numerical or percentage terms of the misstatement, it also includes the factual context in which the user of financial statements would view the financial statement item. The shorthand in the accounting and auditing literature for this analysis is that financial management and the auditor must consider both "quantitative" and "qualitative" factors in assessing an item's materiality. Court decisions, Commission rules and enforcement actions, and accounting and auditing literature have all considered "qualitative" factors in various contexts.[40]

The SEC staff specifically references the limited, but often important, role that numerical thresholds or "rules of thumb" may have in materiality analyses, noting the appropriate use of these benchmark quantitative metrics as an initial evaluative tool rather than as a dispositive factor in assessing materiality.[41]

II. THE MATERIALITY OF ESG INFORMATION

ESG information arises in various settings that involve consideration under federal securities law or regulation. In these circumstances, an

39. *Id.* at 45151 (citing to TSC Indus. v. Northway, Inc., 426 U.S. 438, 449 (1976)).

40. *Id.* (footnotes omitted).

41. *Id.* Specifically, the SEC staff advises that

> [t]he use of a percentage as a numerical threshold, such as 5%, may provide the basis for a preliminary assumption that—without considering all relevant circumstances—a deviation of less than the specified percentage with respect to a particular item on the registrant's financial statements is unlikely to be material. The staff has no objection to such a "rule of thumb" as an initial step in assessing materiality. But quantifying, in percentage terms, the magnitude of a misstatement is only the beginning of an analysis of materiality; it cannot appropriately be used as a substitute for a full analysis of all relevant considerations.

Id.

assessment of the materiality of ESG information may be required or productive for legal compliance or risk management purposes. Representative examples of regulatory requirements compelling the disclosure of ESG information illustrate ways in which the materiality of ESG information may be relevant and important. Those presented here derive from mandatory disclosure rules applicable to issuers in securities offerings and publicly traded firms.

A. Mandatory Disclosure of ESG Information

The SEC adopted its final rules on The Enhancement and Standardization of Climate-Related Disclosures for Investors during the editorial process for this Article.[42] The rules were scheduled to become effective 60 days after publication in the Federal Register.[43] However, on April 4, 2024, the SEC voluntarily stayed the effectiveness of its climate-related schools in response to litigation challenging those rules.[44] Under the rules, firms must include certain climate-related information in registration statements and annual reports.[45]

> The final rules . . . require information about a registrant's climate-related risks that have materially impacted, or are reasonably likely to have a material impact on, its business strategy, results of operations, or financial condition. In addition, under the final rules, certain disclosures related to severe weather events and other natural conditions will be required in a registrant's audited financial statements.[46]

The effect of the full implementation of the new disclosure rules will remain to be seen, but the proposed and adopted rules have engendered significant pushback from academic, political, and other constituencies.[47]

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42. Final Climate-Related Disclosure Rules, *supra* note 5.
43. *Id.*
44. In the Matter of the Enhancement and Standardization of Climate-Related Disclosures for Investors, Order Issuing Stay, Securities Act of 1933 Release No. 11280, Securities Exchange Act of 1934 Release No. 99908 (Apr. 4, 2024), *available at* https://www.sec.gov/files/rules/other/2024/33-11280.pdf [https://perma.cc/L29V-4PDL].
45. *Id.*
46. *Id.*
47. *See*, *e.g.*, Christopher L. Puglisi, *SEC's Proposed Climate-Related Disclosure Rule: Comment Analysis and Recommendation for Scope 3 Emissions*, 5 CORP. & BUS. L.J. 84, 89 (2024) ("Despite the SEC explicitly stating its reason

Although ESG information and its regulation may be seen as a relatively recent idea, public companies and their legal counsel regularly contend with mandatory narrative and financial disclosure requirements relating to environmental, social, and governance matters. These disclosure mandates become applicable in the context of 1933 Act and 1934 Act registration statements and 1934 Act reports, statements, and other filings. The core set of narrative disclosure requirements is in Regulation S-K.[48] Many, if not most, of these required disclosures are qualified by materiality. Applicable mandatory disclosure rules are sometimes quite specific in requiring the disclosure of material ESG information. However, mandatory disclosure rules of more general application also may require the disclosure of material ESG information.

1. Mandatory Disclosure Rules Expressly Requiring the Disclosure of ESG Information

For example, the disclosure of legal proceedings under Item 103 of Regulation S-K (Item 103) has expressly highlighted environmental proceedings for potential disclosure for many years.[49] The principal disclosure requirement under Item 103 requires that firms "[d]escribe briefly any material pending legal proceedings, other than ordinary routine litigation incidental to the business, to which the registrant or any of its subsidiaries is a party or of which any of their property is the subject."[50] More specifically, Item 103 provides that disclosure under the rule

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for proposing this rule and providing statistics to support its claim, stakeholders and media sources are skeptical."); Joel Seligman, *The Judicial Assault on the Administrative State*, 100 WASH. U. L. REV. 1687, 1717 (2023) ("Almost instantly, there was criticism of the SEC's proposed climate-related disclosure rules."); Daleiden, *supra* note 6, at 15 ("[A]s companies seek some certainty over ESG practices, the politics surrounding ESG threaten more uncertainty. As a result, lawyers should increase their familiarity with ESG reporting, disclosures, and data requirements, as more ambiguity is certainly on the horizon."); Mark Squillace, *The Minerals Challenge for Renewable Energy*, 54 ENV'T L. REP. (ELI) 10058, 10070 ("Much ink has been spilled over the question of whether the SEC disclosure rule might run afoul of the U.S. Supreme Court's newly minted major questions doctrine.").

48. 17 C.F.R §§ 229.10–229.1406 (2024) ("Regulation S-K provides for mandatory disclosures in periodic annual and quarterly reports, as well as in connection with certain specified events like mergers"). Amanda Shanor & Sarah E. Light, *Greenwashing and the First Amendment*, 122 COLUM. L. REV. 2033, 2073 (2022) (footnote omitted).

49. 17 C.F.R. § 229.103(c)(3) (2023).

50. *Id.* § 229.103(a).

includes, under described circumstances, the revelation of "[a]dministrative or judicial proceedings . . . arising under any Federal, State, or local provisions that have been enacted or adopted regulating the discharge of materials into the environment or primarily for the purpose of protecting the environment."[51] The disclosure of environmental proceedings has been included in Item 103 since its inception in 1982 but was also required under a predecessor rule.[52] Additional environmental disclosures, relating to compliance costs, are required under Regulation S-K Item 101(c)(1)(xii).[53] The SEC offered guidance on climate change disclosures under Item 101 and Item 103 of Regulation S-K in a 2010 release.[54]

Express requirements for social disclosures also include those in Item 407 of Regulation S-K relating to the director nominee identification and evaluation process.[55] Among other things, Item 407 requires disclosure of

> whether, and if so how, the nominating committee (or the board) considers diversity in identifying nominees for director. If the nominating committee (or the board) has a policy with regard to the consideration of diversity in identifying director nominees, describe how this policy is implemented, as well as how the nominating committee (or the board) assesses the effectiveness of its policy . . . .[56]

The SEC interprets this requirement to include disclosure regarding a nominee's "self-identified diversity characteristics . . . (e.g., race, gender, ethnicity, religion, nationality, disability, sexual orientation, or cultural background)."[57] These disclosures are not qualified by materiality.

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51. *Id.* § 229.103(c)(3).

52. *See* Integrated Disclosure Release, *supra* note 36. *See also* Proposed Amendments to Item 5 of Regulation S-K Regarding Disclosure of Certain Environmental Proceedings, 46 Fed. Reg. 25638 (May 8, 1981) (codified at 17 C.F.R. § 229) (referring to environmental proceeding disclosure requirements and guidance dating back to 1971).

53. 17 C.F.R. § 229.101(c)(1)(xii).

