Green SOX for Investors: Requiring Companies to Disclose Risks Related to Climate Change

Joey Tsu-Yi Chen

Follow this and additional works at: http://digitalcommons.law.umaryland.edu/jbtl

Part of the Banking and Finance Law Commons

Recommended Citation
Available at: http://digitalcommons.law.umaryland.edu/jbtl/vol5/iss2/7
Green SOX for Investors: Requiring Companies to Disclose Risks Related to Climate Change

1. INTRODUCTION

Before AIG and Lehman Brothers rocked the global economy,1 Enron and WorldCom changed the face of corporate accounting and financial reporting in corporate America.2 With the subsequent enactment of the Sarbanes-Oxley Act in July 2002,3 congressional legislators directed federal regulators to give greater attention to the quality of corporate disclosures to investors and to the general public.4 Sarbanes-Oxley, or “SOX,” introduced important changes in financial reporting, corporate governance, accountability, and enforcement.5 Since its passage, SOX has essentially redefined corporate accounting practices and transparency, but has produced mixed results in the marketplace.6 Nevertheless, its

1. See Susanne Craig et al., AIG, Lehman Shock Hits World Markets, WALL ST. J., Sept. 16, 2008, at A1 (reporting that the downfall of Lehman Brothers, Merrill Lynch, two of Wall Street’s biggest firms, and AIG "sent markets across the globe tumbling").

2. See C. William Thomas, Enron and Beyond: What’s the 'WorldCom'ing to?, CPA J., Jan. 2003, at 8, 11 (noting that in the aftermath of the scandals, the U.S. economy was likely to see tighter regulation and additional costs for audits and public oversight). The Enron and WorldCom scandals ultimately cost investors billions of dollars in losses and led to thousands of Americans losing their jobs. Elizabeth A. Nowicki, 10(b) or Not 10(b): Yanking the Security Blanket for Attorneys in Securities Litigation, 2004 COLUM. BUS. L. REV. 637, 712 n.286.


Green SOX for Investors

importance has been compared to the Securities Act of 1933 and the Securities Exchange Act of 1934.

SOX, with its call for greater transparency in corporate disclosures, also carried implications for corporate environmental matters. Although companies were already required under existing federal laws and regulations to disclose certain environmental costs and liabilities, SOX requires corporate officers to personally certify that their companies have controls and procedures in place to ensure the disclosure of material environmental information. Such internal controls can significantly impact adequate disclosure of environmental risks. Environmental risks have widespread relevance across numerous American business sectors given the increased global attention to climate change, greater large-scale efforts to combat its effects, pending congressional legislation concerning the regulation of

8. Id. §§ 78a–78kk.
   (1) [I]mproving the “tone at the top” by requiring CEOs and CFOs to certify financial statements;
   (2) remedying the complex reporting and inadequate accounting methods that hid critical information;
   (3) improving corporate internal controls and auditor performance; and
   (4) creating a tougher enforcement environment by enhancing penalties and adding investigatory personnel at the SEC.
J. Travis Laster & Michelle D. Morris, How to Avoid a Collision Between the Delaware Annual Meeting Requirement and the Federal Proxy Rules, 10 DEL. L. REV. 213, 245 (2008). SOX expands the SEC’s mandate to include “fighting fraud through corporate governance reform.” Id. (internal quotation marks omitted) (quoting Jeffrey Y. Wu, Revisiting Business Roundtable and Section 19(c) in the Wake of the Sarbanes-Oxley Act, 23 YALE J. ON REG. 249, 249 (2006)).
10. Francis X. Lyons, Sarbanes-Oxley and the Changing Face of Environmental Liability Disclosure Obligations, ABA TRENDS, Nov./Dec. 2003, at 10, 11 (discussing the potential changes in environmental disclosure requirements for companies under SOX’s requirement “that corporate officers certify that adequate controls and procedures are in place to accurately disclose material changes in a company’s financial condition or results of operations”).
11. See infra Part II.A. For example, as discussed later in Part II, SEC regulations required companies to disclose any pending environmentally related legal proceedings outside the course of ordinary routine litigation incidental to business dealings. 17 C.F.R. § 229.103 (2009). Thus, a company had to disclose environmental proceedings wherein the company anticipated that the government could impose fines in excess of $100,000. Jeff A. Jones, Financial Disclosure Requirements for Hazardous Waste Liabilities, 24 COLUM. J. ENVTL. L. 137, 142 (1999). On February 8, 2010, the Securities and Exchange Commission (“SEC”) issued an interpretive guidance (“Release”) to assist public companies with disclosing material information related to climate change developments. See Commission Guidance Regarding Disclosure Related to Climate Change, Securities Act Release No. 9106, Exchange Act Release No. 61,469, 75 Fed. Reg. 6,290 (Feb. 8, 2010). The Release does not purport to create new requirements or modify existing ones; rather, it raises contexts under which affected companies should conduct a materiality analysis for the purposes of disclosure. See infra Part II.C.
13. See Lyons, supra note 10, at 11 (“Companies will put themselves at great risk if they do not have adequate internal systems in place to make an appropriate determination of potential environmental costs and liabilities and the need for disclosure of this information.”).
greenhouse gases, and consumer-driven, pro-environment awareness. Yet despite SOX, federal reporting requirements are a low bar to which public companies must hold themselves accountable for such risks. For example, a recent study commissioned by the Coalition for Environmentally Responsible Economies (“Ceres”) and the Environmental Defense Fund revealed “limited” disclosure of risks related to climate change in 100 global companies in five sectors targeted for a low-carbon future. Such risks include: (1) physical risk from climate change; (2) regulatory risks related to greenhouse gas (“GHG”) emissions limits; and (3) litigation risks. Now that courts have begun to allow interested parties to bring lawsuits related to global warming, more and more American companies are likely to face significant costs, liabilities, and risks arising out of environmental issues.

There is a strong policy argument in favor of communicating corporate environmental risks, in addition to other risks affecting corporate financial performance and sustainability, to “Joe the Investor” to permit Joe to process and

14. See Katayun I. Jaffari, SEC Reporting Companies: Are Your Disclosures About Climate Change Risks Adequate?, LEGAL INTELLIGENCER, Apr. 28, 2009, at 7 (noting that climate change remains a “critical issue in the United States and across the globe[,]” dominating headlines and “affecting companies and business environments throughout the world”).

15. See infra Part V.A.


18. See, e.g., Massachusetts v. EPA, 549 U.S. 497, 526 (2007); Comer v. Murphy Oil USA, 585 F.3d 855, 859–60 (5th Cir. 2009), rehe’g granted en banc, 598 F.3d 208 (5th Cir. 2010); Connecticut v. Am. Elec. Power Co., 582 F.3d 309, 315 (2d Cir. 2009).

19. See Jaffari, supra note 14, (“[C]ompanies must grapple with the key issues that climate change poses: financial risks, opportunities and potential costs, as well as physical risks to corporate facilities and operations.”); David B.H. Martin, A New Season for Environmental Risk Factors and Related Disclosures, in 41ST ANNUAL INSTITUTE ON SECURITIES REGULATION, at 979, 981 (PLI Corporate Law & Practice, Course Handbook Series No. 1773, 2009); see also Comer, 585 F.3d at 859–60 (reversing the lower court’s dismissal of the case on the basis of standing and, thus, allowing the fourteen class action plaintiffs to bring their common law claims against defendant industries for compensatory and punitive damages). On February 26, 2010, the Court of Appeals for the Fifth Circuit decided to rehear the case en banc, vacating the three-member panel decision. Comer, 598 F.3d at 210. The court recently dismissed the en banc hearing, canceling oral arguments for lack of quorum to hear the case en banc. Global Environmental Law, http://globalenvironmentallaw.blogspot.com/2010/05/gulf-oil-spill-comer-en-banc-dismissed.html (May 2, 2010, 11:53). Presumably, a dismissal of the appeal for reasons other than on the merits of the case will likely lead to an appeal to the Supreme Court. See id. Interestingly, the plaintiffs in Comer seek to recover solely monetary damages, not equitable relief. Comer, 585 F.3d at 859–60. While courts have yet to decide a global warming lawsuit involving private parties on the merits, corporate defendants still incur significant costs in the defense. Jennifer Koons, Courts Follow Landmark 2nd Circuit Ruling with 2 Greenhouse Gas Decisions, N.Y. TIMES, Oct. 19, 2009, http://www.nytimes.com/gwire/2009/10/19/19greenwire-courts-follow-landmark-2nd-circuit-ruling-with-62336.html?pagewanted=1. Furthermore, the lawsuits themselves may encourage additional common law-based global warming litigation. Id.
use this information in his decision-making. Additionally, the heightened interest in shareholder access in recent years suggests one possible means by which investors can effect changes in social policy—through corporate governance. In late-October 2009, the Securities and Exchange Commission (“SEC”) advanced shareholder interest in corporate governance when it announced that shareholder resolutions may inquire into major social policy issues, from climate change to subprime lending. The decision reversed the agency’s previous policy that allowed companies to exclude “shareholder resolutions requesting information on the financial risks associated with environmental, human rights and other social issues facing companies.”