54. Commission Guidance Regarding Disclosure Related to Climate Change, 82 Fed. Reg. 6290, 6293–94 (Feb. 8, 2010) (codified at 17 C.F.R. §§ 211, 231, 241).

55. 17 C.F.R. § 229.407(c)(2)(vi).

56. *Id.*

57. *See Regulation S-K: Questions and Answers of General Applicability*, U.S. SEC. & EXCH. COMM'N (Nov. 21, 2023), https://www.sec.gov/divisions/corpfin/guidance/regs-kinterp.htm [https://perma.cc/MF9R-HRAP] [hereinafter Regulation S-K C&DI] ("[W]e would expect any description of diversity policies

The disclosure of human capital resources and management under Item 101(c)(2)(ii) of Regulation S-K also may require social disclosures.[58] The rule requires firms to provide, as part of the narrative describing its business,

> [a] description of the registrant's human capital resources, including the number of persons employed by the registrant, and any human capital measures or objectives that the registrant focuses on in managing the business (such as, depending on the nature of the registrant's business and workforce, measures or objectives that address the development, attraction and retention of personnel).[59]

In compliance with this requirement, a recent Form 10-K filing offers significant human capital disclosures that address both social and governance aspects of the company's business relating to its employees.[60] These disclosures are included as Appendix I as a detailed example. The disclosures required by Item 101(c)(2) are generally qualified by materiality.[61]

Several items in Regulation S-K expressly require the disclosure of governance information. Among these disclosures are those relating to executive compensation.[62] Executive compensation disclosure mandates,

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followed by the company under Item 407 would include a discussion of how the company considers the self-identified diversity attributes of nominees as well as any other qualifications its diversity policy takes into account, such as diverse work experiences, military service, or socio-economic or demographic characteristics"). The SEC also indicates that disclosure of the nominee's "experience, qualifications, attributes, or skills" under Item 401(e)(1) of Regulation S-K, 17 C.F.R. § 229.401(e)(1), would include information about those characteristics. Regulation S-K C&DI, *supra* note 57 ("[W]e would expect that the company's discussion required by Item 401 would include, but not necessarily be limited to, identifying those characteristics and how they were considered.").

58. 17 C.F.R. § 229.101(c)(2)(ii). *See generally* George S. Georgiev, *The Human Capital Management Movement in U.S. Corporate Law*, 95 TUL. L. REV. 639, 677–83 (2021) (describing the related SEC rule making process).

59. 17 C.F.R. § 229.101(c)(2)(ii).

60. Keysight Tech., Inc., Annual Report (Form 10-K) (Dec. 15, 2023).

61. 17 C.F.R. § 229.101(c)(2) ("Discuss the information specified in paragraphs (c)(2)(i) and (ii) of this section with respect to, and to the extent material to an understanding of, the registrant's business taken as a whole, except that, if the information is material to a particular segment, you should additionally identify that segment.").

62. *See* sources cited *infra* notes 63–67.

like the disclosures required under Item 103 of Regulation S-K, are not new. Since the SEC's adoption of the integrated disclosure system in 1982, subpart 400 of Regulation S-K has included various management-related disclosures.[63] For instance, Item 402 of Regulation S-K includes management compensation disclosure requirements.[64] These requirements have been enhanced over the years and are wide-ranging and detailed.[65] Narrative disclosures are qualified by materiality.[66] Materiality guidance in the rule is extensive.[67]

Governance disclosures also include matters relating to the identification and backgrounds of directors, executive officers, promoters, and control persons under Item 401 of Regulation S-K[68] and the existence and any code of ethics applying to the "principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions" of the firm under Item 406(a) of Regulation S-K.[69] Item 406 also requires firms that do not have a code of

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63. *See* 17 C.F.R. § 229.400 (entitled "Management and Certain Security Holders").

64. *See id.* § 229.402 (entitled "Executive Compensation").

65. *See, e.g.*, Emily Barreca, *Accountable Compensation: The Progressive Case for Stakeholder-Focused, Board-Empowering Executive Compensation Laws*, 37 YALE J. ON REG. 338, 349–50, 354–55 (2020) (describing the 1992, 2006, and 2015 amendments to Item 402); Virginia Harper Ho, *Modernizing ESG Disclosure*, 2022 U. ILL. L. REV. 277, 338 (2022) ("Item 402 is part of a series of 'enhanced' disclosures on compensation and corporate governance measures that the SEC adopted in the wake of the financial crisis of 2008 in order to improve transparency about executive compensation practices that affect risk management and overall risk profile."); Patrick J. Straka, *Executive Compensation Disclosure: The SEC's Attempt to Facilitate Market Forces*, 72 NEB. L. REV. 803, 804 (1993) (describing the 1992 amendments to Item 402).

66. 17 C.F.R. § 229.402(b)(1) ("The discussion shall explain all material elements of the registrant's compensation of the named executive officers"); *id.* § 229.402(1) ("Provide a narrative description of any material factors necessary to an understanding of the information disclosed in the tables required by paragraphs (c) and (d) of this Item"); *id.* § 229.402(h)(3) ("Provide a succinct narrative description of any material factors necessary to an understanding of each plan covered by the tabular disclosure required by this paragraph.").

67. *See, e.g.*, *id.* § 229.402(b)(2) (providing examples of potentially material information); *id.* § 229.402(e)(1) (same); *id.* § 229.402(h)(3) (same).

68. *Id.* § 229.401.

69. *Id.* § 229.406(a).

ethics to provide an explanation.[70] Several of the disclosures required by Item 401 are qualified by materiality.[71]

2. Mandatory Disclosure Rules Potentially Requiring the Disclosure of ESG Information

The foregoing mandatory disclosure rules focus expressly on the disclosure of ESG information. The disclosures responding to these requirements are relatively easy to foresee. However, the disclosure of ESG information also may be compelled by mandatory disclosure rules that do not explicitly call out the disclosure of information on environmental, social, or governance matters.

Two other, more general, mandatory disclosure rules included in Regulation S-K also logically may require the disclosure of material ESG information and bear mention. They are Item 105[72] and Item 303.[73] These mandatory disclosure rules provide, respectively, for a disclosure of risk factors under Item 105 and a management commentary on the company's financial condition and results of operations under Item 303. Item 303 specifically provides that "[t]he discussion and analysis must focus specifically on material events and uncertainties known to management that are reasonably likely to cause reported financial information not to be necessarily indicative of future operating results or of future financial

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70. *Id.* ("If the registrant has not adopted such a code of ethics, explain why it has not done so.").

71. *See, e.g., id.* § 229.401(e)(1) (providing that descriptions of the "experience, qualifications, attributes or skills" of directors, executive officers, and persons nominated or chosen to become directors or executive officers, "[i]f material, . . . should cover more than the past five years, including information about the person's particular areas of expertise or other relevant qualifications"); *id.* § 229.401(f) (requiring the disclosure of certain "events that occurred during the past ten years and that are material to an evaluation of the ability or integrity of any director, person nominated to become a director or executive officer of the registrant"); *id.* § 229.401(g)(1) & (2) (requiring disclosures of certain events with respect to promoters and control persons "that occurred during the past five years and that are material to a voting or investment decision").

72. *Id.* § 229.105(a) (requiring the disclosure of "the material factors that make an investment in the registrant or offering speculative or risky").

73. *Id.* § 229.303(a) (requiring, generally, the disclosure of "material information relevant to an assessment of the financial condition and results of operations of the registrant including an evaluation of the amounts and certainty of cash flows from operations and from outside sources.").

condition."[74] In 2010, the SEC offered guidance on climate change disclosures under Items 105 and 303.[75] In general, these disclosures required under Item 105 and Item 303 of Regulation S-K are qualified by materiality.

Compliance with Item 105 of Regulation S-K may require, for instance, the disclosure of environmental risks to a company's business. A public company that owns and operates safari parks offered the disclosure set forth below as a risk factor relating to its business:

> Conditions beyond our control, including natural disasters or extreme weather, could damage our properties and could adversely impact attendance at our parks and result in decreased revenues.
>
> Natural disasters, public heath crises, epidemics, pandemics, such as the outbreak of COVID-19, terrorist activities, power outages or other events outside our control could disrupt our operations, impair critical systems, damage our properties or reduce attendance at our parks or require temporary park closures. Damage to our properties could take a long time to repair and there is no guarantee that we would have adequate insurance to cover the costs of repair or the expense of the interruption to our business. Furthermore, natural disasters such as fires, earthquakes, hurricanes or extreme weather events linked to climate change, may interrupt or impede access to our affected properties or require evacuations and may cause attendance at our affected properties to decrease for an indefinite period.
>
> For example, during March 26-27, 2023, our Georgia Park experienced extensive damage, caused by an EF-3 tornado and

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74. *Id.* Commentators note that

> Regulation S-K requires not only the disclosure of general financial information that is material to investors but also designates specific information that must be disclosed, including certain environmental information, such as the cost of compliance with environmental laws, material capital expenditures, material pending legal proceedings, material impacts of risk events, and a general management discussion and analysis of financial condition.

Shanor & Light, *supra* note 48, at 2073 (footnotes omitted).

75. Commission Guidance Regarding Disclosure Related to Climate Change, *supra* note 54 (codified at 17 C.F.R. §§ 211, 231, 241) (interpreting 17 C.F.R. §§ 211, 231, 241).

> over nine inches of rain, resulting in more than 4,500 fallen trees and damage to many of the Park's animal enclosures, fencing and other infrastructure. Our Georgia park was subsequently closed for 20 days, including for most of its traditionally busy spring break period, which has historically comprised approximately 10%-15% of its annual revenue. Also, during February 2021 our Texas Park was closed for several weeks, experienced power outages and sustained property damage associated with several severe winter storms.
>
> The occurrence of such events could have a material adverse effect on our business, financial condition and results of operations. We cannot predict the frequency, duration or severity of these activities and the effect that they may have on our business, financial condition or results of operations.[76]

Similar disclosures of material social and governance factors may be required if those factors make an investment in the business—or in an offering of its securities—speculative or risky.

Item 303 trends and uncertainties disclosure requirements also may mandate the disclosure of material ESG information. Many businesses currently disclose known labor force issues, for example, including those relating to the effects of inflation on employee compensation and adequate staffing. One professional services firm included the disclosure set forth below in its Item 303 disclosure.

> [W]e adjust compensation in order to attract and retain appropriate numbers of qualified employees. For the majority of our people, compensation increases became effective December 1st of fiscal 2023. Given the overall inflationary environment, compensation has increased faster than in prior years, but is moderating. We strive to adjust pricing as well as drive cost and delivery efficiencies, such as changing the mix of people and utilizing technology, to reduce the impact of compensation increases on our margin and contract profitability.
>
> Our ability to grow our revenues and maintain or increase our margin could be adversely affected if we are unable to: match people and skills with the types or amounts of services and solutions clients are demanding; recover or offset increases in compensation; deploy our employees globally on a timely basis;

76. Parks! America, Inc., Annual Report (Form 10-K) (Dec. 12, 2023).

> manage attrition; and/or effectively assimilate new employees.[77]

Other firms place more of an emphasis on workplace culture as an important factor in attracting and retaining a qualified workforce.[78]

In addition, it is important to consider the role of the gap-filling mandatory disclosure rules in Rule 408(a) under the 1933 Act and Rule 12b-20 under the 1934 Act[79] in requiring the disclosure of material ESG

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77. Accenture plc, Annual Report (Form 10-K) (Oct. 12, 2023).

78. *See, e.g.*, NiSource Inc., Annual Report (Form 10-K) (Feb. 22, 2023), https://www.sec.gov/ix?doc=/Archives/edgar/data/1111711/000111171123000006/nix-20221231.htm [https://perma.cc/XBE3-7UPG]. The relevant disclosure is excerpted below.

> We are faced with increased competition for employee and contractor talent in the current labor market, which has resulted in increased costs to attract and retain talent. We are ensuring that we use all internal human capital programs (development, leadership enablement programs, succession, performance management) to promote retention of our current employees along with having a competitive and attractive appeal for potential recruits. With a focus on workforce planning, we are anticipating to evaluate our talent footprint for the future by creating flexible work arrangements where we can, to ensure we have the right people, in the right role, and at the right time. To the extent we are unable to execute on our workforce planning initiatives and experience increased employee and contractor costs, our business operations, results of operations, cash flows, and financial condition could be materially adversely affected.

Id. See also Sergio Alberto Gramitto Ricci & Daniel Greenwood, *Total Governance*, 50 J. CORP. L. (forthcoming 2025) (manuscript at 11) (draft on file with author) ("Talented employees can choose corporations whose values and practices resonate with theirs."); *id.* at 14 ("[P]rospective employees consider a company's ESG charity and community outreach history in making their employment choices." (citing CHRIS TUFF, THE MILLENNIAL WHISPERER: THE PRACTICAL PROFIT-FOCUSED PLAYBOOK FOR WORKING WITH AND MOTIVATING THE WORLD'S LARGEST GENERATION (2019)).

79. 17 C.F.R. § 230.408(a) (2023) ("In addition to the information expressly required to be included in a registration statement, there shall be added such further material information, if any, as may be necessary to make the required statements, in the light of the circumstances under which they are made, not misleading"); *id.* § 240.12b–20 ("In addition to the information expressly required to be included in a statement or report, there shall be added such further material information, if any, as may be necessary to make the required statements, in the light of the circumstances under which they are made not misleading."). *See generally* Commission Guidance Regarding Disclosure Related to Climate Change, *supra* note 54 (interpreting 17 C.F.R. §§ 211, 231, 241) ("Securities Act Rule 408 and Exchange Act Rule 12b-20 require a registrant

information. These mandatory disclosure rules are not part of Regulation S-K. Rather, they are general prescriptions adopted by the SEC under the 1933 Act and the 1934 Act. By requiring the disclosure of "such further material information, if any, as may be necessary to make the required statements, in the light of the circumstances under which they are made not misleading,"[80] these mandatory disclosure rules ensure that disclosures made in public filings are complete as well as accurate. Thus, even if other specific or general mandatory disclosure rules do not clearly require the disclosure of material ESG information, its disclosure may be necessary under the gap-filling rules to make the required disclosures not misleading.

B. ESG Information as a Basis for Fraud Liability, Including Liability for Insider Trading

While mandatory disclosure rules are a key source of disclosure obligations for 1933 Act securities issuers and 1934 Act public companies, fraud and other misstatement or omission liability provisions in the 1933 Act and the 1934 Act also may compel the disclosure of material ESG information. Specifically, liability rules in both the 1933 Act and the 1934 Act make both misrepresentations of material fact and misleading omissions to state material fact unlawful and, accordingly, oblige compliant firms and individuals to disclose material facts accurately and completely. These liability rules include those found in §§ 11, 12(a)(2), and 17(a) of the 1933 Act[81] and §§ 10(b), 13(e), and 14(a) of, as well as Rules 10b-5, 13e-3, and 14e-3 adopted by the SEC under, the 1934 Act.[82]

This Article focuses in on § 10(b) and Rule 10b-5 given their nature as catch-all provisions designed to prevent manipulation and deception in connection with the purchase or sale of a security.[83] They are important to

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to disclose, in addition to the information expressly required by Commission regulation, 'such further material information, if any, as may be necessary to make the required statements, in light of the circumstances under which they are made, not misleading.'").