Within the business community, the impact of environmental risks on American companies can range from tangible liabilities, such as lawsuit damages from hazardous waste litigation and public nuisance, to unquantifiable complexities, such as uncertainties associated with climate change. For example, with more than half of our electricity coming from coal-fired power plants, the anticipated regulation of carbon dioxide emissions and other greenhouse gases (from burning of fossil fuels) will substantially impact American energy and utility companies. In

---

20. See Steven L. Bray, Comment, Sealing the Conceptual Cracks in the SEC’s Environmental Disclosure Rules: A Risk Communication Approach, 18 U. PA. J. INT’L ECON. L. 655, 656 (1997) (noting the fundamental purpose of environmental disclosure “is to achieve a nation’s public policy goals through the communication of environmental risk to the public” such that the public can use this information and act on it).


24. See, e.g., Connecticut v. Am. Elec. Power Co., Inc., 582 F.3d 309 (2d Cir. 2009) (holding that plaintiff states, New York City, and environmental groups had standing to allege a common law public nuisance cause of action against five of the nation’s largest coal-burning utility companies for their unchecked greenhouse gas emissions and supposed contributions to global warming); Interfaith Cmty. Org. v. Honeywell Int’l, Inc., 399 F.3d 248, 252 (3d Cir. 2005) (affirming the lower court’s judgment requiring a chemical manufacturer to excavate over one million tons of hexavalent chromium waste).

25. Richenda Connell et al., Evaluating the Private Sector Perspective on the Financial Risks of Climate Change, 15 HASTINGS W.-NW. J. ENVTL. L & POL’Y/HASTINGS INT’L & COMP. L. REV. (SPECIAL ISSUE) 133, 135 (2009) (“The challenges to an integrated assessment of the risks and opportunities arising from climate change lie in great part in a number of underlying uncertainties. Further complicating the matter is that much of the climate change modeling produces forecasts for outcomes several decades hence.”).

light of these risks, what should a company disclose in its financial reports? What must a company disclose? These questions lead to the central issue of whether the United States employs an environmental risk disclosure system that adequately protects consumer and investor interests in the face of shifting financial, legal, and environmental issues related to climate change.  

While public confidence in the federal financial regulatory system has suffered in the wake of corporate scandals and the recent credit crisis, other nations seem to do a better job of equipping investors for dealing with evolving environmental risks. For example, the European Union (“E.U.”) has adopted a “precautionary principle” approach toward its environmental policy, which serves as the basis for its risk regulation. Likewise, companies may elect to participate in the E.U.’s voluntary corporate environmental reporting system aimed at promoting companies that demonstrate “superior environmental performance.” Finally, the E.U. operates a trading scheme for GHG emission allowances whereby large industrial emitters of GHGs are required to monitor and report their GHG emissions. These programs appear to offer both socially conscious investors and the general public a greater degree of transparency than the U.S. system.

This Comment examines corporate disclosure requirements under current U.S. reporting standards with respect to environmental risks associated with climate change and concludes that current federal securities laws fail to ensure adequate environmental risk disclosure. Section II gives a brief account of environmental reporting obligations in the United States. Section III outlines the legal basis and regulatory framework for the Environmental Protection Agency’s (“EPA”) mandatory reporting rule for GHG emissions and other early initiatives aimed towards regulating GHG emissions. Section IV briefly summarizes the environmental reporting scheme employed by the E.U. Finally, Section V discusses the purpose and merits for heightened disclosure of environmental risks, using

27. See infra Part V.
28. See infra Part IV.
29. Jonathan B. Wiener, Whose Precaution After All? A Comment on the Comparison and Evolution of Risk Regulatory Systems, 13 DUKE J. COMP. & INT’L L. 207, 209–10 (2003). For an explanation of the “precautionary principle,” see id. at 210 n.11. Briefly, the precautionary principle refers to the principle of adopting precautionary measures, such as regulations, “to prevent an uncertain future risk in advance of complete evidence about the risk.” Id. In other words, preventative actions are not postponed for lack of full scientific certainty. Id.
30. See id. at 209–11.
33. See infra Part II.
34. See infra Part III.
35. See infra Part IV.
climate change as an example context, and presents an argument for statutory requirements to promote this reform. This Comment adopts the position that Congress should amend SOX to require heightened environmental disclosure requirements with regard to climate change risks. Specifically, SOX should require that public companies disclose their GHG emissions. Additionally, SOX should be amended to direct the SEC and EPA to formalize an agreement to share information and improve the coordination between the two agencies.

II. U.S. FINANCIAL REPORTING REQUIREMENTS FOR ENVIRONMENTAL MATTERS

Since the 1930s, Congress has enacted numerous provisions aimed at protecting the American investor. With the Securities Exchange Act of 1934, Congress established the SEC, the federal agency responsible for administering several federal laws, including the Securities Act of 1933, the Securities and Exchange Act of 1934, and SOX. The SEC has the legal authority to establish and enforce standards concerning financial accounting, reporting, and disclosure. Historically, however, the SEC has relied on the private sector, namely the Financial Accounting Standards Board (“FASB”), to promulgate rules and guidelines for financial reporting. The SEC identifies emerging financial reporting issues and refers these issues to FASB, which sets the appropriate accounting standards but does not have any enforcement authority. The SEC then uses its authority to enforce the FASB standards. While an in-depth discussion of the nearly 170 FASB statements exceeds the scope of this Comment, one rule in particular, Statement of Financial Accounting Standard No. 5 (“SFAS 5”) provides:

---

36. See infra Part V.
37. See infra Part VI.
38. See infra Part VI.B.
39. See infra Part VI.B.
42. 69 AM. JUR. 2D Securities Regulation–Federal § 1 (2008).
43. CLYDE P. STICKNEY & ROMAN L. WEIL, FINANCIAL ACCOUNTING: AN INTRODUCTION TO CONCEPTS, METHODS AND USES 21 (11th ed. 2006).
46. See 15 U.S.C. § 77s (authorizing the SEC to make and enforce rules and regulations concerning corporate financial reporting). The statute also permits the Commission to recognize “any accounting principles established by a standard setting body.” Id. § 77s(b).
An estimated loss from a loss contingency⁴⁷... shall be accrued by a charge to income if... [i]nformation available prior to issuance of the financial statements indicates that it is probable that an asset had been impaired or a liability had been incurred at the date of the financial statements... [a]mount of loss can be reasonably estimated. If no accrual is made for a loss contingency [under the aforementioned conditions]... disclosure of the contingency shall be made when there is at least a reasonable possibility that a loss or an additional loss may have been incurred.⁴⁸

Essentially, SFAS 5 requires the disclosure of environmental liabilities as loss contingencies if a company incurs and can reasonably estimate losses arising from environmental liabilities or risks.⁴⁹ Thus, for example, a chemical company would be required to disclose loss contingencies related to hazardous waste cleanup if the company is classified as a potentially responsible party for a Superfund site.⁵⁰ Apart from accounting standards, such as SFAS 5, which prompts disclosure of environmental loss contingencies, regulations directly issued by the SEC also require disclosure of material information related to environmental compliance and governmental action pursued thereto.⁵¹

A. Environmental Disclosure Requirements Prior to Sarbanes-Oxley

The Securities Act of 1933 and the Securities and Exchange Act of 1934 direct publicly registered companies to disclose three types of environmentally related information in their financial filings with the SEC.⁵² They include: (1) material effects of the registrant’s compliance with environmental laws and regulations;⁵³ (2) material costs of complying, or failing to comply, with federal, state, or local provisions regarding pollution discharge or related to the protection of the environment.⁵⁴

---

⁴⁷. FASB defines a contingency as “an existing condition, situation, or set of circumstances involving uncertainty as to possible gain... or loss... to an enterprise that will ultimately be resolved when one or more future events occur or fail to occur.” FIN. ACCOUNTING STANDARDS BD., STATEMENT OF FINANCIAL ACCOUNTING STANDARDS NO. 5: ACCOUNTING FOR CONTINGENCIES 4 (1975).

⁴⁸. Id. at 5–6.

⁴⁹. Id.

⁵⁰. See infra Part II.A.

⁵¹. Id. at 159–60.

⁵². Id.

⁵³. 17 C.F.R. § 229.101(c)(xii) (2009) (requiring the registrant to disclose the material costs of complying, or failing to comply, with federal, state, or local provisions regarding pollution discharge or related to the protection of the environment).
pending material environmental legal proceedings; and (3) discussion and analysis of the registrant’s financial condition and contingent liabilities in financial statements. These environmental disclosure requirements are commonly referred to as Items 101, 103, and 303 (respectively) of the SEC’s Regulation S-K. Regulation S-K also includes Item 503(c), which requires companies registering with the SEC to disclose in their Prospectus summaries “the most significant factors that make the offering speculative or risky,” although the enumerated risk factors do not specifically include, but leave open for consideration, environmental risks.