80. 17 C.F.R. §§ 230.408(a), 240.12b–20; Commission Guidance Regarding Disclosure Related to Climate Change, *supra* note 54.

81. 15 U.S.C. §§ 77k, 77l(a)(2), 77q(a).

82. *Id.* §§ 78j, 78m(e) & 78n(a); 17 C.F.R. §§ 240.10b-5, 240.13e-3(b)–(c), 240.14a-9.

83. *See* Ernst & Ernst v. Hochfelder, 425 U.S. 185, 203 (1976) (noting that § 10(b) "was described rightly as a 'catchall' clause to enable the Commission 'to deal with new manipulative (or cunning) devices'"); Stephen M. Bainbridge, *The Short Life and Resurrection of SEC Rule 19c-4*, 69 WASH. U. L. Q. 565, 613

both fraud liability generally and to insider trading liability, which is a type of securities fraud under U.S. legal principles. As a result, they may require disclosures of material ESG information in many contexts outside those covered by the mandatory disclosure rules.

1. Fraud Liability and the Disclosure of ESG Information

It is unlawful under § 10(b) to engage in manipulation or deception in connection with the purchase or sale of a security "in contravention of such rules and regulations as the Commission may prescribe as necessary or appropriate in the public interest or for the protection of investors."[84] While there are several SEC rules adopted under § 10(b), Rule 10b-5 is the rule most employed for the purpose of asserting liability under § 10(b).[85] Although it is located in the rules under the 1934 Act, Rule 10b-5 proscribes a wide spectrum of speech and other conduct connected to securities transactions.[86]

Rule 10b-5 makes three types of deceptive or manipulative conduct unlawful in connection with the purchase of sale of a security: making "any untrue statement of a material fact or . . . omit[ting] to state a material fact necessary in order to make the statements made, in the light of the circumstances under which they were made, not misleading";[87] employing "any device, scheme, or artifice to defraud";[88] and engaging "in any act, practice, or course of business which operates or would operate as

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(1991) ("In the early 1970s, courts gave SEC rule 10b-5, designed originally as a catch-all anti-fraud provision, an increasingly expansive reading that in time might have led to a federal common law of corporations"); Eric C. Chaffee, *A Call for Legislative Reform: Expanding the Extraterritorial Application of the Private Rights of Action Under Federal Securities Law While Limiting the Scope of Relief Available*, 22 STAN. J. L. BUS. & FIN. 1, 24 (2017) ("Section 10(b) and Rule 10b-5 are commonly referred to as 'catch-all' provisions, and the coverages of all of the anti-fraud provisions in the Exchange Act are entailed within the coverage of the implied private right under section 10(b) and Rule 10b-5.").

84. 15 U.S.C. § 78j.

85. *See* William K. Sjostrom, Jr., *The Intersection of Fee-Shifting Bylaws and Securities Fraud Litigation*, 93 WASH. U. L. REV. 379, 394 (2015) ("Rule 10b-5 is . . . the most commonly invoked liability provision because . . . it reaches material misstatements and omissions by a company regardless of the medium in which they appear . . . .").

86. *See id.* ("§ 10(b)/Rule 10b-5 is very broad in its reach. It applies not just to Exchange Act reports but to any public statements made by a company by whatever means (e.g., press releases, interviews, and tweets)") (footnote omitted).

87. 17 C.F.R. § 240.10b–5(b).

88. *Id.* § 240.10b–5(a).

a fraud or deceit upon any person."[89] The first of these unlawful activities, addressed in Rule 10b-5(b), relies on pleading and proving the misrepresentation or omission of a material fact. The last two, addressed in Rule 10b-5(a) and (c), represent aspects of what is sometimes referred to as scheme liability.[90] "Scheme liability is not premised upon misstatements or omissions made by the defendants, but rather upon the secondary actor's alleged involvement in a scheme to defraud."[91] While materiality is only expressly invoked in the articulation of misrepresentation and omission liability, in practice, scheme liability also may result from conveying material misstatements or omitting to state material facts, at least where those misstatements or omissions are in communications made to investors and the role of the alleged violator is transparent to investors.[92]

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89. *Id.* § 240.10b–5(c).

90. *See, e.g.*, Rodney D. Chrisman, Stoneridge v. Scientific-Atlanta*: Do Section 10(b) and Rule 10b-5 Require A Misstatement or Omission?*, 26 QUINNIPIAC L. REV. 839, 844 (2008) ("'[S]cheme liability,' relies on Rule 10b-5(a) and (c) to hold secondary actors primarily liable even when they have not made misstatements or omissions"); Matthew C. Turk & Karen E. Woody, *Justice Kavanaugh,* Lorenzo v. SEC*, and the Post-Kennedy Supreme Court*, 71 ADMIN. L. REV. 193, 205 (2019) (referring to "the so-called 'scheme liability' prohibition set forth in subsection (a) and (c) of Rule 10b-5"). Some may use the term *scheme liability* only to refer to conduct proscribed under Rule 10b-5(a)—the employment of "any device, scheme, or artifice to defraud." *See* Brian Elzweig, Lorenzo v. SEC*: Blurring the Line Between Primary and Secondary Securities Fraud Liability*, 89 U. CIN. L. REV. 1, 9 (2020) ("Rule 10b-5(a) makes it illegal to 'employ any device, scheme, or artifice to defraud' in connection with the sale or purchase of securities. Violations of this provision are referred to as scheme liability") (footnotes omitted).

91. Chrisman, *supra* note 90, at 844.

92. *See* Lorenzo v. Sec. & Exch. Comm'n, 139 S. Ct. 1094, 1100–01 (2019) ("After examining the relevant language, precedent, and purpose, we conclude that (assuming other here-irrelevant legal requirements are met) dissemination of false or misleading statements with intent to defraud can fall within the scope of subsections (a) and (c) of Rule 10b–5, as well as the relevant statutory provisions. In our view, that is so even if the disseminator did not 'make' the statements and consequently falls outside subsection (b) of the Rule"); Lorenzo v. Sec. Exch. Comm'n, 872 F.3d 578, 592 (D.C. Cir. 2017) ("In accordance with that understanding, a number of decisions have held that securities-fraud allegations involving misstatements can give rise to liability under related provisions even if the conduct in question does not amount to 'making' a statement . . . . We reach the same conclusion here with respect to the role played by Lorenzo in disseminating the false statements in his email messages to investors.").

Failures to disclose material ESG information accurately and completely have been the source of legal actions. These legal actions have included so-called greenwashing and rainbow-washing claims based on reckless or intentional false or misleading positive public statements about environmental, social, or governance matters—or about corporate social responsibility more generally.[93] Materiality analyses have been at issue in these cases, with some courts finding that the misstatements are immaterial or otherwise not actionable, in some instances because they constitute mere puffery.[94] Moreover, private class action plaintiffs alleging misstatements or misleading omissions of material fact must comply with an enhanced pleading burden, making these legal actions difficult to sustain.[95]

In its 2017 opinion addressing defendants' motion to dismiss in *In re Plains All American Pipeline, L.P. Securities Litigation*, the Houston

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93. *See* Miriam A. Cherry, *The Law and Economics of Corporate Social Responsibility and Greenwashing*, 14 U.C. DAVIS BUS. L.J. 281, 290–91 (2014) (explaining that CSR fraud, a form of greenwashing, may be actionable under § 10(b) and Rule 10b-5); John T. Rice, *Rainbow-Washing*, 15 NE. U. L. REV. 285, 346–56 (2023) (identifying and describing litigation involving diversity-related "washing," including actions brought under § 10(b) and Rule 10b-5); Roger E. Barton, *The Greenwashing Wave Hits Securities Litigation*, REUTERS: ATT'Y ANALYSIS (Sept. 22, 2022, 10:42 AM), https://www.reuters.com/legal/legalindustry/greenwashing-wave-hits-securities-litigation-2022-09-22/ [https://perma.cc/KMX8-EEAD] (identifying four types of greenwashing claims illustrated by specific cases).