Materiality becomes the operative word when corporate managers decide whether to disclose environmental costs, liabilities, or risks under Regulation S-K. Item 101 requires a company to disclose “the material effects . . . [of complying] with Federal, State and local . . . [laws] which have been enacted or adopted regulating the discharge of materials into the environment, or otherwise relating to the protection of the environment . . . .” Likewise with Item 103, a company must include a description of “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 . . . .” While Item 101 clearly calls for disclosure of the material effects of environmental compliance on a company’s capital expenditures, earnings, and competitive position, Item 103 arguably applies to environmental liabilities on the assumption that environmental litigation falls outside the sphere of ordinary routine litigation.

54. 17 C.F.R. § 229.103 (requiring the registrant to disclose proceedings outside the course of ordinary routine litigation incidental to the business).
55. 17 C.F.R. § 229.303 (requiring the registrant to disclose environmentally related contingencies in the Management’s Discussion and Analysis, including known trends or demands, events, and uncertainties that are likely to have a material effect on the registrant’s operational income and potential liability).
57. 17 C.F.R. § 229.503(c). In its recent interpretive guidance, the SEC recommends that companies refrain from disclosing generic risks. Commission Guidance Regarding Disclosure Related to Climate Change, Securities Act Release No. 9106, Exchange Act Release No. 61,469, 75 Fed. Reg. 6,290, 6,296 (Feb. 8, 2010). Instead, companies should consider disclosing only “specific risks they face as a result of climate change legislation or regulation.” Id.
58. See David Monsma & Timothy Olson, Muddling Through Counterfactual Materiality and Divergent Disclosure: The Necessary Search for a Duty to Disclose Material Non-Financial Information, 26 STAN. ENVTL. L.J. 137, 147 (2007) (“The threshold question under securities law for any reporting decision is whether information is ‘material.’”).
59. 17 C.F.R. § 229.101(c)(1)(xii) (emphasis added).
60. Id. § 229.103. (emphasis added).
61. Id. § 229.101(c)(1)(xii).
62. Gregory A. Bibler & Christopher P. Davis, Disclosing Environmental Liabilities in the Wake of Sarbanes-Oxley, METROPOLITAN CORP. COUNS., Apr. 2003, at 2 (“Environmental litigation is categorically not ‘ordinary’ or ‘routine.’”). Moreover, according to the SEC, actions contemplated by government authorities also fall within the ambit of Item 103. Commission Guidance Regarding Disclosure Related to Climate Change, 75 Fed. Reg. at 6,293 (citing Instruction 5 to Item 103).
How does one define what is “material”? The Supreme Court of the United States considered the definition of materiality and established a standard for materiality in *TSC Industries, Inc. v. Northway, Inc.* The Court held that a fact may be considered “material” if “there is a substantial likelihood that a reasonable shareholder would consider it important in deciding how to vote.” Writing for the majority, Justice Marshall explained that the purpose of the materiality standard “is not merely to ensure by judicial means that the transaction . . . is fair and otherwise adequate, but to ensure disclosures by corporate management in order to enable the shareholders to make an informed choice.” In so holding, the Court cautioned against setting a standard for materiality that was unnecessarily low, which would unduly burden both the shareholder and company. Instead, the Court looked to whether there was a substantial likelihood that the omitted fact, in the eyes of a reasonable investor, would have changed the “total mix of information made available.”

Item 303 of Regulation S-K calls for discussion of various segments of a company’s business and provides guidance for inclusion of a Management Discussion and Analysis (“MD&A”) section. In their SEC filings, companies are required to include an MD&A section in which they must discuss and analyze trends, demands, commitments, events, and uncertainties that, in the management’s judgment, are reasonably likely to materially impact a company’s liquidity, financial condition, or operating results. Known trends and uncertainties may include environmental risks, though Item 303 does not specifically state that these risks must be discussed in this section. Rather, the decision to include

---

63. 426 U.S. 438, 443–44, 449 (1976). In *TSC Industries*, the plaintiff challenging a joint proxy statement issued by the defendant companies, alleging that it was incomplete and materially misleading. *Id.* at 440–41. National Industries had acquired TSC Industries and placed five of its own members on the TSC board of directors. *Id.* at 440. The new board subsequently voted to liquidate and sell off TSC’s assets. *Id.* at 440–41. The plaintiff, a TSC shareholder, objected, claiming the companies’ joint proxy statement failed to disclose the extent of National’s control over the TSC board. *Id.* at 441–42. The Supreme Court concluded the alleged omissions were not material as to warrant granting summary judgment, as the additional facts concerning the board’s new membership were not “so obviously important that reasonable minds could not differ on their materiality.” *Id.* at 452–53.


65. *TSC Indus.*, 426 U.S. at 448.

66. *Id.*

67. *Id.* at 449 (quotation marks omitted).

68. 17 C.F.R. § 229.303 (2009).

69. *Id.*

70. See ROBERT REPETTO & DUNCAN AUSTIN, COMING CLEAN: CORPORATE DISCLOSURE OF FINANCIALLY SIGNIFICANT ENVIRONMENTAL RISKS 7 (Kathleen Lynch ed., 2000) (“Disclosure requirements of known uncertainties under Item 303 of Regulation S-K could reasonably apply to environmental uncertainties.”).
Green SOX for Investors

environmental matters centers on what corporate managers determine to be “material.”

B. Disclosure Requirements Under Sarbanes-Oxley

In the wake of a series of high-profile corporate and accounting scandals, Congress enacted SOX. SOX includes statutory provisions for heightened corporate responsibility and accountability, which were intended to increase the quality of corporate financial reporting. For example, section 302 of SOX binds the signatures of corporate officers to the truthfulness of the company’s financial statements. In essence, SOX requires that a company’s highest executives attest to the accuracy of each corporate SEC filing, certifying that they “personally reviewed their companies’ controls and procedures to . . . disclose material changes in financial conditions and results of company operations, including expectations of future performance.” SOX did not, however, expand a company’s duty to disclose beyond those costs and liabilities that were material, and the SEC has since upheld the TSC Industries’ “reasonable investor” test.

SOX also directed the SEC to adopt amendments to the MD&A requirements. The SEC later proposed expanding MD&A disclosure provisions to include rules

71. Id. ("Disclosure of environmental exposures is governed both by the SEC's core rules on materiality and by specific requirements regarding environmental liabilities and compliance with federal and state environmental regulations.").


73. Egan, supra note 5, at 309 (stating that SOX aimed to protect investors "by improving the accuracy and reliability of corporate disclosures made pursuant to the securities laws").

74. Section 302 provides: "[B]ased on such officer’s knowledge, the financial statements, and other financial information included in the report, fairly present in all material respects the financial condition and results of operations of the issuer as of, and for, the periods presented in the report . . . ." 15 U.S.C. § 7241(a)(3) (2006) (emphasis added).

75. Bibler & Davis, supra note 62, at 1.

76. Id. at 2.

77. Commission Guidance Regarding Disclosure Related to Climate Change, Securities Act Release No. 9106, Exchange Act Release No. 61,469, 75 Fed. Reg. 6,290, 6,292–93 (Feb. 8, 2010) (upholding the TSC Industries materiality standard where "there is a substantial likelihood that a reasonable investor would consider it important in deciding how to vote or make an investment decision"); see infra Part II.C.

78. Isobel A. Jones, Management’s Discussion and Analysis in SEC Related Documents, in PREPARATION OF ANNUAL DISCLOSURE DOCUMENTS 2008, at 421, 428 (PLI Corporate Law & Practice, Course Handbook Series No. 1640, 2008) ("SEC adopted amendments to the MD&A requirements mandating specific disclosure concerning off-balance sheet arrangements and contractual obligations . . . ."). Section 401(c) of SOX required the SEC to conduct a study and report inter alia any recommendations for "improving the transparency and quality of reporting off-balance sheet transactions in the financial statements and disclosures required to be filed by an issuer with the Commission." 15 U.S.C. § 7261(c).
related to off-balance sheet arrangements, contractual obligations, and contingent liabilities and commitments.\textsuperscript{79} With regard to specific environmental disclosures, such as GHG emissions, however, the restriction of materiality, as evaluated under the reasonable investor test, continues to limit the extent to which corporate entities must disclose the environmental effects of their operations and products.\textsuperscript{80}

Shortly after SOX’s enactment, some practitioners argued that SOX’s requirement that corporate executives personally certify their company’s internal controls and procedures changed the context for Regulation S-K’s environmental disclosure requirements.\textsuperscript{81} That senior executives and counsel could be held personally accountable for the accuracy of these internal controls purportedly prompted companies to “reevaluate their procedures for estimating and disclosing environmental compliance costs and liabilities.”\textsuperscript{82} Companies were now “on notice that they should be able to point to an established protocol for identifying, tracking, quantifying, and assessing the materiality of environmental matters.”\textsuperscript{83}

\textbf{C. SEC Interpretive Guidance on Disclosures Related to Climate Change}

Earlier this year, in response to several calls for greater guidance on corporate environmental disclosures, the SEC issued an interpretive release (“Release”) concerning corporate disclosures related to climate change.\textsuperscript{84} At a January 27, 2010 open Commission meeting, SEC Chairman Mary Schapiro expressly noted that the “interpretive release . . . does not create new legal requirements or modify existing ones—it is merely intended to provide clarity and enhance consistency.”\textsuperscript{85} In addition to summarizing existing disclosure requirements under federal law,\textsuperscript{86} the release reinforces the SEC’s adoption of the long-standing \textit{TSC Industries

\begin{thebibliography}{99}


\bibitem{80} See David W. Case, Corporate Environmental Reporting as Informational Regulation: A Law and Economics Perspective, 76 U. Colo. L. Rev. 379, 408 (2005) (noting that the SEC views the economic materiality standard as a filter limiting information disclosure).