94. *See* Cherry, *supra* note 93, at 291 (describing materiality as "a key obstacle that plaintiffs will likely face in bringing any sort of action for CSR fraud under the securities laws"); Rice, *supra* note 93, at 355 (noting, in describing cases involving allegedly false or misleading statements regarding diversity commitments, that "seven of the eight courts addressing these substantive claims have found that diversity statements are not actionable because they are merely aspirational statements or puffery"); Shanor & Light, *supra* note 48, at 2072 (noting, in describing legal actions alleging greenwashing under Rule 10b-5, that "threshold questions in such litigation include whether the statements are mere puffery or opinion, or whether they are sufficiently specific to meet the materiality threshold for investors in this context.").

95. *See* 15 U.S.C. § 78u-4 ("[T]he complaint shall specify each statement alleged to have been misleading, the reason or reasons why the statement is misleading, and, if an allegation regarding the statement or omission is made on information and belief, the complaint shall state with particularity all facts on which that belief is formed"); FED. R. CIV. P. 9 ("In alleging fraud or mistake, a party must state with particularity the circumstances constituting fraud or mistake. Malice, intent, knowledge, and other conditions of a person's mind may be alleged generally.").

Division of the U.S. District Court for the Southern District of Texas described a prototypical claim under § 10(b) and Rule 10b-5 relating to the misrepresentation of ESG information.[96]

> The plaintiffs in this putative securities-fraud class action allege that an oil and gas pipeline company falsely claimed to have a comprehensive, effective environmental and regulatory compliance program to prevent oil spills and, if they occurred, quickly remediate the effects. Instead, the plaintiffs allege, the touted compliance program was close to nonexistent, and Plains repeatedly violated regulatory mandates. Plains allegedly deceived the public about its compliance program with falsehoods that inflated the price of the company's securities. The lack of an effective compliance program was dramatically exposed when a Plains pipeline in Santa Barbara County, California, burst and thousands of barrels of oil spilled. Plains securities lost significant value in the aftermath. This lawsuit followed.[97]

The court's opinion assesses the plaintiffs' claims at length, outlining relevant aspects of materiality doctrine and the related pleading standards,[98] before dismissing the case without prejudice and with leave to amend.[99]

Securities fraud liability like that alleged in the *Plains All American Pipeline* case has the capacity to drive disclosure decisions relating to ESG

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96. *See generally* In re Plains All Am. Pipeline, L.P. Sec. Litig., 245 F. Supp. 3d 870 (S.D. Tex. 2017), *aff'd on other grounds sub nom*. Police & Fire Ret. Sys. of City of Detroit v. Plains All Am. Pipeline, L.P., 777 F. App'x 726 (5th Cir. 2019).

97. *Id.* at 877–78. *See also, e.g.*, In re Chemours Co. Sec. Litig., 587 F. Supp. 3d 143, 149–52 (D. Del. 2022) (summarizing the facts relating to claims arising from alleged misrepresentations in annual and quarterly reports relating to environmental liabilities); Diehl v. Omega Protein Corp., 339 F. Supp. 3d 153, 160 (S.D.N.Y. 2018) (describing claims predicated on "defendants' non-disclosure of . . . two Clean Water Act violations" and "defendants' failure to disclose that Omega's Subsidiary purportedly did not monitor pH levels or comply with pH level requirements when it disposed of waste water from its Mississippi facility"); Edgar v. Anadarko Petrol. Corp., No. CV 17–1372, 2018 WL 3032573, at *1 (S.D. Tex. June 19, 2018) ("The plaintiffs allege that Anadarko's disregard for safety regulations led to the endangerment and death of Colorado residents. The plaintiffs contend that this, and Anadarko's failure to be honest, harmed investors and violated securities laws") (citation omitted).

98. *Plains All Am. Pipeline*, 245 F. Supp. 3d at 889–91.

99. *Id.* at 933.

information. Specifically, the possibility and potential effects of litigation under § 10(b) and Rule 10b-5 involving the misstatement or misleading omission to state facts may deter both inaccurate disclosures and nondisclosures of ESG information. Although the disclosure mandates stemming from § 10(b) and Rule 10b-5 liability for securities fraud may not give direction that is as specific or clear as that given under many of the SEC's mandatory disclosure rules, the *in terrorem* effects of litigation and liability should be compelling to those who engage in responsible, well-constructed compliance efforts around public disclosures.

2. Insider Trading Liability and the Disclosure of ESG Information

In the United States, insider trading prohibitions are recognized as a type of securities fraud actionable under § 10(b) and Rule 10b-5.[100] Specifically, unlawful insider trading is a form of deception recognized under § 10(b) and Rule 10b-5(a) or (c) as either a "device, scheme, or artifice to defraud" or an "act, practice, or course of business which operates or would operate as a fraud or deceit upon any person."[101] Potential liability is triggered when a person with a fiduciary or fiduciary-like duty of trust and confidence, classically but not exclusively a corporate insider, trades in securities while in possession of material nonpublic information subject to that duty or shares that material nonpublic information with another person—referred to as tipping—in

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100. *See, e.g.*, James J. Park, *Rule 10b-5 and the Rise of the Unjust Enrichment Principle*, 60 DUKE L.J. 345, 347–48 (2010) ("Rule 10b-5 has been mainly viewed as an antifraud rule. As Justice Lewis Powell declared . . . , '[s]ection 10(b) is aptly described as a catchall provision, but what it catches must be fraud.'" (footnotes omitted)). While § 16 of the 1934 Act also addresses insider trading in several ways, its regulatory approach is secondary and occurs largely through notification, timing, and transactional type. 15 U.S.C. § 78p. *See also* Marleen A. O'Connor, *Toward A More Efficient Deterrence of Insider Trading: The Repeal of Section 16(b)*, 58 FORDHAM L. REV. 309, 311 (1989) ("Congress enacted section 16(b) of the Securities Exchange Act of 1934, believing that the only effective means to control insider trading was to impose strict liability upon a narrow group of insiders for a limited range of trades, without requiring any proof that inside information was actually used.").

101. 17 C.F.R. § 240.10b–5(a), (c) (2023). *See* Chiarella v. United States, 445 U.S. 222, 225 n.5 (1980) (in which the Court noted, in adjudicating an insider trading claim brought under § 10(b) and Rule 10b-5, that "[o]nly Rules 10b–5(a) and (c) are at issue here"). Effectively, then, insider trading liability under § 10(b) and Rule 10b-5 is treated as a form of scheme liability. *See supra* notes 90 & 91 and accompanying text.

connection with the purchase or sale of securities.[102] Thus, unlawful insider trading is a form of deception accomplished through silence; insiders must either efficaciously disclose material nonpublic information in their possession or abstain from trading.[103] Insider trading liability under § 10(b) and Rule 10b-5 therefore has the capacity to impact disclosure determinations in much the same way that more general securities fraud liability under § 10(b) and Rule 10b-5 does.

Material ESG information possessed by a person with a duty to hold that information in trust and confidence may result in insider trading liability for the person if he or she trades in securities or tips that information while the information remains nonpublic. One need look no further than the iconic *Texas Gulf Sulphur* case for illustrative facts.[104] Texas Gulf Sulphur Co., the securities issuer and one of the defendants in the case, mined and supplied sulfur and other naturally occurring elements and compounds for industrial and commercial uses. The legal action involved claims of securities fraud against Texas Gulf Sulphur Co. and five individual defendants, as well as insider trading claims.[105] The insider trading claims arose

> out of the exploratory activities of defendant Texas Gulf Sulphur Company (TGS) on the Kidd 55 segment near Timmins, Ontario, between November 12, 1963 and April 16, 1964. . . . Individual defendants who purchased stock or calls on stock of TGS between

102. *See generally* Salman v. United States, 580 U.S. 39 (2016) (adjudicating liability for trading on tipped information); United States v. O'Hagan, 521 U.S. 642 (1997) (adjudicating liability for trading after misappropriating information); Dirks v. Sec. & Exch. Comm'n, 463 U.S. 646 (1983) (adjudicating liability for tipping information); *Chiarella*, 445 U.S. at 222 (adjudicating liability for trading).

103. *See Salman*, 580 U.S. at 39 ("Section 10(b) . . . and . . . Rule 10b–5 prohibit undisclosed trading on inside corporate information by persons bound by a duty of trust and confidence not to exploit that information for their personal advantage"); *O'Hagan*, 521 U.S. at 652 (observing, in endorsing the misappropriation theory of insider trading, that "a fiduciary's undisclosed, self-serving use of a principal's information to purchase or sell securities, in breach of a duty of loyalty and confidentiality, defrauds the principal of the exclusive use of that information"); *Dirks*, 463 U.S. at 654 ("[A]n insider will be liable under Rule 10b–5 for inside trading only where he fails to disclose material nonpublic information before trading on it and thus makes 'secret profits.'"); *Chiarella*, 445 U.S. at 226–30 (explaining the duty to disclose or abstain).

104. Sec. & Exch. Comm'n v. Texas Gulf Sulphur Co., 258 F. Supp. 262, 267 (S.D.N.Y. 1966).

105. *Id.*

> November 12, 1963 and April 16, 1964, or recommended such purchases to others, are charged with violations of Section 10(b) and Rule 10b-5 on the ground that they used to their own advantage material information as to TGS's exploratory activities on the Kidd 55 segment, which material information had not been disclosed to or absorbed by the stockholders or the public.[106]

ESG information is connected to business operations, including management. Accordingly, insider trading claims involving material nonpublic ESG information may most commonly stem from the knowledge and inappropriate use of internal operational information, as was the case in *Texas Gulf Sulphur*. However, material nonpublic ESG information also may underlie insider trading claims and liability arising out of trading or tipping in connection with nonpublic merger or acquisition activity—for which ESG information may be encountered in due diligence[107]—including trading in another issuer's securities under a "shadow insider trading" theory.[108]

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106. *Id.*

107. *See* Afra Afsharipour, *ESG and Board-Shareholder Engagement in M&A*, *in* BOARD-SHAREHOLDER DIALOGUE: POLICY DEBATE, LEGAL CONSTRAINTS AND BEST PRACTICES (Luca Enriques & Giovanni Strampelli eds., Cambridge Univ. Press) (forthcoming 2024) ("[G]iven increased investor and regulatory scrutiny of ESG, advisors on M&A deals recommend in-depth ESG due diligence for both buyers and sellers.").

108. Shadow insider trading is exemplified by the SEC's complaint in the *Panuwat* case. Sec. & Exch. Comm'n v. Panuwat, No. 21–CV–06322–WHO, 2022 WL 633306 (N.D. Cal. Jan. 14, 2022). In *Panuwat*, "[t]he SEC alleges that Panuwat used confidential information about the acquisition of Medivation, his employer, to buy stock options in Incyte Corp., earning $107,066 in profit." *Id.* at *1. The district court denied the defendant's motion to dismiss, finding that, among other things, the SEC

> has sufficiently pleaded that the information about the acquisition was nonpublic and material to Incyte, as the acquisition would make Incyte a more valuable acquisition target. The SEC has also adequately alleged that Panuwat breached a duty to Medivation by using the information to purchase stock in a publicly traded company. As pleaded, Panuwat acted with scienter.

Id. On April 5, 2024, a jury found Panuwat liable for insider trading. *See* Gurbir S. Grewal, *Statement on Jury's Verdict in Trial of Matthew Panuwat*, U.S. SEC. & EXCH. COMM'N (Apr. 5, 2024), https://www.sec.gov/news/statement/grewal-statement-040524 [https://perma.cc/X76W-G84U].

III. MATERIALITY DETERMINATIONS AND ESG INFORMATION

As Parts I and II of this Article suggest, ESG information is somewhat ubiquitous. What business firm does not interact with environmental, social, or governance issues on a regular basis—and in some cases, daily? ESG information may therefore be identified for possible public disclosure through the application of SEC mandatory disclosure rules—including gap-filling rules—or through compliance efforts relating to § 10(b) and Rule 10b-5 more generally and in the insider trading context.[109] Because disclosure regulation under the SEC's mandatory disclosure rules and § 10(b) and Rule 10b-5 often incorporates materiality qualifiers, materiality determinations will be at a premium.

With a public disclosure spotlight on ESG information, there is pressure on firm management to make unassailable materiality judgments. Yet, the application of materiality doctrine to specific facts is not always simple.[110] That may be especially true given our ever-evolving, technology-driven securities trading markets and the current highly politicized investment environment.

Importantly, materiality determinations involve gauging the importance or significance of information to the *reasonable investor*.[111] Investor profiles are not static. Internet finance and trading is now more common; many individual investors are young and relatively inexperienced in securities investments.[112] As Professors Gramitto Ricci and Sautter explain, these investors use their cell phones to make securities investments and rely on social media sites as information sources; they transparently share personal and investment information over the Internet with people they have never met in person.[113]

> Millennials are "extremely comfortable with mobile devices," and GenZ'ers, having grown up in a completely wired culture, prefer

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109. *See supra* Part II.

110. *See* Joan MacLeod Heminway, *Materiality Guidance in the Context of Insider Trading: A Call for Action*, 52 AM. U. L. REV. 1131, 1138–39 (2003) ("The interpretation and application of the materiality standard are highly fact-dependent and do not always produce predictable or certain planning options or judicial results.").

111. *See supra* notes 22, 34, & 35 and accompanying text

112. *See, e.g.*, Sergio Alberto Gramitto Ricci & Christina M. Sautter, *The Educated Retail Investor: A Response to "Regulating Democratized Investing"*, 83 OHIO STATE L.J. ONLINE 205, 207–08 (2022) (outlining the inexperience, youth, and technological savvy and comfort of investors opening non-retirement investment accounts).

113. *Id.*

> to communicate via their smartphones. So, it is no surprise that young generations of investors rely on technology and online sources of information in their investing efforts. A 2021 survey of Millennial and GenZ investors revealed that 77% of them relied most heavily on social media for investing information.
>
> Unlike older generations who grew up in a time when money was a "taboo" topic of conversation, only 6% of GenZ'ers and 14% of Millennials "say they *don't* openly discuss their finances and investment gains and losses." Nearly 60% of Millennial and GenZ investors belong to an online investment community or forum. Moreover, online investment communities often make new generations of investors develop a form of camaraderie and mutual trust that facilitate their collective actions.[114]

Meme stock investing—trading in securities that is motivated not by traditional financial investment fundamentals but rather by, among other things, pushing back against Wall Street short-sellers—also has characterized recent investor behaviors.[115] And perhaps most importantly relative to the thesis of this Article, "Millennials are more apt to invest

114. *Id.*

115. *See* Sergio Alberto Gramitto Ricci & Christina M. Sautter, *Corporate Governance Gaming: The Collective Power of Retail Investors*, 22 NEV. L.J. 51, 56–57 (2021).