\bibitem{81} Bibler & Davis, \textit{supra} note 62, at 2.

\bibitem{82} \textit{Id}.

\bibitem{83} \textit{Id}.


\bibitem{86} Commission Guidance Regarding Disclosure Related to Climate Change, 75 Fed. Reg. at 6,293–95.

\end{thebibliography}
materiality standard, and reiterates the two-step process for determining “the materiality of known trends, events or uncertainties,” previously described in a 1989 Release. Accordingly, company managers must first ask whether the trend, demand, commitment, event or, uncertainty (collectively, “event”) is reasonably likely to occur. If not, then management need not disclose. On the other hand, if management cannot determine the likelihood of such an occurrence, then management must presume the event will occur, and it must disclose any material effect the event will likely have on the company’s financial condition.

Specifically with regard to climate change-related disclosures, the February 2010 release describes examples of climate change developments which may trigger material disclosures. For example, pending federal legislation regulating GHG emissions under a cap and trade system may require companies directly affected by this action—e.g., energy and utility companies—to disclose their regulatory risks following the prescribed two-step materiality analysis. Affected companies may need to disclose:

- Costs related to the trading of emissions allowances or credits;
- Compliance costs associated with facility and equipment upgrades to reduce GHG emissions;
- Changes in profits or losses reflecting changes in consumer demand as a result of the legislation.

The SEC also recommends that companies affected by foreign treaties and international accords (concerning climate change) should consider disclosing the material impact these laws may have on their businesses.

The Release recognizes that climate change developments may indirectly affect registered companies through shifting business and consumer trends that create either new opportunities or new risks. Consequently, these businesses may be required to disclose risks related to:

- Decreased demand for certain carbon-intensive goods;
- Increased competition to develop innovative new, “cleaner” products;

---

87. Id. at 6,292–93.
88. Id. at 6,295.
89. Id.
90. Id.
91. Id.
92. Id.
93. Id. at 6,295–96.
94. Id. at 6,296.
95. Id.
96. Id.
97. Id.
98. Id.
99. Id.
Shifting consumer demand from carbon-based energy (and related services) towards alternative energy.\footnote{101}

Finally, the physical manifestations of a changing climate may bear significant consequences for a company’s operations.\footnote{102} For example, changes in severe weather and the availability of natural resources can disrupt manufacturing and distribution processes, leading to financial losses or increased liabilities.\footnote{103} According to the SEC, businesses vulnerable to the physical consequences of climate change “should consider disclosing material risks . . . in their publicly filed disclosure documents.”\footnote{104} Notably, the Release does not \textit{command} disclosure for the listed climate change events. Rather, it presents situations that \textit{may} compel a company to make a materiality determination before disclosure.\footnote{105}

\textbf{D. ASTM Standards for Environmental Disclosures}

It is worthwhile to mention two additional standards, albeit voluntary, whereby companies disclose environmental liabilities or contingencies. In 2002, the American Society of Testing and Materials (“ASTM”) adopted its own standards for estimating and disclosing environmental liabilities.\footnote{106} The ASTM International is one of the world’s largest voluntary standards development organizations,\footnote{107} responsible for developing technical standards for a range of industry sectors.\footnote{108} Government agencies have either used ASTM standards in codes, regulations, and laws, or referred to them for guidance.\footnote{109}

Individual organizations can apply ASTM standards to satisfy federal requirements for environmental site assessments.\footnote{110} ASTM published standard guide

\footnote{102. Id. at 6,296–97.}
\footnote{103. Id. at 6,297.}
\footnote{104. Id.}
\footnote{105. See id. at 6,295–97.}
\footnote{106. Bibler & Davis, \textit{ supra} note 62, at 3.}
\footnote{109. See ASTM, Standards Worldwide, \textit{ supra} note 108.}
\footnote{110. Id.}
Green SOX for Investors

E 2173 for disclosing environmental liabilities, as well as another guide for estimating the monetary costs and liabilities associated with environmental matters. Standard E 2173, which was intended to supplement SEC requirements and apply to MD&A disclosure of environmental liabilities, mandates specific minimum disclosure requirements when a company believes its "environmental liability for an individual circumstance or its environmental liability in the aggregate is material." Although socially responsible groups have petitioned the SEC to formally adopt the ASTM standards as regulations, E 2173 remains only a voluntary industry guideline.

III. FEDERAL REGULATION OF GREENHOUSE GAS EMISSIONS

In 2007, the Supreme Court of the United States decided Massachusetts v. EPA and paved the way for the regulation of climate change. In a landmark 5-4 decision, the Court concluded that the EPA has a duty under the Clean Air Act to regulate emissions of carbon dioxide (CO₂) and other GHGs from motor vehicles. In that case, a group of states, local governments, and private organizations alleged that the EPA failed to regulate the emissions of four GHGs, including carbon dioxide. In addition to finding petitioners had standing to sue, the Court

114. Bibler & Davis, supra note 62, at 3 (original emphasis omitted). ASTM E 2173’s minimum disclosure requirements include:
   (1) the number of [Superfund] sites for which the company has been named as a [potentially responsible party (“PRP”)] and the number of claims, suits, actions, demands, requests for payment, notices, or cases that have been presented to the company; (2) an estimate of the company’s environmental liabilities and a description of the approach used to estimate those liabilities; (3) the cost estimation methodology employed by the company for accrued liabilities; (4) a characterization of any material loss contingencies; and (5) the nature and terms of cost-sharing arrangements with other PRPs.
Id. at 3–4.
115. Schwartz & Mussio, Environmental Disclosure, supra note 52, at 320–22 (reporting that despite a petition by the Rose Foundation urging the SEC to adopt the language of the ASTM standards such as E 2173, the SEC has yet to take any action to make the standard mandatory).
117. See id. at 532 (concluding that EPA has the statutory authority to regulate GHG emissions).
118. Id. (concluding that CO₂ and other greenhouse gases “fit well within the Clean Air Act’s capacious definition of ‘air pollutant’” and, thus, may be regulated).
119. Id. at 505.
120. The lower court decided the case on the merits. Id. at 514. In a separate opinion concurring only in judgment, Judge Sentelle wrote that petitioners failed to allege particularized injuries from global warming, and thus did not satisfy the requirements for Article III standing. Id. at 514–15. On appeal, however, the Supreme Court found that the State of Massachusetts had standing to sue from the real risk of catastrophic harm, a risk of harm that could be reduced. Id. at 526.
recognized the harms associated with climate change and GHG emissions.\textsuperscript{121} The Court indicated that the EPA had a duty to mitigate or reduce emissions from motor vehicles, which make a meaningful contribution to climate change.\textsuperscript{122} Thus, the EPA’s failure to do so, without justification for its inaction, was arbitrary and capricious.\textsuperscript{123} In reaching this holding, the Court found that carbon dioxide and other notable GHGs qualified as “air pollutants” under the Clean Air Act.\textsuperscript{124}

On July 30, 2008, the EPA responded to the Supreme Court’s ruling in Massachusetts v. EPA, as well as to numerous petitions for GHG regulation in the wake of the Court’s decision, by publishing a proposed rule regarding the regulation of GHG emissions such as carbon dioxide in certain industry sectors.\textsuperscript{125} With the announcement, the EPA sought to solicit comments from other agencies and the general public on the best approach to tackle GHG emissions.\textsuperscript{126} That same year, the Consolidated Appropriations Act\textsuperscript{127} went into effect, which allocated federal funding for the EPA to “publish a draft rule . . . [requiring] mandatory reporting of [GHG] emissions above appropriate thresholds in all sectors of the [U.S.] economy.”\textsuperscript{128} In April 2009, the EPA formally classified carbon dioxide and five other GHGs as pollutants under the Clean Air Act.\textsuperscript{129} In early December 2009, the Administrator of the EPA signed two final findings concerning GHG emissions.\textsuperscript{130} First, the Administrator concluded that the six newly classified GHG pollutants pose a threat to the health and welfare of the general public.\textsuperscript{131} Second, the combined emissions of these gases “from new motor vehicles and new motor vehicle engines contribute to the [GHG] pollution which threatens public health and welfare.”\textsuperscript{132}
In light of such endangerment and contributory findings, the regulation of GHG emissions would soon follow. In April 2009, the EPA proposed to mandate “reporting of [GHG] emissions from all sectors of the economy,” including direct emitting sources and fossil fuel and industrial gas suppliers.\(^{133}\) After the notice and comment period for administrative rulemaking, the EPA finalized the rule on October 30, 2009.\(^{134}\) While the EPA’s mandatory reporting rule does not require companies to control or limit the emission of the six identified GHGs, it does require that affected facilities—e.g., fossil fuel electric-generating units, incinerators, crude petroleum extractors and refineries, plastic product manufacturers, pulp and paper mills, chemical manufacturers, mobile sources, and suppliers of GHGs\(^{135}\)—account for all emissions of the listed GHGs above the prescribed threshold.\(^{136}\) For example, any facility that cumulatively emits 25,000 metric tons of carbon dioxide-equivalent (or more) had to begin collecting data on its CO₂ emissions in January 2010 and report every year thereafter.\(^{137}\)

On May 13, 2010, the EPA announced a final rule addressing GHG emissions from the largest emitters of GHGs—stationary sources such as power plants and oil refineries.\(^{138}\) The rule adopts a “phased-in approach” to regulating GHGs under Title V of the Clean Air Act by establishing a threshold for GHG emissions above which stationary sources would be required to obtain a Clean Air Act operating permit.\(^{139}\) Beginning in January 2011, GHG permitting requirements will apply to large facilities already subject to Clean Air Act Title V permitting for non-GHG pollutants.\(^{140}\) Then in July 2011, the Title V permitting requirements for GHGs will extend to other large stationary emitters of GHGs.\(^{141}\) Under the new rule, regulated
facilities must use the “best available control technologies” to control their GHG emissions.\textsuperscript{142}

The EPA announced the GHG permitting rule following a joint April rule-making with the National Highway Traffic Safety Administration (“NHTSA”) that establishes a national GHG emissions standard for light-duty vehicles, such as passenger cars and light trucks.\textsuperscript{143} The joint rule aims to substantially reduce GHG emissions and improve fuel economy in light-duty vehicles by setting stringent CO\textsubscript{2} tailpipe standards for vehicles manufactured between model years 2012 and 2016.\textsuperscript{144} According to the agencies, this rule is consistent with President Obama’s agenda to address global climate change.\textsuperscript{145}

\textbf{IV. THE EUROPEAN UNION’S ENVIRONMENTAL DISCLOSURE SYSTEM}

The E.U. has adopted a comprehensive approach to corporate environmental reporting with its Eco-Management and Audit Scheme (“EMAS”).\textsuperscript{146} EMAS is a voluntary program premised on offering participants marketplace advantage incentives.\textsuperscript{147} Unlike the U.S. disclosure system, which serves to ensure the validity and adequacy of financial investment information made available to the public, the E.U.’s EMAS program offers a mutually beneficial arrangement for both investors and the community’s environmental objectives as it aims to improve the way a company addresses environmental matters while providing direct benefits to participating organizations.\textsuperscript{148} Participants agree to meet specific criteria in exchange for the benefits of limited regulatory controls.\textsuperscript{149} For example, corporate participants must first conduct a thorough environmental review, assessing the issues, impact, and performance of each industrial site—i.e., property on which a company carries

\textsuperscript{142} Id.


\textsuperscript{145} See Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, 75 Fed. Reg. at 25,324 (“This joint Final Rule is consistent with the National Fuel Efficiency Policy announced by President Obama on May 19, 2009, responding to the country’s critical need to address global climate change and to reduce oil consumption.”).

\textsuperscript{146} Case, supra note 80, at 402.

\textsuperscript{147} See EUROPA, Environment, EMAS, Executive Summary, http://ec.europa.eu/environment/emas/about/summary_en.htm (last visited May 19, 2010) [hereinafter EUROPA, Executive Summary].

\textsuperscript{148} Bray, supra note 20, at 664.

\textsuperscript{149} Case, supra note 80, at 402 (noting that participants receive the benefit of limited regulatory controls in exchange for adhering to environmental auditing and reporting standards).
out its industrial activities. From the review, companies develop environmental policy statements, initiate an “environmental programme” for each enrolled site, and create an environmental management system for each site. Participants must conduct internal environmental audits for each site every three years and subject each program site to external audits by independent environmental “verifiers.” Finally, and probably most importantly, companies enrolled in the program must disclose the verified audit results to the public by way of standardized “environmental statements.” As of 2001, all public and private corporations are eligible to participate in EMAS.

By implementing EMAS, the European Commission recognized that “[e]nvironmental concerns, growing public pressure and regulatory measures are changing the way people do business around the world.” Benefits under EMAS include increased customer confidence, improved compliance with environmental legislation, sustained competitiveness by meeting customer demands for environmental management, lower costs, and less regulation.

Costs of the program include external costs, registration fees, and internal costs associated with implementing and maintaining the program.

V. ANALYSIS

Although many federal environmental laws now require companies to report compliance with federal environmental standards, financial disclosure of risks associated with environmental compliance is virtually nonexistent and far from adequate. Moreover, in light of growing efforts by states and the federal government to address climate change concerns, the environmental regulatory landscape will likely grow even more complex. Consequently, corporate managers will face additional environmental risks and potential liabilities.

151. Id. at 665.
152. Id. at 665–66.
153. Id. at 666–67.
154. Surya Deva, Sustainable Good Governance and Corporations: An Analysis of Asymmetries, 18 GEO. INT’L ENVTL. L. REV. 707, 734 (2006) (noting that EMAS has been available since 1995 but was originally restricted to industrial-sector companies).
155. EUROPA, Executive Summary, supra note 147.
157. Id.
158. See THE CORPORATE LIBRARY, supra note 16, at 34.
159. Id. at 1–2.
160. See infra Part VLA.

342 JOURNAL OF BUSINESS & TECHNOLOGY LAW
regulators can no longer ignore the need for heightened corporate disclosure requirements. This Comment argues that current corporate disclosure requirements with regard to environmental matters are outmoded in the face of climate change developments and must be updated to best serve investor interests while conferring corporate benefits. More specifically, Congress should amend the Sarbanes-Oxley Act of 2002, a legislative measure aimed at enhancing the quality of financial documents, to require that: (1) publicly traded companies disclose their GHG emissions as potential, material environmental risks; and (2) the SEC and EPA formally agree to share relevant information related to environmental risks.

A. Inadequate Environmental Disclosure Under the Materiality Standard

Currently, federal securities laws maintain an element of management discretion on the issue of materiality. In the MD&A sections of financial filings, a registrant company must discuss “any known trends, or any known demands, commitments, events, or uncertainties” that, in the judgment of management, are reasonably likely to materially impact its liquidity, financial condition, or operating results. Similarly, other items of Regulation S-K contain references to the materiality standard. The SEC has been reluctant to expand existing environmental reporting requirements to require the disclosure of risks and uncertainties beyond the TSC Industries materiality standard, however. In 2002, SEC regulators stated that “a matter should be disclosed in the MD&A unless the management has concluded that such [an] item cannot reasonably impose a material impact on the company.” Yet in 2003, the SEC reviewed the 2002 10-K annual reports of Fortune 500 companies and found generally inadequate reporting of environmental liabilities in MD&A sections.

In 2004, the U.S. Government Accountability Office (“GAO”) issued a report describing, inter alia, its assessment of the SEC’s environmental disclosure requirements, the extent of corporate environmental disclosures, and the SEC’s enforcement of compliance with disclosure requirements. The GAO found that

162. See infra Parts V.A–B.
163. See infra Part VI.
164. See supra Part II.
166. See, e.g., 17 C.F.R. §§ 229.101, 229.103 (including the materiality provisions of sections 101 and 103).
167. See Eric B. Rothenberg et al., Environmental Issues in Business Transactions Under U.S. Law, 5 Wis. Envtl. L.J. 121, 147 (1998) (noting that within the insurance sector, the SEC has been reluctant to require full environmental disclosure, even in the quantity and types of environmental insurance claims, as well as estimates of associated costs to cover such claims). SEC Chairman Mary Schapiro has specifically stated that the SEC would not redefine its “long-standing interpretations of materiality.” Schapiro, supra note 85.
stakeholders disagreed as to the adequacy of the SEC’s disclosure requirements for environmental matters, with socially responsible investors objecting that the Commission’s requirements are too flexible and too narrowly scoped.\textsuperscript{172} Likewise, the GAO could not determine the extent to which companies disclosed environmental information because “researchers [had] no way of knowing what environmental information [was] (1) potentially subject to disclosure and (2) material in the context of a company’s specific circumstances” without direct access to company records.\textsuperscript{172} Finally, the GAO could not determine whether the SEC’s efforts to monitor and enforce corporate compliance with environmental disclosure requirements were adequate.\textsuperscript{173}

More recently, Ceres and the Environmental Defense Fund commissioned a study that examined the climate risk disclosures of 100 companies in the electric utilities, coal, oil and gas, transportation, and insurance industries.\textsuperscript{174} The study found very limited disclosure as “28 [companies] had no discussion of risk assessment, 52 described no actions to address climate change, and 59 made no mention of [GHG] emissions or a climate change position.”\textsuperscript{175} At best, the study qualitatively described the level of climate risk disclosure in any given industry sector as “fair.”\textsuperscript{176} Most filings across the five sectors “lacked the level of detail that investors require.”\textsuperscript{177} The study concluded that corporate climate risk disclosure is largely inadequate because “the SEC has failed to take actions to highlight its importance.”\textsuperscript{178}

The SEC has only recently spoken on the materiality of climate risks for the purposes of corporate disclosures with its February 2010 Release.\textsuperscript{179} SEC Chairman, Mary Schapiro, made it clear that the Release was simply intended “to provide clarity and enhance consistency” of reporting.\textsuperscript{180} The Release represents an improvement of, but not an adequate remedy for, corporate environmental disclosure woes.\textsuperscript{181} Because the Release neither creates nor modifies disclosure requirements, it serves to remind publicly traded companies of their obligation to
disclose material information to shareholders. The SEC goes one step further and officially adopts the position that risks associated with climate change and related developments may qualify as material information subject to disclosure. The Release gives examples of situations arising from climate change developments that may trigger an analysis of materiality. The question of disclosure, however, remains inextricably tied to the Commission’s long-standing interpretations of materiality.