> In true David-versus-Goliath fashion, amateur retail investors . . . coordinated to purchase stock in GameStop Corporation, the world's largest video game retailer, as well as a number of other companies, including Blackberry, AMC Entertainment, Macy's, Bed Bath & Beyond, and Nokia. As a result, these stocks earned the moniker "meme stocks," a term used to refer to popular stocks that "trade[] more on hype than [their] underlying fundamentals." There were a few common denominators among these companies--their stock prices were low, so they were easily accessible to the average person, and they were culturally popular. But perhaps the most important denominator was that Wall Street investors were betting that these stocks were going to lose value in the future and had shorted them.

Id. See also Sergio Alberto Gramitto Ricci & Christina M. Sautter, *The Wireless Investors Movement*, U. CHI. BUS. L. REV.: ONLINE EDITION (2022), https://businesslawreview.uchicago.edu/online-archive/wireless-investors-movement [https://perma.cc/7URY-ZVH3] (arguing that retail investors involved in these events operate as a social movement). For a general treatment of the perils of online information gathering and a possible mitigating solution, *see* Sergio Alberto Gramitto Ricci & Christina M. Sautter, *The Corporate Forum*, 102 B.U. L. REV. 1861 (2022).

pursuant to their ESG values than to make a profit."[116] The extent to which legal advisors and judges will give effect to these and other demographic changes in the individual investor profiles in applying the reasonable investor aspect of materiality analyses remains unknown.

The current political divide in the United States also may impact materiality determinations relating to ESG information. ESG information may reference contentious matters, including: climate change; diversity, equity, inclusion, and belonging; post-pandemic labor force dislocations; antisemitism and anti-muslimism; cyber governance; and stakeholder primacy versus stockholder primacy. Observers may differ on whether any of these matters is substantially likely to be important to the reasonable investor or would be "viewed by the reasonable investor" as an alteration of the "total mix" of available information.[117]

State anti-ESG legislation reflects a sentiment that ESG information is immaterial to investment decision making. State laws may contextually render certain ESG information immaterial by forbidding state investment fiduciaries from considering it in making investment decisions. For example, Arkansas's anti-ESG statute limits the importance, or significance, that ESG information may have to financial information or significance.[118]

> (a) A fiduciary's evaluation of an investment, or evaluation or exercise of any right appurtenant to an investment, shall take into account only pecuniary factors.
>
> (b) A fiduciary shall not promote a nonpecuniary benefit or any other nonpecuniary goals.
>
> (c) (1) An environmental, social, corporate governance, or other similarly oriented consideration is a pecuniary factor only if it presents an economic risk or opportunity that a qualified investment professional would treat as a material economic consideration under generally accepted investment theories.
> (2) The weight given to any factor listed in subdivision (c)(1) of this section should reflect solely a prudent assessment of its impact on financial risk and financial return.
> (3) A fiduciary considering an environmental, social, corporate governance, or other similarly oriented factor as a

116. Gramitto Ricci & Sautter, *supra* note 115, at 77.
117. TSC Indus., Inc. v. Northway, Inc., 426 U.S. 438, 449 (1976). *See supra* note 24 and accompanying text.
118. *See* ARK. CODE ANN. § 24-2-804 (2024).

> pecuniary factor is also required to examine the level of diversification, degree of liquidity, and the potential financial risk and financial return in comparison with other available alternative investments that would play a similar role in the pension benefit plan portfolio.
> (4) Any pecuniary consideration of an environmental, social, or governance factor must include an evaluation of whether a greater return can be achieved through investments that rank poorly on that factor.

Indeed, 21st century state legislators are not the first or only policy makers to limit investment considerations to those having financial or economic impacts. The SEC took a similar position 50 years ago.[119] However, some states, including Colorado, have enacted pro-ESG legislation relating to securities investments, including laws that require the disclosure of ESG information.[120] Are the proponents of the Arkansas or Colorado bills reasonable investors whose views on the connection between ESG information and securities investments should be credited by legal advisors or the judiciary in making materiality determinations?

Regardless, a unitary focus on pecuniary importance or significance in evaluating materiality, if applied in the federal securities regulation context, ignores the overall breadth and flexibility of the materiality standard articulated in *TSC*[121] and runs counter to guidance offered in SAB No. 99, which expressly advises the use of both quantitative and qualitative materiality assessments.[122] In addition, many firms and investors individually recognize the importance of ESG to their businesses in nonpecuniary contexts. As one commentator noted over two decades

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119. Cynthia A. Williams, *The Securities and Exchange Commission and Corporate Social Transparency*, 112 HARV. L. REV. 1197, 1251 (1999) (noting limited support for social issue proposals in the early 1970s and reporting that the SEC "concluded that because the primary reason for investing is to receive an economic return, investors were primarily concerned with economic, not social, issues in making investment decisions. As a result, the SEC determined that it would continue to rely upon an economic understanding of materiality in weighing disclosure proposals."); Rachel Cherington, *Securities Laws and Corporate Social Responsibility: Toward an Expanded Use of Rule 10B-5*, 25 U. PA. J. INT'L ECON. L. 1439, 1452–53 (2004) (citing to Williams, *supra* note 119).

120. *See, e.g.*, COLO. REV. STAT. ANN. § 24-51-220(2) (West 2024) (requiring the Public Employees' Retirement Association to report on certain climate change matters as part of its annual investment stewardship report starting in 2025).

121. *See supra* notes 22 & 23 and accompanying text.

122. *See supra* notes 38–41 and accompanying text.

ago with respect to the materiality of corporate social responsibility considerations,

> changes in the business environment as well as a new understanding of the influence of social information on economic returns can rebut the argument that social responsibility is not a material factor in weighing investment decisions. In addition, as previously noted, some studies have shown a positive connection between corporate profits and the disclosure of liabilities. Moreover, business executives are increasingly touting the benefits of social responsibility.[123]

Accordingly, under current federal judicial and agency guidance, those who ignore nonpecuniary factors in assessing materiality proceed at their peril.

CONCLUSION

Materiality determinations relating to ESG information are imperative and important. Yet, ESG information means different things to different people in a world of young Internet and meme stock investors in which state legislators either reject or embrace the investment significance of ESG information. However, given the pervasive nature of ESG information and the SEC's 2024 rules on The Enhancement and Standardization of Climate-Related Disclosures for Investors[124]—regardless of the suspended effectiveness of those rules[125]—it seems likely that the materiality of ESG information will continue to be a matter for legal inquiry, advice, and debate. As a result, legal advisors and the judiciary will navigate these waters as they do in making materiality assessments in other contexts—with care, thoughtfully considering all relevant facts and circumstances. With any hope, this Article may provide some useful background for those materiality determinations.

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123. Cherington, *supra* note 119, at 1453; Sergio Alberto Gramitto Ricci, *Corporate Lawyers in a Shame-Culture Era*, ACCT. ECON. & L. (forthcoming 2024) (draft on file with author) (emphasizing the complicated categorization of non-financial information driving investment decisions based on disclosure requirements).

124. Final Climate-Related Disclosure Rules, *supra* note 5.

125. *See supra* note 44 and accompanying text.

APPENDIX I

Keysight Technologies, Inc.
Form 10-K
filed Dec. 15, 2023

Human Capital

We have a diverse, inclusive, and respectful work environment, where employees are offered challenging assignments, development opportunities, competitive salaries and a safe workplace. As of October 31, 2023, we had approximately 14,900 employees worldwide representing more than 80 nationalities working in 30 countries. Of those employees, 5,500 are located in the Americas (including 5,300 in the United States), 2,800 are located in Europe, and 6,600 are located in Asia Pacific.

Culture, Values and Standards

Our core values and culture reflect a commitment to ethical business practices and outstanding corporate citizenship. We adhere to the tenets of the United Nations Guiding Principles on Business and Human Rights, and core International Labor Organization conventions, and we are an affiliate member of the Responsible Business Alliance. We comply with the labor and employment laws of all countries in which we operate, prioritizing fair employment practices, labor compliance, non-discrimination, and equal employment opportunity. The KLM is the framework for how we do business, enabling us to execute on our strategies for the benefit of our customers, stockholders and employees, while operating within our values of Speed and Courage, Uncompromising Integrity, High Performance, Social Responsibility and One Keysight.