Preceding the Release, government and stakeholder-sponsored studies confirmed what many scholars already concluded—that disclosure of environmental risks under the current materiality standard remains largely inadequate. As the SEC has indicated, however, that standard still applies today. Materiality hinges on the substantial likelihood that Joe the Investor would consider the fact-at-issue important enough to factor into his decision-making. Joe finds himself in good company these days as more investors voice their dissatisfaction with the level at which U.S. companies disclose their environmental risks, especially climate risks, to the SEC. The time has come for change, and as discussed below, better disclosure is better for everyone.

B. Benefits of Communicating Risk

Adequate disclosure of environmental risks can benefit both public companies and investors in several ways. For example, environmental risk disclosure can reflect a general corporate awareness for social and environmental responsibility. With more companies taking on the “green” initiative, socially responsible investors are likely to respond positively to the actions of environmentally responsible

182. See id.
183. See id.
184. See id. at 6,295–97.
185. Schapiro, supra note 85.
187. See Schapiro, supra note 85.
189. See McFarland, supra note 186, at 303–06 (providing an overview of a petition to the SEC by “[a] collection of institutional investors, governmental officers, attorneys general, environmental organizations and non-profit groups” seeking “interpretive guidance for reporting climate change issues under existing mandatory disclosure rules and regulations”).
190. See Monsma & Olson, supra note 58, at 156 (”[I]t has long been argued that information about the social and environmental responsibilities of a company does not bear upon its financial condition or the economic value of an investment because such information is ethical, perhaps even self-serving, rather than financially relevant.”).
Green SOX for Investors

companies. Communication of risks would presumably lead to better-informed investor decision-making. By keeping the public well-informed through transparent reporting, companies can mitigate investors’ fears and apprehensions associated with uncertainty, particularly those companies most directly affected by the impact of climate change. As one scholar noted, a transparent market can also prevent corporate assets from being undervalued, and the accurate pricing of stocks can lead to decreased market volatility.

1. Benefits to Investors

Shareholders benefit from greater disclosure because federal disclosure requirements are meant to protect investors. With regard to environmental matters, shareholders and institutional investors seem to favor greater disclosure of environmental risks, particularly those associated with climate change. The number of socially responsible investors who “specifically seek information about company management commitments and [social and environmental] performance” continues to grow. In fact, several financiers expressly invest in companies skilled in addressing environmental issues. Moreover, within the last decade, institutional investors have petitioned the SEC to issue interpretive guidance on when companies should disclose climate risks. For example, on November 23, 2009, a coalition of twenty institutional investors filed a supplemental petition to the SEC, asking the agency to further clarify what constitutes climate-related “material risks.” A company’s proper disclosure of known or anticipated material risks will in turn allow investors to fully assess the

---

191. See generally Alex Williams, Buying into the Green Movement, N.Y. TIMES, July 1, 2007, § 9, at 1 (describing the green movement and the criticisms that call into question the supposed environmental benefits of green consumerism).

192. See infra Part V.B.1.

193. See Bray, supra note 20, at 668–69. Risk managers assume the responsibility of putting risks in perspective for the public by providing trusted expert opinions and explaining management actions to manage those risks. Id. at 669.

194. David A. Westbrook, Telling All: The Sarbanes-Oxley Act and the Ideal of Transparency, 2004 MICH. ST. L. REV. 441, 451–52 (positing that reduced volatility through consistently accurate stock pricing would "preclude[] the mania and correction that constitute financial crises").

195. See Monsma & Olson, supra note 58, at 140–41 ("Over and over again, investors are said to be protected by the 'full and fair disclosure of all material information.'").


197. See Monsma & Olson, supra note 58, at 160.

198. Thomas, supra note 31, at 902.

199. Martin, supra note 19, at 981–82 ("Since 2004, a group of institutional investors has been pushing the SEC to issue guidance on how and when companies should report risks associated with climate change.").

investment risks they are taking. The SEC issued its climate change disclosure interpretive guidance earlier this year in response to these investor petitions.

In the absence of adequate disclosure requirements, there is an asymmetry in information between investors and firms where investors face the disadvantage of not having all the facts necessary to determine a firm’s true value. Increased disclosure of risks can serve to level the playing field by promoting transparency, which in turn assists investors in making well-informed investment decisions. In a fully transparent market, investors “have all the information in the possession of the company” necessary to accurately value a security. Moreover, as markets become more transparent, their efficiency improves. The accurate valuation of securities leads to decreased market volatility, as “there is little reason to pay anything more, or less, than the asking price.”

Greater transparency as a result of heightened risk disclosure also boosts investor confidence by minimizing the fear that they will be defrauded in the marketplace. Essentially, adequate environmental risk disclosure reduces investor risk and serves the public interest.

2. Benefits to Corporations

Increased environmental risk disclosure requirements can also benefit corporations. First, adequate assessment and disclosure of risks for the purposes of public disclosure and accountability will likely prompt U.S. companies to conduct more critical analyses of their corporate behavior. For example, executive decision-makers may conduct cost-benefit analyses and factor in the public response and consequences of their decisions, particularly if there is a chance their actions could lead to subsequent litigation or decreased investments. Since 2007, federal courts

201. See id.
203. See Susanna Kim Ripken, The Dangers and Drawbacks of the Disclosure Antidote: Toward a More Substantive Approach to Securities Regulation, 58 BAYLOR L. REV. 139, 152–53 (2006) (explaining that disclosure can play a role in leveling the informational playing field so that investors have equal access to information and “can then make informed valuation judgments about the price of securities”).
204. Id. at 152–53.
205. Westbrook, supra note 194, at 448–49.
206. Id. at 449.
207. Id. at 451.
208. Ripken, supra note 203, at 154.
209. Id. at 155.
211. See Barbara Ann White, Economic Efficiency and the Parameters of Fairness: A Marriage of Marketplace Morals and the Ethic of Care, 15 CORNELL J.L. & PUB. POL’Y 1, 69 (2005) (observing that disclosure-mediated transparency subjects companies to “public scrutiny and, in particular, to potential scrutiny by those representing impacted individuals,” such that managers are aware “they will be held accountable for their
have increasingly indicated that companies are no longer immune from climate change-related litigation.\textsuperscript{212} For example, in \textit{Connecticut v. American Electric Power Co.}, the Second Circuit allowed the state plaintiffs to sue six electric power companies over their operation of fossil-fuel-fired power plants in twenty states under the federal common law claim of public nuisance.\textsuperscript{213} A three-member panel of the Fifth Circuit appeared to follow in the steps of the Second Circuit in \textit{Comer v. Murphy Oil U.S.A.}\textsuperscript{214} when it allowed a Mississippi class action public nuisance lawsuit to proceed against insurance, oil, coal, and chemical companies for their alleged contributions to property damages resulting from Hurricane Katrina.\textsuperscript{215} While both cases have yet to be decided on their merits, the circuit rulings can potentially subject companies to new risks in environmental litigation.\textsuperscript{216} Because litigation is costly, both companies and plaintiffs may favor federal intervention by way of legislation regulating GHG emissions.\textsuperscript{217}

In addition to insulating companies from domestic public nuisance litigation, mandatory reporting can also benefit U.S.-registered corporate entities in the global marketplace. In light of the E.U.’s GHG Emission Trading System (“ETS”),\textsuperscript{218} the European community’s open trading market for GHG emissions,\textsuperscript{219} compliance
with domestic and foreign GHG disclosure requirements would allow U.S. companies to stay competitive in foreign markets.\(^{220}\) American multinational corporations that conduct a significant amount of business in these foreign markets incur additional regulatory risks because they are subject to international laws and rules aimed at reducing GHG emissions.\(^{221}\) In fact, U.S. companies must assimilate into these foreign cap-and-trade systems or face substantial profit losses from possible exclusion from these markets.\(^{222}\) Scholars have pointed to empirical research suggesting that greater disclosure would allow companies to expand their presence in broader markets through attracting new investors.\(^{223}\) According to one business school professor, “companies from low-disclosure jurisdictions that list on exchanges with higher disclosure requirements tend to benefit substantially.”\(^{224}\)

Additionally, heightened foreign disclosure requirements can significantly impact U.S. companies that operate within the carbon or fossil fuel supply chain through supply chain disruption.\(^{225}\) Consider the disruption to domestic U.S. companies’ performance if a supplier operating in European markets fails to properly disclose GHG emissions under the E.U.’s ETS and is subsequently removed from the marketplace.\(^{226}\) Were the U.S. companies suddenly left to find another supplier, the resulting commitment of time and resources to restore the supply chain would lead to costly delays, and perhaps a loss of profits, or a drop in stock prices, or both.\(^{227}\) Therefore, companies should identify and subsequently disclose such supply chain-related risks so that they may develop proactive strategies for managing those risks and remain competitive,\(^{228}\) especially when investors appear to want more environmental disclosure.\(^{229}\)

Both investors and publicly traded companies stand to benefit from greater corporate environmental disclosures and the increase in market transparency that

\(^{220}\) Cf. Lewis, supra note 168, at 27 (noting that failure by companies affected by the E.U. REACH program, which regulates toxic chemicals in European markets, to disclose or pre-register certain chemicals and substances covered under REACH will lead to product exclusion from E.U. markets).