We believe our culture, which fosters employee inclusion, engagement, and innovation, is a competitive advantage. We are committed to maintaining a work environment founded on respect for all, regardless of race, color, age, sex, sexual orientation, gender identity and expression, ethnicity, religion, disability, veteran status, national origin, or any protected class. Our Harassment Policy requires that all who work for Keysight be treated with dignity, respect, and courtesy. Our Keysight Standards of Business Conduct (SBC) govern our dealings with our customers, competitors, suppliers, third-party partners, as well as with our fellow employees, and is available for review on our website. Our employees are responsible for upholding the SBC, and SBC training is required annually for all our employees.

Oversight and Governance

The Chief People and Administrative Officer (CAO) is responsible for developing and executing the company's human capital strategy. Our strategy incorporates global policies and programs for leadership and talent development, diversity, equity and inclusion, compensation, benefits, staffing and workforce planning, human resources systems, education, and organization development. The CAO is responsible for developing and integrating the company's diversity, equity, and inclusion priorities and strategy.

The Chief Executive Officer (CEO) and CAO regularly update our board of directors and the Compensation and Human Capital Committee (Committee) on human capital matters.

Hiring, Retention and Succession Planning

We understand that Science, Technology, Engineering and Math (STEM) education is critical to creating a pipeline of future engineers. We provide global support for STEM education through a variety of company-sponsored and employee-led programs, which introduce school-age students to engineering.

Our talent acquisition and Human Resources teams work with business leaders to understand and align on how our business goals and strategies impact our talent needs. The teams use this information to inform recruiting efforts and to build talent pipelines to support growth. In partnership with the marketing team, we have built a strong company brand utilizing multiple communication platforms to better enable us to attract top talent.

We continue to refine and expand our talent acquisition strategies and processes. As part of our talent acquisition strategy, we provide training to recruiters and hiring managers to assist them in recruiting and hiring top talent. We had a global job offer acceptance rate of 86.8 percent in 2023.

Our business leaders are required to periodically evaluate employee contributions to the company and to identify key contributors, as well as those in need of improvement. At least annually, we provide employees with feedback on their performance over the past fiscal year. Working with Human Resources, business leaders develop retention strategies and initiatives to keep critical talent focused and engaged and to minimize attrition. The average tenure of our employees is 12.6 years. Our three-year average employee turnover rate was approximately 7.5 percent and has been lower than the industry average for the past five years.

We continue to develop our leadership capability. We have identified core competencies for leadership positions along with a learning and development framework that can help leaders refine their skills. Succession planning sessions are conducted annually in each business and at many levels in the organization, including the executive level. These reviews provide visibility to top talent, potential leadership gaps, and development plans.

Globally, many of our employee population is eligible to retire. These employees often have valuable skills and historical information and knowledge transfer is critical. We have knowledge transfer practices and programs to enable us to retain critical knowledge. In the United States, we have programs specifically designed for retirement-ready employees. We have a retirement planning program that provides a severance payment in exchange for extended notice of retirement. Those who are considered critical talent are given an opportunity to gradually reduce hours leading up to retirement, giving us time to transfer critical information and processes. Once retired, these former employees are given the opportunity to consult with us on a limited basis to provide on-going mentoring and training.

Diversity and Equal Employment Policy

We are an equal opportunity employer, and we are committed to maintaining a diverse and inclusive work environment that is free from harassment and discrimination. The value we place on diversity, equity and inclusion (DEI) is a competitive advantage, and it helps us attract and retain the best talent and drive high performance through innovation and collaboration. We benefit from the innovation that results when people with differing experiences, perspectives, and cultures work together.

We have a DEI Director who is responsible for driving strategy and for implementing new and ongoing DEI initiatives. To increase the pool of diverse candidates for open positions, we participate in diversity-focused career fairs and conferences in the United States, Asia, and Europe. We identify diversity recruiting business champions who develop business-specific talent acquisition plans, and we have partnerships with universities worldwide that are aligned with our strategic talent needs, including Historically Black Colleges and Universities in the United States. In an effort to enable employees to be successful, we provide mentoring programs, inclusive benefits, access to employee network groups, and training for every stage of employment.

As of October 31, 2023, women represented 31 percent of our global workforce, and underrepresented minorities represented 44.4 percent of the United States workforce. The percentage of leadership positions (Officer, Senior Vice President, Vice President, Senior Manager, Integrating Manager, Operating Manager and Supervisor) held by women globally was 25.2 percent and the percentage of leadership positions held by underrepresented minorities in the United States was 39.9 percent. At the senior executive level (Officer, Senior Vice President, Vice President), 27.6 percent were women and 31.8 percent were underrepresented minorities. Our Board of Directors has eleven members, three of whom are women, and three are self-identified underrepresented minorities.

In the rest of the workforce, we seek to expand hiring of women globally and underrepresented minorities in the United States. We established annual hiring goals to improve our workforce diversity. In 2023, 33.9 percent of our global external new hires were women, exceeding our 2023 goal of 33.6 percent. In 2023, 61.1 percent of external new hires in the United States were underrepresented minorities, exceeding our goal of 50.1 percent. For fiscal year 2024, the adjusted hiring goals for global external new women hires is 34.4 percent, and external new underrepresented minorities hires in the United States is 50.1 percent. A metric in our short-term executive compensation program for fiscal year 2024 is tied to the achievement of these goals. To measure achievement of this goal, we use the following definition of underrepresented minorities: Black, African American, Hispanic, Latino, Asian, Pacific Islander, Native American, Native Hawaiian, Alaska Native, or gay, lesbian, bisexual, or transgender.

Learning and Development

We believe that learning is a lifelong pursuit that creates a mindset of professional growth and continuous improvement. We prioritize on-the-job learning through stretch assignments, development opportunities, and educational resources. Our employees have access to a wide range of programs, workshops, classes, and resources to help them excel in their careers. Our Keysight University platform offers training and development programs, as well as learning resources. Our Employee Educational Assistance Program provides financial and management support to eligible employees, allowing them to pursue academic degrees related to their field of work.

Many of our employees are required to take annual training courses related to their work, including those pertaining to the environment, data privacy, contributing to an inclusive workplace, and workplace health and safety. We also have leadership development programs including training for new managers and development through ExecOnline. We hold an annual Keysight Executive Development program with senior leaders to align on strategy and key focus areas for the company.

Compensation and Benefits

We compensate employees with competitive wages and benefit programs designed to meet employee needs. Our compensation and benefit programs are designed to recognize our employees' contributions to value creation and business results. We seek to achieve pay parity across our organization and in 2023 maintained a worldwide women-to-men pay parity of nearly 1:1.

Listening to Employees

We provide multiple avenues for employee input. Our Open-Door Policy provides employees with direct access to any level of management to discuss ideas, get input on career development, and discuss concerns in a constructive manner. The MyVoice program fosters inclusion through engagement surveys on a variety of topics that give us insight on what employees value and helps us identify where to prioritize our efforts. We also created a global Inclusion Council comprised of employees from all functions across the globe to help formulate our inclusion goals and track our progress.

Health, Safety and Wellness

We strive to maintain a best-in-class work environment and provide a safe and healthy workplace for all employees. We accomplish this through strict compliance with applicable laws and regulations regarding workplace safety. Our programs include recognition and control of workplace hazards, ergonomics training, a global travel health program, and robust emergency and disaster recovery plans. We promote the health and wellness of our employees through our Employee Well Being programs, our Employee and Family Assistance Program (which includes twelve free sessions with therapists and mental health coaches per year), and workplace accessibility and accommodations.