\(^{221}\) Latham, supra note 161, at 662–63.

\(^{222}\) Cf. Lewis, supra note 168, at 22 (noting that a U.S. Company like Dow Chemical would be affected by the E.U.’s REACH program, as “European markets represent 36 percent of Dow Chemical’s sales and 10 percent of the company’s assets, yet the company’s 2007 10-K filing does not discuss the potential impact of REACH.”).


\(^{224}\) Id.

\(^{225}\) Cf. Lewis, supra note 168, at 29 (concluding that for chemical companies, failure to disclose supply chain risks leaves companies ill-prepared and likely to suffer significant business disruptions).

\(^{226}\) See supra note 220.

\(^{227}\) See Trevor W. Nagel & Elizabeth M. Kelley, The Impact of Globalization on Structuring, Implementing, and Advising on Sourcing Arrangements, 38 GEO. J. INT’L L. 619, 620 n.4 (2007) (“[A] single error in one part . . . of a complex supply chain can create large, rippling effects on a company’s global sales and distribution operations.”).

\(^{228}\) See id.

\(^{229}\) See McFarland, supra note 186, at 281–82 (“Despite repeated requests from investor groups for more disclosure, and despite increasing public interest in the effects of global warming, poor disclosure persists.”).
would follow.\textsuperscript{230} Greater disclosure can result in the accurate market valuation of corporate stocks, which, as some suggest, can lead to increased market stability.\textsuperscript{231} As the number of socially responsible investors who look to and depend on corporate environmental disclosures continues to grow, so does the incentive for companies to disclose fully their environmental risks.\textsuperscript{232} Investors see good corporate citizenship, and companies remain competitive in the marketplace.\textsuperscript{233}

\textit{C. Voluntary Reporting vs. Mandatory Reporting}

Whether the government should require companies to report environmental risks or simply encourage it depends on the likelihood that the policy will achieve the desired effect. If the government opted for a voluntary reporting system, the burden of “environmental reform” would shift to corporate entities.\textsuperscript{234} While the E.U.’s EMAS has had some successes, it is only fair to mention that systems based on voluntary reporting are not without weaknesses or criticism.\textsuperscript{235} At least one legal scholar has observed that while EMAS compels more comprehensive environmental reporting than the vague “materiality” standard in U.S. federal securities laws, participation in the EMAS program has been “underwhelming.”\textsuperscript{236} One reason is a lack of adequate incentives or external market rewards to participate in the program.\textsuperscript{237} Furthermore, participants enrolled in the program have taken issue with the reporting commitment under the program.\textsuperscript{238} While the EMAS program has responded to the reporting concerns, scholars continue to doubt the “long-term viability of . . . [such] a voluntary policy instrument.”\textsuperscript{239}

Scholars have also noted that even within the U.S. mandatory “materiality” reporting scheme, corporate efforts to voluntarily disclose environmental performance have been largely without reform effect.\textsuperscript{240} As one law professor commented, companies tend to selectively disclose aspects of their environmentally related actions in the form of a “green report”—namely, a “glossy, unaudited

\begin{footnotesize} 
\begin{itemize}
\item[230.] See Westbrook, supra note 194, at 453 (“[W]e should understand mandatory disclosure regimes as the regulatory effort to increase transparency and thereby increase informational efficiency of markets. As the transparency of a market increases, and all else being equal, we should see a decrease in trading volume and in volatility.”).
\item[231.] See id. at 448–49.
\item[232.] See Monsma & Olson, supra note 58, at 160 (“Regardless of what level of disclosure the law demands, the market is demanding far more social and environmental disclosure today.”).
\item[233.] Id. at 196.
\item[234.] See Bray, supra note 20, at 669.
\item[235.] Case, supra note 80, at 403.
\item[236.] Id.
\item[237.] Id.
\item[238.] Id. at 405.
\item[239.] Id. at 403–04.
\item[240.] See Crusto, supra note 186, at 500.
\end{itemize}
\end{footnotesize}
showcase of corporate environmental good deeds.\footnote{241} These reports are often misleading and geared toward favorably influencing investors and public opinion.\footnote{242} Such voluntary disclosure can lead to “greenwashing”—where a company misleadingly presents an environmentally responsible image when its activities are less than environmentally friendly.\footnote{243} Collectively, these doubts would suggest that a mandatory reporting requirement would better facilitate the promotion of corporate-led environmental reform.

Requiring environmental risk disclosure would allow the SEC to shore up gaps and weaknesses in the existing federal reporting scheme.\footnote{244} Studies indicate that the current U.S. “materiality” reporting scheme is far from adequate.\footnote{245} Stricter mandatory disclosure requirements would not only circumvent the ambiguity of the materiality standard,\footnote{246} but also provide investors and stakeholders with more information.\footnote{247} Instead of relying on managerial discretion for materiality, companies could in fact make full disclosures of their environmental risks and liabilities. While mandatory disclosures would likely be more costly to companies,\footnote{248} some scholars believe that mandatory reporting can result in market-enhancing benefits such as “improv[ing] the monitoring capability of third parties, reduc[ing] the costs for investors, and thereby lower[ing] the price for firms that raise capital[,]” as well as increased venture capital financing.\footnote{249}

Additionally, mandatory reporting requirements can help ensure that investors receive information that is both uniform and comparable. The difficulty in SEC enforcement of existing environmental disclosure requirements may be due to the fact that much discretion has been given to corporate managers, creating a lack of uniformity in reporting. Thus, some have argued that because there is no clear duty to disclose,\footnote{250} there is discrepancy in the information companies choose to disclose to investors.\footnote{251} This puts investors at a disadvantage because they are unable to fully compare information from different companies.\footnote{252} Mandatory reporting can help

\footnotesize
\begin{itemize}
  \item \textsuperscript{241} Id. at 483.
  \item \textsuperscript{242} See id. at 483, 500.
  \item \textsuperscript{243} Thomas P. Lyon & John W. Maxwell, Greenwash, ADMIN. & REG. L. NEWS, Summer 2007, at 9, 9.
  \item \textsuperscript{244} See, e.g., Latham, supra note 161, at 702–03 (concluding that the current SEC regulatory framework fails to ensure adequate disclosure of climate change risk).
  \item \textsuperscript{245} See, e.g., The Corporate Library, supra note 16, at 34.
  \item \textsuperscript{246} See Monsma & Olson, supra note 58, at 820–23 (footnote omitted).
  \item \textsuperscript{247} See Prentice, supra note 223, at 823 (“[E]mpirical studies strongly suggest that mandatory disclosure works . . . because it generally results in increased disclosure.”).
  \item \textsuperscript{248} See id. at 816 (noting that mandatory disclosure is “admittedly costly”).
  \item \textsuperscript{249} See, e.g., id. at 820–23 (footnote omitted).
  \item \textsuperscript{250} See, e.g., Monsma & Olson, supra note 58, at 161 (stating that a lack of uniformity in existing corporate disclosures is “due in part to the widely held perception that such disclosure is voluntary and that there is no duty to report this information as yet”).
  \item \textsuperscript{251} Id. at 174.
  \item \textsuperscript{252} Id.
\end{itemize}

\textbf{VOL. 5 NO. 2 2010} 351
level the playing field and improve the quality and efficiency of information made available to assist investors in their decision-making.  

VI. RECOMMENDATIONS

While SOX generated momentum shortly after Congress enacted it, the Act does not specifically address corporate environmental disclosure. Perhaps it should. Existing provisions of SOX have been touted to “arm[] the public with a great hammer to redress material omissions and misstatements in environmental disclosures.” Given the previously discussed concerns over the SEC’s reluctance to expand environmental disclosure requirements, the time has come to give the “great hammer” teeth. In particular, concerns over global warming and climate change have taken center stage, giving rise to a number of legislative and regulatory initiatives to reduce GHG emissions. The growing complexities of environmental compliance calls for congressional action to amend SOX to not only mandate corporate disclosure of climate risks but also ensure that the SEC and EPA collaborate efficiently to enforce these disclosure requirements.

A. The Changing Regulatory Landscape

With the Obama Administration committed to mitigating the effects of climate change, and the EPA beginning to regulate GHG emissions, it seems inevitable that a national cap-and-trade policy will soon follow. In fact, legislation currently pending before the 111th Congress aspires to reduce global warming pollution by proposing, among other things, a trading scheme for GHGs. H.R. 2454, or the American Clean Energy and Security Act of 2009 (“ACES”), would direct the EPA

253. See Prentice, supra note 223, at 819–20 (“Mandatory disclosure reduces search and information processing costs for investors by requiring cheap, readily available, standardized, and relatively reliable disclosure of information. Required disclosure . . . is needed to help defeat strategic disclosure.” (footnotes omitted)).


255. Id. at 500.

256. Erich Birch, Air Quality Regulation in the United States, BUS. L. TODAY, July/Aug. 2007, at 13, 17 (“[T]he issue of climate change is now on center stage in scientific, political, and policy arenas.”).


258. See infra Part VI.B.


260. See supra Part III.

261. See Schwartz & Mussio, Due Diligence, supra note 56, at 252 (“[I]t now appears likely that Congress will pass federal greenhouse gas emissions regulation in the form of a cap and trade system, as favored by President Obama.”).

to cap GHG emissions (by annual tonnage) for specific activities.\(^{263}\) Emitters covered under ACES may not exceed their allowances, though they may obtain and trade offset credits.\(^{264}\) Similarly in the U.S. Senate, Senators John Kerry and Barbara Boxer introduced a bill bearing close resemblance to H.R. 2454, on September 30, 2009.\(^{265}\) Known as the Clean Energy Jobs and American Power Act,\(^{266}\) S. 1733 called for a greater reduction of GHG emissions than its House counterpart but also provided for an allowance and offset trading system.\(^{267}\) S. 1733 is no longer active,\(^{268}\) but Senator Kerry and Senator Joe Lieberman recently introduced a new energy and climate change bill—the American Power Act—which targets both energy and environmental issues and includes, among other things, a carbon emissions allowance and trading scheme.\(^{269}\) The bill also purports to set mandatory limits on GHG emissions.\(^{270}\)

If enacted, the proposed climate change legislation would obligate covered entities to disclose additional environmental information—e.g., GHG emissions—under the current “materiality” standard.\(^{271}\) After all, full disclosure of GHG emissions would be part and parcel to a market for emissions allowances and thus

\(^{263}\) H.R. 2454 §§ 721–728 (describing the emissions allowance program). Entities covered under global warming provisions of the bill include: all electricity sources; all stationary sources for petroleum-based or coal-based liquid fuel, petroleum coke, or natural gas liquid; stationary sources that deal in any of the enumerated GHGs; stationary sources that emit above a certain tonnage of carbon dioxide equivalent of nitrogen trifluoride; any geologic sequestration site; stationary sources in certain industrial manufacturing or production sectors; certain chemical or petrochemical stationary sources; certain fossil fuel-fired combustion devices; qualifying stationary sources involved in ethanol production, ferroalloy production, fluorinated gas production, food processing, glass production, hydrogen production, iron and steel production, lead production, pulp and paper manufacturing, and zinc production; and qualifying natural gas local distributors. Id. § 700(13).

\(^{264}\) Id. §§ 722–724.


\(^{266}\) Id.


\(^{270}\) Id.

\(^{271}\) See Bernie Hawkins et al., Disclosing Environmental Liabilities, BUS. L. TODAY, July/August 2009, at 61, 63 (noting that under a prior legislative attempt to create a national cap-and-trade GHG emissions program, the SEC would have been required to “issue interpretive releases under Items 101 and 303 of Regulation S-K clarifying that commitments to lower greenhouse gas emissions [were] considered material and that global warming is a known trend”).
information that a reasonable investor would want to know. But what about companies outside the scope of the proposed trading scheme—how can the materiality standard ensure adequate disclosure of their climate risks? The shifting regulatory landscape is likely to have the greatest impact on the energy sector, since energy-producing facilities tend to be among the largest emitters of GHGs. Because the costs of compliance with these new climate change regulations can be substantial, one can expect the increased energy costs to affect the economy at large. Thus, there is a need for businesses to disclose these climate risks and liabilities to investors so they can adequately assess the value of the companies in which they are investing.

Whether through new legislation or SOX, the stage is set for companies to disclose their climate risks. Particularly with regard to GHG emissions, participants in a cap-and-trade program, if Congress creates one, will not be able to escape the materiality of disclosing their emissions—even if Congress chooses to do nothing more with SOX specifically. Congress should, however, consider amending SOX regardless of how legislators proceed on the cap-and-trade proposals.

B. Mandatory Disclosure of GHG Emissions and Climate Risk

Even if Congress declines to establish an emissions trading scheme at this time, amending SOX to require mandatory disclosure of climate risks will help protect investors in a regulatory landscape that is expanding in response to global warming and the need to regulate GHG emissions. Given that a number of states have already taken the initiative to limit GHG emissions and/or mitigate climate change in other ways, new federal regulations appear to be forthcoming. Because SOX purposely aims to “protect investors by improving the accuracy and reliability of corporate disclosures made pursuant to the securities laws,” Congress should amend SOX to mandate corporate disclosure of risks and liabilities related to climate change.

273. Latham, supra note 161, at 663.
274. Id. (noting that as the nation moves toward reducing GHG emissions, the regulatory risks to businesses increase, which will lead to “a material increase in costs to businesses”). For example, major emitters of GHG pollutants may need to install expensive control equipment in order to achieve the necessary reductions in GHGs; others may need to pursue costly modifications. Id.
275. Id. (“The additional regulatory costs will . . . be passed along to consumers of energy, with large customers—businesses—shouldering substantially higher energy costs.”).
276. See supra note 271 and accompanying text.
278. Latham, supra note 161, at 652 (noting that new sweeping federal regulations to GHG emissions are inevitable).
Understandably, the scope of climate risk remains broad despite efforts to classify the risks into general categories. Although the SEC has since provided guidance on circumstances posing climate change-related risks that may trigger the need for corporate disclosure, such disclosure still hinges on materiality. Alternatively, Congress can directly require companies to report GHG emissions in their SEC filings. Notably, the EPA has already adopted a mandatory reporting rule for GHG emissions from certain industries and activities. Thus, the EPA has already detailed both the metrics and guidelines for monitoring and reporting gas emissions, so corporate disclosure of the same information should be straightforward. However, the EPA’s mandatory reporting rule does not actually regulate or limit GHG emissions. The agency has only recently taken steps to regulate GHG emissions from the largest stationary emitters and from the transportation sector. Still, corporate managers not directly affected by the new rules may question the necessity of disclosing their GHG emissions on the basis of materiality. Thus, specifically amending SOX to require disclosure of GHG emissions to the SEC in corporate financial statements is a logical step.

Finally, Congress should also amend SOX to authorize and direct the SEC to enter into a formal agreement with the EPA to share information. Presently, these two agencies lack such an arrangement, which has led to a suboptimal exchange of information, particularly information related to enforcement of environmental compliance. As the GAO observed in its 2004 report, the exchange of information broke down in part because the SEC did not find facility-specific data particularly useful when it could not readily identify the parent company. As some individuals have already observed, there is a compatibility issue between the EPA’s tracking method and that of the SEC, lending to the argument that the agencies need to streamline data sharing. The SEC previously indicated that it would consider taking better advantage of EPA data. Thus, a formal agreement to exchange

280. The Corporate Library, supra note 16, at 2–3; see supra text accompanying note 17.
281. See supra Part III.
283. Id. at 52,280 (“The rule does not require control of greenhouse gases, rather it requires only that sources above certain threshold levels monitor and report emissions.”).
284. See supra Part III.
286. U.S. Gov’t Accountability Office, supra note 170, at 28.
287. While the EPA at one time provided the SEC with enforcement-related data on a quarterly basis, now, “information sharing occurs less frequently and is focused on specific legal proceedings, such as those involving monetary sanctions for environmental violations.” Id.
288. Id.
290. Monsma & Olson, supra note 58, at 153.
information would prompt the agencies to seek ways to resolve the data sharing problem, which would ultimately improve the coordination between the SEC and EPA. As the principal federal environmental regulatory agency, the EPA can greatly assist the SEC in its enforcement of corporate compliance with heightened environmental disclosure requirements under the proposed amendments to SOX.

VII. CONCLUSION

Corporate disclosures of environmental risks are grossly inadequate under current federal securities laws, while foreign governments, such as the E.U., have recognized and adopted systems that encourage companies to report certain environmental risks in the marketplace. That said, the U.S. reporting scheme is not without some mandatory environmental disclosure requirements. There is, however, a big catch—an unclear threshold of “materiality” that must be met before these requirements are triggered. While the enactment of Sarbanes-Oxley has led to improved corporate governance and accountability, the shift toward increased activism by socially responsible investors and recent legislative and regulatory efforts to mitigate GHG emissions necessitate a tightening of corporate requirements for the dissemination of environmental risk information to the public. Greater access to this information will help protect investors more effectively, as well as ensure that businesses remain competitive. This Comment posits a statutory mechanism by which the SEC may promulgate more effective rules and regulations to address a long-standing problem that, out of necessity, must be addressed in order to help the United States economy better respond to a changing global environment.

291. See U.S. GOV’T ACCOUNTABILITY OFFICE, supra note 170, at 23 (observing only sporadic efforts made by the EPA and SEC to coordinate improving environmental disclosure).
292. See supra Part IV.
293. See supra Part II.
294. See supra Part II.
295. See supra Part IV.B.
296. See supra Part IV.B.